



Self-belief factors affecting the Resilience, Well-being and Retention of secondary schoolteachers in England

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I think doing research is like riding a roller-coaster. There are lots of ups and downs, but afterwards you're glad you've done it.

Abstract

There is a considerable amount of literature showing that levels of well-being in schoolteachers in England are low and this leads to reduced retention. Currently, the number of teachers leaving the profession before retirement is causing retention problems. However, most teachers stay in teaching and some flourish and so the rationale for this research is to discover reasons for this. If characteristics aiding retention can be found then these can be developed and retention improved. Thus, the overarching aim of this research is to explore factors influencing the levels of teacher resilience and well-being and how these contribute to their retention.

The study examined retention from the perspective of positive psychology. This branch of psychology examines interventions that not only repair deficits in people, such as low mood, but also develop strengths to produce a flourishing individual. Generating well-being, for example, is not just the removal of negative emotions but also the development of strengths to enable the individual to thrive.

The self-belief variables of Hope, Optimism, Self-efficacy, Mindset and Job crafting were examined to see if they contribute to Resilience, Well-being and Retention in secondary, schoolteachers. Alongside these psychological factors, demographic factors such as age and length of service were also studied to address the first objective of the study: to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention. This strand was investigated using quantitative methods.

Teachers working in English secondary schools ($N=279$) completed a survey to measure the impact of the demographic and psychological factors on the dependent variables. To obtain qualitative data, semi-structured interviews were also undertaken, as described below. The demographic analysis indicated that only years spent in teaching and positions of responsibility were related to the variables of interest.

The regression analysis showed that Self-efficacy and Optimism predicted Resilience. Hope, Optimism and growth Mindset (the latter as a negative suppressor) predicted Well-being but only Work orientation-calling predicted Intention to Quit teaching. Well-being was a strong mediator in the Resilience-Intention to Quit relationship, indicating that Well-being enhances the effect of Resilience on reducing Intention to Quit.

The quantitative data addressed questions of ‘what and when’ but to find out ‘how and why’ eleven ($N=11$) semi-structured interviews were carried out on three groups of teachers: Newly Qualified Teachers (NQTs), established, and those that had left, or were in the process of leaving the profession. The qualitative data generated was then subjected to thematic analysis. This addressed the second objective: to explore in-depth teacher accounts at different career stages about factors contributing to decisions to stay or leave the profession. This analysis indicated that teachers needed contextual factors, especially the autonomy to craft their work, so they could then develop their sense of Calling. In particular, they wanted the ability to work collegially in a supportive environment, put students at the centre of their work and develop their academic subjects. By doing this they could develop their Calling.

Using a critical-realist approach the third objective was carried out: to examine the relationship between objective 1 and 2 and examine the applications of the research. The findings from the two strands triangulated and aligned with each other on several points especially the central role of Calling. They also showed that both psychological and contextual factors are needed to develop all the self-belief variables and Resilience, Well-being and Retention. Implications and applications of the findings are discussed.

Chapter 1: Introduction to the thesis

The purpose of Chapter 1 is to introduce the research presented in this thesis. The chapter begins with a personal background to the research because this explains why I wanted to explore self-belief factors in teachers. The research has evolved to consider the implications for retention and so data on staff retention within teaching is then examined to show the present nature of the problem. Performativity and stress have been widely researched and found to be causes of reduced well-being leading to teachers leaving the profession and so these are reviewed. However, the fact is that the majority of teachers stay in teaching and some flourish. If the factors that encourage Resilience, Well-being and Retention could be discovered then interventions could be proposed to develop them in all teachers to their benefit and to the benefit of schools as a whole.

Positive psychology, a discipline which aims to find individuals' strengths and then develop them to encourage positive outcomes is then described and its potential explained. The self-belief variables of Hope, Optimism and Self-efficacy have been researched widely within positive psychology and so they are outlined. In addition, two other self-belief variables, Mindset and Job crafting are examined briefly. These have not been used widely in positive psychology but appear to have potential. The dependent variables of Resilience and Well-being are also outlined. The concept of positive psychology is then examined to justify its use in this research, which leads to the overarching aim of the thesis.

1.1. Personal background to the research

Before I became a secondary school teacher I had completed a Master's degree in Organizational Psychology and in my dissertation researched Labour Process Theory. This is the study of the role that people play as they apply their labour at work and in particular the

amount of independence and control they have. I had become particularly interested in Braverman's (1974) thesis which speculated that white collar work would become increasingly controlled in a way similar to that in blue collar work. When I started teaching I had considerable control over my work; there was no National Curriculum and no Office for Standards in Education (OFSTED). I could decide how to teach a syllabus of work but gradually my autonomy was reduced. First, the National Curriculum was introduced prescribing in detail what was to be taught and then OFSTED laid down guidelines on the way teaching should be carried out in order to meet their standards. This in turn led to more managerial control over teachers as more and more pressure was applied to achieve the standards. Later, schools were encouraged to leave Local Educational Authority (LEA) control and become separate entities competing against other schools where performance would be judged by Ofsted reports. These changes concerned me because I felt they led to a loss of confidence, morale and well-being amongst teachers and I wanted to study them formally.

Dr Graham Mitchell, from the University of Northampton and I had established a liaison group between the University and local schools to promote psychology. We had both taught science and psychology in schools and although Graham had gone on to teach at University level his interest in schools and teaching had not diminished. When I suggested examining well-being in teachers he was keen to supervise. Graham introduced me to the new discipline of Positive Psychology; this will be described in detail in the next chapter but it can be thought of as the development of positive human functioning to build flourishing individuals and organisations and it includes concepts such as well-being and happiness (Seligman & Csikszentmihayi, 2000). Rather than just concern ourselves about the drop in morale in teachers, we thought it would be more useful to study the properties that might enable teachers to flourish, even in a difficult environment. In particular, we were interested

in the self-belief variables of Hope, Self-efficacy, Optimism, Dweckian Mindset and Job crafting and how they affected Resilience and Well-being.

Tragically, Graham had an accident which disabled him and he later died of his injuries but under the supervision of Drs. Rachel Maunder and Roz Collings the research was able to continue. I had become concerned about the difficulties schools were having in retaining staff and so it was decided to extend the study to include retention as well as resilience and well-being, against the backdrop of positive psychology. Retention then became a core variable.

Teachers encounter times when they experience diminished resilience and well-being and may even intend to leave the profession altogether, but this research is intended to provide some positive solutions to their situation.

1.2. The Retention Problem

At the time of writing the teaching profession in England is experiencing a problem with the recruitment and retention of staff and this has been apparent for several years. In 2015 the Times Educational Supplement (TES) contained a section entitled “Where have all the good teachers gone?” (Ward & Severs, 2015). The article revealed that recruitment in the secondary sector (11-16 years) in England went down from 215,700 to 213,400 between 2012 and 2014. This, at a time when the secondary pupil population was rising for the first time since 2004 to 2,756,000 and estimated to be 3,287,000 by 2024. The full-time vacancy rate in 2014 was 1,030 compared to 350 in 2011 (Ward & Severs, 2015). In the academic year 2013-2014 30,669 trainees, in both primary and secondary education achieved Qualified Teacher Status (QTS) but in the previous year it had been 31,017 and the wastage rate was 9.4% in 2012, and 10.4% in 2014.

The problem of recruiting and retaining teachers in United Kingdom (UK) secondary schools is not new. For example, Dolton and Chung (2015) reported that in 2004 pay relative to other jobs was one reason for poor recruitment. From their analysis they estimated that men entering teaching lost approximately £40,000 (in secondary schools) and £67,000 (in primary schools) over a lifetime of work compared to males in other graduate professions. Although women gain between £42,000 and £65,000 if they decide to become schoolteachers, this value was falling and so may act as a disincentive to recruitment.

Chambers, Hobson and Tracey (2010) examined graduate students who started teacher training courses in England with the best of intentions but withdrew during the course. Their study involved in-depth interviews with three (ex) students followed by a cross-case analysis to draw out common features. It was thus not representative due to the small sample size and because all three students were mature career changers. However, it does provide in-depth and personal accounts. Reasons cited were: a too heavy workload, including too much planning and general administration and the application needed to get through the course. They said there was no time for a 'life' beyond the course which was particularly a problem for students with family responsibilities. The trainees also felt they had not been provided with enough support from their school based mentor and university based tutors. Having to revise subject knowledge was a problem as they felt they had little time or money to do so. Lack of positive relationships with school colleagues was also a problem, especially as the trainees felt that not enough respect was given to their previous experience. They could not see the links between the educational theory they learned at university and the practical skills needed to teach. This is a fundamental issue and indicates that the universities may need to change the way they design their courses. Brown (2015) notes that recruitment between schools varies with higher attaining schools, often those with the most advantaged students, attract the best qualified teachers.

Regarding retention, secondary sector full-time equivalent numbers were down from 215,700 in 2012 to 217,400 in 2014. 25% or more of all teachers were leaving within the first four years of practice (Ward & Severs, 2015). In fact, of the 21,400 teachers in all sectors who began teaching in England in 2010 the (then) minister for schools himself, Nick Gibb, admitted that 30% had gone by 2015 (Weale, 2016). The latest figures do not show any improvement. Although the number of Secondary Newly Qualified Teachers (NQTs) has been rising, 25,600 started in 2017 compared to 24,000 in 2011 and the number of returners and other new entrants has increased from 15,000 to approximately 16,500 in 2017, the number of school aged children will increase by 19% over the next decade and so there will be a shortfall in teacher numbers (Worth, Lynch, Rennie & Andrade, 2018).

Retention is the main problem: more working age teachers are leaving before their retirement date; 25,000 left in 2010-2011 but 36,000 in 2016-2017. The number of teachers 'making it' to retirement has more than halved and the proportion of teachers aged 50 or over has fallen from 23% in 2010 to 17% in 2017. At the other end of the career cycle, the number of new teachers leaving after five years has increased to 33% in 2017 (Worth et al., 2018).

Kyriacou and Kunc (2007) studied teachers in their first year of teaching, immediately after their Postgraduate Certificate in Education (PGCE) course. They examined secondary schools in the north of England where PGCE students were engaged in teaching practice, the aim being to see if beginning teachers' expectations were the same at the beginning of the course and the end and then to track a sample over two years to see if their expectations had changed. A total of 300 students completed a questionnaire at the beginning of their PGCE and the end. A sample of 28 students was then tracked via e-mail. They found 15% of the students left during the PGCE course. After the first two years of teaching 70% said they intended to stay in teaching for at least 10 years. Four main factors which influenced whether they stayed or left were: the quality of school management, in particular, the way in which

senior staff were seen as supportive; a feeling that there was not enough time to do the work properly; pupil behaviour and having a happy private life and the extent to which school work encroaches on private life. Pay did not seem to be an issue, in fact the most frequently mentioned positive factor was the pleasure generated by pupil success.

Recruitment and retention are an issue for all schools in the United Kingdom. In this study, English schools were selected because the Scottish and Welsh systems of education are different structurally to the English system. Infant, primary and middle schools were excluded because they follow a different curriculum, aimed at a specific age group, to secondary schools and so this could also introduce an additional variable. Sixth form and further education colleges were included because they offer a similar curriculum to the sixth forms in secondary schools.

Much of the psychological literature seems to concentrate on why teachers leave the profession. Two, often reported explanations, are performativity and stress and so these will be examined in the next section.

1.3. Performativity and Stress

One of the reasons suggested as to why well-being in teaching has been eroded is due to ‘performativity’ and the stress resulting from it. Stress occurs when the demands on an individual exceed their perceived ability to cope with it. It is the interaction between events taking place in the environment and how well the individual thinks they can deal with them (Travers & Cooper, 1996). It is one of the main causes for a reduction in psychological well-being (Travers & Cooper, 1996; Huppert, 2004; Gold et al., 2010). This can result in mental ill-health, job dissatisfaction and adverse behavioural responses such as excessive alcohol

consumption. Of particular relevance to this research, it can lead to an intention to leave employment and early retirement (Travers & Cooper, 1996).

Ball (2008a) defines performativity as a “technology and a mode of regulation that employs judgements, comparisons and displays as measures of productivity or output or value of individuals and organisations” (p.50). Performativity involves operationalising the process of teaching by using targets against which the teacher is expected to measure themselves. It is different to ‘normal’ performance management in that it may affect the teacher at a subjective level by potentially changing their sense of identity according to the value they are given. As Rose (1996, as cited in Ball, 2008a, p.67) states, this involves “the supplanting of certain norms, such as those of competition, quality and customer demand”. The achievement of targets then constitutes professionalism, yet this is reinforced through the use of league tables and measures using terminology from the business world such as ‘audit’, ‘quality assurance dialogue’ and ‘accountability’. The whole process is monitored by the Office for Standards in Education (OFSTED) who have powers to decide the actual score a teacher receives and the school gains. With this increased managerialism comes stress for the teacher (Ball, 2008a). Indeed, Galton and MacBeath, (2008, as cited in Grenville-Cleave & Boniwell), 2012, p.3, state,

... the scale, complexity and intensity of pressures on (teachers) in the postmodern world are unprecedented.

The stresses created by OFSTED, in particular the inspection process itself, can take its toll on teachers. Brimblecombe and Ormston (1995) report on a questionnaire survey and in-depth interviews examining classroom teachers’ experiences of OFSTED inspections. A total of 821 questionnaires were analysed in 35 different secondary schools from across the UK and 30 staff were interviewed in-depth. What emerged was how stressful the OFSTED process was. During the inspection teachers felt tense, especially during classroom

observation. The behaviour of inspectors was an important factor in the amount of stress experienced. Inspectors with a pleasant manner caused considerably less stress. Teachers preferred being examined at the start of the lesson rather than waiting for an inspector to turn up later as this increased anxiety levels. Some staff felt cheated because their pastoral and extra-curricular activities were not observed. Post-observation oral feedback did not always occur but where it did stress was reduced. Formal feedback sessions to departments based on the final report were particularly stressful to teachers in leadership positions, such as heads of departments, as they felt responsible for the outcomes. In small schools it was difficult to maintain the anonymity of staff which increased stress still further.

More recently, Penninckx and Vanhoof (2015) have carried out a review of literature on the emotional aspects of OFSTED inspections. They examined peer reviewed journal papers, conference papers, books and book chapters published between 1995 and 2012. They found 35 studies, mostly from England. The researchers discovered that the emotions produced by inspection were problematic: loss of professional identity; post inspection 'blues'; occupational stress and problems specific to schools in special measures. Often schools as a whole needed months to recover from the process. Some schools found inspection improved morale but many showed a big increase in stress levels, in some cases leading to stress related illness.

Many other occupations have undergone change but Galton and MacBeath, (2008, as cited in Grenville-Cleave and Boniwell, 2012, p.3) note that with teachers, morale seems to be much lower than other groups. Grenville-Cleave and Boniwell (2012) researched perceived control and well-being in teachers compared to other professional groups such as health workers, social workers, finance and human resource workers. They used a mixed methods design consisting of an online quantitative survey (298 participants, 222 females and 76 males) and 6 semi-structured interviews using thematic analysis. They found that teachers'

perceived control over their job and their well-being were significantly lower than the non-teachers, especially for teachers over 36 years of age. The decrease in control was due to the prescriptions brought in by the National Curriculum and OFSTED, which they said had led to a reduction in autonomy and professional judgement. This, in turn, led to a reduced sense of well-being. Although teachers saw the need for change it was often the volume of administration accompanying it (such as data collection and analysis) and the excessive rate of change, which prevented consolidation before the next change was due, which caused stress. They seemed to be surviving rather than thriving.

The reason why a performativity culture now exists is the result of the introduction of the 'New Public Management' (NPM) (See Hood, 1991, 1995, as cited in Broadbent & Laughlin, 1997, p.403). Its central features are "lessening or removing differences between the public and private sector and shifting the emphasis from process accountability towards a greater element of accountability in terms of results" (Hood, 1995, as cited in Broadbent & Laughlin, 1997, p.403). Torrington and Weightman, (1989, as cited in Travers & Cooper 1996, p.173) note that although schools have traditionally been successful at getting teachers to work collaboratively, this has been reduced with the increase in managerialism. They believe the problem is that school managers' views of managerialism are simplistic because they do not really understand how management practice in other organisations is nuanced to fit that organisation. School managers often think that schools can be run as simple businesses whereas businesses realise that schools cannot be run as a business. The situation has been made worse by the speed at which change has taken place. Even if change has merit, Cox, Boot, Cox and Harrison (1988, as cited in Travers & Cooper, 1996, p.4) find that the change itself is a major stress factor for teachers.

In more recent years the situation for classroom teachers does not appear to have improved. This is demonstrated in a study by Skinner, Leavey and Rothi (2019). They carried

out a qualitative study among 39 teachers and 6 school leaders across England and Wales, in order to understand the experiences of teachers who experienced work-related stress. They found that managerialism related to a loss of commitment, professional identity and vulnerability to stress. Stress then contributes to teachers' attrition (Jepson & Forest, 2006 as cited in Skinner et al., 2019, p.2; Travers & Cooper, 2006). In particular, increased workload, due to managerial changes, caused the stress (Skinner et al., 2019; Worth et al., 2018). The level of stress in teaching thus seems to be worse than other occupations. Recent research carried out by the Health and Safety Executive (HSE) in 2017 (as cited in Skinner et al., 2019, p. 2) shows that school teaching has higher than average levels of mental health disorders (such as poor well-being) and that workload, organisational change accompanied by lack of managerial support are the main causes. To sum up, stress caused by managerial changes, workload and rapid change can lead to a drop in well-being which in turn can lead to teachers reducing their commitment whilst at work, and can reduce retention.

It can be inferred from the reasons people leave what the reasons for staying might be, but this is speculation and there does not seem to be much evidence to support it. The rationale behind this research is to try to establish why it is that the majority of teachers, despite the problems in the profession, decide to *stay* in the job when so many others leave. Of those that stay some go on and flourish, whilst others become stressed and collapse. Some lose their resilience and sense of well-being, yet others do not.

Some of the factors causing people to leave, such as workload and work-life balance, affect all teachers to a certain extent, so perhaps the reasons for staying are due more to individual characteristics rather than contextual factors affecting the profession as a whole. In particular, it would be of benefit to know the individual characteristics that help teachers who stay to thrive rather than just survive. If more is known about the characteristics of those teachers who not only stay but also flourish in the job, this information can be used to develop

those characteristics in teachers and so prevent them leaving. The knowledge could also be used in recruitment as it would allow for the selection of applicants to the profession who have the relevant traits.

The assumption in this research is that the reason some teachers leave and others flourish and develop resilience is linked to the implicit self-views carried by the teacher. Implicit self-views (or beliefs) are the beliefs and values that people hold which create a meaning system which defines their self-identity and determines the way they behave in certain situations (Kristjansson, 2008). Two people could react differently in the same situation depending on the beliefs and values they hold (Kristjansson, 2008). Issues such as performativity and the accountability that accompanies it, affect the way teachers feel about themselves, their self-identity.

A developing body of research has started to investigate ‘identity theory’ (Towers & Maguire, 2017) and in particular how it relates to teacher attrition (for example, Day, Kington, Stobart & Sammons, 2006). However, the intention in this research is to examine implicit self-views that enable the teacher not just to survive but to flourish and thus not only reduce the desire to leave teaching but to enable the teacher to fulfil themselves. In order to do this self-belief factors from Positive Psychology will be used. Before investigating these in depth the concept of Positive Psychology will be explained.

1.4. The nature of Positive Psychology

Positive Psychology is concerned with the development of positive qualities in life including resilience, well-being and happiness. It seeks to uncover an individual’s strengths and develop their talents. It is the “science of positive subjective experience, positive individual traits ...” (Seligman & Csikszentmihalyi, 2000, p.5). Individuals can obtain real, authentic happiness by

striving for the 'good life' (Seligman, 2002). This is not discovered through the short lived emotions found in a hedonistic life-style, rather the individual should seek 'eudaimonia', a state where signature strengths (strengths that we enjoy using and so bring us gratification), are used on causes bigger than ourselves. This generates meaning and enables the individual to experience positive feelings, in other words flourish (Seligman, 2011).

Although positive psychology has 'arrived' as a sub-discipline within psychology it still does not have a clear definition. Linley, Joseph, Harrington and Wood (2006) note the different definitions of positive psychology, all from 'solid' sources:

What is positive psychology? It is nothing more than the scientific study of ordinary human strengths and virtues. Positive psychology revisits 'the average person', with an interest in finding out what works, what is right, and what is improving ... positive psychology is simply psychology (Sheldon & King, 2001, p.216, cited in Linley et al., 2006, p.5).

Positive psychology is the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions (Gable & Haidt, 2005, p.104, cited in Linley et al., 2006, p.5).

However, they are all similar in that they promote the idea of nurturing existing strengths rather than just concentrating on weaknesses. Prior to World War Two psychology *did* involve itself with making the lives of people more productive and developing talent as well as trying to cure mental illness. After the War, with some service people returning home with psychological disturbances, the subject tended to concentrate on mental illness (Seligman & Csikszentmihalyi, 2000). As early as 1954 Maslow was concerned at psychology's focus on dysfunction:

The science of psychology has been far more successful on the negative than on the positive side. It has revealed to us much about man's shortcomings, his illness, his sins, but little about his potentialities, his virtues, his achievable aspirations, or his full psychological height (Maslow, 1954, as cited in Linley et al., 2006, p.5).

Seligman (2002) is particularly keen to move away from what he sees as an over emphasis on the abnormal, deficit approach, towards positive traits and potential. He has stated that "for the last half century psychology has been concerned with a single topic only – mental illness" (Seligman, 2002, p.xi). He goes on to state that an,

... aim of positive psychology is to begin to catalyse a change in the focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities. (Seligman et al., 2000, p.5).

Linley et al. (2006) usefully suggest a new definition of positive psychology which starts at the meta-psychological level. Here, positive psychology has the aim of rebalancing the subject to take more account of the individual's potential. Their definition is pragmatic, concerning itself with what positive psychologists *do*. They distinguish between four levels of analysis:

- i) 'Wellsprings' of interest. These are the basis of everything that comes later in life and include genetic make-up and early developmental experiences.
- ii) 'Processes of interest' include factors such as character strengths that can lead to the good life
- iii) 'Mechanisms of interest'. This level includes interests such as social relationships and domestic and working environments which affect our lives.
- iv) 'Outcomes'. This is a subjective state that makes up the good life, such as well-being and happiness.

The meta-psychological and pragmatic levels combine to give a useful definition of positive psychology:

Positive psychology is the scientific study of optimal human functioning. At the meta-psychological level it aims to redress the imbalance in psychological research and practice by calling attention to the positive aspects of human functioning and experience. At the pragmatic level, it is about understanding the wellsprings, processes and mechanisms that lead to desirable outcomes (p.8).

This is an effective definition because it makes clear the potential for positive psychology and why research such as this is worth pursuing. There is much opportunity for positive psychology to develop, it is less than two decades old and needs to be applied more in all areas of psychology, including education. This potential of positive psychology, as a discipline which can aid teachers, will now be examined.

1.5. The potential of positive psychology

In the educational context, some positive psychology techniques have been used with students. Terjesen, Jacofsky, Froh and Digiuseppe, (2004) describe how positive psychological techniques can be used by the educational psychologist to help individual students flourish; Clonan, Chafouleas, McDougal and Riley-Tillman, (2004) suggest whole school approaches to develop flourishing. However, little work has been carried out on teachers although two exceptions are Chan (2010) and Grant, Green and Rynsaardt (2010). Positive psychology interventions have been used in other organisations, such as commercial firms (Luthans, Youseff et al., 2007) and the military (Seligman, 2011) to improve the well-being of employees.

Two research schools in organisational psychology have emerged: Positive Organisational Behaviour (POB) and Positive Organisational Scholarship (POS); the former looking at how any benefits from positive psychological interventions can be measured quantitatively in organisations and the latter taking a more qualitative approach to examine the ways in which organisations can enable individuals to flourish and thrive.

Meyers, van Woerton and Bakker (2013) carried out the first systematic literature review of positive psychology interventions in organisations. Through a systematic literature search they identified 15 studies (including Chan (2010) and Grant (2010), mentioned above) that looked at the effects of positive psychology interventions in organisations and concluded that such interventions were useful in enhancing employee well-being and performance. The investigations were experimental or quasi-experimental and drawn from samples of working adults that showed normal levels of clinical symptoms (this was because they only wanted to examine the working context, not clinical states). A major limitation of the review is the small number of studies used, but this emphasises the need to carry out more studies. Empirical evidence is sparse but looking at the fifteen studies examined they found a positive impact from a variety of interventions on well-being. “Every study that included one of the variables ... hope, optimism, self-efficacy or resilience ... found increases due to positive psychology intervention” (p.626). There is thus evidence of increased well-being through self-belief variables but few studies and so this indicates the need for further study generally, including schools.

Positive psychology is future-orientated. Snyder, Lopez and Pedrotti (2011) suggest this is because in Western culture, particularly the USA with its ‘American Dream’, we are nurtured to look at the future, we should have more opportunities than our parents and our children should have more than us. Humans are thus driven more by the future than the past. Seligman (2018) states, “our minds brim with futures. This is not to be fought. The future is

in our nature” (p.349), and as a result, psychologists have looked at future-orientated self-belief concepts, such as Hope, Optimism and Self-efficacy.

These self-belief variables can be seen as state-like or trait-like but here they are taken to be trait-like. In other words, humans are seen as self-directing and organising. However, they are also adaptive (Seligman & Csikszentmihalyi, 2000). Within psychology, constructs can be thought of as being more or less stable but lying on a continuum of stability, personality traits would be at the stable pole of the continuum. Hope, optimism and self-efficacy are developable (Luthans, Avolio, Avey & Norman, 2007) and so is Mindset (Dweck, 1999). In other words, humans are capable of change and development (Luthans, Youssef & Avolio, 2007). This is an important point because if certain positive psychology self-belief variables are found to be related to resilience, well-being and retention there is the potential for these to be developed in teachers through interventions. Thus, teachers may be able to undergo training to develop useful self-concepts such as hope and optimism. The next section gives an overview of the self-belief variables examined in this research.

1.6. Overview of the implicit self-belief variables

Future orientated concepts, especially Hope, Optimism and Self-efficacy, have been studied by positive psychologists in the last 20 years (Snyder et al., 2011; Luthans Youssef & Avolio, 2007). Amongst these self-belief variables, the concept of Hope has been under researched. It can be defined as “goal-directed thinking in which the person utilizes pathways thinking (the perceived capacity to find routes to desired goals) and agency thinking (the requisite motivation to use those routes)” (Snyder et al., 2011, p.185). Further research into hope and its relationship to other related constructs such as dispositional optimism (a sense that goals can be achieved despite difficulties) and self-efficacy (a feeling that one has the ability to

achieve a goal) is thus needed. In particular, it is necessary to find out if Hope, Optimism and Self-efficacy lead to greater Resilience, Well-being and Retention.

Dweckian Mindset (Dweck, 1999) is a variable found less in the positive psychology literature but it can be considered as a 'core ingredient' in positive psychology. Dweck (1999) highlights the idea of a 'fixed or changeable self'. For example, some people regard intelligence to be a fixed trait (Dweck calls this an 'entity theory' of intelligence). They believe individuals possess a fixed, unchangeable amount of intelligence which will dictate behaviour for the whole of the life span. Individuals like this will avoid situations that threaten their ego by exceeding the capability of their intelligence quotient, and instead seek out situations that validate their position. On the other hand, Dweck maintains that those with a non-fixed trait (the so called incremental, or Growth Mindset), one that can be developed through hard work and learning, can increase their intelligence quotient because they see they can develop their abilities incrementally. They believe that every person has a 'plastic' intelligence and this can be increased with effort. The concept does not apply only to intelligence. Within teaching, developing an Incremental Mindset can enable a teacher to persevere even if they make mistakes and feel they are not succeeding, because they will want to learn from their errors and stay in the job (Dweck, 2014b). Mindset is considered as a self-belief variable, the teacher implicitly behaves according to whether they have a fixed or incremental mindset. Much research has been carried out on mindset in schools with students, (Dweck, 1999) and some in commercial organisations (Dweck, 2014a) but very little research has taken place on teachers and for that reason it was included in this research.

Another concept mentioned in the positive psychology literature (for example, Snyder et al., 2011) but greatly under-researched is 'Job-crafting'. Job crafting occurs when workers deliberately shape their jobs in order to control their environment and this can result in a job, career or calling orientation (Wrzesniewski, McCauley, Rozin & Schwartz, 1997). The job

involves working for money, the career for status and the calling for the intrinsic value of the work itself. Workers implicitly have a ‘work-orientation’ which leads them to craft their work either as a job, a career or a calling. Performativity involves a ‘top down’ approach to managing teaching, and this leads to stress (Ball, 2008a) whereas job crafting is a ‘bottom-up approach’ to job-design and so should lead to less stress, more well-being and better retention. In addition, the process is not controlled by the manager but comes from the teacher themselves, it is implicit and trait-like and so can be thought of as an implicit self-belief. For these reasons it was included in the research.

1.7. Overview of the dependent variables

The development of positive psychology in the last nineteen years has drawn attention to the study of happiness and well-being (Seligman, 2011). Indeed, Seligman sees the development of well-being as the main purpose of positive psychological interventions. Well-being is not merely compensating for deficits, it is enabling the individual to flourish and thrive. Thus Well-being was selected as a dependent variable for this research.

Avey, Luthans, Smith and Palmer (2010) cite (p.18) studies indicating that well-being is impacted by hope (Snyder, Lehman, Kluch & Monsson, 2006), self-efficacy (Bandura, 1997) and optimism (Carver et al., 2005). Generally, Lyubomirsky, King and Diener (2005, as cited in Avey et al. 2010) consider resources such as those described as self-belief variables as valuable as they help “people thrive and succeed in work” (p.18). However, they note that these positive factors have been given little attention and so research like this is needed.

Resilience, the ability to bounce back from adversity, is another core construct studied in positive psychology (Snyder et al., 2011). This is particularly pertinent to research on teachers because schools are turbulent and can test the resilience of the teacher (Bullough

& Hall-Kenyon, 2011). Developing resilience is therefore of benefit to the teacher. Another reason well-being and resilience were chosen for this study is linked to teacher retention. Increasing well-being and resilience could lead to increased retention. If any of the self-belief factors increase Well-being or Resilience they could also increase Retention. Some research suggests resilience may aid retention (for example, Tait, 2008), but much more research in this area is now needed.

1.8. The purpose for adopting a positive psychology approach in this research

Psychology as a subject has grown enormously in the last 30 years. Its applications are widespread in all areas: clinical, educational, occupational and all the other speciality areas. Much has concentrated on putting right what has gone wrong and this has been very useful in bringing help to many people. There is no reason why positive psychology should detract from all the good work that has been done in ‘traditional psychology’, but can complement it. The following points can be made in support of adopting a positive psychology approach in this research.

Positive psychology has been established for over nineteen years and seems to be going from strength to strength. It shows no sign of going away, so it cannot be called a fad, as it was by some early critics such as Lazarus (2003). Feeling well is not just the absence of being ill and so positive psychology has a major role to play in complementing the existing literature. Positive psychology has a strong empirical base (Seligman, 2011). Seligman is keen to emphasise that it is not just ‘happyology’, (Seligman, 2001 as cited in Lazarus, 2003, p. 106). It is not just about feeling good, but about drawing on personal resources such as hope and optimism to address challenges in the future. Positive emotion is divided into three

parts: emotion of the past (feelings of satisfaction, contentment and pride); the present (feeling good in the moment) and, of relevance to this research, the future (Hope, Optimism, Self-efficacy and other implicit self-beliefs) (Seligman & Pawelski, 2003).

Positive psychology is a developing part of psychology but little research has been carried out on teachers. Kern, Waters, Adler and White (2014) have examined school staff, including teachers, and found that their well-being could be improved through using positive psychological techniques, but few other studies exist. It would be useful to carry out more research to find out what helps teachers flourish making their work more meaningful as well as aiding retention. Positive psychology in schools can provide a “fresh lens” (Hoy & Tarter, 2011, p.432) for looking at schools and how the teachers in them function. More specifically, understanding how implicit self-belief factors affect resilience and well-being and how this may affect staff retention will be useful at a time when schools are struggling to recruit and retain teachers. Thus the overarching aim of this thesis is:

To explore factors influencing the level of teacher Resilience and Well-being and how these impact on their Retention.

This will be addressed through three objectives:

Objective 1: to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention.

Objective 2: to explore in-depth teacher accounts at different career stages about factors contributing to decisions to stay or leave the profession.

Objective 3: to explore the relationship between Objective 1 and 2 and examine applications for improving Resilience, Well-being and Retention.

1.9. Organisation of chapters

An outline of each of the chapters in this thesis will now be presented so that an overview of the whole of the research can be obtained.

The purpose of Chapter 2 is to examine the self-belief variables of Hope, Optimism, Self-efficacy, Mindset and Job crafting both generally and in relation to schools and teachers. This forms the basis of the thesis because the overarching aim of the research is to examine whether these factors influence the level of teacher Resilience and Well-being and how these impact on Retention. The self-belief factors are reviewed to demonstrate whether they have the potential to build teacher resilience, well-being and retention in schoolteachers.

Teachers' careers have been reported as passing through stages. Because the variables may differ from one stage to another these stages are examined. Other, demographic, factors can have an impact on resilience and well-being and so age, length of service, gender, hours worked, positions of responsibility and type of school are considered.

Well-being and resilience have been studied previously in teaching but often the research is based on qualitative methods. In Chapter 3 the quantitative approach used in this research is described. This approach is used to address the first objective: to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention. Against an epistemological position of critical realism, Chapter 3 examines the rationale behind the methodology used and explains how a questionnaire survey was used to measure the demographic and psychological factors predicting Resilience, Well-being and Retention. The structure and content of the questionnaire is explained along with the sampling approach and the procedure itself.

The quantitative material states the 'what and when' but not the 'how and why', the meaning behind findings. Therefore, Chapter 3 continues with a description of the qualitative

research used to address the second objective: to explore in-depth teacher accounts at different career stages about factors contributing to decisions to stay or leave the profession. The procedure of using in-depth interviews with newly qualified and established teachers and also those who had left or were leaving teaching is described. Finally, the analytical approach used, thematic analysis, is outlined.

In Chapter 4 the quantitative data from the survey strand of the research is analysed. Firstly, the demographic analysis is described and then the demographic factors to be carried forward for further analysis shown. The impact of the self-belief characteristics on Resilience, Well-being and Intention to Quit are measured using multiple regression and further analysis is shown through additional multiple regressions and mediation. The findings are then discussed.

In Chapter 5 the analysis of the semi-structured interviews is explained and discussed in order to address the second objective. In Chapter 6 the two strands, quantitative and qualitative are brought together to address the third objective: to explore the relationship between Objective 1 and 2 and examine applications for improving Resilience, Well-being and Retention. The final chapter summarises and concludes the study.

1.10. Summary

Resilience, Well-being and Retention are issues that need to be addressed in secondary schools in England currently. Improving resilience and well-being is of benefit to the teacher but may also improve retention. A possible way to improve these dependent variables is to study the self-belief variables used in positive psychology because these enable the teacher to not only cope but to flourish. A case for using positive psychology has been made. No other study has been carried out on secondary schoolteachers in England looking at these factors

and no other study has examined them from both a quantitative and qualitative perspective. This research will make an original contribution to knowledge and also provide suggestions for interventions to assist teachers.

Chapter 2: Literature review

2.1. Introduction

In Chapter 2 implicit self-belief variables will be explored in detail to see if they have the potential to build Resilience, Well-being and Retention. Variables will be examined generally and then any findings linking them to schools will be reviewed. Firstly, Hope will be examined followed by Optimism, Self-efficacy, Mindset and Job crafting. Evidence in support of, and against the variable will be reviewed and its use in this research justified. Demographic (and contextual) variables such as age and positions of responsibility may also affect Resilience, Well-being and Retention and so these are also examined.

2.2. Self-belief variables

2.2.1. Hope

Hope has been studied as a self-belief variable in positive psychology over the last 20 years (Snyder et al., 2011). In colloquial terms Hope “refers to the feeling that events will turn out for the best” (Reichard, Avey, Lopez & Dollwet, 2013, p.292). There have been many definitions of hope; Snyder et al. (2011, pp.199-200) list some:

- i) Mowrer (1960) said hope was an emotion that occurred through classical conditioning.
- ii) Erikson (1964) described hope as believing that wishes could be attained.
- iii) Stotland (1969) described hope as having goals and feeling it was possible to achieve them.
- iv) Gottschalk (1974) believed that hope was a motivating force that enabled the individual to overcome problems to achieve favourable outcomes.

- v) Marcel (as cited in Godfrey, 1987, p.103) said that hope is only ‘applicable in helpless situations’ where people need power to cope.

Reichard et al. (2013, p.293) list some others:

- i) Hope is the ‘thoughts and feelings about personal capacity to make the future better’ (Lopez, Snyder & Pedrotti, 2003).
- ii) Hope is ‘an emotion governed by cognitions and affected by the environment that varies between different social interests’ (Averill, Catlin & Chon, 1990)

Lay people may have a different view of hope altogether, they may just think of it as an emotion which they feel when all other practical avenues have been tried – ‘to hope for the best, but be ready for the worst’ (Peterson and Byron, 2008). Snyder et al. (2011) define hope as “goal-directed thinking in which the person utilises pathways thinking (the perceived capacity to find routes to desired goals) and agency thinking, the requisite motivation to use those routes” (p.185). This definition will be used in this research because it is well suited to contexts where there is a need to achieve, such as workplaces and schools and because it has been given attention through research into Positive Organisational Behaviour. (Reichard et al., 2013); Luthans, Youssef & Avolio, 2007). For example, using Snyder’s definition, Reichard et al. (2013) examined a range of data including unpublished and published studies, conference proceedings, cross- sectional, longitudinal and intervention studies. They examined 11,139 unique participants looking at the relationship between hope and employee performance and well-being and found a significant positive correlation between high hope individuals and high levels of objective performance, supervisor rated performance and employee self-ratings of performance. They also found higher-hope individuals had higher levels of job satisfaction, organisational commitment, reported better physical health and had lower levels of burnout and stress, all indicating that higher hope correlates with higher levels of well-being. The investigators eliminated extraneous factors such as file drawer effects (a

form of publication bias where contradictory findings go no further than the researcher's filing cabinet) but do state that their participants were all from Western cultures and so the results may not be generalizable to all parts of the world.

The individual formulates a goal and to achieve this they need pathways and agency. 'High hoppers' have a positive emotional set based on constructive past experiences that fill them with zest whereas 'low-hoppers' have low positive emotion based on negative past experiences. Although this makes hope appear trait-like, Snyder et al. (2011) do believe it is malleable. A high-hoper then decides the goal can be achieved (and so generates a high positive outcome variable) whereas a low-hoper develops a low outcome value and so decides not to pursue the goal. If the goal is to be pursued agency is generated and pathways found.

Sometimes the goal may be blocked by a sudden stressor and then new pathways and extra agency must be found but if the stressor is overwhelming these will be insufficient. If the goal is achieved feedback passes to the preceding parts of the chain giving them further agency ('success breeds success'). If not, the feedback will be negative lowering the emotional set and making future goals harder to obtain (Snyder et al., 2011). In this model the emotions are based on the personal assessment about one's success, or not. If a goal is achieved then a positive emotion results whereas negative emotions happen after unsuccessful goal pursuits. Evidence for the emotions coming after the goal was found by Snyder, Simpson, Ybasco, Borders, Babyak and Higgins (1996) and is supported by other researchers (Diener, 1984; Emmons, 1986; Little, 1983, all cited in Snyder, 2002).

Several factor analytic studies support the fact that separate agency and pathways exist (Babyak, Snyder & Yoshinola, 1993). The agency and pathways components, as well as being distinct, unite to form one common factor – Hope. If hope is goal directed it would be expected to predict that high hope scores occur when a goal is achieved. This has been the case; for example, high hope scores at the beginning of a college course have predicted better

grades at the end (Snyder, Shorey, Cheavons, Pulvers, Adams & Wiklund, 2002 as cited in Snyder et al., 2002, pp. 1003-1022) and a similar prediction has been found in sports' training (Curry, Snyder, Cook, Ruby & Rehm, 1997). Of relevance to this research, Snyder, Ilardi, Michael and Cheavons (2000) suggest hope gives rise to many of the positive changes that happen in psychological treatment.

One of the criticisms of Snyder's model is that his samples are limited to children and young adults (in other words, his students) (Chang, 2003). However, Chang (2003) found the model applied to middle-aged adults as well. Snyder's is a cognitive model in which the emotion associated with hope depends on the perceived likelihood of achieving the outcome. However, hope can occur when agency is lacking. For example, an individual can hope for an outcome even when they can do nothing; if you are lying on a bed, ill, you can hope to get better even if you have no control over your situation (Bruininks & Malle, 2005). People may feel altruistic hope for others who suffer even if they are unable to help them (Tong, Fredrickson, Chang & Lim, 2010). Bruininks and Malle (2005) found that hopeful people often feel they can do little to gain a goal implying hope is just an emotion. Tong et al. (2010) found that the agency trait predicted hope whereas the pathways trait did not. However, they do state that their conclusions "should not be overstated" (p.1213) because the pathways thinking on hope may be more evident for goals when it is easy to think of the pathways and where the environment can be manipulated to generate these pathways.

There are some negative dimensions of hope, particularly what is called 'False Hope' (Snyder, Rand, King, Feldman & Woodward, 2002). False Hope occurs when three factors are present; expectations are based on illusions rather than reality; unrealistic goals are pursued and inappropriate pathways are sought. However, Snyder et al. (2002) say that high hope people see themselves in a positive light and so have a sense of control over their environment. This then becomes their reality and so their expectations are based on reality

rather than illusion. This means that false hope is a result of low hope whereas genuine hope occurs with high hope individuals. Snyder et al. (2002) say that evidence for this comes from individuals suffering from clinical depression, a symptom of which is having no illusion of control over the world around them. This leads to a decrease in agency and so goals are not sought. Having unrealistically high illusions can also be problematic because it can lead to engagement in risky and dangerous behaviours (Snyder et al., 2002).

Another negative dimension is that individuals may be pursuing unattainable goals and so they will experience a decrease in well-being when they are not achieved. Thus, too much hope can result in a drop in well-being. However, Snyder et al. (2002) have shown that although low-level hoppers set easy goals and achieve them, high-hoppers set difficult goals but still achieve them, so tough goals are not off-putting to high-hoppers because they have agency (Anderson, 1988, as cited in Snyder et al., 2002, pp.1003-1020).

In addition, high levels of hope seems to make the individual more flexible and this means more potential pathways are open. This was shown by Irving, Snyder and Crowson (1998) who surveyed 115 female undergraduates enrolled in an introductory psychology course at the University of Kansas. They were tested to examine their hope-related coping responses in imaginary phases of cancer: prevention, detection and treatment. High hope individuals generated more pathways and agency and so were better able to seek out information on the prevention of cancer. They had the pathways and agency to detect cancer. For example, by taking mammogram checks regularly they could access treatment quicker, if needed. Although this study lacked ecological validity, because it applied only to college-aged females, and was using hypothetical scenarios rather than actual situations, it does indicate the value of flexibility when seeking out pathways.

Despite the criticisms Snyder's model will be used in this study. As stated before, it is suited to situations where there is a need to achieve and has been studied in the workplace

(Reichard et al., 2013). The model has been validated by Babyak, Snyder and Yoshinobu (1993). Using confirmatory factor analysis they confirmed the existence of two factors, agency and pathways. In addition, it can be used remedially to help employees find pathways and generate agency by making them aware of these traits. Engaging in pathways thinking and finding agency should then result in improved performance.

Peterson and Byron (2008), examined hopeful thinking in three different groups of employees, salespeople, mortgage brokers and management executives. Using surveys they assessed hope levels and examined performance over one year. More hopeful employees had significantly better performance at the end of the year. The investigators also attempted to find *why* the performance had improved in the hopeful employees. They theorised that hopeful employees would be able to generate more pathways and higher quality pathways when problems arose that blocked their goals. They showed persistence in producing solutions through agency and generating more pathways implying that hope leads to resilience. Their results supported the theory suggesting that interventions can improve hope and thus performance, indicating the value of positive intervention.

Snyder's model of hope has been studied in the workplace but is under-researched compared to optimism and self-efficacy and its potential to be applied to the teaching profession needs to be developed.

Little research has been carried out into hope in teachers. One exception is Bullough and Hall-Kenyon (2011), who note that school reform often seems to be concerned with punishing teachers through concentrating on weaknesses (as shown by the culture of performativity), rather than building on strengths (as a positive psychologist would). Bullough and Hall-Kenyon (2011) believe this has the opposite of the intended effect because it leads to stress rather than motivation and a reduction in performance. They suggest that building a culture of hope is the way forward, schools need to create conditions that promote agency and

pathways. They propose that agency can be increased by giving teachers autonomy as this is more motivating than imposing directives through a culture of accountability. They do not mention pathways but presumably if teachers are given more autonomy then they can choose their own pathways.

Bullough et al. (2011) note that very little empirical research has been carried out on teacher hopefulness but they have carried out two studies (Bullough & Hall-Kenyon, 2011 and 2012). In the 2011 study, 167 pre-service and 38 in-service teachers from challenging urban schools in Salt Lake City in the USA completed the Snyder Trait (1991) and State (1996) Scales. Both scales indicated high levels of hope for preservice and in-service teachers indicating that both groups felt they could achieve their goals. Importantly for this thesis, they report that high hope may be a source of teacher resilience but this is only “suggestive” (p.137). Thus, further research is necessary.

Of relevance to this research study, Bullough et al. (2011) also looked at the relationships between hope and calling. They developed a brief survey instrument to measure calling and found overwhelming evidence that both groups (preservice and in service) felt a strong calling to teach. However, there was no significant correlation between calling and hope. It might be expected there would be a positive correlation between hope levels and calling, as sense of calling increases then hope increases. Bullough et al. (2011) suggest that no correlation was found because one of the schools was more challenging than the others because student turnover was very high. Teachers here had a strong calling but their hope was reduced because they felt they were not succeeding; this reduced the chance of an overall correlation between hope and calling across all groups.

In a second, similar, study Bullough and Hall-Kenyon (2012) investigated 145 teachers in the states of Utah and Nevada in the USA. They were given the Snyder Trait and State scales to complete and also survey questions on years of teaching experience, family

connections to teaching, type of school (elementary or secondary) and well-being. As with the 2011 survey, very high levels of hope and calling were recorded and a range of well-being scores. No correlation was found between hope and calling, length of service and type of school. No correlation was found between hope and family connections for any teachers from Utah and only on the State scale for teachers from Nevada. Hope was not correlated with well-being. Like the 2011 study, it is suggested this was because although hope is high generally it may fluctuate in the work place because of the nature of the schools.

To conclude, both studies show teachers have high levels of hope and calling but hope does not correlate with any of the other variables. Despite this, it was decided to include it in this study for the following reasons: Little work has been carried out on hope in teachers and so this research can help to add to what has been done, it should not be dismissed as a variable because much remains to be done to understand it. Importantly, there is the suggestion that it relates to resilience and this needs to be investigated more fully. In addition, Bullough et al.'s (2011; 2012) research was carried out in the United States of America (USA) where the education system is different to England and so their findings cannot necessarily be transferred to English teachers and assume the findings would be the same. Educational systems have changed since 2012 and so a contemporary, English, study of hope in teachers is needed.

2.2.2. Optimism

Optimism can be defined as “a mood or attitude associated with an expectation about the social or material future – one which the evaluator regards as socially desirable to his (or her) pleasure” (Tiger, 1979, as cited in Peterson, 2000, p.44). As such, it links directly to positive psychology and so is a self-belief variable directly relevant to this research. It has been widely

researched and has been considered by positive psychologists such as Peterson (2000) since the inception of the discipline.

Two main theories of optimism have evolved: Learned Optimism, as studied by Seligman (1998; 2011) and Dispositional Optimism as researched by Scheier and Carver (1985). The latter theory suggests that optimism is a stable trait and so even in the face of difficulties people with an optimistic personality feel goals can be achieved. Those with a pessimistic personality feel the opposite. Dispositional Optimism has a genetic basis and also stems from early childhood experiences (Snyder et al., 2011).

The former was developed from Seligman's original theory of learned helplessness. Seligman and Maier (1967) trained dogs through classical conditioning to press a switch to escape an electric shock. Every time they experienced a shock they would press the switch. However, dogs that could not escape the shock because they were yoked and unable to press the switch learned to do nothing. Even if they were later given the option to escape they remained passive, they had developed what Seligman (1967) called 'learned helplessness'.

Abramson and Seligman (1978), suggested a similar process can happen in humans, if they feel unable to escape a traumatic situation but then have the option of escape they will not take it. However, Seligman (2011) also found that a third of humans never became helpless even in inescapable situations and this led him to the concept of 'Learned Optimism'. Here, individuals assume that when confronted with an inescapable problem that it will pass quickly. They will be able to get some control over it eventually and it will be an isolated case. Helpless people, on the other hand, assume the event will go on forever, they will never get control of it and it is likely to repeat itself in the future. They may give up, implying they have lower resilience and retention. Whether an individual is optimistic or helpless depends on which set of assumptions the individual makes, what Seligman (2011) calls their 'explanatory style'.

These two theories of optimism, learned and dispositional, are not mutually exclusive. The individual may be predisposed towards pessimism but their explanatory style can be manipulated through therapy to create a more optimistic outlook. Although positive psychology emphasises the trait-like nature of the implicit concepts they can be developed (Luthans, Youssef et al., 2007; Snyder et al., 2011). Optimism can be thought of as trait or state-like but like other implicit self-beliefs it can be thought of as lying on a continuum between the two and so is malleable (Luthans, Youssef et al., 2007).

There is much evidence linking optimism to positive outcomes. For example, with physical and mental health (Peterson, 1995); general coping (Lazarus & Folkman, 1984), recovery from illness (Scheier, Matthews, Owen, Magovern, Lefebvre et al., 1989, all cited in Luthans, Youssef et al., 2007, pp.93-94). Workplace performance has also been shown to improve (Luthans, Avolio, Avey, Norman & Combs, 2006; Luthans, Avolio, Walumbwa & Li, 2005; Seligman, 1998). However, there can be undesirable implications from optimism. For example, overly optimistic people can underestimate the dangers of risks, ‘it won’t happen to me’ (Davidson & Prkachin, 1997; Peterson & Chang, 2002, as cited in Luthans, Youssef et al., 2007, pp.94-95). They may expose themselves to excessive amounts of stress at work. They may also try to exert too much control over their lives, thinking that if they try hard enough anything is possible. They can then suffer distress when they find they cannot maintain their agency in the face of negative life events and become exhausted and demoralised (Peterson, 2000). Thus, optimism has to remain within manageable limits.

Optimism has been studied in the workplace and some of the research from the workplace will now be described. Then, some studies from work carried out in schools are considered.

Long before the positive psychology movement was officially launched Seligman (1998) was applying his theory of optimism as an explanatory style in the workplace. He had

been commissioned by the Metropolitan Life Insurance Company to help select insurance salespeople who could stay in their job because up to half were leaving in their first year. Seligman's hypothesis was that potential salespeople who were more optimistic, would show more resilience and be less likely to leave their job. Thus, optimism would be related to retention. Using his Attribution Style Questionnaire (see Peterson et al., 1982) he found that recruiting those with higher optimism reduced turnover dramatically (Seligman, 1998).

Youssef and Luthans (2007) examined the relationship between optimism and job performance, satisfaction, work happiness and organisational commitment. They investigated 1,032 employees from a wide range of US organisations. Optimism was measured on a scale based on Scheier and Carver's (1985) Life Orientation Test (LOT) and also outputs from employee performance reviews. Significant positive correlations were found between optimism and all the other variables suggesting it is an important self-belief characteristic which may contribute towards happiness and commitment. Importantly for this research, commitment may lead to improved retention (Harrison, Newman & Roth, 2006).

Ugwu and Igbende (2017) examined optimism and organisational citizen behaviour, the willingness to go beyond the requirements of the job description, which implies resilience. Optimism was assessed with the 8 item Personal Optimism Scale Extended (POSE-E) (Schweizer & Koch, 2000, as cited in Ugwa & Igbende, 2017, p.4) and was positively correlated to organisational citizenship behaviours.

Research exists on optimism in educational institutions, although most has been carried out on students. Much of the research originates from the Penn Resiliency Program based at the Positive Psychology Center, University of Pennsylvania. The programme uses cognitive-behavioural therapy and problem solving skills to assist middle school students (9-14 year olds) in the USA. Similar programmes have been used in the UK (for example, Challen, Noden, West & Machin, 2010). Studies have been carried out to evaluate the value

of increasing levels of optimism in students (Gillham & Reivich, 2004; Boman, Furlong, Shochet Lilles & Jones, 2009). However, very few studies seem to exist which examine optimism in teachers. Jibeen (2014) studied 251 employees at a university in Pakistan where most were teachers and only 12% involved with research. The personality traits of neuroticism and conscientiousness were measured along with optimism and subjective well-being (SWB). Regression analyses were performed to examine the moderating effects of optimism in the relationship between neuroticism and SWB; participants who scored low in conscientiousness had higher levels of psychological distress and those with a higher level were more satisfied with life. Optimism buffered the neurotic effects and increased satisfaction with life, implying a link with well-being. Although these participants were not secondary school teachers it does indicate that optimism can benefit teachers.

Kern et al. (2014) have carried out one of the few studies to research employees in a school. 432 participants (239 were teachers) from a large independent school in Victoria, Australia, completed a survey questionnaire including questions on optimism, organisational virtuousness, work happiness, satisfaction, engagement and commitment at three points in time with approximately six months between each one. They found that work happiness is predicted by optimism and this happens both within and across time indicating that optimism may be a predictor of well-being.

Optimism has been studied more widely than hope, mindset and job crafting within the context of positive psychology. However, it has not been studied widely as a positive psychology concept in connection with teachers and so this work seeks to redress the imbalance. Some evidence suggests it is linked to resilience and well-being but only a few studies have been carried out. It therefore needs to be included here in order to obtain more information about any links with resilience, well-being and then with retention.

Optimism and hope, although they are similar (Bailey, Eng, Frisch & Snyder, 2007), are conceptually different. Hope is not a proxy of optimism. Optimism refers to the idea that things generally will turn out well, as opposed to pessimism where the individual assumes the opposite. The difference is in the use of Self-efficacy. The optimistic individual may not have the self-efficacy to carry out their plans to achieve goals and so the plans may be unrealistic whereas the hopeful individual has the belief that the goals are achievable, because they have agency and a pathway and so the goals become realistic (Bailey, Eng, Frisch and Snyder, 2007). As distinctive entities, each one can be developed separately to maximise performance or any other output such as resilience and well-being and thus both Hope and Optimism are included as variables.

2.2.3. Self-efficacy

Self-efficacy is established as a self-belief factor (Snyder et al., 2011). It can be defined as how well “one can execute courses of action required to deal with prospective situations” (Bandura, 1982, p.122), in other words how well people believe their capabilities and actions can bring about the effects they wish for. Some individuals will be more confident in their judgement of their capabilities than others, those with strong self-efficacy will be more effective in mastering tasks whereas those with self-doubts dwell on what can go wrong (Bandura, 1982).

In the workplace individuals may put restrictions on their ambitions because they believe, often wrongly, that they lack ability (Bandura, 1988). Empirical research has shown that self-efficacy is related to several work performance measures. Stajkovic and Luthans (1998) list some: managerial performance (Wood, Bandura & Bailey, 1990); skill acquisition (Mitchell, Hopper, Daniels, George-Falvy & James, 1994); coping with career related events

(Stumpf, Brily & Hartman, 1987) and adaptability to advanced technology (Hill Smith & Mann, 1987).

Stajkovic and Luthans (1998) carried out a study to meta-analyse, aggregate and analyse individual research by examining the link between self-efficacy and performance in the workplace across all available studies. Although teacher performance is not specifically being examined in this thesis it is included as it demonstrates the way self-efficacy has been studied in the workplace.

The studies were found using computerised searches of data-bases as well as texts and reviews about self-efficacy, social learning theory and social cognitive theory. Several unpublished manuscripts were also included and the search was limited to articles in the English language. Task performance was defined as the “behavioural responses” (p.244) the worker demonstrates to reach a “specified level of performance” (p.244) within an organisational setting. They found a strong correlation between self-efficacy and work related performance. Low self-efficacy causes individuals to worry that they lack ability and this interferes negatively with the cognitive resources needed to carry out complex tasks. Those with high self-efficacy felt they had ability and just needed to find a way to develop the skills needed to complete the task. The correlational value of 0.38 may be a better predictor of work related performance than many of the other trait-based constructs which are widely used in organisational psychology.

Stajkovic and Luthans (1998) also found the relationship is moderated by two other factors: the complexity of the task and the location at which the performance takes place. The relationship between self-efficacy and performance when complexity is high and the setting is simulated produces stronger relationships between self-efficacy and performance compared to real life settings. On the other hand if an individual perceives a task to be too easy, thinks

success is due to others, thinks the rate of improvement is too slow or keeps ruminating over past failures then self-efficacy can decrease (Luthans, Youssef et al., 2007).

Vancouver, Thompson and Williams (2001) investigated the negative effects of self-efficacy on performance and using 56 undergraduate participants, found that increased self-efficacy could negatively influence subsequent performance. This was found again in a later study (Vancouver, Thompson, Tischner & Putka, 2002). Here, 87 undergraduates were assigned randomly to one of two conditions; one group was induced to have a high level of self-efficacy and the other acted as a control receiving no manipulation. The task was to attempt an analytical game (the 'Mastermind Game') in which participants try to arrange four out of six coloured squares in a correct order. They found that increasing self-efficacy reduces performance.

However, Bandura and Locke (2003) have scrutinised the studies and found that Vancouver et al. (2001) and Vancouver et al. (2002) have made a fundamental error. They have equated social cognitive theory with expectancy-value theory and so have made the wrong assumptions about self-efficacy. In expectancy-value theory the individual places a *value* on an expected outcome and this will determine whether they act or not. In social cognitive theory the individual acts on their *beliefs* about what they can do as well as their calculation about the likely outcome of performance. Many options may be excluded quickly on self-efficacy grounds without even calculating costs and benefits. Bandura et al. (2003) notes that the evidence that self-efficacy increases performance is overwhelming. Eight large scale meta-analyses have been carried out as well as that by Stajkovic and Luthans (1998). These included work related performances in both laboratory and field studies, athletic performance and psychosocial functioning in children and they all indicate that efficacy beliefs contribute significantly to motivation and performance. These studies were both cross-sectional and longitudinal.

Most studies have examined work performance in the workplace rather than resilience or well-being. However, self-efficacy has been linked with life satisfaction. For example, Danielson, Samdal, Hetland and Wold (2009), using a large sample ($N=3358$) and structural equation modelling reported that increased self-efficacy resulted in greater life satisfaction in students in Norwegian schools. Dahlbeck and Lightsey (2008) found that higher self-efficacy predicted higher life satisfaction among children with disabilities of chronic illnesses.

Snyder et al. (2011) maintain that Bandura can be viewed as a positive psychologist because he was one of the first researchers to state that self-efficacy plays a role in protecting individuals from psychological problems through using 'enablement factors' which helped individuals select and then structure their environment in order to plan out a successful strategy. These enablement factors emphasise enhancing strengths instead of reducing weaknesses and so link with positive psychology (Bandura, 1997, as cited in Snyder et al., 2011, p.172). This suggests self-efficacy and its links with well-being need further investigation generally. Self-efficacy in teaching will now be examined to see specifically if more research needs to be carried out in that area.

Self-efficacy has been studied in the educational context. For example, Spector (1990, as cited in Coladarci, 1992, p.225) found that personal efficacy among undergraduate trainee teachers increased each year of their course and reached its height during teaching practice. It can be improved if the student teacher has a positive teaching experience on teaching placements (Fortnam & Pontius, 2000; Hoy & Woolfolk, 1990; Woolfolk Hoy & Burke Spero, 2005, as cited in Knoblauch & Woolfolk Hoy, 2008, pp.166-179).

Social context is also important for student teachers. Knoblauch and Woolfolk Hoy (2008 above) studied student teachers in different social contexts, rural, suburban and urban and found efficacy beliefs were enhanced in all contexts. However, Woolfolk Hoy and Burke Spero (2005) found a significant decline in self-efficacy occurred during the first year of

teaching and this may have been due to the different nature of student teaching and ‘real’ teaching. In the former, the student teacher simply concentrates on the methods of classroom practice whereas in the latter the new teacher has to negotiate many agenda at the same time. In addition, the new teacher may experience difficulty finding the right level at which to interact with the student, too close and they will lose control of their classes and too harshly and they will alienate them. Self-efficacy in the first year of teaching was also related to the levels of support received by the teacher, as support is increased self-efficacy increases (Woolfolk Hoy & Burke Spero, 2005). Casperson & Raaen (2013) suggest that self-efficacy is similar for new and experienced teachers but the new teacher finds it harder to ask for advice from experienced colleagues, whereas established teachers, who still need support, have networks to call upon.

Regarding established teachers, Coladarci (1992) suggests that increasing self-efficacy leads to greater commitment and significantly for this thesis, greater commitment leads to a reduction in attrition amongst teachers. He tested this through questionnaire analysis on 120 teachers from Maine, USA. Commitment was measured by asking the teachers if they would choose teaching again as a career if they were starting to make their career choices and efficacy was measured using the Gibson and Dembo (1984) instrument. He found efficacy predicted significantly commitment and he suggests this may help reduce teacher attrition. Likewise, Rozenholtz and Simpson (1990) suggest that a drop in commitment may lead to increased teacher attrition. However, Coladarci (1992) states that other factors predict commitment as well: sex (women are more committed than men); teacher-student ratio (smaller ratio leads to more commitment) and school climate (teachers who see their principal as a good leader are more committed). Rozenholtz and Simpson (1990) note that organisational factors such as task autonomy and discretion and learning opportunities are important.

It is difficult to say from these studies that efficacy actually correlates with retention and the researchers do not mention resilience and well-being. They also suggest that other, demographic, factors such as gender and school contextual characteristics may be involved with the dependent variables and so reinforce the need to include demographic factors in this research. Commitment is a psychological state that increases the likelihood an individual will maintain allegiance to an organisation or ideal (Meyer & Allen, 1991) whereas resilience is the ability to bounce back from a set-back. This research aims to find out empirically whether Self-efficacy predicts Resilience and Well-being.

Teachers who have been teaching for several years can suffer from 'burnout'. The symptoms include emotional exhaustion (the teacher lacks the emotional resources they once had), depersonalisation (a feeling of detachment from the students combined with a negative and cynical attitude towards them) and reduced personal accomplishment (when the teacher is aware they are not performing as well as they need to in the classroom) (Brouwers and Tomic, 2000). Leiter (1992) has referred to burnout as a "crisis in self-efficacy" (p.107) and Brissie, Hoover-Dempsey and Bassler (1988) found that a low level of teacher efficacy predicts teachers' level of burnout. This 'crisis in self-efficacy' is likely to lead to teacher attrition (Glickman & Tamashiro, 1982). So here can be seen a potential link between efficacy and attrition. However, it is an old study and many changes in educational systems have happened in 37 years and so it is important for these findings to be updated.

Self-efficacy has been studied more frequently than hope in the teaching profession, although not from the point of view of positive psychology and teacher attrition. It does not appear to have been studied from the point of view of resilience, well-being and retention and therefore it needs further investigation.

2.2.4. Mindset

Mindset is included less in the psychological literature in comparison to Hope, Optimism and Self-efficacy. However, it can be considered as an implicit self-belief variable because the individual implicitly behaves according to whether they have a fixed or incremental mindset (Dweck, 1999). Mindset has been researched extensively with students (Dweck, 1999). She highlights the idea of a ‘fixed or changeable self’, using intelligence levels to explain her concept: Some people regard intelligence to be a fixed trait (Dweck calls this an ‘entity theory’ of intelligence). They believe they possess a fixed, unchangeable amount of intelligence which will dictate their behaviour for the whole of the life span. Such people will avoid situations that threaten their ego by exceeding the capacity of their intelligence quotient and instead seek out situations that validate their position.

On the other hand, Dweck maintains that those with a non-fixed trait mindset, one that can be developed through hard work and learning, can increase their quotient because they see they can develop their abilities ‘incrementally’. They believe their intelligence is ‘malleable’ and can therefore be increased with effort and coaching. This is more commonly referred to as a ‘Growth Mindset’ (Dweck, 1999). Dweck also refers to the helpless and mastery-orientated pattern (Diener & Dweck, 1978, 1980; Dweck & Reppucci, 1973, as cited in Dweck, 1999, p.5). A helpless-orientated pattern sets in when a person in an entity state experiences a crisis that threatens their intelligence or any other trait, such as personality. They tend to go to pieces as their ego is threatened. However, a mastery-orientated pattern occurs when someone in a crisis learns from and then finds a way to recover from it, making sure a similar situation happening again in the future. Linked with these patterns are goals: those with a helpless orientated pattern have a ‘performance goal’ which is concerned with avoiding negative judgements about competency and winning positive acclaim whereas the ‘learning goal’ is about mastering new skills and gaining more knowledge – not just

protecting the ego. When things go badly the individual simply keeps developing their efforts until progress is made, implying a link with resilience (Dweck, 1999).

Dweck has carried out many experiments to support her ideas, especially in educational establishments (for example, Bandura & Dweck, 1985, as cited in Dweck, 1999, p.3; Dweck & Leggett, 1988). She found that students who have an entity theory of intelligence try to pursue a performance goal whereas those with an incremental (growth) theory try to increase their abilities by choosing a learning goal. In other words, they are prepared to take the risk of making a mistake in order to know more. More recent studies have found similar results. For example, Ehrlinger, Mitchum and Dweck (2016) investigated the link between overconfidence and theories of intelligence. They were particularly interested in a specific type of overconfidence called overplacement, which refers to the exaggerated positive perceptions about how one individual compares to others. They predicted that because incremental theorists are open to negative as well as positive feedback they should have a fairly accurate view of their self. Entity theorists on the other hand, with their fixed views about intelligence try to validate rather than improve their intelligence. This means they will maintain positive views about their intelligence compared to incremental theorists and so can become overconfident. In a study, 53 university students completed Dweck's (1999) theories of intelligence questionnaire and then completed a moderately difficult multiple choice test and finally were asked to indicate their confidence. Those with stronger entity scores were significantly more overconfident than participants rated as incremental, lending support to Dweck's theory.

Further support comes from another, more recent study, by Lou and Noels (2016). They examined mindset in language students using a sample consisting of 150 language students at a Canadian University. Each participant read a mock article promoting an entity language theory or an incremental language theory. After this manipulation participants

completed a questionnaire to assess their effort beliefs, perceived competence, goal orientations, fear of failure, intention to continue language studies and response to failure. The results showed that in the incremental conditions the students reported more mastery orientated responses in failure situations with less intention to quit, implying a link with resilience. In the entity condition the students were performance orientated with more helpless orientated responses and a fear of failure. However, it should be noted that induction studies, such as these, often have brief effects and the impact can be temporary (Donohoe, Topping & Hannah, 2012).

Ahmavraara and Houston (2007) found support for Dweck's theory in an English educational setting. They examined school children in Kent, a county which still operates a selective system for entry to secondary schools. They found children in grammar schools were encouraged to have an incremental mindset and have high aspirations whereas those in secondary modern schools (who had failed the entry examination to the grammar school) had a fixed mindset. They felt a ceiling to their academic abilities existed and so their aspirations had been lowered.

One criticism of the study is that students who are selected for grammar schools could have an incremental mindset which gives them the persistence to pass the entry examination in the first place. Ahmavraara et al. (2007) agree, saying that those who have a more malleable theory of intelligence are more likely to be selected. However, some students in the non-selective schools are more malleable than others but this does not seem to help them. They feel they are bound to do badly come what may. They may also convince themselves that intelligence is fixed and so there is no point in making the effort to reach their potential. In other words, their resilience is lowered. This link between growth mindset and resilience will be tested empirically in this research because if interventions can increase the growth

mindset in teachers it would be predicted that their resilience will increase. In addition, the link between growth mindset and retention will be examined.

Other researchers, such as Kristjansson (2008), admit that Dweck has much empirical support for her theory but have some “difficulties with her account” (p225). Firstly, he thinks that it is unlikely individuals fall into one of two distinct categories. He even suggests that perhaps her questionnaires are written to encourage participants to fall neatly into one category or the other.

Dweck (1999) believes adults should praise effort rather than ability because if we praise ability we encourage an entity approach. The student feels they are able and this image must be preserved and not threatened. Mueller and Dweck (1998) found that secondary school children in the USA who received praise for intelligence rather than effort, valued performance rather than mastery goals and after experiencing failure showed lower enjoyment and less persistence for a task. However, Kristjansson (2008) says this might be an unrealistic situation because praising ability does not mean the ability cannot get even better, it can still grow. In addition, some traits such as Intelligence Quotient (IQ) and personality, are quite stable and are difficult to change – but this does not mean they fall into the damaging ‘entity theory’ category. He also notes that Dweck gives little advice on how to actually develop more of an incremental mindset.

There have been some other dissensions from Dweck’s theory. Furnham, Chamorro-Premozic and McDougall (2003) found, in a longitudinal study of British university students, that type of mindset did not affect academic performance. Dupeyrat and Marine (2005) did not find a significant relationship between theories of intelligence and mastery or performance goals or cognitive engagement in adults. Simon, Hanks, Fitzgerald, McCauly, Thomas and Zander (2008, as cited in Donohoe et al., 2012, p.643) found that attempting to change a mindset had little effect on an intervention group. O’Shea, Cleary and Breers (2010, as cited

in Donohoe et al., 2012, p.643) found no significant association between having a performance goal and an entity mindset in their study.

Dweck responds to these criticisms. She describes much empirical support for her theory (Dweck, 1999) but she is not complacent about it. She admits there are “‘controversial issues’” around her theory (Dweck, 1999, p.149-155). For example, she notes that within the incremental theory, which rewards effort, effort can be carried too far. Some parents, for example, can expect too much effort from their children and this can lead to mental illness and so a lowering of well-being. However, she answers this by saying that students should be motivated for genuine learning, not just performance and goals. Incremental theory states that persistence along with effort is desirable. However, it could be said that there are situations when it is necessary to realise that despite continued effort a goal cannot be achieved. Dweck responds that an individual can give up on a goal without feeling shame (as they would if they were an entity theorist) if they feel they have done their best. Performance goals can be considered necessary in our society, students need to pass certain hurdles to move on to the next level.

Dweck (1999) admits that from time to time students do need to validate the skills they already have and so some performance goals are needed, but if a student under-performs then they are motivated to do better the next time., not to go into a state of helplessness. Learning goals may be less rigorous than performance goals because students only have to try their best rather than reach a standard but Dweck says it does not have to be like that, teachers can ‘give a candid, detailed feedback to students as they strive to meet high standards’ (Dweck, 1999, p.152).

Another criticism is based around the idea that if an entity theory is maladaptive it should not occur in so many individuals. Dweck (1999) suggests an entity theory gives individuals a sense of security because the future appears predictable and this gives a sense of

comfort. However, this prevents the individual from reaching their potential. On the other hand, the incremental approach means that people are capable of some change if they are assisted with it. Biologists might argue that behaviour is a trait controlled by genes and so cannot be changed but Dweck's research suggests strongly that the environment matters greatly. Genetic influences may make it easier for some people to learn from others but when the circumstances are right everyone can change (Dweck, 1999).

Further criticism against Dweck's Mindset theory comes from Li and Bates (2019). They were unable to replicate the Mueller and Dweck (1998) study and having examined in excess of 600 children in China, were unable to find evidence in support of Mindset theory generally. Dweck and Yeager (2019) counter Li and Bates' findings because they state that they did not adhere to the best practices in the way they designed their 2019 study as laid down by the American Psychological Association (APA). In England, Foliano, Rolfe, Buzzeeo, Runge and Wilkinson (2019) evaluated the 'Changing Mindsets' project which was aimed at improving the academic attainment scores of Year 6 primary school students. The research studied 5018 students across 101 schools and found the intervention had no effect on the academic progress of the students, casting some doubt on Dweck's theory.

The value of interventions using the growth mindset can thus be criticised. However, Mindset is an implicit self-concept that has been used very widely with students and much research exists to support it. Less work has been carried out on teachers and so it would seem appropriate to extend research to teachers. Some of the few findings on teachers will now be examined.

As stated, little work on the effects of mindset on teachers or educational organisations has been carried out. Shim, Cho and Cassady (2013) found that developing a teacher's growth mindset for teaching was beneficial for developing a learning environment in which students could maximise their learning. Dweck has started to consider mindset in teachers (Dweck,

2014b). She suggests that in the USA many of the most promising new teachers leave the profession rapidly because they have predominantly a fixed mindset. When confronted with the inevitable difficulties of teaching for the first time they assume they were not as talented as they thought they were and so leave the job. She believes they should instead develop a growth mindset and not feel they have to be competent immediately. With grit and determination they can develop their skills and be successful, implying a link between mindset and resilience.

Dweck (2014b) refers to Gero (2013) for empirical data to support these claims. Gero (2013) studied 312 teachers from 92 schools in Los Angeles, who completed a survey. He began by investigating whether teachers saw teaching ability as a natural, fixed ability or whether they believed it could be improved over time. He assessed teacher mindset by using an adaptation of Dweck's (1999) scale and later examined how teachers' mindset related to their values and practices. He found that teachers who adopted a growth mindset valued learning over reputation and so were willing to take risks. They did not believe that a lesson that went exactly to plan defined them as a good teacher. They engaged in more professional development, observed other teachers to learn new teaching techniques and asked for feedback about their teaching from trusted colleagues and were then willing to address their weaknesses. They seemed to be able to bounce back from problems implying they had greater resilience. A teacher with a fixed mindset might find discussing problems as dangerous.

There is considerable value in using mindset in this research. It has been widely used with students but not with teachers and this imbalance needs redressing. The literature suggests links with resilience and well-being but this needs investigating empirically. If engendering the growth mindset in teachers improves resilience, well-being and retention, then interventions can be developed and used in schools.

2.2.5. Job crafting

Like mindset, Job crafting is less researched in positive psychology than hope, optimism and self-efficacy. It is a term used by Wrzesniewski and Dutton (2001) which refers to “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (p.179). Here, physical task boundaries refers to the type of activities the worker engages in and cognitive changes refers to how the worker perceives the job. Relational boundaries refers to who the employee decides to work with. In other words individuals proactively shape their lives rather than passively reacting to forces in the workplace. This is a useful concept because it extends the concept of self-efficacy, the individual *believes* they can improve their situation themselves. In particular job crafting improves the meaning the work gives – how worthwhile it feels. If the employee can craft their job then they have some control over how meaningful it will be to them (Wrzesniewski et al., 2001), and this could lead to increased well-being. Job crafting contrasts with the traditional ‘top down’ way psychologists, such Hackman and Oldham, (1976, as cited in Robertson & Smith, 1985, p.56) have developed models of job design in which the design is administered to the worker by the designer.

In support of job crafting, Wrzesniewski et al. (2001) describe a study of hospital cleaners in which 28 members of a hospital cleaning staff took part in personal interviews about the nature of their work. They fell into two groups. One group saw their work simply as an unskilled job and just stuck to their job description whereas the other group enjoyed the tasks they had to do and so upskilled them. They saw their occupation as critical to the healing of patients and so would voluntarily retime their tasks to be maximally efficient with the whole ward. They interacted with medical staff, visitors and patients to raise morale and to become more aware of how to further help on the ward. By connecting with patients and medical staff they saw themselves as healers rather than cleaners and so created a more

positive image for themselves. Here, the job crafting was not just about changing tasks but changing the sense of who they were in the workplace. This might link to well-being and retention, the more meaningful the work the greater the well-being.

Wrzesniewski, McCauly, Rozin and Schwartz (1997), using a concept from Bellah, Madsen, Sullivan, Swidler and Tipton (1985), suggest that employees craft their jobs to fit into one of three broad categories or 'Work orientations', job, career and calling. The job involves working for money, career for status and calling for the intrinsic value of the work itself. In the case of Work orientation-calling the work is carried out because it is intrinsically fulfilling to the worker, is perceived as socially useful and the worker feels drawn to it (Wrzesniewski et al., 1997; Rosso, Dekas & Wrzesniewski, 2010).

To test her proposition she took a sample of 196 employees covering a wide range of white collar occupations from clerical to professional. Using the University of Pennsylvania Work-Life Questionnaire (Wrzesniewski et al., 1997) she found most participants assigned themselves to one of the three dimensions, job, career or calling. Those who fell into the 'calling' category showed the highest work and life satisfaction and enjoyed better health indicating that calling was linked to well-being.

Ackers (2014), concentrated on the concept of career and 'getting on'. He studied how Royal Dockyard workers at Portsmouth Naval Base coped when their yard closed in 1984. Many commentators see workers suffering as they lose their jobs in industry and take on unfulfilling work in the service sector (such as Walkerdine & Jiminez, 2012; Nixon, 2009, both cited in Ackers, 2014, p.2). However, Ackers notes how the dockyard workers crafted their skills to gain new jobs in new areas of the economy. Their crafting involved not just staying in employment but actively seeking to 'get on' and gain higher status work than they had enjoyed previously.

Job crafting is also seen as valuable because it has been used to prevent burnout. Demerouti (2015) has found it can be used by employers to make work less stressful for their employees and so reduce the effects of burnout, and improve their well-being. Exhausted employees put less effort into their work and so workload increases leading to more stress. A better strategy would be for the worker to actively craft their job so that the workload can be completed in a less stressful way (Petrou, Demerouti & Schaufeli, 2015) and thus well-being improves.

However, not all jobs provide 'space' for crafting. For example, on most assembly lines work is directed. In some workplaces little trust is given to the worker to allow crafting (Clegg & Spencer, 2007). There may be other problems with job crafting. Halbesleden, Harvey and Bolino (2009), examining three diverse samples ($N=844$), found that as work engagement intensified work interference with the family increased. This may be because too much time is spent at work or because stress at work is transferred to the home; resources are limited and if used at work cannot be used at home. George (2011) suggests that crafting can appear like self-interest, job crafters may concentrate on interesting tasks and leave the more tedious, but necessary work, to others. Halbesleden (2011) notes that job crafting could be used by an employee to avoid a supervisor who needs to monitor them or avoid a co-worker who might be seen as an encumbrance. Using your own initiative to craft a job can incur resistance from others who, because of organisational politics, do not want you to stand out (Parker & Griffin, 2011).

Despite these criticisms, Bakker, Albrecht and Leiter (2011) suggest that these can be reduced if an organisation has 'core values', whereby the job crafter realises their obligations to others and so sees the need to avoid self-interest. Provided these core values are maintained job crafting is valuable.

Job crafting lends itself to this study because it is an example of bottom-up processing, a trait-like, self-directed action, not controlled by managers in the wider environment. However, as with the other self-belief variables, it is malleable and can be altered through interventions. By altering tasks, relationships and perceptions the worker can re-craft work in which they may be losing interest and so help with well-being and retention.

Bullough and Hall Kenyon (2012) and Rawat and Nadavulakere, (2010) note there are very few empirical studies specifically on teacher calling although it has been written about for years. For example, Mattingley (1975, as cited in Bullough & Hall Kenyon, 2012, p.128) state that teachers often claim to have a sense of calling in that they feel drawn to the profession. Serow (1994) compared teachers who were called with those who were not and notes the following:

... those who view teaching as their calling in life display significantly greater enthusiasm and commitment to the idea of a teaching career, are more mindful of its potential impact on other people, are less concerned about the sacrifices that such a career might entail, and are more willing to accept the extra duties that often accompany the teacher's role (p.70).

The work is fulfilling, socially useful and they feel drawn to it such that they are willing to make sacrifices for it suggesting a level of resilience.

Dinham and Scott (2000), in a large study based across New Zealand, Australia and England, found the most popular reason for entering teaching was “always having wanted to teach” (p.284) – a Calling. This was sustained by pupil and teacher achievement whilst other factors such as societal, employee and government detracted from the calling. Richardson and Watt (2006), in a study also carried out in Australia, to find the characteristics of why (and who) chooses teaching examined 1,563 participants enrolled on teacher education programmes at three Australian Universities. They found, through surveys, that the highest

rated reasons for choosing teaching were perceived teaching ability (self-efficacy), the intrinsic value of teaching and the desire to contribute to society with young people. In other words, they had a calling.

Child care is the type of occupation in which a sense of calling can be assumed to exist and so Rawat and Nadavulakere (2015) collected survey data from childcare teachers from 68 centres in two states in the USA. 206 teachers were used and 130 assistants caring for 3-4 year old students. Calling was measured on the questionnaire developed by Wrzesniewski et al. (1997). Commitment was then measured on a four item scale adapted from Bryk and Scheider (2002, as cited in Rawat et al., 2015, p.508). Calling and commitment were found to be positively correlated and calling was also positively correlated to 'contested performance', the willingness to engage in extra-curricular activities.

Importantly for teachers, they found that jobs in education, especially those involving young children, were less stressful and exhausting if the teachers had the commitment derived from having a calling, suggesting that calling is linked to well-being. Regarding retention, they found individuals with a high organisational commitment had a desire to stay in the organisation (Bateman & Strasser, 1984; Mowday et al., 1979; Meyer et al., as cited in Rawat et al., 2015, pp 499-512). Yee's (1990) study (as cited in Bullough & Hall-Kenyon, 2011, p.129) of teaching in three types of schools in the USA: inner city, suburban and working class suggests those teachers who were called to teach could be retained if they could stay in the classroom and be with their students. However, having a calling does not automatically lead to retention because if the teachers were given what they considered inappropriate work, tasks that kept them away from the students, such as administration, then they would leave. Similar findings were made by Bullough and Pinnegar (2009).

In conclusion, examining job crafting in this study will make an addition to the small number of studies on the outcome of calling in the workplace, especially in teaching. It will

examine the relationship with Resilience, Well-being and teacher Retention with the aim of discovering empirically whether job crafting can predict these three outcomes in English schools.

2.2.6. The distinctions between the self-belief variables

Some of the self-belief variables share some features with each other as shown in table 2.1. For example, as stated previously, optimism and hope share some characteristics but are conceptually different (Bailey, Eng, Frisch & Snyder, 2007).

Table 2.1.

Distinctiveness of self-theories (based on Peterson & Byron, 2008).

Theoretical component	Self-theory				
	Hope	Self-efficacy	Optimism	Mindset	Job crafting
Goal orientated	x				
Agency component	x	x	x		x
Pathways component	x				x
Trait-like	x	x	x	x	x
State-like	x	x	x	x	x

As described earlier, hope is goal orientated, has an agency component, a pathways component and can be considered trait-like and state-like. Self-efficacy is similar to the agency pathway of hope, both consider whether success is possible. However, self-efficacy

differs from hope because tasks do not have to be goal-orientated and do not include pathways. As stated above, optimism differs from hope in that it does not have to be goal-orientated or have a pathways component. Optimism shares theoretical components with self-efficacy but they clearly have different definitions to each other (Peterson & Byron, 2007).

Studies have supported the discriminant validity of hope compared to self-efficacy and optimism. Magaletta and Oliver (1999) asked 204 students to complete the Hope Scale (Snyder et al. 1991), the Self-efficacy Scale (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982) and the Life Orientation Test (Scheier & Carver, 1985) as well as the General Well-being Questionnaire (Wheeler, 1980 as cited in Wheeler, 1991). Results support the existence of hope, self-efficacy and optimism as related but individual constructs. Luthans, Avolio, Avey and Norman (2007) found similar findings, suggesting that the self-belief variables are likely to be correlated with one another but that these correlations would not be high enough (which would suggest multicollinearity) to imply they are measuring the same construct.

Mindset is not goal orientated and does not have a pathways or agency component. Job crafting may not be goal orientated, an individual responding to a calling may not have the goal focus that one responding to a career orientation would have.

2.3. The dependent variables

2.3.1. Resilience

Resilience can be categorised as a process, an outcome, an individual trait or a developmental process (Zautra, Hall & Murray, 2010). Zautra et al. (2010) consider it “as an outcome of successful adaptation to adversity” (p. 4). It comprises of recovery and bouncing back from a

challenge and also the ability to “endure and succeed in adversity” (Snyder et al., 2011, p.441). This is a useful definition because it emphasises strengths and so lends itself to the study of positive psychology rather than just concentrating on pathology (Doney, 2013).

Rutter’s (1985) seminal work emphasised the positive outcomes that can derive from adversity. He studied young people from inner-city London and the Isle of Wight (a rural area in southern England) and found that 25% of the children were successful later in life despite their difficult start. This variability was due to genetic and environmental factors.

Further resiliency research has identified the assets needed for individuals to survive adversity and these have been identified in the field of positive psychology and include those mentioned above. These are state-like and so capable of development (Richardson, 2002). With a rapidly changing environment in many workplaces and the stresses that accompany it resilience is an important topic to study within the positive psychology movement (Luthans, Youssef et al, 2007; Gu & Day, 2007). Linley and Joseph (2004, as cited in Doney, 2013, p.646) state:

... advocates of a positive approach to psychology have touted the resilience framework for its potential to inform efforts to foster positive developmental outcomes among disadvantaged children, families and communities.

Van Breda (2001, as cited in Doney, 2013, p.646) states:

Resilience theory speaks to the strengths that people in any systems demonstrate that enable them to rise above adversity.

Resilience can be considered as a psychological construct that links to Fredrickson’s ‘broaden and build’ theory of positive emotion (Fredrickson, 2001). Fredrickson states that positive emotions such as joy cause us to broaden the range of people we interact with and then we

learn from them and so build our resources and these resources can then help us to be resilient in distressing times.

Gu and Li (2013) extend this definition of resilience further. They say it is more than just ‘bouncing back’ from random setbacks (This could be called ‘basic’ resilience). Rather, every day produces setbacks and so psychologists need to consider the idea of “‘everyday resilience’” (Day & Gu, 2013, as cited in Gu & Li, 2013, p.300). Over the course of the career span further tensions will inevitably occur. These may be the result, for example, of promotion into more demanding jobs or from being ‘passed over’. Tensions between the demands of work and personal life may occur after family responsibilities are taken on. Tricario, Jacobs and Yendol-Hoppey (2015) suggest the need for another layer of resilience in certain jobs. They use the terms ‘staying power’ (similar to everyday resilience) and ‘impact power’. The latter (in the case of education) refers to actually being successful at helping students learn:

Survival and success are two different things. Survival means that you are pleasing the system and abiding by the many expectations that are important to the administration and bureaucracy of the system. Succeeding is the important part, but it is very difficult. [In the case of education] succeeding is about the kids’ learning. (Yendol-Hoppey et al., 2009, as cited in Tricario, Jacobs & Yendol-Hoppey, 2015, p.239).

As stated, a resilient individual does not necessarily return to an equilibrium point but can go beyond it. Specifically, three factors from positive psychology have been identified as contributing to the development of resiliency: assets, risk factors and values (Luthans, Youssef et al., 2007). Assets include a positive outlook on life, emotional stability, sense of humour and these can contribute to higher resiliency. In particular, relationship-based assets make an important contribution to resiliency as do effective parenting, care-giving adults and taking up community based activities in the community (Masten, 2001). Risk factors can

include alcohol and drug abuse, stress and burnout (Luthans, Youssef et al., 2007). However, risk factors do not lead automatically to reduced resilience, they can provide opportunities for growth beyond the normal state (Luthans, Youssef et al., 2007). Empirical support for this 'post traumatic growth' is widespread. Tedeschi and Calhoun (2004) refer to many: college students experiencing negative events (Park, Cohen & Murch, 1996); rheumatoid arthritis (Tennen, Affleck, Urrows, Higgins & Mendola, 1992); cancer (Collins, Taylor & Skokan, 1990) and the list goes on. A value system helps individuals to rise above difficult present events. For example, Avolio and Luthans (2006, as cited in Luthans, Youssef et al. 2007, p.119) found that resilient leaders can envision a better future self and bring this back to the present when they may be experiencing failure.

In the workplace a positive relationship has been found between resiliency and performance. For example, Luthans, Avolio, Walumbwe and Li (2005) examined a sample of 422 Chinese employees from two private and one state-owned factories and found resiliency was positively and significantly related to supervisory rated performance. However, the impact of resilience on employee performance has been ignored generally compared to studies of self-esteem and emotional stability (Luthans et al., 2005). The modern workplace is increasingly competitive and so resiliency is a concept worth studying especially regarding retention. There is evidence to suggest that increasing resilience will increase retention in the workplace (see Tait, 2008, discussed below). It would thus seem that resiliency is worth studying in its own right but also because it could be an aid to retention.

However, problems can arise when organizations try to develop resilience in their employees. For example, some leaders can be too paternalistic and try to shield their staff from stressful events. This can lead to burnout in the leader and not give staff the chance to develop resilience (Luthans, Youssef et al., 2007). There are other criticisms of the concept of resilience. Evan and Reid (2013) argue that promoting resilience encourages governments to

pursue a neo-liberal agenda in which governments, instead of creating a stable environment in which individuals can then attempt to fashion society for the better, provide an unstable environment against which the individual is constantly having to adapt. Resilience training simply teaches the person how to keep adapting.

Another problem is that it may be difficult to generalise research findings across cultures. (Reich, Zautra & Hall, 2010). In addition, 'Resilience' is difficult to define; the breadth of the concept gives ambiguity to its meaning and this can lead to inconsistent research and some researchers (see Kaplan, 1999 and Tarter & Vanyukov, 1999, both cited in Burt & Paysnick, 2012, pp.493-505) have even suggested abandoning the term altogether. This would be a huge mistake because much evidence suggests that developing resilience in teachers is beneficial to them and their schools. This evidence will now be examined.

Gu and Day's (2007) research on teacher resilience is particularly relevant because it is based in schools in the UK. They assert that resilience is important in teaching for three reasons: Firstly, teachers need to show resilience if they are to be good role models. Secondly, teaching continues to be a stressful and demanding occupation and thirdly, to be able to bounce back means the teacher must have a strong sense of vocation, or calling, otherwise another type of employment will be sought. This is relevant to this research as calling, and its effect on resilience, is examined as an implicit self-belief factor.

It is also important to examine resilience in this study because there is evidence that increasing levels of resilience will increase teacher retention. For example, Tait (2008) has examined resilience and teacher retention in new teachers. Her study used qualitative data from a sample of 25 new teachers. It showed that resilient teachers demonstrated the following characteristics: they took advantage of opportunities to develop self-efficacy (another self-belief factor studied here) usually by observing successful teachers. They used appropriate problem solving strategies such as approaching senior teachers for help when

needed. They had the ability to rebound from challenges and then set goals for the future. They also took care of themselves by taking positive steps to deal with stress and maintain an optimistic but realistic attitude (Optimism is another self-belief characteristic considered here).

Novice teachers who did not show these 'resilient' characteristics expressed strong dissatisfaction with a desire to quit the profession, showing a relationship between resilience and retention. Bobek (2002) has also linked teacher resiliency to retention. She suggests five factors needed to develop resiliency and so increase retention. New teachers need to develop productive relationships with established teachers, school administrators and parents using open and honest communication. They should be well qualified in the subjects they teach so they are academically prepared. If they are to commit to teaching in the long run they need a properly defined promotion ladder with support to achieve their goals. They should then be recognised for the success so as to gain a feeling of accomplishment. A good sense of humour is also vital to develop resiliency as this increases rapport and generates a pleasant atmosphere (Bobek, 2002). Thus resilience needs researching in its own right but also because it could be an aid to retention. As Howard and Johnson (2004) say (and which links with the positive psychology thesis):

The difference that a resilience perspective brings is that rather than focusing on deficit (ie. what is going wrong) in any given at risk population, research here focuses on what is going right (p.402).

Improving resiliency could thus lead to a significant improvement in retention.

In a similar vein, Howard et al. (2004) investigated resilient teachers' strategies for coping with stress in disadvantaged schools in Australia. They found resilient teachers had a strong sense of efficacy, competence, and a sense of achievement. These provided resilience

in the form of protective factors which could then aid retention. They also found situational factors helped develop resilience including strong whole school behaviour management strategies, supportive leadership teams, high levels of peer support, celebration of staff achievements and an emphasis on proper resourcing and lesson preparation.

These situational factors point more to context than individual traits but some teachers cope with poor situational factors and others do not and so individual traits, such as self-efficacy mentioned above need to be developed especially for more vulnerable teachers. This links back to Gu and Day's (2007) findings that there are basically different types of resilience, socially constructed and psychologically constructed and in teaching attention needs to be paid to both.

One socially constructed form of resilience is referred to as 'relational resilience' (Gu, 2014). Drawing on data from 300 teachers at different phases of career in 100 primary and secondary schools in England over a three year period he notes the importance of relationships in developing resilience. He believes that at a time when teachers are subject to top-down control from government via school management teams, what is really needed is quality relationships. He states, (and emphasises using italics), we should,

... place relationships back to the heart of teachers' worlds and through this connect their learning and effectiveness with their capacity to sustain their commitment to students' achievement (p.520).

Le Cornu (2013) notes this is particularly important for novice teachers.

Gu (2014) thus sees that building resilience is not an individual exercise for a few "heroic" (p.522) teachers, with the right situational changes all teachers can benefit. However, even with the right context some teachers will need further interventions at the

individual, psychological, level. Therefore knowing factors that build resilience is vital, especially for new teachers.

Pretsch, Flunger and Schmitt (2012) found that with teachers (but not non-teachers) resilience encompasses a positive resource that creates well-being even under difficult circumstances, including the high emotional demands in teaching. They state that these demands include student misbehaviour, the fact they have little control over their timetable - they have to teach at set times even if they would rather rearrange their schedule and because they have no control over their students' personal circumstances, yet are accountable for their success or failure. It is thus imperative that they have enough resilience to buffer these strong stressors. Thus, there is a link between resilience and well-being that warrants further research.

Pretsch et al. (2012) surveyed 356 employed people made up of 120 teachers and 183 non-teachers measuring resilience, neuroticism, general health, job satisfaction and education. Exhaustion and physical illness increased with teachers who had served in excess of five years but this was not the case for non-teachers. Neuroticism showed a significant correlation with exhaustion, physical illness and general health in both groups and resilience was correlated with exhaustion and general health in both groups. The greater the resilience the less exhaustion and poor general health suggesting a link between resilience and well-being. In non-teachers resilience simply acted to reduce the negative effects of neuroticism but in teachers resilience acted to increase well-being as measured by general health and job satisfaction.

The reason for this difference between teachers and non-teachers was because resilience buffers the effects of the unique occupational challenges in teaching mentioned above, so the teacher needs 'extra' resilience. To do this the teacher calls upon personal resources such as positive emotions (Frederickson, 2001). The assumption in this research is

that the teacher can call upon the personal resources of hope and optimism and the other implicit self-theories to build resilience, allowing the teacher to sustain themselves (and even generate well-being) and be less likely to quit. The same protective effect cannot be accomplished by simply the absence of neuroticism so perhaps the teachers who do not quit the profession are the ones who have this ‘extra’ resilience. Indeed, Pretsch et al. (2012) say we “could include approaches to foster personal resources via personality development” (p. 334) and these could include the implicit self-concepts examined in this research.

Sunley and Locke (2012) suggest resilience is also directly linked to the values a teacher holds but they lament the fact that teachers have little time to develop values in a market-led education system (see also Ball, 2008b). Values would seem to be strongly connected to calling, in other words to express values the teacher needs to find work fulfilling, be socially useful and have a natural affinity with the work. If values are blocked from expressing themselves then calling is blocked and this could lead to quitting the profession.

In conclusion, resilience is important to examine because resilient teachers will work more productively and be less likely to quit. Although resilience is dependent on situational factors (suggesting the need to examine some demographic factors too) it is also dependent on individual psychological factors and these might include the implicit self-belief factors included here. It is therefore necessary to study the implicit factors to see if they affect resilience, especially if resilience predicts well-being.

The development of Positive Psychology in the last ten years has drawn attention to the study of well-being in general and the workplace in particular. This core concept will now be examined.

2.3.2. Well-being

Argyle (2009) states that happiness is the same as 'Subjective Well-Being' (SWB), in other words the subjective view of well-being rather than objective measures such as income or health. Bullough, (2011) usefully extends the definition of happiness by drawing on a concept of Nettles, 2005, as cited in Bullough, 2011, pp.21-23) by dividing it up into three levels. Level 1 is hedonistic happiness and is about feeling good, say through the use of alcohol or recreational drugs. Level 2 refers to the overall feeling of well-being. This reflects the cost-benefit analysis the individual carries out when asked how 'life's treating them'. Level 3 corresponds to Aristotle's concept of the good life, or Eudaimonia. This is not an emotional state but refers to flourishing. In other words, the individual can fully develop all areas of their life. People in this state often experience 'flow' (Csikszentmihalyi, 2002), a state in which a person is fully absorbed in what they are doing and in which time seems to fly by.

Seligman and Royzman (2002, as cited in Sirgy & Wu, 2009, p.184) also say there are three types of happiness: the Pleasant Life based on hedonism (which corresponds to Nettles' level 1), the Engaged Life based on finding activities that give flow (which corresponds to level 3) and the Meaningful Life. The latter refers to serving a cause that is bigger and more worthwhile than the individual. This could include contributing to service organisations, friendships and education for the sake of learning. The Pleasant, Engaged and Meaningful lives combine together to form what Seligman (2002) calls 'Authentic Happiness'.

The main criticism of Authentic Happiness comes, perhaps surprisingly, from Seligman himself (see Seligman, 2011). He no longer believes Authentic Happiness is a useful construct and instead states that we should concentrate on the concept of flourishing. The role of positive psychology is to increase flourishing. He states that there are three problems with the concept of authentic happiness. Firstly, engagement and meaning do not

refer to how we feel and happiness is all about how we experience feeling. Secondly, how happy an individual feels depends on when they are asked the question: if they are feeling positive at the time of asking then they will record a higher rating than if they are feeling negative. In other words, authentic happiness is only a measure of mood at the time of questioning. Just because a person lacks cheerfulness does not necessarily mean they cannot be engaged and have meaning in their lives. The third problem, according to Seligman, is that other elements apart from positive emotion, engagement and meaning can bring people happiness and so more elements need to be taken into consideration when considering well-being.

Seligman adds another problem, happiness on its own is difficult to measure because it is subjective, yet under the authentic happiness concept it is assumed that it can be. Well-being cannot be operationalised either but the elements within it can be more easily. Seligman (2011) suggests there are five such elements: positive emotion; engagement; positive relationships; meaning and accomplishment, (PERMA).

Positive emotion is the same as the Pleasant Life but it is no longer a type of happiness, rather it is just one of the elements of well-being. Positive emotions are good feelings such as joy (Seligman, 2011). Research suggests that positive emotions indicate well-being (Coffey et al., 2014; Cohn & Fredrickson, 2009; Lyubomirsky et al., 2005, all cited in Coffey, Wray-Lake, Mashek and Branand, 2016, pp.187-211). Engagement refers to the act of being absorbed and focused in an activity. This can lead to flow, being absorbed in a challenging and skilled activity such that time seems to rush by (Csikszentmihalyi, 1988, 1990, 2008 as cited in Coffey et al., *ibid*). Engagement is positively linked to well-being (Han, 1988, Zefevre, 1988 as cited in Coffey, *ibid*, p.187). Having satisfying relationships leads to well-being (Seligman, 2011) and some psychologists would even argue they are a fundamental human need (Peterson, 2006 as cited in Coffey *ibid*).

Meaning, refers to being part of something that is larger than the individual, such as contributing to a project that cannot be achieved by an individual. Meaning gives a sense of fulfilment and so leads to well-being (Seligman, 2009 as cited in Coffey *ibid*). The fifth indicator of well-being is achievement. Seligman (2011) describes it as the drive to accomplish something. It refers to a persevering attitude rather than the actual accomplishment ('the journey is better than the arrival'). Seligman (2011) is keen to point out that drugs and therapy at best only remove disabling conditions (and then only temporarily) and then the patient is left "empty" (p.54). The role of positive psychology is to 'fill the patient up' with the PERMA elements described above.

The validity of the five indicators are independently and empirically supported predictors of PERMA Well-being. For example, Butler and Kern (2016) in a study involving 39,154 participants, created a measure that captured the five PERMA domains, showed acceptable reliability and evidence for convergent and divergent validity. There is also empirical support for the combined effort of the five indicators suggesting the combined effort is greater than the sum of the individual factors.

Coffey, Wray-Lake, Mashek and Branand (2016) carried out two studies to validate this combined effort. In the first study 149 college students completed measures of four of the five PERMA indicators: Positive emotion, engagement, relationships and accomplishment; data for meaning was unavailable. They then measured physical health and college success at the end of the second and third years of the course as indicators of flourishing and the PER(M)A scores were used to predict the accuracy of the flourishing at the end of each year. The PERMA scores were also validated by predicting other indicators of Well-being such as vitality, psychological distress, satisfaction with life and satisfaction with college at the end of the second and third years. Second year PERMA associated with second and third year vitality and with other outcomes showing construct validity both concurrently and

prospectively. Second year PERMA predicted concurrent and prospective health and college success and so this longitudinal examination supports the idea that four of the five constructs combine to form a single, multidimensional structure.

The limitations of Study One are the small sample size, the omission of ‘meaning’ and the fact that only engineering and mathematics students were used. Therefore, in Study Two 831 participants, more representative of the general population, were used and meaning was included as a PERMA construct. The PERMA indicators were positively correlated against ‘gold-standard’ measures such as the Meaning in Life Questionnaire (Steger, Frazier, Oishi & Kaler, 2006) and results supported construct validity for PERMA. Flourishing was measured using physical health symptoms and this validated the full PERMA model.

Further support for Seligman’s Well-being theory comes from Gander, Pryer and Ruch (2016a) who carried out the first study to examine positive psychology interventions based on the PERMA model to see if well-being was affected. In the study, 51 participants were assigned randomly to a control or intervention group. Each day, for a week, the intervention group wrote down any experiences from that day which were positive and made them feel ‘good’. At the end of the week they completed questionnaires which measured levels of positive relationships, accomplishment and life satisfaction. They found significant increases in positive affect and Subjective Well-being compared to the control group and this lasted for up to four weeks. All 5 components of the PERMA model were increased in the intervention group; only ‘R’ was increased in the control. However, this investigation did not reveal the relative contribution of ‘R’ and ‘A’ to Well-being and so Gander, Proyer and Ruch (2016b) carried out a further investigation:

This time 1624 adults, aged 18-78, were randomly assigned to seven conditions. Some participants were asked to write down three factors that related to either one of the five components of Seligman’s PERMA theory (Conditions 1-5). For example, if they were

writing about positive relationships they were asked to write down three things that were positive experiences with other people. Others were asked to write down three things about all the five and a control group wrote down early childhood memories. Happiness and depression were assessed before and after the intervention and one, three and sixth months afterwards. Participants reported higher scores in happiness after the intervention than in the control conditions.

This effect was observable immediately post-test and at three months. At one month, engagement and meaning scored significantly higher than in the control but not significant for pleasure and positive relationships. In two conditions, pleasure and accomplishments, positive effects were found after six months. All interventions led to a decrease in depressive symptoms across all the time periods compared to the control with the exception of accomplishment and this decrease in depression and an increase in happiness occurred across all time periods. The results also showed that each of the 5 components in PERMA each had a distinct effect on Well-being.

PERMA Well-being is a valid and reliable construct suited to measuring well-being from the positive psychology perspective, in other words not just the absence of negative affect but also the presence of positive affect. This enables the individual to build on their strengths and so allows them to flourish and achieve even more than they could previously. Next, studies examining well-being in teachers will be reviewed.

Because PERMA is a recently defined construct the amount of research about it in teachers is limited. Kern, Waters, Adler and White (2014) carried out the first study to apply the PERMA model to well-being in school staff. In this study, 153 staff members from a private Australian school of which 60% were teachers were surveyed. The researchers established that the five PERMA factors were present through confirmatory factor analysis and through tested cross-sectional associations with the five outcomes: health/vitality, somatic

symptoms, life satisfaction and organisational commitment. The well-being components were significantly related to the five PERMA domains. Positive emotion, meaning and accomplishment were most strongly related to health and life satisfaction, whereas engagement and relationships related most strongly to job satisfaction and organisational commitment. Staff scoring highly across the PERMA components were more satisfied with their jobs. Thus, the PERMA model can be used as a measure of well-being in schools and assist school managers to improve staff well-being. However, because of the small number of studies carried out more research in schools is needed. Perrachione, Rosser and Peterson (2008) found that increasing job satisfaction in elementary school teachers led to improved retention indicating a link between well-being and retention that needs exploring further.

Owen (2016), like other researchers, such as Ball (2008b), suggests well-being is reduced by marketization but she states that teachers can be invigorated and then flourish through 'Professional Learning Communities' (PLCs). A PLC is a group of teachers who collaborate to actively consider the problems of teaching and learning and are often connected to specific subjects. Teachers work collaboratively and in a trusting environment to help each other to improve student learning. Significantly, Owen (2016) believes that PLCs promote teacher well-being by activating the components of the PERMA model. Positive emotion was strongly generated through building a culture of shared leadership within the PLC; engagement through collaborative enquiry; relationships through the trust built up through collegiate relationships. Collegiality was also found to increase meaningfulness. Finally, a sense of accomplishment is gained through shared practical activities such as collaborative curriculum planning. As one PLC member said to Owen (2016):

You have to have that camaraderie. We tackle big picture issues and problems and smaller issues...share joys and concerns about particular students...A deep

relationship...professional and personal, it's collegial 100%. We protect each other...It's a supported network (Teacher interview 11) (Owen, 2016, p.411).

Thus, PLCs would be a useful avenue for future research for the development of PERMA Well-being in schools.

To conclude, well-being in schools should be researched because research involving positive psychology and the use of the PERMA scale in schools is limited. Unlike other well-being indicators PERMA relates to outcomes beyond negative effects such as anxiety, depression and stress. Positive psychology is centred on the idea that well-being is not simply the absence of stress, it is about creating an environment in which people can flourish. Evidence suggests that well-being may improve retention but this needs examining formally.

The self-belief variables of Hope, Optimism, Self-efficacy, Mindset and Job crafting may affect Resilience and Well-being in schoolteachers and also Retention. Before these are analysed other factors need to be considered which can impact the dependent variables. These will now be considered.

2.3.3. Career stages

Teachers' careers have often been thought to move through stages meaning that implicit self-belief variables, resilience and well-being may vary from one stage to another. Thus, it is necessary to consider how hope, optimism, self-efficacy, mindset and work orientation may vary from one stage to another and how these may affect changes in well-being, resilience and retention in teachers.

The idea that a career moves in stages arose from theorists such as Jung (as cited in Huberman, 1993, p.1) and Super (1957, as cited in Huberman, 1993, p.3). The latter

suggested four stages to a typical career: 'Exploration' involves experimenting with different roles; 'stabilisation' is where a limited number of roles are committed to and mastered; 'maintenance', whereby efforts are made to keep skills and knowledge up to date and finally 'decline' where motivation to keep up to date with changes diminishes.

Huberman (1993) extended the career stage theory to teachers, proposing that two main stages were experienced by most teachers, exploration and stabilisation. Exploration is about trying out different roles within teaching and then selecting one and moving on to the stabilisation phase where the teacher sets about mastering the job and taking on more responsibilities. Huberman suggests three subsidiary phases exist, although these will not apply to all teachers. 'Diversion and activism' means the teacher is willing to experiment with new methods of instruction in the classroom and will confront problems within the system to initiate change although this may then give way to reassessment, possibly leading to self-doubt. Then the teacher moves to a stage of 'serenity', a state of mind where they feel at ease in the classroom and less vulnerable to the wishes of the principal or co-workers. However, this does not stop some of them complaining about change as they may wish to conserve what they have and not risk innovation. Finally, the teacher enters the phase of disengagement where professional commitments are reduced and more time taken for themselves. Serenity can continue or bitterness intervene.

Huberman (1993) maintains that not all teachers will pass through these three stages in the same way. There will be situations where the process is linear, there will be regression and discontinuities, but the stages will exist for many teachers. More recent models of stage theory include Day and Gu (2010) who update Huberman's work and apply it to the UK and so it is relevant to this study.

Day and Gu (2010) prefer not to use the word 'career', for two reasons. Firstly, they consider that 'career' does not account for vocation, the concept of being 'called' to teach,

for which there is no need for a ladder of progression because the work is fulfilling in itself. Secondly, teachers' lives do not always show a linear progression (as noted by Huberman, 1993), they can vary according to government initiatives and unexpected events in the teacher's personal life and so professional development does not proceed at an even pace. Instead Day and Gu (2010) use the idea of 'professional life phase', which refers to the number of years a teacher has been in the profession rather than their age or their responsibilities.

Gu and Day's original (2007) study was based on a four year, large scale, mixed methods project entitled 'VITAE' (Variations in Teachers' Work, Lives and Effectiveness). It involved 300 teachers in 100 primary and secondary schools in seven LEAs. The research suggests that a teacher's work typically spans six professional life phases: 0-3, 4-7, 8-15, 16-23, 24-30 and 31+ years of teaching. Each phase corresponds to different features as summarised by Day and Gu (2010):

Table 2.2.

Day and Gu's (2010) Professional life stages

0-3 years	Developing or reducing a sense of efficacy
4-7 years	Sustaining or reducing a strong sense of identity and efficacy in the classroom
8-15 years	Sustaining or not sustaining engagement as roles and identity change
16-23 years	Work-life balance is successfully managed, or not
24-30 years	Challenges to sustaining motivation
31+	Maintaining commitment or feeling tired and trapped

Some of the words used by Day and Gu (2010) such as 'efficacy', 'commitment' and 'engagement' resonate with the self-belief variables such as Self-efficacy and Resilience.

The first two phases constitute ‘beginning’ teacher and the third and fourth ‘middle years’ and the last two the ‘veteran’ phase. The divisions of the six phases was based on empirical data collected over three years. Again, movement through the stages may not be linear, what determines the direction within and between each phase depends on “‘critical incidents’”, turning points which affect the commitment and effectiveness of the teacher (Day and Gu, 2010, p.49). Critical incidents can be ‘personal’, in other words related to events outside of school such as personal relationships and health related issues; ‘pupil’, to do with pupil behaviour and teacher-pupil relationships; ‘practice settings’, factors associated with support from managers and development opportunities and ‘policy’ which is concerned with government initiatives and changes. This is important for retention because as Day and Gu (2010) say:

The clear and unequivocal message for heads - and all those concerned with raising and maintaining standards of teaching and learning *and with issues of well-being and quality retention of staff* [italics mine] in that responsive, differentiated in-school support is needed for teachers in different life phases (p.55).

In this research, the implicit self-beliefs may be found to vary across life phases and so it is useful to look at the stages to find out if the implicit self-beliefs, resilience and well-being change as well and whether this has any implications for when teachers leave. The beginning, middle and veteran phases will now be examined.

2.3.3.1 Beginning teachers

A large drop out of teachers occurs in the first few years of teaching, approximately 33%, (Worth et al., 2018) and so it is necessary to examine beginning teachers. Day and Gu (2010) say the initial challenge to new teachers comes mainly from two factors. One, is problems

encountered in developing a sense of professional self-identity in the teacher's interactions with students, staff and parents and the other is to develop a sense of belonging within the profession. These challenges have been referred to as "transition shock" (p.65) and how the new teacher succeeds with these can influence whether they stay or leave.

Flores and Day (2006) also emphasise the importance of identity in this initial phase, because it contributes to a sense of well-being. In their study, 14 beginners (9 female and 5 male) were recruited from elementary and secondary schools. Data was collected through semi-structured interviews with the new teachers at the end of the first two years of service. A questionnaire was given to all staff in each school to attain details of school culture and each pupil was asked to write an essay on how each teacher had changed over the two year period. The teacher's annual report was also examined. The interviews were analysed using thematic analysis and grounded theory and the findings examined from three perspectives: prior influences (the teacher's experiences as a pupil), initial teacher training and work practice, and the socialisation of the teacher over the two year period (how well they had integrated into their new jobs).

It was found that prior influences had a strong effect, with former teachers who provided positive or negative role models having considerable influence. Initial teacher training seemed to *not* be valued by most of the new teachers because their seemed to be too much of a gap between theory and practice. As one said:

I believe that at the university (I am now thinking as a teacher), I didn't get the best preparation.....because they didn't prepare us well enough to teach (p.224).

And,

What I was taught at the university was Utopia ... at that time we weren't aware of what a real school was like at all (p.224).

Many of these teachers had not picked teaching as a first choice of work. The minority who had selected teaching as their first option valued their training at university as well as their teaching practice. When examining the socialisation that occurred at school there seemed to be a mismatch between the teacher's initial beliefs and the roles they were then expected to perform. Their teaching style became stricter and they became more confident in being able to control their groups but they felt unsupported by their colleagues. One said, "It has been a very tough year, there were loads of new tasks to do and new roles to perform for which I wasn't well prepared. It has been a very tiring year" (p.226). Another said, "I have learned that students are not exactly what you think they are" (p.227). Generally, there was a move from a student-centred to a more teacher centred approach in order to keep students compliant in the classroom. However, the new teachers also had to comply to the hierarchy of the school, "In terms of your working model the best for you to do is 'do what other people do' " (p.229). This compliance meant that the initial enthusiasm for teaching became replaced by a more conservative attitude.

Importantly, for this research, Flores and Day (2006) noted that the minority of teachers with a definite calling for teaching maintained their initial optimism and enthusiasm despite having to adapt, "there is a positive perspective in teaching despite the huge amount of things which work against you" (p.229). A sense of calling, then, is important at this early stage of career.

2.3.3.2 The middle years

Hargreaves (2005), investigating 50 elementary and secondary teachers across 15 schools in Ontario, Canada, found that in this period teachers still have some of the enthusiasm of their beginning years and are not resistant to change. Their competence had improved and they had

a healthy scepticism to the changes they coped with. “They are open but not innocent, critical but not curmudgeonly, relaxed but not withdrawn” (p.981). On the other hand, researchers such as Huberman (1993) say the mid-years of teaching can be more traumatic. In his exhaustive study of secondary schoolteachers in Switzerland he used a sample of 160 secondary schoolteachers based at three sites, with between 5 and 39 years of teaching experience. Each was extensively interviewed in a format similar to a cognitive interview for between 3 and 9 hours, often in two separate sessions. He found that of mid-career teachers (7-15 years of experience) 28% had thought of leaving.

Huberman (1993) found that leaving for something else may not be due to unhappiness. They may have entered teaching without having given up on other careers, they may have a partner who can support them; they may want a change because everything seems to have become too easy and they need a fresh challenge or they are given the opportunity of a more attractive offer. These teachers would seem to be without a calling to sustain their efforts. Others may be committed but hit a crisis or critical incident. This could be institutional, perhaps they have to teach something they do not like or they may dislike certain reforms or it could be personal, such as mental health problems. Some can no longer adapt to students.

Significantly, for this research, a final group headed off a crisis by adjusting their working conditions. For example, working part time but not leaving teaching, implying an element of job crafting. Teachers seem to respond to this phase differently, adopting different strategies, suggesting that individual self-belief variables may be interacting with other demographic variables. Some are unable to adapt and leave, others craft the job in order to sustain themselves and maintain a level of hope and optimism. This concept of job crafting has not been empirically tested before in this professional life phase.

Gu and Day (2007) found two distinct phases in the middle of a teacher's career. Like Huberman (1993), the years 8-15 were a period of reflection in which some teachers felt motivated and engaged and so were able to sustain their teaching career but others felt decreasing self-efficacy and even switched careers. The key factors increasing resilience and motivation were staff collegiality, good personal and professional support and continuing professional development. In the second phase of the middle years (16-23 years), Day and Gu (2010) say three sub-groups emerge: teachers with growing motivation and commitment sometimes linked to getting promotion; those maintaining motivation and a sense of efficacy and the 'tired' group who had declining motivation and commitment. They say,

... for it is this phase in their professional and personal lives, more than any other, which is likely to influence their commitment and their capacities to teach to their best in the next 10-20 years of their work in schools (Day & Gu, 2010, p. 101).

Gu and Day (2010) use terms that resonate with positive psychology such as 'Resilience' and 'Self-efficacy'. However, they do not specifically mention others such as Mindset and Job crafting and all of their research was based on qualitative data. They have researched well-being and resilience but have considered retention less. The research in this thesis therefore fills a gap because quantitative data will be gathered on all the variables mentioned to examine predictive relationships.

2.3.3.3 The veteran phase

Those that arrive at the veteran phase (24-31+ years) are sustained by the quality of the relationships with colleagues and the resulting positive emotions which can be 'banked' to aid resilience when needed (Fredrickson, 2001). Despite their experience, this group will still need the help of colleagues, especially the headteacher, to manage the critical incidents

mentioned previously. (Day & Gu, 2010). As 40% of teachers in England are between 45-55 years old it is important to give this group the support they need (Day & Gu, 2010). In return,

... it is this group that should be providing a model for their less experienced colleagues. Rather than fighting off difficult challenges, they should and could be beacons of hope and optimism for all (p.124).

The authors are already using terms like 'Hope' which is an acknowledgement that such concepts are important. However, they are not specifically using them within the discipline of positive psychology, they are not including Mindset and Job crafting, and studies such as Day and Gu (2010) are qualitative only.

McIntyre (2010) has examined retention in long serving, or veteran, teachers and additionally she has examined long serving teachers who have taught in tough inner-city schools. These teachers have not moved from school to school but "sat still" (p.598) rejecting the typical career progression that comes with mobility. She conducted a qualitative study using in-depth interviews with twenty long serving (in excess of 20 years' service) teachers to try to find out the ideas and values that enable them to keep going. Her findings show that these veterans seemed to have a strong relationship with the school itself, because the culture of that school gave them a sense of belonging. They spent many hours in their establishments and there were strong social relationships between the staff, so the staffroom had importance. They valued time spent in the classroom the most, not just because they liked being with their students but also because they felt territorial about the space itself. One teacher said:

I'm not a very ambitious person, but I'm ambitious in my classroom and that's where it counts (p.606).

He is not ambitious in the traditional sense of gaining promotion but is ambitious in trying to teach his students to the best of his abilities in his classroom. Well-being comes from collegiate relationships and a sense of ownership and control in the classroom. By implication this can be said to link with Seligman's PERMA: Positive emotion and engagement comes from the classroom. Meaning comes from belonging to an institution bigger than their-self, relationships from colleagues in the staffroom and accomplishment from meeting ambitions in the classroom. However, this is implied – this research aims to test for Well-being empirically, quantitatively as well as qualitatively.

Cohen (2009) has also studied veteran teachers in tough high schools in the USA. He identifies three traits needed for retention: psychological hardiness, a degree of narcissism and a real love for the subjects being taught. Although his research is based on only two case studies these do show detail. Hardiness is a positive psychology concept (and so is very relevant to this research) developed by Maddi, Khoshaba, Persico, Lu, Harvey and Bleeker (2002) and Maddi, Harvey, Khoshaba, Lu, Persico and Brow (2006). It is the ability to withstand difficulties over a long period of time, and so is similar to resilience.

Maddi et al. (2002; 2006) found hardy individuals were highly committed, had a great sense of control over their environment and were comfortable with challenge. In both studies adult volunteers from the USA completed validated questionnaires that showed hardiness was composed of commitment, control and challenge and that leads to a positive outlook and positive mental health even in difficult situations. Resilience, well-being and retention are all implied here indicating their value. However, as before, they are implied and need testing empirically in a quantitative as well as a qualitative manner.

In Cohen's (2009) study the teachers were highly committed, they stayed in a difficult school but commitment, perhaps counter-intuitively, was not always to the student. They were committed to what they wanted to do and were idiosyncratic, although they wanted to do the

best for their students they also wanted to do what was most fulfilling for themselves. Student enablement became a by-product of the teacher's self-actualisation. New teachers are trained to always put the students first but research on burnout in teachers (Cruikshank, 1980; Deidrick and Dishner, 1982, as cited in Cohen, 2009, p.481) has shown that one of the main causes of burnout is self-abnegation leading to attrition. By being more teacher-centric and even narcissistic they were no longer an end user just doing as they were told. They were comfortable with challenge because they could use their abilities in a challenging way that was interesting to them rather than responding to difficult problems that seemed overwhelming. Hardy teachers had a love of subject which also aided resilience because it compensated for problems brought to them by students. Resilience is maintained by crafting the job to allow for some teacher-centric behaviour, yet crafting has not been widely studied in teachers.

The idea of professional life stages as proposed by Gu and Day (2007) and Day and Gu (2010) is supported by the other researchers mentioned here. They indicate that well-being and resilience and retention may vary as length of service changes. One purpose of this research is to see if positive psychology and the self-belief concepts connected with it can contribute anything to ease the retention problems in schools as the teacher moves through the phases. For example, Gu and Day (2007) emphasise efficacy in the beginning phase and motivation in the veteran phase. If this study finds these need improving then interventions at that stage can be recommended. No other study has looked at Hope, Optimism, Self-efficacy, Mindset and Job crafting together to see their effect on Resilience, Well-being and also Retention using both quantitative and qualitative methodology, so this research is overdue and makes an original contribution to knowledge in the field.

2.3.4. Demographic (including contextual) variables

Alongside the self-belief variables, there are demographic variables which previous research (such as Gu & Day, 2007 and Day & Gu, 2010) has indicated may be related to the well-being of teachers. Therefore, the research reported in this thesis also sought to capture some of these to see if and how they may relate to the self-belief variables, and the dependent variables (Well-being, Resilience and Retention). The reasons for including each of these demographic variables will now be explained.

Age

There do not appear to be many studies on age (as opposed to career stage) and teacher well-being, resilience or retention in the existing literature. Laub, (1998, as cited in Brewer & Shapard, 2004, p.104) found younger secondary schoolteachers in the USA experienced more burnout than older teachers, although Konert (1997 as cited in Brewer & Shapard, 2004, p.104) looking at 220 middle school teachers found no difference. Brewer and Shapard (2004) carried out a meta-analysis on research studies in the USA which presented findings on the relationship between employee burnout and age and discovered a small negative correlation ($r = -.1$) between age and exhaustion (one of the components of burnout). More research, especially regarding teachers in England, is needed.

In a qualitative study, Hargreaves (2005) found a relationship between age and well-being which was linked to the emotional responses to educational change. He interviewed 50 Canadian elementary middle and high school teachers to see how teachers responded emotionally to educational change at different ages and career stages. He found some clear trends: younger teachers coped with change better than older, were more enthusiastic and optimistic than older ones but were less competent in managing the change as they had less experience.

Hargreaves felt each generation carried with it particular customs and attitudes, the younger generation were not just a younger version of the older generation, suggesting each teacher is defined by their generation as well as age. He found, for example, the new younger generation to be less deferential than the older had been when they were young. Older people, moving into teaching, brought useful experience with them but adapted to change less well. One early career teacher who was older (mid-thirties) found his younger peers were more amenable to change not just because they were younger but because their generation had been socialised to adapt to change better than his had done. However, this study was based in the USA and so more data from England is needed.

Length of Service

Day and Gu (2010) have examined length of service in the UK by examining ‘professional life phases’, the number of years a teacher has been teaching, rather than their age. These have been described previously and show that as the teacher moves from beginning, through middle years and then into the ‘veteran phase’ and within and between each phase, either motivation or fatigue occurs depending on events in and out of school. This will vary between individuals, but it will be useful to see if there are any general trends. As the teacher moves from one life span to another they get older but Day and Gu (2010) maintain it is professional life phase rather than age itself that affects well-being. Gu and Day’s (2007) categorisation was used in the current research as it was developed for the English system and so is relevant to this study. However, their study used qualitative data only. This study will use quantitative as well as qualitative material.

Gender

The role of gender in the workplace has been extensively reviewed. For example, Gyllensten and Palmer (2005) have reviewed gender and stress in the workplace. They found that much of the research suggests that women report higher levels of stress compared to men. For example, in the 'Whitehall Two' initial study (HSE, 2000, as cited in Gyllensten et al., 2005) examining stressors in 10,308 civil servants in the UK, they found women in the two highest graded job categories had higher levels of problematic drinking compared to men. On the other hand, several studies reported no differences between males and females. For example, the Bristol Stress and Health at Work Study, which examined 17,000 randomly selected workers from the Bristol electoral register (HSE, 2000, as cited in Gyllensten et al., 2005), showed no significant differences in stress levels between men and women. The evidence linking stress with gender is inconsistent and Gyllensten and Palmer (2005) conclude by stating that it is impossible to draw firm conclusions on the role of gender because the quality of studies varied too much. Researchers also used different tools to measure stress.

Since this review other studies into stress in the workplace have examined gender differences. Kovess-Masfety, Rios-Siedel and Sevilla-Dedieu (2007) used the Hopkins Symptom Checklist (HSC) (see Derogatis, Lipman, Rickels, Uhlenhuth, Covi, 1974) to measure stress, anxiety and depression. The largest differences were found in secondary schools where male teachers reported lower levels of stress compared to females probably because women were more committed and so put themselves at higher risk.

Stress within teaching impacts negatively on well-being in individual teachers and on retention and recruitment for the profession as a whole (Gold et al., 2010). It is necessary to know the relationship between gender and positive measures of well-being. Findings are few although two large social surveys (Donovan & Halpern, 2002; Helliwell, 2003, as cited in

Huppert, 2004, p.702) have included a single item on happiness. They found little evidence of gender differences.

Hence, it was decided to include gender in the survey to see if there are links between gender, self-belief variables, Resilience and Well-being and if there are any implications for Retention.

Average hours worked per week

Workload has often been reported as a cause of stress in teachers and therefore a factor that reduces their well-being (such as Travers & Cooper, 1996). A ‘Guardian’ survey (22/3/2016) suggested that about a third of teachers in the UK work more than sixty hours per week. In addition, of the 4,450 respondents 76% said workload was affecting their mental health and one in five said they intended to leave because they felt overworked (Banning-Lover, 2016).

This is supported by Carter and Stevenson (2012) who carried out a qualitative study of the implementation of workforce remodelling in English schools using 105 semi-structured interviews. Workload remodelling decreased the number of non-teaching roles, such as covering for absent colleagues, by employing more support staff to enable teachers to concentrate on teaching and learning. However, the extra time given to teachers was used up by increasing the expectations to increase levels of student performance. This was done by increasing assessment and planning followed by a forensic level of accountability. This led to an intensification of workload which resulted in continuing high levels of stress.

It was therefore felt important to measure the number of hours worked to see if this factor impacted the self-belief variables and outcome variables, especially as this has not been researched before. Contextual variables may also affect the variables and two, additional responsibility and type of school, were examined here:

Additional Responsibility

Little recent research exists on whether taking on additional responsibility affects resilience, well-being and retention. In their study on UK teachers, Travers et al. (1996) found that being in a supervisory role added to the stress (and therefore reduced well-being) of teachers and this comes from the managerial structures that were brought in at that time, especially regarding budgeting, the management of staff and increased accountability to outside agencies.

Mulholland, McKinlay and Sproule (2017) examined the effects of different roles on teacher well-being, in Scottish schools. They found all class teachers and middle managers experienced high levels of stress whereas senior managers did not report abnormal levels. Stress causes a reduction in well-being (Travers & Cooper, 1996; Huppert, 2004). Middle managers recorded more stress than class teachers and senior managers. Middle managers and class teachers with ten or more years of service experienced more stress than those with less than ten years, whereas senior managers reported less.

Mulholland et al. (2017) suggest that middle managers had more roles to perform and so experienced high levels of stress (and so reduced well-being) and that there was also a cumulative effect that increases stress after ten years. Teachers in post for less than five years perceived all dimensions of work as significantly less stressful than their colleagues. Since Travers' et al.'s (1996) study school structures have changed and teachers are now graded for extra responsibility on scales known as Teaching and Learning Responsibility scales (TLRs). Because little up to date research exists on the effects of responsibility it was decided to include it here.

Type of School

The English school system is fragmented. It has remnants from the past, it still has 150 grammar schools and secondary moderns as well as many comprehensives. Most state

secondary schools are now converting to academy status. These schools are funded by central government but are managed as autonomous institutions with no overview from the local authority. They operate within a business model and often have commercial sponsors who emphasise entrepreneurial and enterprising values to students and to staff. Hasan (2012) notes that some academies put no limit on working hours and require staff to be available during the school holidays and this may have an effect on staff well-being although little research has been done in this area to date. Therefore, type of school may have a bearing on the self-belief variables, resilience, well-being and retention. It was therefore considered important to measure school type in the survey. (For more information on the development of the English school system see Ball (2008b)).

2.4. Summary

In Chapter 2 the self-belief variables have been examined to discover if their use can be justified in this research. Hope, optimism and self-efficacy have been used in positive psychology since its inception. Hope has been under researched and used rarely with teachers. Optimism and self-efficacy have been researched more but, again, rarely in an educational context. Mindset has been extensively used with students but not teachers. Job crafting is mentioned in some positive psychology texts (for example, Snyder et al., 2011) but has not been fully investigated as a positive psychological concept and appears not to have been used with teachers. These five self-belief variables have not been studied together, they have not been studied alongside demographic factors and they have not been studied in English secondary school teachers. Therefore, a study looking at these through the lens of positive psychology is overdue. The self-belief variables imply links with resilience and well-being but little formal research has been done and so this gap needs filling.

Well-being and resilience have been studied in teaching but often the research is based on qualitative studies only. Here, a quantitative approach, as well as a qualitative one is taken; the research will have two strands represented by the first two objectives of the study:

Objective 1: to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention.

Objective 2: to explore in-depth teacher accounts at different career stages about factors contributing to decisions to stay or leave the profession.

Chapter 3: Methodology and procedures

3.1. Introduction

Chapter 1 laid out some of the current challenges for the teaching profession in England, explained why positive psychology is a valuable area of psychology to focus on, the impact it can bring to peoples' lives generally and in the workplace in particular. Chapter 2 reviewed some of the literature on self-belief variables, resilience and well-being generally and in the teaching profession and how this research could develop it. The purpose of Chapter 3 is to show the methodology and procedures used to gain both quantitative and qualitative data for this research.

Firstly, the overarching aim and objectives are reiterated. The rationale behind the methodology used in the research is then explained. Next, the process for examining Objective 1, the construction of the questionnaire and the procedure for its use is discussed. This is followed by the process for examining Objective 2, the semi-structured interviews.

To reiterate, the overarching aim is:

To explore factors influencing the level of teacher Resilience and Well-being and how these impact on their Retention.

This will be addressed through 3 objectives:

Objective 1: to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention.

Objective 2: to explore in-depth teacher accounts at different career stages about factors contributing to decisions to stay or leave the profession.

Objective 3: to explore the relationship between Objective 1 and 2 and examine applications for improving Resilience, Well-being and Retention.

3.2. Methodology

The objectives are achieved through two strands of research, a survey and semi-structured interviews. The survey will utilise quantitative data and the semi-structured interviews qualitative data. Each strand is intended to complement and reinforce the other, it is not the case that two separate topics are being investigated. Objective 1 will be addressed using survey data and Objective 2 using the semi-structured interviews. These two sets of data will then be examined to explore the relationship between them and see by how much they complement and reinforce each other, this will be addressed in Objective 3.

Much positive psychology has been researched successfully using quantitative techniques (for example, see Dutton & Ragins, 2007; Lindley & Joseph, 2004) and these approaches allow the benefits of the positivist epistemology to be utilised. Positivist approaches claim to have the benefits of scientific methodology including reliability and the generation of scientific theories and laws which have the status of truth (Smith, 1998). In quantitative research the scientist follows some key principles: they must be able to operationalise and measure. For example, they may ask respondents to state on a scale of 1-5 how much they agree with a certain statement. They try to establish causality, how an independent variable affects a dependent one and they try to generalise their results from their sample to the wider social context.

Quantitative approaches use deductive methods. When positive psychology was founded in the late 1990s Seligman and Csikszentmihalyi (2000) distinguished it from previous theories with a positive focus, such as those from humanistic psychology, by emphasising the need for a quantitative, deductive and empirical approach. Overall, quantitative data attempts to explain the ‘what or when’ behind a concept (Plano Clark, 2017).

However, what is also needed is the ‘how and why’, in other words the meaning behind a concept (Plano Clark, 2017). For example, qualitative data can tell the researcher how and why some people left teaching, how and why some teachers keep going and how and

why some teachers flourish. In this research study quantitative and qualitative approaches were carried out concurrently. By embedding them together the quantitative is addressing the ‘what and when’ and the qualitative the ‘how and why’.

Qualitative researchers maintain that numerical measurement lacks ecological validity and so does not accurately represent the situation being researched. They prefer a more naturalistic approach such as seeking opinions through interview. The qualitative researcher is not so interested in isolating independent variables to see how they affect the dependent variable, rather they prefer a holistic approach where the researcher assumes that an outcome may be the result of many inputs and the outcome needs to be understood from the context of those being researched (Bryman, 1998, as cited in Harding, 2013, pp. 9-10). As Rich (2001 as cited in Rich, 2017, p.221) noted:

Will traditional quantitative methods suffice? Can we understand creativity via ANOVAs, happiness with regression, or the good life through structural equation modelling? Or are there topics that positive psychology cannot comprehend without the use of qualitative methods such as interviews, observations and intense fieldwork?

Context is therefore important, information always originates from a specific context and so that information will always be biased by the context from which it comes.

Positivist researchers, on the other hand, assume that the investigator is ‘neutral’ and simply reports on what is observed through the senses. The researcher avoids introducing any unwanted extraneous variables, they work at a metaphorical distance from the object of study. They view qualitative research as ‘contaminated’ (Braun & Clarke, 2013). Qualitative researchers however, celebrate the subjective nature of their data. It is assumed the researcher will bring some ‘cultural baggage’ (Ping-Chun, 2008) with them, especially when carrying out interviews where interaction has to take place and so unintended cues from say, body language or speech, will occur. Rather than ignore these, reflexive analysis is used, which

allows the researcher to accept cues and reflect on the effect they may have had on the interviewee (Lazard, 2018).

Reflexive analysis is more than just considering unintended cues, researchers should also try to explain why they picked the area of research they did because there must be personal motivations for the choice and the way it is investigated (Lazard, 2018). I have explained what drew me to this area of research. I am concerned about the way teachers are managed and the effects this has on their retention. I found I was naturally sympathetic to interviewees who all seemed to ‘fit’ with my views. I tried not to be opinionated, but presumably my accent or body language or age, gender and so on would have had some influence on the teachers interviewed. Thus, qualitative research encourages the researcher to be reflexive.

Using a quantitative and qualitative approach together is an example of a mixed-methods approach (Greene, Caracelli & Graham, 1989). Because each approach comes from a different ontological background it could be thought they are incompatible and should not be mixed in the first place. It is important therefore, to establish an epistemological position which justifies their combined use. The position taken in this study is ‘critical realism’ which lies between realism and relativism.

Realism assumes there is a ‘real world out there’ and eventually all its secrets will be revealed by positivist science. Relativism maintains that there is no reality ‘out there’, we give meaning to phenomena through our own interpretation of it. Each individual will have a unique interpretation and so all explanations will be subjective. Critical realism assumes a reality exists but the investigator will never fully discover it because their observations will always be affected by their social and cultural background. (Braun & Clarke, 2013). The positivist might think they are being totally objective, but in fact they are influenced by their background. The relativist, on the other hand, has to admit some phenomena are real and

universal. If you stab any individual with a knife they will experience pain and this can be taken as a fact. Quantitative approaches tend to be thought of as more ‘realistic’ than qualitative because they are trying to be more objective, although the scientist is still affected by their own social context. Qualitative approaches tend to be thought of as more ‘relativist’ because they are subjective, but if common trends are discovered across different studies examining similar scenarios they can start to be thought of as ‘facts’ (Smith, 1998). In fact, both quantitative and qualitative approaches can be thought of as ‘critically realistic’, there is a factual reality, but we can only know it partially because it is impossible to be totally objective or subjective.

Hefferon, Ashfield, Waters and Synard (2017) suggest another reason for using a combined approach. They believe that a discipline like positive psychology should not be studied by quantitative or qualitative approaches alone because the discipline covers too many topics. This means different topics may originate from different philosophical bases and so using different methodologies is more likely to capture the breadth and depth of information generated. (Hefferon et al., 2017).

As well as combining different types of research within a single study, mixed methods research aims to be *pragmatic*. In other words the researcher has a choice of methods to investigate a problem that needs examining, rather than worrying about whether one method is intrinsically ‘good’ or not. The aim is to help resolve a ‘real-life’ problem rather than become too concerned with the ‘credibility’ of the methodology (Denscombe, 2017; David & Sutton, 2012).

Finally, a mixed method approach also allows for methodological triangulation. The premise of triangulation is that any approach has biases and limitations but these can be offset or counterbalanced by another approach used alongside. The strengths of one approach should counterbalance the weaknesses of the other approach. For example, the lack of ecological

validity in the quantitative approach is balanced by the ecological validity in the qualitative approach. The lack of reflexivity in the quantitative is balanced by the reflexivity of the qualitative. This strengthens the validity of the results (Greene et al., 1989).

Quantitative data was gathered from the questionnaire survey and this will be examined first.

3.3. The Questionnaire survey

The questionnaire survey was designed to address Objective 1, in other words to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention.

3.3.1. Design of the questionnaire

The Well-being and Resilience in Schoolteachers Questionnaire (WRSQ) was used to measure demographic, including contextual factors, self-belief factors, and the dependent variables, Resilience, Well-being and Intention to Quit. This was constructed from an amalgamation of pre-existing questionnaires, described below.

Questionnaires have a number of advantages compared to other tools. They enable a large amount of information to be collected from large samples relatively quickly. They are cost-effective and respondents may feel more willing to reveal personal and confidential information than they would in more direct situations (Ackroyd & Hughes, 1992; Yates, 2005). The results can be quantified through software packages and compared with other research. New theories can then be created or existing ones tested (Yates, 2005). On the other hand, social desirability may affect results or the respondents may not be fully engaged when completing the questionnaire. They may be filling in the questionnaire in a context different from the content (say, at their home) and this can lead to forgetfulness (Yates, 2005). In

addition, because the study is cross-sectional it is designed to obtain a snap-shot of the relationship between predictor and outcome variables and so it does not track change over time which can be considered a disadvantage because causality can change over time (Ackroyd & Hughes, 1992). However, despite these problems a questionnaire was the best method for this study. The questionnaires selected here are established, validated and reliable.

The survey was produced and distributed by 'Bristol Online Surveys' (BOS) (see <https://www.onlinesurveys.ac.uk/>). This was selected over other facilities because it has been used in a large number of universities, public sector bodies and national surveys (Lewis, 2012) and meets the requirements for security of data storage and was also available for me to use as a postgraduate student via the institutional licence. Access to the internet is widespread and it is cheap compared to traditional forms of recruitment (Harris, Loxton, Wigginton & Lucke, 2015) and social media is used widely and so participants can be easily reached. The questionnaires are thus easily available but individuals can choose whether to participate or not without feeling any coercion.

3.3.2. Summary of structure and content

The questionnaire package (Appendix 3.1) consisted of an invitation to participants to take part followed by a section requesting background information about the participant. Next, there was a consent page and then a section requesting demographic information. The questionnaires themselves needed to measure the implicit concepts, Resilience and Well-being. An Intention to Quit scale was included as a measure of Retention.

The Predictor Variables were ratings for: Hope, general Self-efficacy, dispositional Optimism, Mindset and Work orientation. The dependent variables were levels of Resilience and Well-being and Intention to Quit. Demographic predictor/ control variables of age, gender, years of service, average hours worked per week, positions of responsibility and type of school were also added. The measures themselves were as follows:

Section A – The Snyder Adult Hope Scale (to measure levels of Hope). (Snyder et al., 1991).

Section B – The New General Self-efficacy Scale (to measure levels of Self-efficacy). (Chen, Gully & Eden, 2001).

Section C - The Revised Life Orientation Test (to measure dispositional Optimism). (Scheier, Carver & Bridges, 1994).

Section D – Adaptation of the Theories of Intelligence Scale – Self Form for Adults (to measure level of Growth Mindset a participant has) (Dweck, 1999).

Section E – Connor-Davidson ten item Resilience Scale (to measure level of Resilience). (Campbell-Sills & Stein, 2007).

Section F – Seligman’s PERMA scale (to measure levels of Well-being). (Butler & Kern, 2016).

Section G – Work orientation scale (to find out type of Job crafting carried out by the individual). (Leanna, Appelbaum & Shevchuk, 2009).

Section H – Intention to Quit scale (to measure intention to leave job). (Knudsdén, Ducharme & Roman, 2006).

3.3.3. Sample size analysis

The anticipated effect size was based on an investigation by Williams, Kern and Waters (2015). This was selected because it examined the association between psychological capital (Self-efficacy, hope, optimism and resiliency) and work happiness in school staff. The average effect size within Williams et al.’s study was 0.7 at $p < .01$, with a sample size of 247, power $> .8$. Cohen, 1988 (as cited in Brace, Kemp & Snelgar, 2016), states that an effect size of $d = 0.5$ should be regarded as ‘medium’ and 0.8 is large. The value of N here is 279, so this is an acceptable size. In addition, using Cohen’s ‘d’ table at $p < .05$, an effect size of 0.7 and aiming at a power ratio of 0.8 (Field, 2013) requires a minimum sample of 85 for medium

effect size ($d=0.5$). Thus a sample size of 279 would enable sufficient statistical power to identify an effect. A large number of tests are being carried out in this study. This means there is the potential to split variables to compare different types of schools, and positions of responsibility etc. so the large sample is advantageous.

3.3.4. Measures of self-belief

Section A, the Trait Hope Scale (Adult Version)

The Trait Hope Scale (Adult Version) (Snyder et al., 1991) is a 12 item trait measure for Hope in adults over the age of 16 years. Snyder's theory is that hope is comprised of finding pathways to goals using motivational 'energy' or agency. Four of the 12 items reflect pathways. An example is, 'I can think of many ways to get out of a jam'. Four items reflect agency, for example, 'I energetically pursue my goals' and four items are distractors. Participants respond to each item on an 8 point Likert continuum where 1 is completely false and 8 is completely true. Total Hope Scale scores range between 8 and 64. The internal consistency is in the 0.80 range and test-retest reliabilities have been 0.80 or above over periods of 8 to 10 weeks (Snyder et al., 1991). The convergent and discriminant validity is significant when compared to other measures (Snyder et al., 1991). Several factor-analytic studies support the agency and pathways section of the Hope Scale (for example, Babyak, Snyder & Yoshinobu, 1993). The agency items have shown factor analysis in over 40 studies and shown they unite to form one common factor - Hope (Hanson, 2017).

A criticism of the Adult Trait Hope Scale (Snyder et al., 1991) is that it measures the individual's general level of Hope but these levels will fluctuate depending on the circumstances at the time. Therefore, Snyder et al. (1996) developed the Adult State Hope Scale (ASHS) which measures Hope at a particular time. This scale consists of 6 items, 3 measuring agency and 3 pathways. Cronbach alpha values of 0.79 to 0.95 for the agency subscale and) and 0.59-0.93 for the pathways subscale giving an overall value of between 0.79

and 0.95 Further analysis was carried out by Snyder et al. (1996) which supported the existence of the two factors, agencies and pathways, as suggested in his Hope theory.

However, in this research the Trait Scale was used rather than the State Scale because the former is used for trait-like characteristics over time through long term interventions. The State Scale is used for short term interventions when time is limited. The State Scale is used when the organisation is expected to change within six months and then new interventions will be needed (Youssef & Luthans, 2007). Little work appears to have been carried out on hope in organisations from the perspective of Positive Organisational Scholarship (POS) – most is Positive Organisational Behaviour (POB) type. In this research rapid intervention is not being attempted but knowledge gained may be useful for possible long-term intervention.

A minor error was found in the wording of the measure after the questionnaire had been distributed. One item should have read ‘My past experiences have prepared me well for my future’ but this was transcribed as ‘My past experiences have prepared me well for life’. However, it was not thought that the minor word change would be an issue given the meaning of the question was unchanged. For this study Cronbach’s α for the Snyder Trait Hope scale was .88. The Cronbach α values for the other scales are shown in Table 3.5.

Section B – The New General Self-efficacy scale (NGSE)

Much effort has gone into trying to measure teacher efficacy, one of the earliest attempts was by the RAND researchers (Tschannen-Moran & Hoy, 2001). In order to measure efficacy teachers in the RAND study were asked to express their level of agreement with these two statements:

1. ‘When it comes right down to it, a teacher really can’t do much because most of a student’s motivation and performance depends on his or her home environment’.

2. 'If I really try hard I can get through to even the most difficult or unmotivated students'.

The first item assesses by how much external, environmental factors overwhelm any power the teacher has within the school. Factors may include the value placed on education in the home, poverty and the emotional needs of the child and is known as General Teaching Efficacy (GTE). The second item tries to measure the extent to which teachers themselves have the confidence to overcome factors that disable the student from learning and has been called Personal Teaching Efficacy (PTE). The sum of the scores of these two items indicates Teacher Efficacy, the extent to which the teacher feels that their teaching effects positively the educational wellbeing of the student (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998). However, researchers were concerned that a two item scale might lack reliability and so longer and more comprehensive scales were developed. Three such instruments were: The Teacher Locus of Control (Rose & Medway, 1981), Responsibility for Student Achievement (Guskey, 1981) and the Webb Scale (Ashton et al., 1982) (all cited in Tschannen-Moran et al., 1998 pp 202-248). However, all three have been used rarely and Guskey's (1981) work has resulted in no published studies in which the measure was used.

At around the same time Bandura (1977) developed the concept of Self-efficacy, the future orientated belief of what the teacher expects their level of competence to be rather than their level at the time. This determines the amount of energy expended to persist even when setbacks occur. The RAND studies are concerned with internal and external loci of control whereas Bandura's work is concerned with whether the teacher thinks they have the capacity to bring about desired outcomes. In order to fuse these two approaches Gibson and Dembo (1984) developed a measure which used ideas from RAND and also Bandura. They produced a 16 item instrument 'Teacher Efficacy Scale' (TES) and this became widely used.

However, TES should be able to identify GTE and PTE clearly but it cannot distinguish between them well. It has also been criticised for not allowing for particular contexts, a

teacher may feel efficacious in certain subjects but not others or with certain types of students but not with others (Tschannen-Moran & Hoy, 2001). In order to address these problems Tschannen-Moran and Hoy (2001) produced the 'Ohio State Teacher Efficacy Scale' (OSTES) which discriminates better between GTE and PTE and captures a wide range of teaching tasks including creativity in teaching and effectiveness with capable students. However, a limitation of OSTES is that most of the items lack clear obstacles, they are not specific enough; although it captures a wider range of teaching tasks teacher self-efficacy is still reduced to three dimensions, instructional strategies, classroom management and student engagement, which can still be considered too narrow (Skaalvik & Skaalvik, 2007).

An instrument that seems to 'fit the bill' is the New General Self-efficacy Scale (NGSE) (Chen, Gully & Eden, 2001). This is based on Sherer et al.'s (1982) General Self-efficacy Scale (SGSE) which includes 17 items and has been used in over 200 studies including those in organisational settings. The internal reliability has been moderate to high ($\alpha = 0.76$ to 0.89) but little is known about its test-retest reliability. Its predictive validity is fairly high but content validity is low (Chen et al., 2001).

The main problem with the SGCE is that it may be measuring self-esteem because it does not capture a construct which is distinct from self-esteem (Chen et al., 2001). The NGSE improves on the SGCE. It is an 8 item measure for Self-efficacy and example items include, 'I will be able to achieve most of the goals I have set for myself' and 'Even when things are tough I can perform quite well'. Participants respond to each item on a five point Likert continuum where 1 is 'strongly disagree' and 8 is 'strongly agree'. The scale is scored as an average with a maximum score of 8 and a minimum of 1. Although the SGCE and NGCE are both internally reliable the NGCE is unidimensional whereas the SGCE is multidimensional. The NGSE scale has good content validity and predictive validity (Chen et al., 2001). It is also shorter (8 items) and so is more attractive to work settings where participants have little time. As well as being psychometrically sound, the NGCE is useful because it does not

concentrate only on specific self-efficacy such as actual classroom teaching. Teaching has become a broad and complex job and so it is necessary to measure general efficacy in a variety of settings. Therefore, the NGCE is a suitable scale to use for this study.

Section C – The Revised Life Orientation Test (LOT-R)

Several scales have been created to measure Optimism. The main ones are the Life Orientation Test (LOT) (Scheier & Carver, 1985); Life Orientation Test Revised (LOT-R) (Scheier, Carver & Bridges, 1994); Generalised Expectancy of Success Scale (GESS) (Fibell & Hale, 1978); Optimism-Pessimism Scale (Dember, Martin, Hummer, Hove & Melton 1989); and the Attributional Style Questionnaire (Peterson et al., 1982).

The LOT is an 8-item self-report measure (plus four filler items) which assesses generalised expectancies for positive versus negative outcomes. Items include statements such as ‘In uncertain times I usually expect things to go my way’ and ‘I hardly ever expect things to go my way’. Respondents score on a five point scale ranging from 0 (strongly disagree) to 5 (strongly agree) (Scheier & Carver, 1985). One of the main criticisms of the scale is its overlap with neuroticism, especially trait anxiety because of two problem items: ‘I always look on the bright side of things’ and ‘I’m a believer in the idea that ‘every cloud has a silver lining’. Neither of these refers to the hope of a positive outcome; they refer to a way of reacting to stress and coping.

The Generalised Expectancy for Success Scale (GESS) (Fibell & Hale, 1978) is very similar to the LOT but it has also been criticised for reflecting neuroticism rather than optimism (Smith, Pope, Rhodewalt & Poulton, 1989).

Removing the two problem items from the LOT establishes a scale that concentrates more on expectations of optimism and as a result the revised LOT (LOT-R) was produced by taking out the two items and adding one item to increase the number of positively worded items to three. Internal consistency and test-retest reliability remained high (0.79 after 28

months) with Cronbach's $\alpha = .78$. Predictive validity is good and better than LOT as the LOT-R predicts optimism/pessimism not neuroticism (Scheier, Carver & Bridges, 1994). Each item is measured on a five point scale with 1=strongly disagree and 5= strongly agree. The maximum total is 30 and minimum is 6. Cronbach's α for the current study is .88.

The Optimism/Pessimism Scale (OPS) (Dember et al., 1989) consists of 18 items measuring Optimism, 18 items measuring Pessimism and 20 filler items. Participants respond to a 4 point Likert scale from strongly agree to strongly disagree. The scale is reliable with an α coefficient of 0.84 for Optimism and 0.86 for Pessimism. Test-retest reliability is $r=0.75$ for Optimism and $r= 0.84$ for pessimism (Dember et al., 1989). The difference between the OPS and LOT-R is that the OPS measures State Optimism whereas the LOT-R measures Trait. OPS is less preferable to the LOT-R in this study as the participants could just be having a 'bad day' whereas LOT-R does account for some state-like traits. Likewise, the Attributional Style Questionnaire is also state-like. Therefore the LOT-R was the most suitable for this research.

Section D – Adaptation of Dweck's Theories of Intelligence Scale, Self-Form for Adults

This scale is a four item measure designed to discover if a respondent has an Entity or Incremental Mindset with respect to intelligence. The scale is based on Dweck's 'Theories of Intelligence Scale – Self Form for Adults' (Dweck, 1999).

Similar scales have been developed, for example, the Beliefs About School Achievement Scale (BASA) (Georgiou, 2008). This is a 20 item questionnaire; examples of items are: 'A child's school achievement is caused by biologically determined characteristics' and 'Any child can do well at school if he or she tries hard enough'. Answers are given on a five point Likert scale where 4= 'absolutely agree' and 0= 'absolutely disagree'. Georgiou (2008) found that the experienced teachers attribute achievements in students such as intellectual ability to fixed, biologically determined factors which are stable over time. In contrast, student teachers

thought that ability can be grown by the effort of the teacher. However, the aim of this research will be to measure incremental and entity Mindset which is a concept particular to Dweck (1999) and so her scale was selected for this research.

Dweck, Chiu and Hong (1995) state that it is sufficient to use only three items. Although having a small number of items in a scale can lower internal reliability (Dweck et al., 1995), they say they obtained high internal reliabilities across other studies suggesting that using only three items is not a problem. The three items recommended are:

- a) 'You have a certain amount of intelligence and you really cannot do much to change it'
- b) 'Your intelligence is something about you that you can change'.
- c) 'You can learn new things, but you can't really change your basic intelligence'.

When Dweck et al., (1995) tested the three items they found them to be valid measures of the constructs.

Responses are recorded on a five point Likert scale with 'strongly disagree' equal to one and 'strongly agree' equal to five. A maximum average score of 5 can be obtained and a minimum of 1. The scores are reversed for (a) and (c) and so the higher the score the greater the level of Growth Mindset. The scale has high internal reliability (α ranges from 0.94 to 0.98) and the test-retest reliability over a two week interval was 0.80.

Henderson (1990, as cited in Dweck et al., 1995, p.270) gave the three items to participants and then asked them to explain their answers. Those who disagreed with the entity statements were able to give justifications for their responses which showed clear incremental theory. Across five validation studies the three items were found to be separate factors indicating they are statistically independent (Henderson, 1990, *ibid*). For example, they are separate from Snyder's (1974) Self-monitoring Scale and Paulhus' (1984) Social Desirability Scale (both cited in Dweck et al., 1995, p.271).

For this study one other item was added to the other three. This was, 'There is a lot that I can do to change my intelligence level' and this item comes from a scale produced by De Castella and Byrne (2015). The higher the score the greater the level of Growth Mindset. Thus, for all four items the higher the score the higher the level of Growth Mindset. The original scale by Dweck (1999) looks at implicit theories in general whereas this scale question examines private views by using a first person scale. De Castella and Byrne (2015) trialled the scale on 680 Australian students from five high schools and it demonstrated good internal consistency, $\alpha = 0.90$. This item could provide useful extra information and so was included in the questionnaire. There has been little research looking at Mindset in teachers and so this research using the four items mentioned should be of value.

3.3.5. Measures of dependent variables

Section E –Connor-Davidson 10 item Resilience Scale

There are many instruments to measure Resilience. Ahern, Kiehl, Sole and Byers (2006) undertook a review to evaluate instruments in all populations and came up with six which had credible psychometric properties. These were the Baruth Protective Factors Inventory (BPFI), the Connor-Davidson Resilience Scale (CDRISC), the Resilience Scale for Adults (RSA), the Adolescent Resilience Scale (ARS), the Brief-Resilient Coping Scale (BRCS) and the Resilience Scale (RS) (all cited in Ahern et al., 2006, pp.103-125).

The Adolescent Resilience Scale targets the wrong age group and so was omitted. The Baruth Protection Factors Inventory was not chosen as there were no applications of it in the literature. There was only one application for the ARS, and the BRCS only met minimal standards for reliability and concurrent validity (Ahern et al., 2006). The Resilience Scale has good internal consistency reliability and concurrent validity and so is recommended by Ahern et al. (2006). However, Windle, Bennett and Noyes (2011) state that the Resilience Scale was developed using data from older women even though it has been applied to younger

participants. They also say that the Ahern et al. (2006) review does not identify where any of the scales might be lacking in psychometric evidence. As a result, Windle et al. (2011) searched eight electronic abstract databases and the internet. They found the CD-RISC (25), the Resilience Scale for Adults and the Brief Resilience Scale gained the best psychometric ratings and they were all developed for an adult population.

The Brief Resilience Scale concentrates on personal agency and excludes the level of the group (such as a school) and so this was omitted. The Resilience Scale for Adults has 37 items which could become tedious for participants who are already completing other scales. Exploratory Factor Analysis (EFA) has shown that the CD-RISC has an unstable factor structure across two equivalent samples (Campbell-Sills & Stein, 2007). Campbell-Sills and Stein (2007) made a series of modifications which resulted in a 10 item scale which showed good internal consistency and construct validity. Internal consistency had a Cronbach α value of 0.85 indicating good reliability. Each item is scored on a five point scale with 1= Completely not true at all and 5= Completely true all of the time. A maximum total score is 50 and minimum is 10. Scores on the 10 item CD-RISC moderated the relationship between reports of childhood maltreatment and current psychiatric symptoms. Individuals who showed they were resilient on the 10-item RISC and had been maltreated in childhood showed fewer psychiatric symptoms in adulthood than those who were shown to be less resilient on the 10 item RISC indicating good construct validity. Thus the 10 item CD-RISC was selected for this research.

Section F – The Positive Emotion, Engagement, Relationships, Meaning and Accomplishment Scale (PERMA)

As established in the literature review, Seligman's (2011) multidimensional PERMA, Positive emotion, Engagement, Relationships, Meaning and Accomplishment model (PERMA) is a suitable way to consider Well-being in the field of positive psychology. PERMA can be

measured with the PERMA Profiler (Butler & Kern, 2016), a 23 item measure that assesses wellbeing across the five PERMA domains. Butler and Kern (2016), found the items in the survey were strongly correlated with physical health and inversely correlated with loneliness and emotions, and so the evidence for convergent and divergent validity was high and the scale shows acceptable reliability. Correlations for predictive validity ranged from $r=0.51$ for the engagement factor over a 12 week period to $r=0.90$ for the relational factor over a two week period. Overall, the questionnaire assesses the five factors as separate but related constructs as Seligman (2011) suggested and so the scale can be used as multidimensional or unidimensional.

Each item is scored on an 11 point scale with 0= Absolutely not at all and 10= Absolutely completely. The maximum average score was 10 and minimum was zero. Fifteen of the items measure the five PERMA factors and one more overall happiness, the rest are fillers. The scale shows acceptable internal reliability and has been tested on 30,000 participants worldwide – a large and diverse sample. Cronbach's α in this study was .95.

Section G – The Job crafting Scale

The scale was developed by Leanna, Appelbaum and Sherchuk (2009) from the 'University of Pennsylvania Work-Life Questionnaire' (Wrzesniewski et al., 1997). With this questionnaire participants read three separate paragraphs, one describing a job, one a career and one a calling. Participants then indicated how much they felt they were like the person in each paragraph on a scale ranging from 'very much', 'somewhat', 'a little' or 'not at all like me' (scored 3-0). Next, the participants were asked 18 true/false items about their work. Five items probed behaviours about work and thirteen feelings.

Participants were then presented with items on satisfaction with life, health, job and occupational status and to rank these satisfaction items with hobbies to ascertain a general level of satisfaction. Then, demographic items such as occupation, age, sex, education and

income were asked. Each participant was placed into a category (Job, Career or Calling) based on their highest rating. The correlations of the 18 true/false items with this corresponding paragraph ratings were significant (0.25 to 0.55). For example, 'I find my work rewarding' had a correlation of -0.46 with 'job' and -0.13 with 'career' but 0.33 with calling. 'I would choose my current work-life again if I had the opportunity was -0.47 with job and -0.19 with career but +0.48 with calling. Callings were associated with greater well-being, job satisfaction and health. These findings indicated that employees do fall into one of the three categories on the Job crafting Scale (Wrzesniewski et al., 1997).

Leana, Appelbaum and Shevchuk (2009) adapted eight items from Wrzesniewski et al. (1997) to measure the three types of work orientation. They used a five point rating for each item with 1=strongly disagree and 5= strongly agree. They hypothesised that Calling would be the main predictor of Job crafting and so used twice the number of items to measure it compared to the other two orientations. Calling was measured using four items: 'I would choose my current work life again if I had the opportunity', 'I enjoy talking about my work to others', 'My work is one of the most important things in my life' and 'My work is a chance to give back to the community'. Cronbach α was .73 for these items.

Job orientation was measured using two items: 'When I am not at work, I do not think much about my work' and 'I never take work home with me' ($\alpha=.66$). The measure of Career orientation was comprised of two items: 'I expect to be in a higher-level job in this field in five years' and 'I view my job primarily as a stepping stone to other jobs' ($\alpha=.67$). Career and job reliability was low in previous research.

Other questionnaires have been developed to measure Calling such as the Vocational Identity Questionnaire (Dreher, Holloway & Schoenfelder, 2007) and the Brief Calling Scale (Dik & Steger, 2006). These measure sense of Calling but Leanna et al.'s (2009) items actually examine the concept of Job crafting – engineering the work to make it a job, career or

Calling and this was the concept the researcher wanted to capture. Therefore her items were used here.

Section H – Intention to Quit Scale

Intention to Quit was measured by adapting three items which were used by Knudsen, Ducharme and Roman (2006). These three items were from a scale originally produced by Walsh, Ashford and Hill (1985). This scale included items such as ‘I intend to leave [the organisation] within the next six months’ and ‘I am starting to ask my friends and contacts about other job possibilities’. Cronbach’s alpha for this measure was 0.90. The three items adapted from the Knudsen et al. (2006) scale are:

- a) ‘As soon as I can find a better job I will leave this profession’
- b) ‘I am actively looking for a job in another profession’
- c) ‘I am seriously thinking of quitting my job’

Participants are asked to indicate their agreement using a Likert response format where one represents strongly disagree and seven strongly agree. The maximum total score is 21 and minimum is 3. Knudsen et al. (2006) found the items had loadings greater than 0.50.

Another scale, which has been used specifically on teachers was found (Ladebo, 2005). This had two items: ‘I will quit this profession any time a better paying employment is available’ and ‘I do not intend to quit this profession at all’. However, Knudsen et al.’s adapted scale (2006) was selected because it has an additional item. It is difficult to have a ‘scale’ of two items and because it shows whether a teacher is looking to leave their current job but not necessarily the profession, as well as to see if they intend to leave the profession completely.

Intention to Quit as a measure of Retention

The Theory of Reasoned Action (Ajzen & Fishbein, 1980) indicates that an individual's intention to carry out an act is the immediate precursor to actually carrying out the act itself. Based on this, an individual who seriously intends to leave their existing employment is more likely to do so if the negative conditions that initiated the intention persist. Several studies report an association between the Intention to Quit and actual turnover (for example, see Blau & Lunz, 1998; Chen, Hui & Sego, 1998). In a review of the research literature on employee turnover Mobley, Griffeth, Hand and Meglino (1979) concluded that intention to quit is consistently related to turnover behaviour and Carsten and Spector (1987) found turnover intention has consistently been shown to have a significant and positive relationship with turnover. Thus intention to quit and retention are overlapping constructs (Ladebo, 2005).

In this research Intention to Quit was therefore taken as a measure of Retention. The practicalities of finding a large population of teachers who had left as well as measuring Resilience and Well-being in existing teachers was beyond the scope of this project but using Intention to Quit allowed Retention to be measured.

3.3.6. Sampling approach

All secondary schools and tertiary institutions in the target population (England) were approached and their head teachers/principals asked if they wished to complete the questionnaire, giving them the opportunity to self-select. The only exception was the school where the researcher was employed and this was excluded to avoid demand characteristics and coercion. State-run institutions and private/independent ones were approached to obtain as much information as possible and to see if there were any differences between the sectors.

The method of selecting schools was as follows: Using 'Wikipedia' (accessed between 2016-2018) a list of secondary schools in every county in England was obtained. The web-site of each institution was then viewed and the name and e-mail address of the head-

teacher/principal found. Each head/principal was then sent an e-mail invitation to participate as described below. The overall number of institutions approached was approximately 7,600 and the response rate was 0.04%. The types of school and college approached are shown in table 3.1. The table also shows the number of respondents from each of the types of school and college approached.

Table 3.1.

Types of Institution and percentage represented in study

Type of school	Number (n)	Percentage (%)
Comprehensive	54	19.4
community school		
Further education (FE)	2	.7
college		
Independent school	39	14
Grammar school	8	2.9
Non-selective academy	76	27.2
Secondary Modern school	11	3.9
Comprehensive	6	2.2
Foundation school		
School for additional	44	15.8
(special) needs		
Faith school	16	5.7
Free school	8	2.9
Selective academy	6	2.2
City technology college	1	.4
(CTC)		
State boarding school	2	.7
Sixth Form College	2	.7
TOTAL	275	98.7

(4 valid respondents in Table 3.1 did not state type of school)

The varying types and sizes of school ensured that the data reflected the varied school systems in place in England and enabled comparison between school types. Table 3.2 shows the types of funding and governance of the institutions involved in this study and whether or not they are academically selective.

Table 3.2.

Method of governance, funding and student selection of each institution

Type of School	Academic selection?	Method of funding	Method of governance
Comprehensive Foundation School	No	LEA	Local Authority
Comprehensive Community School	No	LEA	Local Authority
Faith School	Varies	Some through religious body and LEA; some through religious body and academy trust	Representatives of religious body and LEA or Academy trust
Selective Academy	Yes	Through trust	Trust
City Technology College	Varies	Direct from Government	Similar to trust
State Boarding School	Varies	LEA or Trust	LEA or trust
Further Education College	No	Incorporated body (similar to trust)	Incorporated body
Independent school	Varies	From fees and investments	Governing body
Grammar school	Yes	LEA	Local Authority
Non-selective academy	No	LEA or trust	Local Authority or trust
Secondary Modern School	No	LEA or trust	Local Authority or trust

LEA funding means the school receives funding via the Local Authority who also provide other services such as educational psychology and Local Authority governance means the school has a governing body elected through the Local Authority. Trust funding means the institution is funded directly from the government via a trust. Governance is via the trust who have a few elected members but also have representatives from the commercial and charitable sector.

For analysis the number of schools considered was reduced to the four most frequently recorded: Non-selective academy (27.2%), Community comprehensive (19.4%), Additional/special needs (SEN) (15.8%) and Independent (14%).

Some valid respondents did not state type of school.

As stated, each institution was contacted by an e-mail directed to the head teacher/principal.

They were asked to view the questionnaire to see if they were willing to complete it and to see if they were willing to circulate it to their staff (See Appendix 3.1). Hard copy could also be

made available if requested. Professional organisations involved with teaching, such as the Association for the Teaching of Psychology and Unions were also approached through their social media accounts and asked to post advertisements inviting teachers to participate in the survey.

The sampling method allowed a large and varied audience to be targeted. Computer based survey designs have been shown to get similar results to traditional methods (Berson, Berson & Ferron, 2002).

3.3.7. Participants

Of the 7,600 schools and colleges approached 279 ($N=279$) teachers responded to the survey. The mean age of the participants was 40.99 years ($SD=10.09$). The average number of years spent teaching was 14.03 years ($SD=9.44$) and the average number of hours worked in a week was 51.08 ($SD=11.45$). 24.4% ($n=68$) of the participants were male and 75.6% ($n=211$) female. Participants were asked if they were male, female or other. The frequencies for positions of responsibility were as follows:

Table 3.3.

Positions of responsibility of participants

Position	Number of Teachers (n)	Percentage (%)
Main pay range	120	43
Main pay range plus TLR2	68	24.4
Main pay range plus TLR1	28	10
Main pay range plus SEN	8	2.9
Lead practitioner	1	.4
HOD/Faculty	16	5.7
Senior Leadership Group	22	7.9
Head Teacher/Principal	13	4.7
Executive Headteacher	2	.7
TOTAL	278	99.7

One valid response did not state position of responsibility; TLR=Teaching and Learning Responsibility; SEN= Special (Additional) Educational Needs

Typically, a teacher at TLR 2 would be responsible for coordinating a single subject and TLR1 a group of subjects within a faculty.

Table 3.4. shows the percentage and number of teachers in each professional life stage in this study.

Table 3.4.

Professional Life Stage			
Beginner (0-7 years)	Middle (8-23 years)	Veteran (23+ years)	TOTAL (<i>n</i>)
32.6% (<i>n</i> =91)	47.1% (<i>n</i> =131)	14.9% (<i>n</i> =42)	94.6% (<i>n</i> =264)

It was not possible to ascertain professional life stage for 5.4% (*n*=15) of respondents

3.3.8. Scale reliability

Once data had been collected and cleaned reliability analysis on each scale was conducted.

The values are shown in Table 3.5

Table 3.5.

Reliability analysis for each scale

Scale	Cronbach's α
Hope	.88
Self-efficacy	.93
Optimism	.88
Mindset	.86
Resilience	.89
PERMA Well-being	.95
Work orientation-Calling	.79
Work orientation-job	.71
Work orientation-career	.58
Intention to Quit	.91

Apart from Work orientation-career the Cronbach's α scores all exceeded .7 suggesting acceptable internal consistency (Brace et al., 2016). For Work orientation-career the Cronbach α was below .7; it may be artificially deflated due to only having two items and so should be considered with some caution (Field, 2013).

3.3.9. Ethical considerations - survey

The research was carried out according to the British Psychological Society's Ethical Guidelines and was approved by the University of Northampton's Research Ethics' Committee on 6/9/2016.

When collecting data, access, storage, data analysis and reporting were considered. Access was gained in the following way: initially permission to approach individual teachers within a school was gained from the head teacher/principal of that school or college. Headteachers were contacted by e-mail and they decided whether they wished to participate in the research or not. Thus the head was under no pressure and could decide on a course of action. If this permission was gained then individual teachers were approached via administrators at the school forwarding an e-mail from the researcher. At no point did the researcher have access to individual e-mail accounts and so confidentiality was maintained. If individual teachers wished to participate they could then click on the link provided in the e-mail and complete the study on-line.

Teachers were given instructions on how to make up a code, so if they wished to withdraw they could and their anonymity maintained. It was made clear to headteachers that teachers would not be asked what school they come from but only what type of school they work in (such as an academy or an independent school) to see if this has an impact. Thus, individual teachers could maintain anonymity. If the head of the school preferred the questionnaire to be handed out in a paper version they could be delivered with an envelope and handed back in the envelope to a box in the staff room at the end of the week. Individual

consent was in the form of a tick box at the beginning of the questionnaire so that no personal details needed to be taken. However, no schools requested hard copy. No incentives were used with participants.

During storage, security was observed at all times. Data was kept under lock and key in the researcher's office and will be maintained for publication purposes as stated on the questionnaire. The Data Protection Act (1998 and 2018) was observed at all times and once General Data Protection Regulation (GDPR) was introduced procedures were checked and modified if necessary to be in line with the Regulation. Thus, all participants' details were held confidentially and securely. No young persons under the age of eighteen were contacted.

Regarding the questioning of participants, the following issues were considered: preliminary papers and authority; choice/recruitment of participants; training of researcher; rights, safety and well-being of researcher and participants; researcher permission from immediate authorities; suitability of premises; method of recording data, consent, confidentiality and anonymity; issues arising from the research and feedback. I had documentation to identify myself if necessary and an up to date Disclosure and Barring Service Check (Enhanced). I have carried out some questionnaire research before and am a member of the British Psychological Society. The questionnaire was designed to cause no unnecessary stress but if respondents did suffer upset or distress as a result of the items they were advised to contact the occupational health advisor attached to their school and their general practitioner.

All items on the questionnaire had been considered in depth and were based on established questionnaires which were mainly in the public domain and have been used in previous studies. One of the questionnaires was not in the public domain but the University obtained a licence to use it for the purposes of research and so no copyrights were infringed. The intellectual property rights from the research will be held by the University of

Northampton. All participants were given the opportunity to receive feedback on the results of the research as stated at the beginning of the questionnaire but not their individual data.

3.4. Procedure

A pilot study was carried out prior to data collection. Two serving teachers were asked to complete the questionnaire and offer feedback about whether they experienced any problems with completing it. They expressed no concerns and so data collection began. However, after 16 questionnaires were completed feedback was received by e-mail showing some errors in the questionnaire, two questions had been repeated and one omitted. Thus, these questionnaires were used as a further pilot, corrections made, and data collection begun again.

Participants were introduced to the questionnaire (See Appendix 3.1) with an information section at the beginning giving the background to the research. Ethical rights were explained with details about how to withdraw. Having confirmed their understanding participants continued to the consent form followed by the demographic questions. These were followed by the scales which were unnamed to reduce demand characteristics. They were presented in the same order as shown alphabetically above. The questionnaire ended with a Debriefing Statement thanking the participant again, reminding them of their anonymity, right to withdraw for up to two weeks, to contact their general practitioner or occupational health practitioner if necessary and leaving contact details if they wanted to contact me. There was also an invitation to take part in the follow-up interview with an e-mail address for anyone interested to contact. It was estimated the questionnaire would take approximately half an hour to complete and data was collected between 10th October 2016 and 30th September 2018. The reason for such a large sampling window was two-fold. Firstly, it took a considerable amount of time to contact all 7,600 schools. Secondly, I experienced some health difficulties during this period, and my supervisors were absent for a period which

extended data collection beyond the time scale originally planned. Once the data was obtained the statistical analysis was carried out.

3.5. Analysis of the questionnaire data

Once the data was obtained the statistical analysis was carried out using IBM SPSS Statistics Software (SPSS) (IBM SPSS Statistics for Windows, Version 22). This software was chosen because it has been widely used in universities for many years to analyse data collected in research. Raw data was saved as a data file and then the appropriate analyses selected using the dialogue boxes. Scoring was re-coded as appropriate for reverse scored items, and overall measure scores were calculated according to scale instructions. The dataset was inspected for missing data, and parametric assumptions were checked before inferential analysis was conducted. The results were then inspected, any additional analyses carried out and the results reported (Brace et al., 2016). Non-parametric and parametric were carried out as necessary.

Analysis involved relationships among more than two variables and so multiple regression rather than factor analysis was used. This was because the aim was to find a regression equation rather than exploring clusters of correlations (Dancey & Reidy, 2011). Factor analysis is typically used with newer questionnaires to see if there are underlying factors and so it is multidimensional rather than unidimensional. All of the scales used in this research were established for reliability and validity and so this was not necessary (Tabachnick & Fidell, 2001).

3.6. The Semi-structured interviews

The purpose of the semi-structured interviews was to address Objective 2: to explore in-depth teacher accounts at different career stages about factors contributing to decisions to stay or leave the profession.

3.6.1. Approach to data collection

In-depth, semi structured interviews were used to gain information from three types of teacher: those who were new to the profession (NQTs), those who were established and those who had left, or were in the process of leaving. This meant that information could be gained about career stage, new or established, and within each stage factors contributing to decisions to stay or leave the profession. Sampling was therefore purposive to ensure experiences from teachers at different stages was captured. In addition, the teachers were asked about the potential value of positive psychology in improving the experience and retention of teachers.

Semi-structured interviews were used because having a list of topic areas and guiding questions allowed the conversation to be developed in some ways but also allowed the conversation to divert into unexpected, but useful, directions and so allow the interviewee some freedom to talk about what was particularly meaningful to them. Structured interviews have high levels of reliability but restrict the answers the participant can give. Unstructured interviews allow the interviewee to tell their own narrative and so have good validity but may not address the objective and so semi-structured interviews are a good compromise (David & Sutton, 2011). The interviews were carried out between June 2018 and January 2019.

3.6.2. Sampling approach

Every teacher who completed the questionnaire was invited to contact the researcher if they wished to take part in the follow-up interview. This resulted in eight responses and these participants were interviewed by telephone. Other teachers were approached through personal contacts and e-mail and this resulted in three volunteers, one of whom was retired. The final sample size was eleven ($N=11$) comprising of two NQTs ($n=2$) four established teachers ($n=4$) and five who had, or were in the process of leaving ($n=5$). Eleven was a sample size which would complement the quantitative well but not cause saturation (Braun & Clarke, 2013). The distribution of NQTs compared to established and left/leaving teachers is uneven and ideally two more NQTs should have been recruited. In reality, only one NQT requested an interview via the questionnaire and only one responded through personal contacts and e-mail. In future research, more NQTs should be recruited although they do seem to be a difficult cohort to access.

3.6.3. Interview schedule

Each teacher group (NQT, established or left/leaving) had an interview schedule appropriate to them but the majority of the questions were common to all groups (See Appendix 3.2.). Questions covered a line of enquiry which was then pursued during the interview. They revolved around concepts such as the teacher's motivation for becoming a teacher, enjoyable and difficult factors encountered in the job, support given and areas of concern. Awareness of a Retention problem, the value of Hope, Self-efficacy, Optimism, Work orientation, Mindset and the use of positive psychology with teachers was also discussed. Because the interviews were semi-structured the research was only guided by the interview schedule (See Appendix 3.2)

The interviews were in-depth because this allowed the interviewer to concentrate on a particular issue and gain information about it. In addition, an in-depth interview has an intervention similar to a conversation; the interviewer asks a few questions but spends much of the time listening, using probes and follow-up questions. In this way in-depth interviews allow the interviewees to give their meanings and opinions in their own words (Hesse-Biber, 2017).

Most of the questions were initiating, they initiated the conversation but did not govern it (Yates, 2005). The questions were not designed to be leading and avoided jargon that the participants may not have been aware of and were open, to maintain flexibility. Probes were used to encourage participants to expand and develop points without changing the topic. Follow-up questions were used when necessary to gain elaboration (Yates, 2005).

3.6.4. Location and method of interviewing

Eight interviews were carried out by telephone and three face to face. Of the latter, one was with a retired acquaintance in their home and two in a work setting shared by the interviewer and participants. Although demand characteristics had the potential to affect findings it was hoped that by building rapport and trust during the interview such biases could be reduced.

The three participants interviewed face to face lacked anonymity and in theory might have found it harder to answer some questions fully, compared to those interviewed by telephone. Non-verbal cues could be seen easily (Novick, 2008). In reality, the participants did not seem to be reticent about answering any questions and no discerning non-verbal cues were revealed. Two interviewees were acquaintances of mine, the other face to face interviewee was unknown to me, so care was taken to build rapport. I was sensitive to the fact that she was an NQT and so comparatively inexperienced within teaching. The interviewees

chose the time and location for the interview so they felt more at ease. Care was taken with the face to face interviews to build rapport. With the NQT the researcher was conscious of gender, age and experience differences and it was obvious to the interviewee that I was concerned about well-being and attrition of teachers. However, the aim was to allow the interviewee to talk as freely as possible.

One face to face interview was with a retired acquaintance. He was older and more experienced and the interview was at his house. Again, the researcher was conscious of these factors, but tried to act impartially.

With the telephone interviews rapport was dependent only on verbal communication and the interviewees were all strangers. They were all keen to talk and so the task for the researcher was to listen and probe. However, I was conscious not to play the 'expert' or try to counsel, but simply to gather their thoughts together. Telephone interviews are often used in conjunction with one to one interviews although in qualitative research face to face interviewing is sometimes seen as superior to telephone because visual cues allow more rapport to be developed (Novick, 2008). Evidence suggests people are as honest and open as they are in face to face situations (Denscombe, 2017). For example, Novick (2008) carried out an extensive literature search and found no evidence that verbal data is distorted in a telephone interview. One of the main benefits of using telephone interviews was that they allowed me to contact people from any part of the country at little cost in time or money.

3.6.5. Ethical considerations - interviews

As with the quantitative study the qualitative research was carried out according to the British Psychological Society's Ethical Guidelines and was approved by the University of Northampton's Research Ethics' Committee, on 6/9/2016.

Ethical considerations were considered as follows: Participants were requested to join in the research by e-mailing the researcher using the address at the back of the questionnaire used in the quantitative study. Other teachers, such as those who had left the profession, were contacted either directly, by face to face contact or had seen the e-mail address because they were in the process of leaving and had access to the questionnaire. Some were contacted by the researcher directly via e-mail. No incentives were used with the participants, they volunteered themselves.

Teachers who expressed an interest in taking part in the interview were sent a Participant Information Sheet (PIS) (see Appendix 3.2) and given at least 48 hours to read it. If they were still interested they completed a consent form (See Appendix 3.2). The PIS reminded them they could withdraw from the interview itself at any time and withdraw their data within two weeks of completing it without reason and their record of participation would then be destroyed. Any interviews carried out on educational establishments were done with the written consent of the headteacher. I was a schoolteacher and aware of the health and safety legislation in schools. I had documentation to identify myself and had an up to date Disclosure and Barring Service Check (Enhanced). I am also a member of the British Psychological Society. Teachers who had left the profession, but were interviewed face to face, were interviewed at a place and time of their convenience with the advice of the supervisors. The telephone interviews were carried out at a time chosen by the interviewees.

Interviews were recorded by a digital recorder and then transcribed. All of the data was anonymised to protect the identity of the interviewee; any hardcopy was stored under lock and key and any electronic copies stored on a password-protected computer. This included any e-mail correspondence. The Data Protection Act (1998 and 2018) was observed at all times and once the General Data Protection Regulation (GDPR) was introduced procedures were checked and modified if necessary to be in line with it. Thus, all participants'

details were held confidentially and securely. No person under the age of eighteen was contacted. Once the research is complete the digital recordings will be deleted as stated on the PIS. Participants were reminded in the PIS that direct quotes would be used but anonymised.

The intellectual property rights from the research will be held by the University of Northampton. Any questions raised by the participants were responded to by the researcher. The PIS reminded them that if they were asked anything that they preferred not to answer then they would not be obliged to do so and the researcher would move on to a different topic. No participant responded adversely to the interview schedule but if they had they would have been advised to contact their general practitioner and, if appropriate, the occupational health advisor connected with their school. All participants were reminded that they would be given the opportunity to receive feedback on the results of the research.

3.7. Procedure

3.7.1. Participants

Eleven teachers were interviewed ($N=11$). They were purposefully sampled in order to obtain some teachers who had left, or were in the process of leaving, the profession, some who were established (this meant they had successfully completed their NQT training period) and some who were NQTs. Pseudonyms were used throughout to maintain anonymity.

Teresa, Julie, Anne and Roland ($n=4$) were established teachers. Teresa worked in the north of England and had started her career as a Physical Education (PE) teacher in secondary schools, developing her role into pastoral work. She disliked working in an academy and so moved to a Local Authority SEN school. Julie, from the south of England, was a mature entrant to the profession, where she taught English. She enjoyed teaching the subject but found the work exacting and was considering moving to a part-time contract. Anne was a

headteacher. The main problem she encountered was the recruitment and retention of teachers and she saw the value of self-belief factors to improve retention. Roland was a mature entrant to teaching based in the English Midlands. He enjoyed teaching the humanities but was concerned that the accountability agenda was making it increasingly difficult to flourish as a teacher.

Aron, Jackie, Stephen and Sarah had left, or were in the process of leaving, secondary teaching before the normal retirement age. Tom had retired from the secondary sector after a full career but was included in the left/leaving teaching group ($n=5$). He still did some part-time teaching, worked as a school governor and took an active interest in the education profession.

Aron was a mathematics teacher who had worked in secondary schools and especially enjoyed setting up new projects to develop maths teaching. He coped with teaching well, but had left to work in an educational charity where he could work on particular projects and not be constrained by the inflexibility of the modern maths curriculum. Jackie began her career in secondary schools as an English teacher and then moved into special needs teaching. When she moved to an academy she found the climate unsupportive and moved back to an LEA special school. However, ill health meant she had to leave and she began supply teaching. She now works for an advisory service supporting students who are unable to attend mainstream secondary schools. Stephen was a headteacher in a Pupil Referral Unit (PRU); these schools provide an alternative education for children who are unable, often for behavioural reasons, to attend a mainstream school. He was dedicated to his work but felt unable to continue in his role as he felt completely unsupported by the educational authorities. Sarah spent eighteen years in secondary schools, mainly working in the SEN sector. She was in the process of leaving as she felt the workload, especially the need to be seen to be accountable, was interfering negatively with her home life.

Harriet and Linda were NQTs ($n=2$). Harriet had worked as a teaching assistant (TA) after leaving university and then trained as a history teacher. She found her time as an NQT fulfilling but demanding. Linda had worked as an archaeologist for three years before training as a teacher. She found teaching suited her in many ways but also found the work very demanding.

Teachers were picked from different phases of their career because the intention was to discover the reasons why those who had left (or were in the process of leaving) secondary school teaching had done so, why those who were established had remained and whether the NQTs felt they would remain or leave. In addition, the interviews were designed to gain information on whether the interviewees felt self-belief factors could improve teacher Resilience, Well-being and Retention.

3.7.2. Pilot study

The first interview (face to face, with Tom, teacher who had left teaching through retirement) was treated as a pilot. Overall, the interview seemed to go well. Although I was a novice to qualitative research I found I was soon able to cope with the process and so my confidence grew. Rapport seemed to establish quickly, partly because the interviewee was interested in the topic and wanted to contribute. Probes were used with success. Timing was a problem as it was easy to elaborate too much on one particular point and so in future interviews it was necessary to 'move' the conversation on a faster rate. The other face to face interview worked well and the timing was improved.

I felt nervous before the first telephone interview because although it was not face to face I thought it might be difficult to maintain the conversation by telephone. In reality this was not a problem, the interviewees were interested in the research and keen to contribute

their experiences. I got the impression they were reassured that the issues concerning them were being investigated. Once all the data had been collected it was analysed thematically.

3.8. Analytical approach: Thematic analysis

Thematic Analysis examines and records patterns, or themes, within data. These are patterns that appear across different data sets (in this case interviews) that describe a phenomenon. It aims to produce an analysis from the bottom up and so it is not entirely shaped by existing theory (Braun & Clarke, 2013). In reality, analysis will always be shaped to some extent by the researcher's theoretical standpoint but thematic analysis allows for this reflexivity. Its strength is its flexibility; it can be used to address a whole range of research questions and then themes can be developed from the bottom up to see whether they conform to existing theory or not.

At a practical level, it is accessible to those who are new to qualitative research (Braun & Clarke, 2013). However, it is not taken seriously by some qualitative researchers, who see it as lacking the 'gravitas' of other approaches such as Grounded Theory and Interpretive Phenomenological Analysis (IPA). The focus on patterns does not allow for the idiosyncrasies of particular interviewees (Braun & Clarke, 2013). Overall, conversational analysis and IPA are relatively inflexible because they are guided by a fixed theoretical framework. Discourse analysis and network analysis form a broader framework, but are still fairly inflexible and rooted in a particular epistemological frame. Thematic analysis is more flexible and is not so governed by guidelines, uses a more inductive approach and so this method was used (Braun & Clarke, 2006). This approach is appropriate to the research question because the intention was to examine trends across the data, but not seek to build theory or interpret the phenomenology of teacher experiences. The thematic analysis was

carried out according to the phases laid down by Braun and Clarke (2013), which are described in the next section:

3.8.1. Phases

Phase 1. The interviews were transcribed into text and the researcher immersed himself with the data by listening to the recordings and reading the transcripts.

Phase 2. In this phase coding was carried out, the process of sorting data into categories and organising it into meaningful groups. Codes were written alongside the transcripts and constantly reviewed and the categories revised if necessary (Harding, 2013). Two types of coding were used: ‘data derived’ and ‘researcher derived’. The former are codes taken directly from the text. For example, if the participant said ‘I am not happy at work’ this would be coded as ‘not happy at work. The latter are derived by the researcher. For example, the interviewee might say ‘I sometimes wonder if I should change jobs’ and this could be derived as ‘considering leaving’ (Braun & Clarke, 2013) (See Appendix 3.3).

Phase 3. Next, the codes for each participant were transferred to adhesive (‘Post-It’) notes. Those that were similar were grouped together and these groups placed on a large piece of paper. For example, Teresa (an established teacher) had one group based around the problems, as she saw it, of schools being run as businesses and another about the need for teachers to care about their students and each other. This was done for each participant. Each group constituted a theme. These differ from codes because they give meaning to the data. Thus, for Teresa one theme might be ‘Schools should not be run as businesses’ and the other ‘Schools should be caring institutions’ (Braun & Clarke, 2013) (See Appendix 3.4).

Phase 4. Once the themes for each participant had been produced the fourth phase began. Here, the aim was to find ‘conceptual themes’ (Harding, 2013), in other words themes that recur across the range of respondents. ‘The need for positive relationships’ was one such recurring, or conceptual theme. Where necessary, the conceptual themes were divided into main themes and sub-themes. For example, one theme which recurred across the participants was the need for positive relationships between teachers, students and other staff, but a sub-theme was ‘collegiality’, the particular need for cooperation and support between teachers, other staff and students. (Braun & Clarke, 2013).

Phase 5. Here, the themes were re-examined, refined and changed if necessary. Then, each conceptual theme was given a colloquial name. For example, ‘The need for positive relationships’ was renamed as ‘*Relationships matter*’ and ‘Collegiality’ as ‘*Can’t we be colleagues?*’ The names add a further layer of interpretation. For example, ‘*Can’t we be colleagues?*’ suggests a *lack* of collegiality and ‘*Relationships matter*’ suggests that at the moment they do not matter enough and something needs to be done.

Phase 6. During this phase further analysis and refining of themes took place. Interpretations deepened through feedback on drafts and discussion with supervisors. Finally, the analysis was written up.

Chapter 4: Demographic and psychological factors predicting teacher Resilience, Well-being and Intention to Quit: quantitative design

The purpose of Chapter 4 is to analyse the quantitative data produced from the survey strand of the research. First the missing data analysis will be described and then the demographic data analysed. Next, the implicit factors will be examined to measure the impact they have on Resilience, Well-being and Intention to Quit.

4.1. Missing data analysis

333 questionnaires were returned, 17 participants had completed the survey but not completed all of the consent statements and so their data were omitted. A further 37 were completely blank and so were rejected leaving a sample of 279 ($N=279$). Within the sample of 279, 46 had some missing data in the form of individual items not being answered. These were left in the final data set because only small amounts of data were missing from each respondent (Field, 2013). A missing data analysis was carried out (See Appendix 4.1) and all missing values were shown to be random rather than following any pattern, so no data substitutions were made (Field, 2013) and missing values were excluded by default in subsequent analysis. Total numbers for each part of the scale ranged from 274-279.

4.2. Demographic factors

To reiterate, the purpose of Objective 1 is: To measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention.

In order to assess Objective 1 descriptive and exploratory analysis focusing on the demographics were first conducted and can be found below:

4.2.1. Gender

The descriptive statistics are shown in Table 4.1. Both male and female participants show medium to high mean values with acceptable levels of variability. Tests of normality (See Appendix 4.2) showed that a parametric test (independent t-test) could be used for Hope, Optimism, Mindset, Resilience and Well-being. The other variables did not meet the criteria for using parametric tests and so were analysed using the Mann-Whitney U test (See Table 4.2). The shape of the Intention to Quit variable was roughly bi-modal with strong floor effects from participants that do not want to quit but some ceiling effects where individuals are very intent on leaving.

Table 4.1.

Descriptive and Parametric Inferential statistics comparing gender on each of the variables of interest.

Variable	Male		Female		<i>t</i>	<i>df</i>	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Hope	48.14	9.32	45.87	8.34	1.86	270	.06	.26
Optimism	21.26	5.30	19.49	5.00	2.46	271	.02*	.34
Mindset	3.43	0.93	3.34	0.87	.69	277	.49	.10
Resilience	37.88	6.60	36.47	6.80	1.50	272	.14	.21
Well-being	6.74	1.66	6.40	1.65	1.49	276	.14	.20

*Significant
at $p < .05$

Only Optimism shows a significant result ($p < .05$), indicating a significant difference between males and females, but the effect size is small-medium. Given multiple testing can increase the level of Type 1 errors Bonferroni corrections were applied to the analysis whereby the level of accepted significance is now .01. The effect sizes are all small indicating no notable gender differences (See Appendix 4.3).

A key for interpretation of effect sizes is shown in Table 4.18 at the end of Section 4.5.

Table 4.2.

Descriptive and Non-parametric statistics comparing gender on each of the variables of interest

Variable	U	Male		Female		<i>p</i>	<i>Cohen's d</i>
		<i>M</i>	<i>S.D.</i>	<i>M</i>	<i>S.D.</i>		
Self-efficacy	6321.50	5.85	1.56	5.64	1.21	.14	0.15
Mindset	6653	3.23	0.93	3.34	0.87	.37	0.06
Job	5406	1.92	1.05	1.46	0.69	.001**	0.53
Career	6872.50	2.16	1.07	2.17	1.04	.91	0.01
Calling	6616.50	3.30	1.11	3.49	0.94	.36	0.09
Intention to Quit	6339	8.70	6.11	9.62	6.12	.20	0.15

**Significant at $p < .01$

All of the non-parametric tests of difference for gender, apart from Work orientation-job, showed non-significant results, with negligible effect sizes, indicating gender had little effect on the variables under test. Work orientation-job showed a significant result with a medium effect size indicating that for this variable there is a difference between males and females. Therefore, it can be concluded that apart from Work orientation-job, gender has no large impact on any of the variables. The data will thus be treated as a homogenous whole. Further research on the relationship between gender and Work orientation-job is needed.

4.2.2. Age, number of years worked and number of hours worked per week

Tests of normality for age and the other variables were carried out. All variables met the criteria for parametric tests apart from Intention to Quit where a non-parametric test

(Spearman's rho) was used instead. Table 4.3 shows the correlation matrices for age, number of years worked and number of hours worked with the variables.

Table 4.3.

Descriptive statistics and intercorrelations for variables with age of teacher, number of years worked and number of hours worked per week

Measure	<i>M</i>	<i>SD</i>	<i>Age</i>	<i>Number of Years worked</i>	<i>Number of hours worked per week</i>
Age	41	10.09	--		
Years worked	14.03	9.44	0.78**	--	
Hours worked/week	51.08	11.45	-0.89	-0.02	--
Hope	46.41	8.63	0.31**	0.32**	0.53
Optimism	19.91	5.12	0.25**	0.25**	0.58
Self-efficacy	5.69	1.2	0.24**	0.25**	0.06
Mindset	3.36	0.89	0.02	0.02	0.06
Resilience	36.82	6.77	0.29**	0.29**	0.08
Well-being	6.48	1.66	0.19**	0.26**	0.003
Calling	3.44	0.98	0.12	0.17**	0.13*
Job	1.57	0.82	0.11	0.15*	-0.26**
Career	2.17	1.05	-0.45**	-0.36**	0.13*
Intention to Quit (S)	9.39	6.12	-0.11	-0.12*	-0.08

*Significant at $p < .05$; **significant at $p < .01$; S=Spearman's rho used

Significant positive correlations with small to moderate effect sizes were found with age of teacher and Hope, Optimism, Self-efficacy, Resilience and Well-being, indicating that as age increased Hope, Optimism, Self-efficacy and Resilience also increased. A significant negative correlation with medium effect size was found with Work orientation-career, suggesting that as age increases Work orientation-career decreases.

Significant positive correlations with small to moderate effect sizes were found with number of years worked and Hope, Optimism, Self-efficacy, Resilience, Well-being, Work orientation-calling and job, indicating that these variables increase as length of service

increases. Significant negative correlations with small-medium effect sizes were found with Work orientation-career and Intention to Quit. Thus, as number of years worked increases the desire for promotion and Intention to Quit decreases.

Significant positive correlations with small effect sizes were found with number of hours worked per week and Work orientation-calling and career, whereas a significant negative correlation with small effect size was found with Work orientation-job. This indicates that as the teacher works more hours, Work orientation-calling and career also increase. However, Work orientation-job significantly decreases indicating that the teacher predominantly motivated by financial return is unwilling to work more hours without financial remuneration.

Number of years spent teaching

Table 4.3 shows the correlation matrices for the number of years spent teaching with the other variables. Only Intention to Quit failed to meet the parametric requirements.

There was a very strong positive correlation between age and number of years spent teaching (see Table 4.3) and so the focus was put on number of years spent teaching because different people enter the profession at different ages. By focusing on one variable this avoids any potential issues of multicollinearity within the regression analysis. Within number of years spent teaching, it was decided to follow Day and Gu's (2010) categorisation of career stages because all the evidence suggests career goes in *stages*, as described previously.

Professional life stage

The same age categorisations as used by Day and Gu (2010) were used. These were coded as (1=Beginner; 2=Middle; 3=Veteran) and parametric tests (ANOVA) were used on all variables apart from Intention to Quit (which did not meet the criteria for normality) where the Kruksal- Wallis test was used (See Appendix 4.4).

Table 4.4.

Means, standard deviations and one-way analysis of variance for the beginning, middle and veteran teachers on the measured variables

Variable	Beginner		Middle		Veteran		<i>F</i>	<i>df</i>	<i>p</i>	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Optimism	18.95	4.81	19.64	4.99	22.54	5.23	8.51	2	<.001**	0.06
Mindset	3.29	0.83	3.45	0.92	3.31	0.89	1.02	2	.36	0.007
Resilience	35.01	6.25	37.05	6.41	40.21	7.07	9.97	2	<.001**	0.07
Well-being	6.22	1.52	6.31	1.76	7.43	1.33	10.21	2	<.001**	0.07
Self-efficacy	5.39	1.17	5.73	1.22	6.17	1.06	7.03	2	<.001**	0.05
Hope	43.88	8.44	46.55	8.70	51	6.73	11.33	2	<.001**	0.08
Job	1.52	0.81	1.55	0.83	1.71	0.77	0.88	2	.42	0.006
Career	2.63	1	2.07	0.99	1.57	0.93	19.3	2	<.001**	0.13
Calling	3.45	0.83	3.31	1.07	3.83	0.88	5.19	2	.006**	0.04

**Significant at $p < .01$

All the variables were significant ($p < .01$) apart from Mindset and Work orientation-job.

Effect sizes were small to medium. Thus, apart from Mindset and Work orientation-job, there was a significant main effect of professional life stage on all the variables.

Bonferroni post-hoc tests showed significance ($p < .05$) between beginner and veteran and middle and veteran for Optimism, Resilience, Well-being and Hope. Thus, as the teacher moves from beginner to veteran and middle to veteran, Optimism, Resilience, Well-being and Hope increase significantly. Significance was found between beginner and middle, beginner and veteran, and middle and veteran for Work orientation-career, indicating that career aspirations weaken as the teacher moves through the professional life stages. Significance was found only between middle and veteran for Work orientation-calling showing that it increases significantly between these stages.

A Kruksal-Wallis test was conducted to examine the effect of life stage on participants' Intention to Quit. This revealed a significant main effect between life stages, χ^2

(2, N=273) = 11.78, $p < .003$. (M = Beginner, 138.8; Middle, 147.7; Veteran, 102.5). Mean rank values = 138.76 (beginner); 147.70 (middle) and 102.47 (veteran).

Mann-Whitney tests revealed there was no significant difference between beginning and middle stage teachers in regard to Intention to Quit ($U=5647$, $N_1=89$, $N_2=137$, $p=.35$, two-tailed). However, there was a significant difference between beginning and veteran groups in regard to Intention to Quit ($U=1485$, $N_1=89$, $N_2=47$, $p=.005$, two tailed). In other words, between the beginning and veteran stages Intention to Quit reduces significantly.

In addition, there was a significant difference between middle and veteran stage teachers in regard to Intention to Quit ($U=2203$, $N_1=137$, $N_2=47$, $p=.001$, 2 tailed). Thus, Intention to Quit reduces significantly.

These results remain the same if the Bonferroni adjustment is made.

Average number of hours worked per week

Table 4.3 shows the correlation matrices for the number of hours worked per week with the other variables. Job orientation is negatively correlated, which makes sense conceptually. The individual working for money wants to minimise the time spent working. Small effect sizes could indicate a finding with little practical significance. Although Hope and Optimism had medium/large effect sizes the results were not significant.

The contextual factors of type of school and responsibilities held by the teacher were then examined to find out whether they related to the self-belief variables, Resilience, Well-being and Intention to Quit.

4.2.3. Type of school

The number of schools ($n=275$) considered was reduced to the four most frequently recorded: Non-selective academy (27.2%) ($n=75$), Community comprehensive (19.4%)

($n=53$), Additional/special needs (SEN) (15.8%) ($n=43$), and Independent (14%) ($n=38$). Tests of normality revealed that one-way ANOVA could be used for all variables apart from Intention to Quit where the Kruksal-Wallis test was used (See Appendix 4.5).

Table 4.5.

Descriptive statistics and one-way analysis of variance for the differences between school type and the measured variables

	Type of School								<i>F</i>	<i>p</i>	<i>df</i>	η^2
	CCS		I		SEN		NSA					
Variable	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Hope	46.6	7.97	46.8	9.47	48.29	7.98	45.32	9.68	1.02	.39	3	0.01
Optimism	19.3	4.82	21.3	5.03	20.53	5.25	19.07	5.60	2.04	.11	3	0.03
Self-efficacy	5.63	1.08	5.98	1.11	5.57	1.15	5.51	1.48	1.31	.27	3	0.02
Mindset	3.20	0.85	3.35	1	3.51	0.87	3.37	0.84	1.02	.38	3	0.01
Calling	3.44	1	3.65	1	3.52	1.08	3.36	0.92	0.78	.51	3	0.01
Job	1.54	0.82	1.45	0.83	1.94	0.94	1.52	0.79	3.23	.02	3	0.04
Career	2.20	1.03	2.45	0.90	2.24	1.08	2.19	1.17	0.56	.65	3	0.01
Resilience	36.0	5.98	38.7	7.34	37.16	6.27	36.24	7.46	1.51	.21	3	0.02
Well-being	6.37	1.56	6.98	1.51	16.84	1.49	6.22	1.72	2.73	.05	3	0.04

Key: CCS= community comprehensive school; I=Independent school; SEN=Special educational needs school; NSA=Non-selective academy.

The results show no significant results at ($p<.01$), indicating no significant difference between the measured variables and school type.

A Kruksal-Wallis test was conducted to examine type of school on teacher's Intention to Quit. No significance was found, χ^2 (3, $N=211$) = 7.35, $p=.062$. (M = CCS, 102.03; I, 90.15; SEN, 100.70; NSA, 120.15) showing no significant difference between school type and Intention to Quit.

Self-efficacy did not show homogeneity of variance as shown by Levine's test and Welch and Brown-Forsythe. Thus, a Kruksal-Wallis test was conducted to examine type of school on teacher's Self-efficacy. No significance was found, $\chi^2 (3, N=213) = 3.12, p=.37$. Thus, overall, type of school had no effect on the variables measured. ($M =$ CCS, 102.82; I, 122.14; SEN, 107.82; NSA, 101.72).

4.2.4. Positions of responsibility

The nine positions of responsibility listed in Table 3.2 were reduced to three. This was done because of the limited numbers on some of the positions and the underlying continuum of the scales. 'Main pay range' was coded as 1. This was referred to as the Main range of responsibility. The next five positions (Main pay range – HOD/Faculty) was coded as 2. This was referred to as the Central range. The final three positions (Senior Leadership Group – Executive Headteacher) was coded as 3. This was referred to as the Higher range. These ranges correspond to teacher pay scales in England (NASUWT, 2019).

One-Way ANOVA was carried out for the effects of positions of responsibility on the dependent variables. All variables apart from Work orientation-job and Intention to Quit met the tests of normality for parametric tests (See Appendix 4.6). The one-way ANOVA is shown in Table 4.6:

Table 4.6.

Descriptive statistics and one-way analysis of variance for the differences between positions of responsibility on the measured variables

Variable	Main		Central		Higher		<i>F</i>	<i>p</i>	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Hope	43.94	8.47	46.89	7.58	52.63	8.65	16.17	<.001**	0.11
Optimism	18.57	5.07	19.97	4.73	23.25	4.40	13.21	<.001**	0.09
Self-efficacy	5.38	1.21	5.83	1.15	6.18	1.18	9.45	<.001**	0.06
Mindset	3.31	0.88	3.29	0.90	3.63	0.81	2.49	.09	0.02
Calling	3.24	1.01	3.52	0.97	3.80	0.86	5.96	<.001**	0.04
Resilience	35.13	7.05	37.06	7.05	40.89	6.18	13.16	<.001**	0.09
Well-being	6.17	1.62	6.44	1.58	7.33	1.72	8.84	<.001**	0.06
Career	2.12	1.03	2.17	1.04	2.24	1.11	0.60	.55	0.004

**Significant at $p < .01$

Significant results were found for all variables apart from Mindset and Work orientation-career. Effect sizes were small/medium. This indicates that, apart from Mindset and Work orientation-career, as position of responsibility increases a significant increase to the measured variable occurs.

Bonferroni tests showed significant results for Hope with all positions of responsibility. Thus, as more responsibility is taken on Hope increases. For Self-efficacy significant results were found between main-central and main-higher. Thus, moving from main to central or from main to higher range results in an increase in Self-efficacy, but moving from central to higher does not. For Optimism, Resilience and Well-being significant results were found between main-higher and central-higher ranges. These variables increase significantly when the teacher moves from main to higher and central to higher but not if a direct move from main to higher range occurs. For Work orientation-calling significance was found between main and higher. Therefore, Work orientation-calling only increases significantly between main and higher positions of responsibility.

The Kruksal-Wallis test was then carried out on Work orientation-job and Intention to Quit. For Work orientation-job no significance was found, $\chi^2 (2, 278) = 1.06, p=.59$. For Intention to Quit a significant result was found, $\chi^2 (2, 276) = 21.58, p=0.001$. (M =Main, 157.00; Central, 135.00; Higher, 89.90). Thus, Work orientation-job does not change significantly as position of responsibility changes but Intention to Quit significantly decreases as more responsibility is taken on.

Mann-Whitney U Tests were then carried out between main and central; main and higher and higher and central ranges. For main to central a significant result was found, $U=5900, N_1=121, N_2=116, p=0.03$. However, to reduce Type 1 error a Bonferroni adjustment was made where the alpha value (.05) was divided by 3 (number of cases) = .017. This meant the result was not significant after adjustment, indicating that moving from main to central did not affect Intention to Quit significantly. For main to higher a significant result was found, $U=1241, N_1=121, N_2=39, p=.001$ and for central to higher a significant result was found, $U=1480.5, N_1=116, N_2=39, p=.001$. Therefore moving from main to higher and central to higher positions of responsibility resulted in a significant decrease in Intention to Quit.

As teachers spend more time in the profession they often gain promotion and so it was decided to find out if there is an interaction effect between professional life stage and position of responsibility on Resilience and Well-being.

A 3x3 between measures factorial ANOVA indicated a direct effect of position of responsibility on Resilience: $(2, 262) = 3.57, p=.03$, partial $\eta^2=0.02$ (small); a direct effect of professional life stage on Resilience: $F (2, 262) = 3.04, p=.05$, partial $\eta^2=0.02$ (small); but no significant interaction between responsibility and life stage: $F (4,262) = 0.90, p=.47$, partial $\eta^2=0.01$. (See Appendix 4.7)

A second 3x3 between measures factorial ANOVA indicated a direct effect of position of responsibility on Well-being: ($F(2, 264) = 3.20, p = .04$, partial $\eta^2 = 0.02$ (small)); a direct effect of professional life stage on Well-being: $F(2, 264) = 4.07, p = .02$, partial $\eta^2 = 0.03$ (medium), but no significant interaction between responsibility and life stage $F(4, 264) = 1.07, p = .37$, partial $\eta^2 = 0.01$ (See Appendix 4.7).

4.3. Conclusion from the Demographic data

The data indicates that number of years in the profession was related to all the variables of interest apart from Mindset. Position of responsibility was related to all the variables apart from Mindset and Work orientation-career. Therefore, years in profession and positions of responsibility should be considered in analysis going forward. Gender, number of hours worked per week, professional life stages, type of school and the interaction effect between position of responsibility and professional life stage were not included as separate variables in the analysis. However, although these will not be measured in the regression, they should not be dismissed. Future research is needed to examine Work orientation-job and gender. The results suggest that professional life stages are important in relation to the measured variables.

4.4. Psychological factors

In order to measure the impact of self-belief characteristics on Resilience, Well-being and Intention to Quit descriptive statistics were initially considered, followed by correlation analysis and regression analysis.

4.4.1. Descriptive statistics

Table 4.7.

Descriptive statistics for each scale

Scale	<i>N</i>	Min obtained	Lowest min	Maximum score obtained	Highest max	Mean	SD
Hope	272	18	8	64	64	46.41	8.63
Self- efficacy	279	1.75	1	8	8	5.69	1.20
Optimism	273	6	6	30	30	19.91	5.12
Mindset	279	1	1	5	5	3.36	.89
Resilience	274	12	10	50	50	36.82	6.77
PERMA Well- being	278	1.31	0	9.31	10	6.48	1.66
Calling	278	1	1	5	5	3.44	.98
Job	278	1	1	5	5	1.57	.82
Career	274	1	1	5	5	2.17	1.05
Intention to Quit	276	3	3	21	21	9.39	6.12

Table 4.7 shows that for all scales the maximum score was achieved by some participants apart from PERMA Well-being where the maximum achieved was 9.31. The lowest possible minimum score was achieved for Optimism, Mindset, Work orientation-calling, job and career and Intention to Quit. For Hope, Self-efficacy, Resilience and PERMA Well-being the minimum scores were only slightly higher than the lowest possible score. For Hope, Self-efficacy, Optimism, Resilience, PERMA and Work-orientation-calling the mean value was over half the maximum possible but for Work orientation-career and job it is less than half. The mean for Hope (46.4) is towards the higher end of the scale but the standard deviation shows there was variability in the data. For Self-efficacy the mean is towards the high end with low variability. The same applies for Mindset and PERMA. Work orientation-job and career and Intention to Quit are towards the lower end and the latter has a high standard deviation. Work orientation-calling lies towards the middle with a low standard deviation.

Intention to Quit is in the lower third but has a very large standard deviation showing a great level of variability. The data was not normally distributed and had a floor effect indicating that most participants did not want to quit teaching. In summary participants are showing medium levels of all variables apart from Work orientation-job which shows a low level.

Data was examined to see if the assumptions of normality were met. Kolmogorov-Smirnov and Shapiro-Wilks tests showed significance values of $p < .05$ but Field (2013) notes that with large samples (> 30) these tests can be overly sensitive. Examining histograms and boxplots and P-P plots suggested that normality could be accepted for all scales with the exception of Intention to Quit and Work orientation-job. The aim was to carry out a set of three multiple regressions to predict Resilience, Well-being and Intention to Quit, followed by a mediation analysis.

4.4.2. Multiple correlations

Multiple correlations were carried out using Pearson's r test on all scales apart from Intention to Quit and Work orientation-job, where Spearman's rho was used instead. The multiple correlations informed on whether the predictor variables were related to the dependent variables and if any predictors were too highly correlated with each other. The correlations are shown in Table 4.8.

Table 4.8.

Correlations between Resilience, Well-being, Intention to Quit and self-belief predictor variables

	Variable	1	2	3	4	5	6	7	8	9	10
1	Resilience	--									
2	Well-being	0.60**	--								
3	Hope	0.63**	0.67**	--							
4	Self-efficacy	0.70**	0.66**	0.83**	--						
5	Optimism	0.66**	0.72**	0.65**	0.69**	--					
6	Mindset	0.13*	0.05	0.17**	0.16**	0.2**	--				
7	Calling	0.40**	0.50**	0.56**	0.51**	0.11	0.10	--			
8	Job (S)	0.22**	0.25**	0.16**	0.19**	0.18**	0.07	0.09	--		
9	Career	0.13*	0.10	0.10	0.16*	0.09	0.10	0.2**	0.07	--	
10	Intention to Quit (S)	-0.32**	-0.48**	-0.42**	-0.37**	-0.45**	-0.05	.60**	-0.16**	-0.005	

*Significant at $p < .05$; **Significant at $p < .01$; S=Spearman's rho used.

Resilience was strongly and significantly positively correlated to Hope, Self-efficacy, Optimism and Work orientation-calling. Well-being was strongly and significantly positively correlated to Hope, Self-efficacy, Optimism and Work orientation-calling. Intention to Quit was strongly and significantly negatively correlated to Work orientation-calling. Mindset was weakly but significantly positively correlated to Resilience, with a small effect size, and not significantly correlated to Well-being and Intention to Quit. However, because of its theoretical importance it was included for later analysis (Dweck, 1999).

Work orientation-job was significantly but very weakly correlated to Resilience, significantly but very weakly and positively correlated to Well-being and significantly but very weakly correlated to Intention to Quit. As these correlations were so weak Work orientation-job was not included for later analysis. Work orientation-career was significantly but very weakly correlated to Resilience and not significantly correlated to Well-being or Intention to Quit. This was also not included in the regression analysis. Work orientation-

calling was strongly positively correlated to Resilience and Well-being and strongly negatively correlated to Intention to Quit and so was included in the regression analysis.

When examining significance, Type 1 errors were minimised by using a stringent p value ($p < .01$). Effect size was also considered so decisions were not just based on probability level but also the magnitude of effect and thus of practical significance (Field, 2013).

In summary, the correlation matrix highlights the relationship between each self-belief variable with Resilience, Well-being and Intention to Quit. Medium to strong effect sizes in the expected direction were found for all except between Mindset and Well-being; Mindset and Intention to Quit; Work orientation-career and Well-being and Intention to Quit and Work orientation-career which show no correlation.

Correlation analysis also highlights the relationship between the outcome variables of Resilience, Well-being and Intention to Quit showing positive correlations with medium to strong effect sizes.

4.4.3. Multiple regressions

4.3.3.1. Resilience

Assessing the impact of the self-belief characteristics of Hope, Optimism, Self-efficacy, Mindset and Job crafting on teacher Resilience. See Table 4.9:

Table 4.9.

Tolerance and VIF values for self-belief characteristics impacting Resilience

Variable	Tolerance	VIF
Hope	.29	3.51
Self-efficacy	.27	3.66
Optimism	.48	2.08
Mindset	.96	1.04
Work orientation-Calling	.66	1.51

1. Participants' VIF scores were well below 10, and tolerance scores above 0.2 which are within the acceptable range
2. The Durbin-Watson statistic showed that this assumption had been met, as the obtained value was close to 2 (Durbin-Watson=1.90).
3. The plot of standardised residuals vs standardised predicted values showed no obvious signs of funnelling, suggesting the assumption of homoscedasticity has been met.
4. The P-P plot for the model suggested that the assumption of normality of the residuals had not been violated.

A multiple regression was carried out to investigate whether Work orientation-calling, Mindset, Optimism, Hope and Self-efficacy could significantly predict participant Resilience scores (See Appendix 4.10). The results of the regression indicated that the model explained 55% of the variance and the model was a significant predictor of Resilience, $F(5, 255) = 62.25, p < .001$. While Self-efficacy and Optimism contributed significantly to the model ($\beta = 0.44, p < .001$ and $0.32, p < .001$ respectively), Hope, Mindset and Work orientation-calling did not ($\beta = 0.06, p < .43$; $-0.001, p < .99$ and $-0.02, p < .73$ respectively).

Refer to Table 4.10 for full results. Figure 4.1 illustrates the size of the predictive relationships.

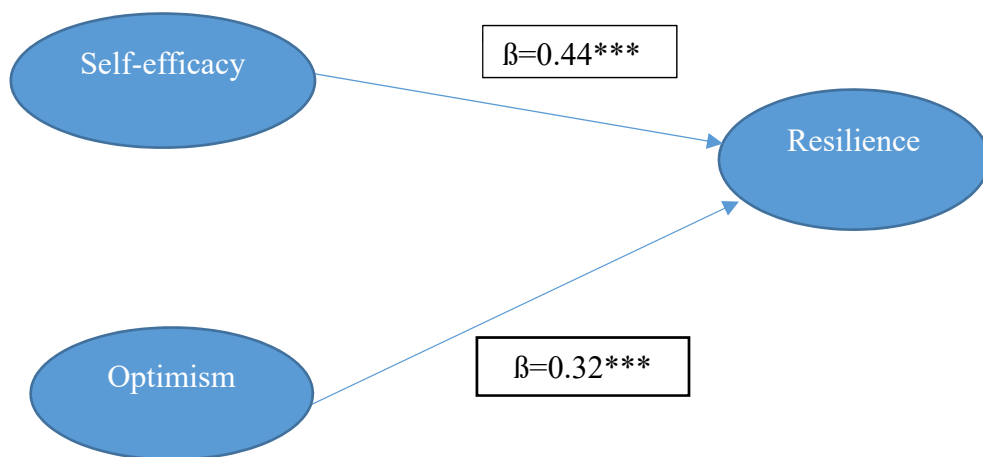
Table 4.10.

Regression analysis summary for self-belief variables predicting Resilience

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>p</i>
Hope	0.05	0.06	0.06	0.79	0.43
Self- efficacy	2.47	0.45	0.44	5.47	<0.001***
Optimism	0.43	0.08	0.32	5.24	<0.001***
Mindset	-0.004	0.33	-0.001	-0.01	0.99
Work- orientation- Calling	-1.23	0.36	-0.02	-0.35	0.73

*** Significant at $p < .001$

Figure 4.1. Significant predictors of Resilience



The relationship between Self-efficacy and Optimism with Resilience is shown. Self-efficacy and Optimism are significant predictors of Resilience. The beta values are shown in boxes.

Both were significant predictors, but self-efficacy was the strongest predictor.

4.4.3.2. Well-being

Assessing the impact of the self-belief characteristics of Hope, Optimism, Self-efficacy, Mindset and Work orientation-calling on teacher Well-being. See Table 4.11:

Table 4.11.

Tolerance and VIF values for self-belief factors impacting Well-being

Variable	Tolerance	VIF
Hope	.28	3.52
Self-efficacy	.27	3.68
Optimism	.48	2.08
Mindset	.96	1.04
Work orientation-Calling	.67	1.50

Assumptions

1. Participants' VIF scores were well below 10, and tolerance scores above 0.2
2. The Durbin-Watson statistic showed that this assumption had been met, as the obtained value was close to 2.
3. The plot of standardised residuals vs standardised predictive values showed no obvious signs of funnelling, suggesting the assumption of homoscedasticity has been met.
4. The P-P plot for the model suggested that the assumption of normality of the residuals had not been violated.

A multiple regression was carried out to investigate whether Total Work orientation-calling, Total Mindset, Total Optimism, Total Hope Score and Average Self-efficacy could significantly predict participants Well-being scores (See Appendix 4.8). The results of the regression indicated that the model explained 61% of the variance and the model was a significant predictor of Well-being, $F(5, 259) = 80.06$ $p < 0.001$. While Hope, Optimism and Mindset contributed significantly to the model ($\beta = 0.32$, $p < .001$; 0.45 , $p < .001$ and -0.14 , $p < .001$ respectively) Self-efficacy and Work orientation-calling did not ($\beta = 0.05$, $p < .51$ and 0.09 , $p < .07$ respectively).

Refer to table 4.12 for full results. Figure 4.2 illustrates the size of the predictive results:

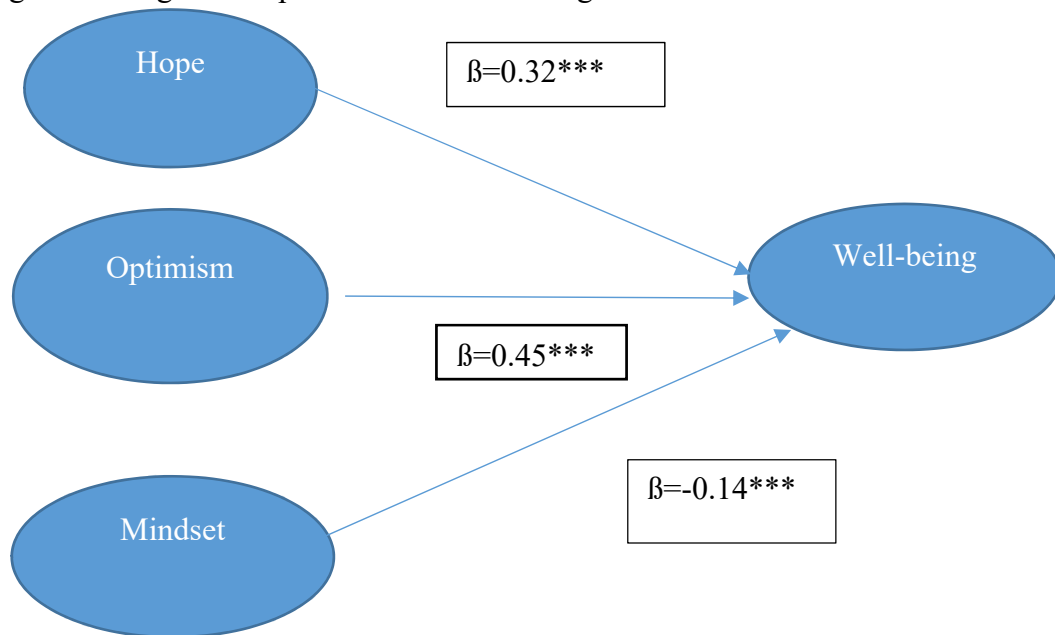
Table 4.12.

Regression analysis summary for Self-belief variables predicting Well-being

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>p</i>
Hope	0.06	0.01	0.32	4.31	<0.001***
Self-efficacy	0.07	0.10	0.05	0.66	0.51
Optimism	0.15	0.02	0.45	8.00	0.001***
Mindset	-0.26	0.08	-0.14	-3.40	<0.001***
Work-orientation-Calling	0.15	0.08	0.09	1.84	0.07

***Significant at $p < .001$

Figure 4.2. Significant predictors of Well-being



The relationship between Hope, Optimism and Mindset is shown. Hope, Optimism and Mindset are significant predictors of Well-being. The beta values are shown in boxes.

Growth Mindset as a suppressor variable

Growth Mindset correlated positively to the other variables, including Well-being (although this relationship is not significant). Thus as Growth Mindset increased the other variables increased as well. However, the regression shows that Mindset as a predictor, has a negative

beta value with Well-being. Tabachnik and Fidell (1996) state this is because Mindset is a negative suppressor variable; it suppresses variance that is irrelevant to the dependent variable and enhances the predictive effect of the other variables, in this case Optimism and Hope. Woolley (1997), likens suppressors to “cleansing agents” (p.2) by removing variance due to measurement artefacts and so improving the accuracy of the other predictors. Thus as the value of growth Mindset increases it enhances the effect of the other predictors and so by increasing growth Mindset, Well-being is increased overall.

4.4.3.3. Intention to Quit

Assessing the impact of Hope, Self-efficacy, Optimism, Mindset and Work orientation-calling on Intention to Quit.

Table 4.13.

Tolerance and VIF values for variables impacting Intention to Quit

Variable	Tolerance	VIF
Hope	.28	3.52
Self-efficacy	.27	3.68
Optimism	.48	2.08
Mindset	.96	1.04
Work orientation-Calling	.67	1.50

Assumptions

1. Participants' VIF scores were well below 10 and tolerance scores above .2
2. The Durbin-Watson statistic showed that this assumption had been met, as the obtained value was close to 2 (Durbin-Watson=1.94)
3. The plot of standardised residuals vs standardised predictive values did not show signs of funnelling, suggesting the assumption of homoscedasticity had been met.

4. The P-P plot for the model suggested that the assumption of normality of the residuals has not been violated.

A multiple regression was carried out to investigate whether Work orientation-calling, Mindset, Optimism, Hope and Self-efficacy could significantly predict participants Intention to Quit scores (See Appendix 4.8). The regression analysis is shown in Table 4.14:

Table 4.14.

Regression analysis summary for self-belief variables predicting Intention to Quit

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>p</i>
Hope	-0.07	0.07	-0.09	-0.97	.34
Self-efficacy	0.81	0.49	0.16	1.65	.10
Optimism	-0.31	0.09	-0.25	-3.47	<.001***
Mindset	0.66	0.36	0.10	1.84	.07
Calling	-2.92	0.38	-0.47	-7.64	<.001***

*** Significant at $p < .001$

Optimism and Work orientation-calling were found to be predictors of Intention to Quit.

Because teacher Retention is a core focus of this research it was also decided to add Well-being and Resilience to Work orientation-calling and Optimism as predictors, in order to obtain a holistic view of which variables predicted Intention to Quit. Another regression was carried out with Work orientation-calling, Optimism, Resilience and Well-being; the summary is shown in Table 4.15 (See Appendix 4.8).

Table 4.15.

Regression analysis summary for Calling, Optimism, Resilience and Well-being as predictors of Intention to Quit

Variable	<i>B</i>	<i>SEB</i>	β	<i>t</i>	<i>p</i>
Calling	-2.77	0.38	-4.5	-7.21	<.001***
Optimism	-0.25	0.1	-2.07	-2.57	.01**
Resilience	0.12	0.06	0.13	1.83	.07
Well-being	-0.58	0.30	-0.16	-1.96	.05*

***Significant at $p < .001$ **Significant at $p < .01$ *Significant at $p < .05$

The multiple regression showed that Optimism, Work orientation-calling and Well-being predicted total Intention to Quit (for Well-being $p=.051$ and so was border line). Resilience did not significantly predict Intention to Quit ($\beta=.13$; $p=.07$).

However, total Intention to Quit was a bimodal distribution meaning it did not meet parametric assumptions of normality and so had to be viewed with caution. Therefore, it was decided to split the data into 3 categories: 1=Low Intention to Quit; 2= Medium Intention to Quit and 3=High Intention to Quit. The categorisation was organised by using the visual binning tool with two equal cut points based on the distribution of scores in the sample. Categories 1 and 3 then underwent the independent t test (See Appendix 4.8) to see if a significant difference existed between the low and high Intention to Quit categories (see Table 4.16).

Table 4.16.

Differences between Low Intention to Quit and High Intention to Quit groups

Measure	Low Intention to Quit		High Intention to Quit		<i>df</i>	<i>t</i>	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Hope	50.99	6.48	42.23	8.85	146.33	7.41	<.001**	1.14
Self- efficacy	6.20	0.88	5.24	1.32	142.91	5.72	<.001**	0.87
Optimism	22.66	4.64	17.59	4.95	177	7.08	<.001**	1.06
Mindset	3.45	0.96	3.38	0.81	181	0.50	0.62	0.08
Resilience	39.51	6.46	34.51	6.56	178	4.87	<.001**	0.77
Well- being	7.35	1.33	5.64	1.61	163.08	7.77	<.001**	1.16
Calling	4.09	0.69	2.78	0.96	149.92	10.48	<.001**	1.58
Job	1.65	0.85	1.48	0.82	181	1.42	.16	0.20
Career	2.19	1.06	2.10	1.09	178	0.52	.61	0.08

***Significant at <.001

The 't' test specified (See Appendix 4.10.) significant differences between teachers with low versus high Intention to Quit on Self-efficacy, Hope, Optimism, Work orientation-calling,

Resilience and Well-being with large effect sizes, but not for Work orientation-job, Work orientation-career and Mindset. Category 1 (Low Intention to Quit) was recorded as 0 and Category 3 (High Intention to Quit) was recorded as 1. A binary logistic regression analysis was then performed to predict which group (0 or 1) participants were based in on their scores for Optimism, Work orientation-calling and Well-being as these were the predictors in the previous regression using total Intention to Quit.

Overall, 79.3% of predictions were accurate. Table 4.17 shows the coefficients and the Wald Statistic and associated degrees of freedom and probability values for each of the predictor variables. This shows that only Work orientation-calling reliably predicted Intention to Quit. The values of the coefficients reveal that an increase in one unit of Work orientation-calling is associated with a decrease in the odds of Intention to Quit of 0.2.

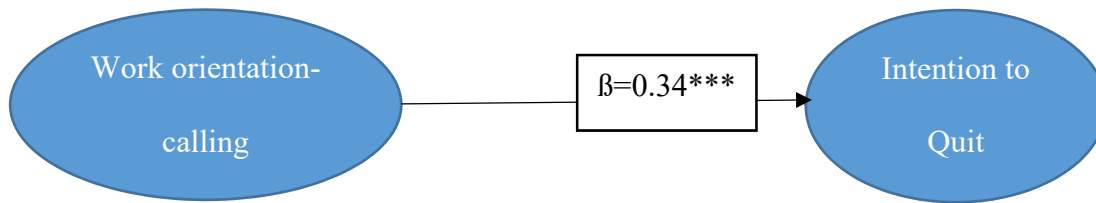
It was noticed that participant 153 had an outlying value and so the logistic regression was repeated excluding this participant. Omitting the outlier did not affect the fact that Intention to Quit is predicted by Work orientation-calling. Figure 4.3 illustrates the size of the predicted relationship.

Table 4.17.

Summary of logistic regression analysis predicting Intention to Quit

Predictor	<i>B</i>	β	<i>OR</i>	<i>Wald</i>	<i>p</i>
Calling	-1.86	0.34	0.16	30.21	0.001
Optimism	-0.11	0.06	0.90	2.98	0.08
Well-being	-0.32	0.21	0.73	2.40	0.12

Figure 4.3. Significant predictor of Intention to Quit



The relationship between Work orientation-calling and Intention to Quit is shown. Work orientation-calling is a significant predictor of Intention to Quit. The beta values are shown in the box.

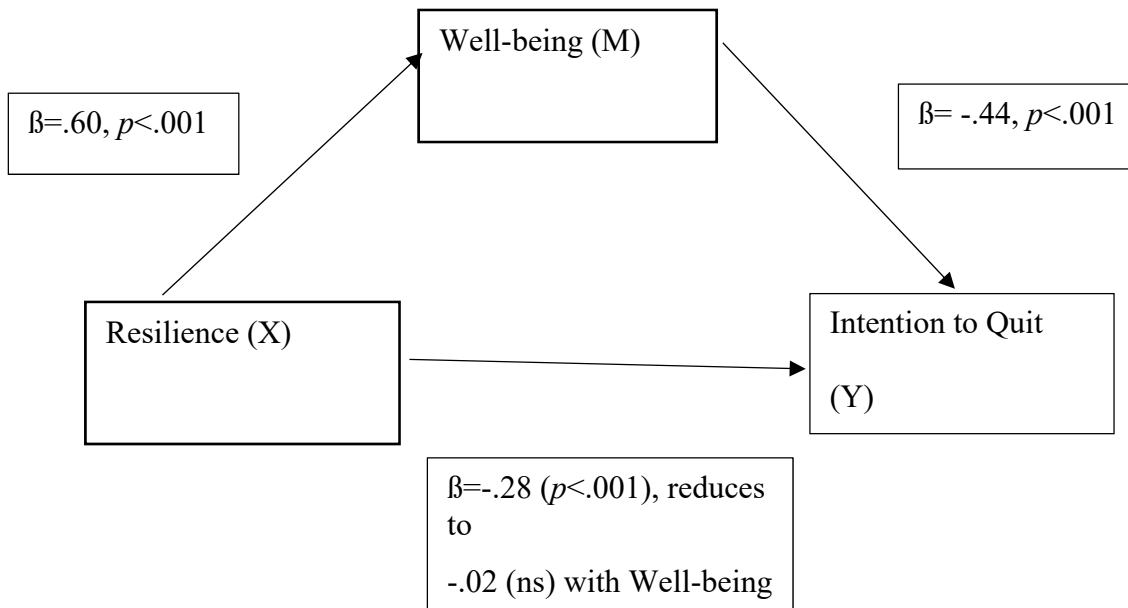
To summarise, Self-efficacy and Optimism contribute significantly to the model predicting Resilience; Hope, Optimism and Mindset to Well-being and only Work orientation-calling to Intention to Quit.

4.5. The mediation impact of Well-being in the Resilience-Intention to Quit relationship.

Resilience did not have a significant impact on Intention to Quit directly although it was correlated. Intuitively it would be expected to reduce Intention to Quit and so a mediation analysis was conducted to see if Well-being mediates the impact of Resilience on Intention to Quit.

The Baron and Kenny (1986 as cited in Field, 2013, pp. 408-410) technique was used as shown in Figure 4.4:

Figure 4.4. Mediation



The steps in the analysis are as follows (See appendix 4.9):

X is a significant predictor of Y because $\beta = -.28 (p < .001)$

X is a significant predictor of M because $\beta = 0.60 (p < .001)$

M is a significant predictor of Y because $\beta = -.44 (p < .001)$

Total Resilience drops from $-.28$ to $-.02$ (not significant) when Well-being is included in the regression.

Total mediation = $(-.28 - (-.02)) = .26$

Resilience is a significant predictor of Intention to Quit when included on its own, but not when combined with other variables in the multiple regression. For example, when Well-being is included the Resilience beta value declines notably.

Because of this reduction Well-being has a significant mediation effect on the impact of Resilience and Intention to Quit. **This means Well-being directly affects Intention to Quit and indirectly enhances the effect of Resilience on Intention to Quit.**

4.6. Summary

The purpose of this chapter was to address Objective 1, to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention.

The analysis of the demographic data indicated that number of years in the profession was related to all variables except Mindset. Positions of responsibility were related to all the variables apart from Mindset and Work orientation-career and so should be considered in the analysis going forward.

The regression analysis showed that Self-efficacy and Optimism contribute significantly to the model predicting Resilience. Hope, Optimism and Mindset contribute significantly to Well-being and only Work orientation-calling contributes significantly to Intention to Quit. The mediation analysis indicated that Well-being mediates the impact of Resilience on Intention to Quit, thus enhancing the effect of Resilience on Intention to Quit to a significant level.

Table 4.18: *Key for interpretation of effect sizes*

Effect size	Cohen's d	<i>r</i>	η^2
Small	0.2	.1	0.01
Medium	0.5	.3	0.06
Large	0.8	.5	0.14

Source: Field (2013); Brace, et al. (2016)

4.7. Discussion of the quantitative analysis

When examining the data for gender differences the t-tests were not significant, indicating there was no notable difference between the scores for males and females on key variables. This differs from the findings of Kovess-Masfety et al. (2007) who found that male teachers were less stressed than females in secondary schools. Although stress is different conceptually to low well-being it is recognised that stress leads to a decrease in well-being (Travers, 1996;

Huppert, 2004; Gold et al., 2010). However, Kovess-Masfety et al. (2007) were measuring stress differently, using the Hopkins Symptom Checklist (Ilfeld, 1977 as cited in Kovess-Masfety et al., 2007, p1180). Gyllensten and Palmer (2005) came to no firm conclusions about gender differences. The descriptive scores (Table 4.3) indicate little difference between males and females. Comparing table (4.2) with (4.1) gender made little difference to the mean scores or standard deviation values indicating it had little effect. Scores still lay a little above the average indicating that the levels could potentially be raised with suitable interventions.

For age (Table 4.3), small to moderate positive correlations were found for all variables except for Work orientation-calling, career and Intention to Quit where no significant relationships were found. Thus most of the variables increased with age. Laub (1998, as cited in Brewer & Shepard, 2004, p.104) found younger secondary school teachers experienced more burnout than older ones and Brewer and Shepard (2004) found a negative correlation between age and burnout but it was only small. In this study age had a small but significant positive correlation with Well-being. With time Well-being increased supporting previous research relating to burnout.

The problem with examining age as a variable is that different teachers enter the profession at different ages and take time out at different times. Because age correlates strongly with number of years worked (and hence, amount of teaching experience) in this study the number of years worked was considered more useful than age of teacher (see Table 5.3). Small to medium correlations in the expected direction were found for all self-belief variables indicating that as teachers increased with experience, so too did their self-belief variables (apart from Mindset, which showed no correlation). Thus, Work orientation-calling and (negative) Intention to Quit did correlate with the number of years worked; as more years are spent teaching, Work orientation-calling increases and Intention to Quit decreases. The implication is that if it takes time and experience for these variables to develop care should be taken with younger teachers who have less experience.

However, large sample sizes can cause significant findings even if the effect size is small. For example, in the correlation between age and Intention to Quit $r = .11$, whereas the correlation between years served and Intention to Quit is $r = .12$. There is very little difference between them and $r = .12$ a small effect. Therefore, it could be argued there is no significant relationship between age, or years, with Intention to Quit. This links to the literature about who quits teaching; with both number of years worked and Work orientation-calling, the effect size increases from .12 to .17. Although this is still a small effect size, it could be suggested that it indicates that older teachers entered teaching because of Work orientation-calling whereas younger teachers see it as a career and are prepared to leave if a more attractive occupation appears. On the other hand, examination of the mean values in the descriptive data, shows that although Work orientation-calling increased with experience so does career.

Interestingly, Work orientation-calling is not related to *age*, because a third of teachers leave early in their career but other, older teachers leave before retirement (Worth et al., 2018). Those that teach for long periods therefore are often the ones who probably have a sense of Calling. This should be taken into account when examining the findings-many teachers have left before retirement.

In turn, Gu and Day (2007); Day and Gu (2010) consider professional life stages to be more useful than years worked for the reasons discussed in Chapter 3. Confirming the correlations, the one-way ANOVA indicated significant differences in the life-stages for all variables apart from Mindset and Work orientation-job (Table 5.4). When examining the profiles (Appendix 4.6), Optimism was seen to decline slightly to the middle phase and then rise rapidly towards the veteran stage. Well-being follows a path similar to Optimism. At first the teacher struggles to establish themselves and then consolidates their position. Day and Gu (2010) suggest the middle years of a teaching career are a “critical transitional phase” (p. 101) because the teacher experiences more bureaucracy, greater attainment targets and

changes in personal circumstances implying that Optimism and Well-being are tested. Kern et al. (2014), looking at PERMA Well-being in a school, found Optimism predicted Well-being, as was found in this research.

The data shows that Self-efficacy was different between career stages, it was higher in the veteran stage compared with the beginner. This corresponds with the findings of Gu and Day (2007) and Day and Gu (2010) who showed that efficacy is lower in beginner stage and higher in the veteran stage with teachers who maintain their motivation. Little is known about self-efficacy in the middle and later stages of teaching. This study, however, does show it to predict Resilience.

Hope was also higher in the veteran stage. This differs from the findings of Bullough and Hall-Kenyon (2011), who found that levels of hope did not alter with years of service, it remained high throughout. Hope may need to be measured differently. Bullough et al. (2011; 2012) note that teachers' emotions can vary considerably from day to day and even the State Scale, which is designed to measure changes more rapidly than the Trait Scale, may be measuring a teacher's general hopefulness with life rather than their hope at work. A similar problem may have occurred here, especially as the Trait Scale was used, which is not designed to measure rapid changes in hope levels and so may be measuring general levels of hopefulness.

In this study Resilience was higher in the veteran stage compared to the beginner. Day and Gu (2010) noted that resilience at each stage will depend on “‘strength of the vocation of individual teachers” (p.174) (that is, their Calling), the people they interact with and the collective resilience of the organisation they work in. In the study, Work orientation-calling did not predict Resilience but it was correlated significantly, with a medium effect size. Day and Gu (2010) note that by the time some teachers reach the veteran stage resilience is waning. Here, those teachers with low Resilience may have left before retirement and so Resilience will be higher in the veteran stage. Resilience is higher, possibly, because as the

years pass, teachers know what is expected of them and develop strategies to cope. On the other hand, they may have always been resilient which explains why they have been able to stay in teaching for so long. They may have maintained Resilience because they have maintained high levels of Self-efficacy and Optimism (predictors of Resilience).

These veterans are of particular interest from the perspective of Retention because they have stayed in teaching for long periods and so looking at their self-belief factors, such as Optimism and Self-efficacy, informs on possible ways to improve Retention. It is salient that the 'collective resilience of the organisation' is mentioned as a way of affecting individual resilience because the qualitative study will demonstrate that contextual factors, as well as individual psychological factors, are needed to bring about Resilience.

When considering positions of responsibility, the results (Table 4.6) showed that Hope, Optimism, Self-efficacy, Work orientation-calling, Resilience and Well-being were all higher in teachers with higher positions of responsibility. Intention to Quit decreased with added responsibility. Mindset, Work orientation-job and career did not show a significant link to responsibility. Mulholland, McKinlay and Sproule (2017) found stress (which links to a lack of well-being) to be highest within the main and central range teachers and lower in higher range teachers, because the higher range teachers had fewer roles to deal with. Cooper et al. (1988, as cited in Travers & Cooper, 1996, p.37) found that one of the factors causing occupational stress was role in the organisation, in other words role ambiguity and role conflict. Centrally ranged managers are likely to experience role ambiguity as they have many tasks but may have a lack of clarity of what is expected of them from their higher ranked superiors. Role conflict may arise because of conflicting demands within the many tasks they have to do. Once the senior positions of authority are gained, role ambiguity and demand conflict reduces because the senior has more control over their work. Beginners have high stress because they are new and so experience 'transition shock' (Day & Gu, 2010). This will be explored in more detail in the second strand of the research.

In this study different results were found. The values attached to most of the variables, including Well-being, increased as seniority was achieved, even in the central range. Intention to Quit decreased with seniority. This could be because those who had wanted to leave had done so, those that stayed to the central range of authority wanted to be there and had grown in confidence as the transition shock passed. This was then consolidated into the higher positions.

However, Work orientation-career declined as the position of authority went from main to higher, indicating that the desire for promotion decreased as the teacher moved through their career. This could be because the teacher has obtained the position they desire, or has come to terms with it, and so they turn their motivations to other paths. This could also be why Optimism and Well-being increase as the teacher is no longer frustrated by any perceived lack of progress in their career.

With respect to professional life stages, Work orientation-calling values decline between the beginning and middle stage. This could be due to the ‘transition shock’ which can put demands on their sense of Calling but those who ‘make it’ to the middle stage will have sustained their engagement and managed their work-life balance (Day & Gu, 2010). They will have increased their Self-efficacy, Hope and Optimism and Resilience. The teacher is able to channel this capital into their Calling (they are not preoccupied with promotion) and so Work orientation-calling will develop more quickly. Intention to Quit rises rapidly to the middle stage and this could be due to the pressures of the job but it then declines rapidly at the veteran stage. As the teacher is able to develop their Work orientation-calling they are less likely to want to leave their occupation. An implication is that care should be taken with newer teachers who have not had time to develop the various dimensions of self-belief.

As a teacher moves through the professional life stages they are more likely to acquire promotion leading to higher positions of responsibility and so it was decided to examine the interaction effect of the number of years teaching with responsibilities on Resilience and

Well-being using factorial ANOVA. No significant interactions were found, only direct effects. In other words, as a teacher moves through the professional life stages, and also gains higher positions of responsibility, the effects are purely additive.

Type of school was analysed using one-way ANOVA. There were no significant differences between the variables and type of school apart from Work orientation-job but this result should be treated with caution because there was only a small effect size and was only significant at $p < .05$.

No comparable research was found on school type as the academy system in its present state is a recent development. Given different leadership styles and locations significant differences could have been expected. For example Worth et al. (2018) found teachers in academies have a higher probability of leaving the profession than in non-academies and in all schools teachers tend to move to less disadvantaged areas implying that Well-being and the other variables are less in the academies and disadvantaged schools, and this has created the desire to move. Future research should therefore examine local level contextual factors, such as comparing rural to urban schools within a county, as well as examining factors at the national level. There may be within-school contextual factors (rather than just 'type of school' factors) that cause teachers to leave secondary schools and this is examined in the second strand of this research.

No correlations were found between the number of hours worked and the self-belief variables apart from Work orientation-job where a significant negative correlation was found but the effect size was small. This is what would be expected from the academic (for example, Carter & Stevenson, 2012) or popular (for example, Banning-Lover, 2016) literature which states that excessive workload reduces retention. Those with a Work orientation-job would be expected to keep clear boundaries between work and non-work time and leave teaching altogether if necessary. It may be the *type* of work, rather than the amount that cause teachers to consider leaving.

Analysis focusing on the relationship between the self-belief variables and Resilience, Well-being and Intention to Quit found that medium to strong effect sizes in all the variables of interest except for Mindset. Reichard et al. (2013) found hope correlates with well-being in the workplace whereas Bullough and Hall-Kenyon (2012) found no correlation.

Considering Optimism, Luthans, Youssef et al. (2007) found it correlated with well-being in the workplace. Here, a strong correlation with Resilience and Well-being was found and a medium, negative, correlation with Intention to Quit. Perhaps, in this study, the dissatisfied teachers had already left the profession.

Regarding Self-efficacy, Luthans, Youssef et al. (2007) and Bandura and Locke (2003) found a correlation with work performance but there is no information about the outcome measures examined here and so this requires further investigation and future research.

No correlations were found with Mindset. Gero (2013) found growth Mindset correlated with engagement in teachers but he did not study the self-belief factors used here. Mindset may be a variable that is not related to the dependent variables, even if it is related to intelligence (Dweck, 1999).

No other studies seem to have examined the links between the psychological, demographic and dependent variables discussed here, this is the first. Future research can extend the findings. Although correlation does not imply causation, these results suggest that changes in each variable may lead to changes in the others through the use of psychological interventions. The findings also showed that veteran teachers scored higher on self-belief variables compared to beginners, or middle stage teachers, and had lower Intention to Quit suggesting that higher levels of self-belief variables may cause an improvement in Retention.

Multiple regression analyses showed that Self-efficacy and Optimism predicted Resilience significantly but Mindset and Work orientation-calling did not. This corresponds with the findings of Woolfolk Hoy and Burke Spiro (2000). Colardici (1992) and Rozenholtz

and Simpson (1990), note that increasing self-efficacy leads to greater commitment and this leads to a reduction in attrition but here Self-efficacy did not predict Intention to Quit. However, attrition refers to individuals who have actually left whereas Intention to Quit only refers to intention. In addition, Colardici (1992) and Rosenholtz and Simpson (1990) note that other, contextual, factors, such as teacher-student ratio and school climate also affect attrition and this may explain the differences in results. Leiter (1992) found that the ‘crisis in self-identity’ leads to burnout. This, in turn, can lead to teacher attrition (Glickman & Tamashiro, 1982). However, this is not a direct link and many changes have happened since this study was carried out which may also account for differences in the findings here.

Hope, Optimism and Mindset predicted Well-being significantly but Self-efficacy and Work-orientation-calling did not. This is supported by Snyder, Harris et al. (1991, as cited in Snyder et al., 2011, p.190) who found hope predicted well-being. Williams et al. (2015), using the PERMA scale, found optimism predicts well-being in teachers, which reflects the findings here.

Only Work orientation-calling predicted Intention to Quit. ($\beta=.34$, which indicates quite a strong weighting and significantly more than Optimism and Well-being). Wrzesniewski (2001) and Demorouti (2015) found increased Work orientation-calling leads to a reduction in stress and so an increase in Well-being. However in this study, Work orientation-calling did not predict Well-being, but did predict a reduction in Intention to Quit. This is an important point because it indicates that Work orientation-calling impacts Intention to Quit no matter what an individual’s level of Well-being and Resilience are.

At this point two separate findings exist. If Hope and Optimism are increased then the regression model would predict that Well-being and Resilience would improve and the experience of teaching will be improved but if Work orientation-calling is increased Retention will be improved. Policy makers could simply improve Work orientation-calling (say, by appealing to teachers’ sense of public duty) but still not bother to improve their levels of

Well-being at work. It would therefore be useful to examine the links between the outcome variables of Resilience, Well-being and Intention to Quit (See table 4.8). Medium to strong correlations were found indicating that Well-being and Resilience also link to Retention. Thus, the implication is that by increasing their levels through increasing Hope and Optimism, Retention will also improve.

The mediation impact of Well-being in the Resilience-Intention to Quit relationship indicated Well-being to be a strong mediator in the Resilience-Intention to Quit relationship. This indicates that Well-being enhances the effect of Resilience on reducing Intention to Quit. However, this mediation analysis did not include Work orientation-calling in the analysis and therefore does not assess the *relative* impact of Well-being on Intention to Quit in relation to the other variables.

In order to improve Retention interventions could be arranged to increase all the self-belief variables. All the dependent variables would then increase and Intention to Quit would be reduced. In reality, it is highly unlikely that enough resourcing would be available to do this and so interventions would need to be focused.

In response to Objective 1, demographic and psychological factors predicting teacher Resilience, Well-being and Retention have been measured. The survey analysis indicates that Work orientation-calling is the most important variable to develop as this alone predicts a reduction in Intention to Quit. Interventions to improve Well-being are also vital because not only does it improve the daily experience for the teacher, it also acts as a mediator and enhances Retention. Well-being can be enhanced through interventions to enhance Hope, Optimism and growth Mindset. However, Mindset is only a suppressor variable and so with limited resources available it would be advisable to concentrate on enhancing Hope and Optimism but not growth Mindset.

At a time of poor teacher retention in English schools the implications mentioned are of value, especially as little work has been carried out on the use of positive psychology with teachers to date.

Critique

This quantitative research has made use of the benefits associated with using questionnaires. A large number of schools and colleges were given access to the study and data gained relatively quickly and cheaply. Participants could remain anonymous. Access to the internet is widespread and the scales used were all well established and therefore valid and reliable. On the other hand, social desirability may affect results and because the study is cross-sectional it did not track changes over time. A sample size of 279 is good; Meyers, van Woerkom and Bakker (2013), in a literature review of positive psychology interventions in organisations including schools, found sample sizes ranging from $N=30$ to $N=364$. A sample size of 279 is at the upper end of this range. A good representation of school types was obtained and the sampling method was thorough, utilising a diverse profile of teachers.

On reflection, more demographic data could have been captured, such as differences between different parts of England, with their different socio-economic profiles. Schools located in disadvantaged areas, particularly in London, experience more problems in retaining teachers compared to other areas (Towers & Maguire, 2017). Differences between teachers of different subjects could also be investigated. Factors like these may well impact on teacher responses to the variables measured. Some of the potential contextual variables that may shape teacher experiences in this regard, and impact on their decisions to stay or leave teaching, will now be explored through the analysis of the qualitative data collected via the semi-structured interviews in the following chapter.

Chapter 5. Exploration of in-depth teacher accounts at different career stages about factors contributing to decisions to stay or leave the profession: qualitative study.

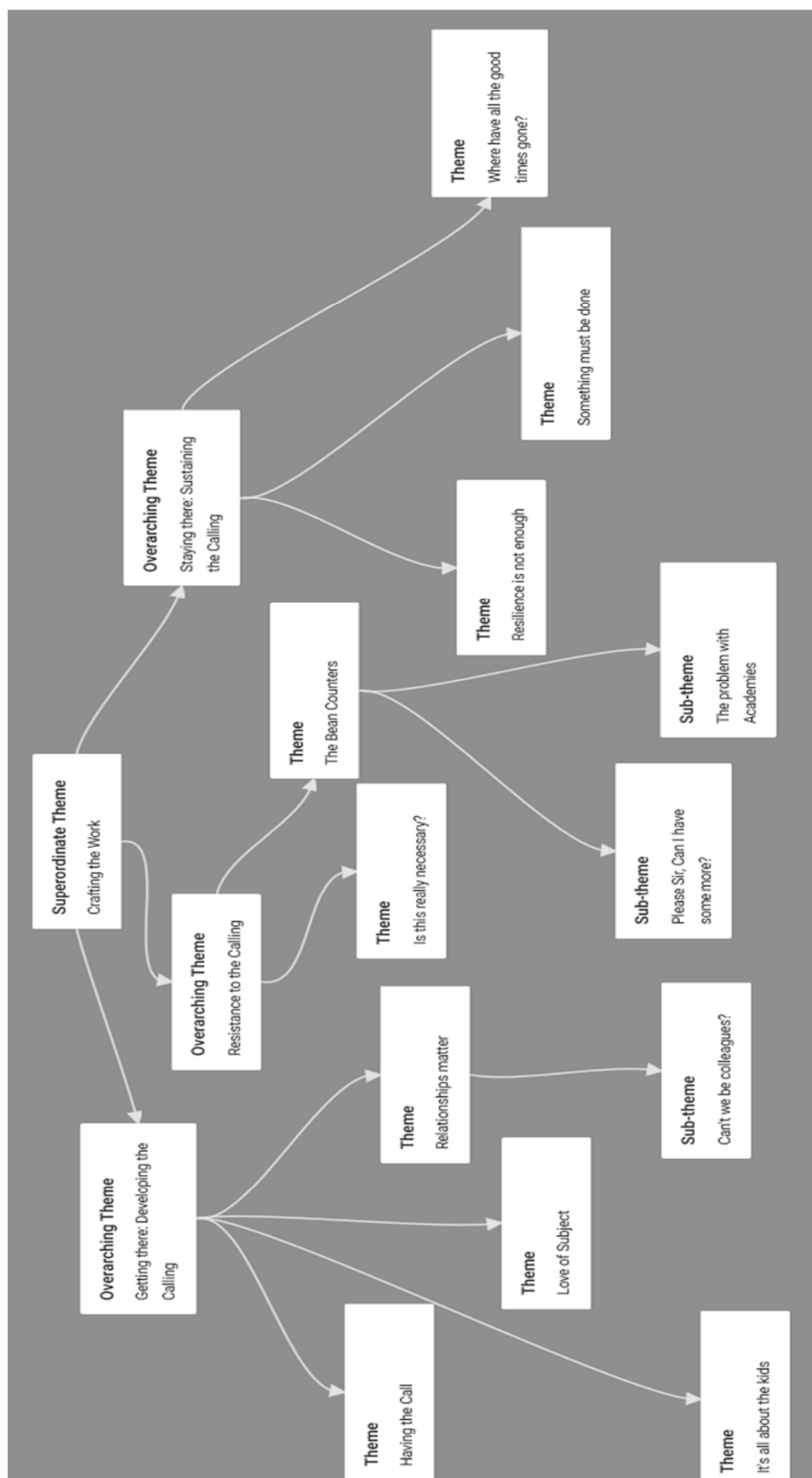
5.1. The Analysis of the Qualitative Data

In Chapter 5 the analysis of the semi-structured interviews is explained. The final sample size was eleven ($N=11$) made up of 2 NQTs, 4 established teachers and five who had, or were in the process of leaving secondary teaching. For ease of reading a very brief reminder of the background information about each interviewee is repeated. The reader should refer back to pages 131-133 for more details. In order to maintain anonymity, all names are pseudonyms.

Eleven teachers were interviewed ($N=11$). Teresa, Julie, Anne and Roland ($n=4$) were established teachers. Aron, Jackie, Stephen, Sarah and Tom were included in the left/leaving teaching group ($n=5$). Harriet and Linda were NQTs ($n=2$).

The different themes are described and are shown on the following visual thematic map (Figure 5.1.):

Figure 5.1. Visual thematic map.



5.1.1. The Visual Thematic Map

The Superordinate Theme, '*Crafting the Work*' is comprised of three Overarching themes, '*Getting there: Developing the Calling*', '*Resistance to the Calling*' and '*Staying there: Sustaining the Calling*'.

'*Getting there: Developing the Calling*' is comprised of four themes, '*Having the Call*', '*It's all about the kids*', '*Love of Subject*' and '*Relationships matter*'. The latter has a sub-theme, '*Can't we be colleagues?*'

'*Resistance to the Calling*' covers two themes, '*Is this really necessary?*' and '*The Bean Counters*' and the latter has two sub-themes, '*Please Sir, Can I have some more?*' and '*The problem with Academies*'.

'*Staying there: Sustaining the Calling*' is made up of three themes, '*Resilience is not enough*', '*Something must be done*' and '*Where have all the good times gone?*'.

5.1.2. The Superordinate theme: '*Crafting the Work*'

'*Crafting the Work*' refers to the term used by Wrzesniewski and Dutton (2001) and explained in Chapter 2. It relates to the idea that individuals proactively, and from the bottom up, manipulate their work in order to orientate it either 1) to create a Job (where the main motivation is money), 2) a Career (where the motivation is to seek status) or 3) a Calling (where the motivation is to create meaning from the work itself) (Wrzesniewski, McCauly, Rozin & Schwartz, 1997). Work meaningfulness is linked to work orientation, so a worker finds meaning through money or status or Calling (Wrzesniewski & Dutton, 2001).

'*Crafting the Work*' is a superordinate theme because it shows that teachers were endeavouring to craft their work in order to develop a sense of Calling. (In the qualitative

study, 'Calling' is equivalent to 'Work orientation-calling' in the survey). In the case of Calling, work is carried out because it is fulfilling to the worker and can lead to a state of flow (Csikszentmihalyi, 2002). It is also perceived to be socially useful and the worker feels 'drawn' or 'beckoned' towards it (Wrzesniewski et al., 1997; Rosso, Dekas & Wrzesniewski, 2010). The data in Chapter four showed Work orientation-calling to be important because it was the predictor for Retention. In the qualitative data teachers also referred to Calling regularly. From the superordinate theme of *'Crafting the Work'* comes three overarching themes: *'Getting there: Developing the Calling'*; *'Resistance to the Calling'* and *'Staying there: Sustaining the Calling'*.

'Getting there: Developing the Calling' refers to the 'ingredients' needed to be a good teacher and is composed of the themes, *'Having the Call'*, *'Relationships matter'*, *'Love of Subject'* and *'It's all about the kids'*. *'Resistance to the Calling'* refers to factors that frustrated the teacher in developing their Calling and is made up of the themes, *'Is this really necessary?'* and *'The Bean Counters'*. The overarching theme of *'Getting there: Sustaining the Calling'* refers to the methods teachers use to cope with factors that slow down, resist or even reverse Calling from being enhanced. It is comprised of three themes, *'Resilience is not enough'*, *'Where have all the good times gone?'* and *'Something must be done'*. These components will now be examined.

5.1.3. Overarching theme: *'Getting there: Developing the Calling'*

'Getting there: Developing the Calling' is the overarching theme which examines the factors that teachers said are needed to nurture their teacher sense of Calling. Having a Calling seemed to underpin all the participants, it was the essence of teaching for them. If these factors were restricted then they felt that their Calling could not be developed to its maximum.

If, however, these factors were developed then the teachers could ‘get there’ and make full use of their Calling.

5.1.4. Theme: ‘*Having the Call*’

Teachers in all groups (established, NQTs and leavers) discussed regularly their motivation for teaching as focused on a sense of vocation rather than money or status. These discussions led to the emergence of the theme ‘*Having the Call*’. This is a theme which indicated that the teachers in all the sample groups, established, NQT and those who had left or were leaving, were all motivated by a sense of vocation. In other words they were motivated by factors other than just money or status (Wrezniewski, Mccauly, Rozin & Schwartz, 1997). The Call was something that all participants had in common, regardless of career stage. For example, Aron (left/leaving teaching) was motivated by performing a public service involving young people. This motivation may have arisen because his parents had fostered children and he had been involved with various youth organisations and so he felt he had been socialised into valuing public service. ‘*My parents were both foster carers so we also had that kind of culture in the house of working with young people*’ (Aron, left/leaving teaching, p.2, lines 32-34). Although he had not sought a teaching career initially, ‘*it came along at the right time, the right place and obviously I’ve never really looked back since then*’ (Aron, left/leaving teaching, p.3 lines 29-30). Aron seemed to have found a niche and the word ‘obviously’ indicated that working in education was ‘right’ for him, he felt he has been drawn to the right place. The work was also fulfilling and socially valuable-a true Calling.

Jackie may also have been socialised into considering a teaching career, she had been brought up in a family where education was valued and so her decision to become a teacher seemed almost inevitable. Her father had wanted to be a teacher but had been unable to fulfil

his wish and her mother was a childminder. She knew at an early age that “*teaching was the way to go forward*” (Jackie, left/leaving teaching, p.1, line 55) and she was keen to get to what I call the ‘essence’ of teaching. In other words, to move into a challenging area to really test her vocation by not only teaching English but also becoming a Special Educational Needs Coordinator (SENCO) and so being responsible for statemented (and sometimes challenging) children. She went even further and studied to become a specialist in dyslexia and even when her health was poor and her family were suggesting a change of occupation she “*couldn’t think of something else that I actually, really wanted to do*” (Jackie, left/leaving teaching, p.18, lines 6-8). Her *identity* was entwined with her occupation,

... *you are an AM, you know when people say to you ‘What do you do?’ [I say] ‘I am a teacher’. And I have been saying that now for 16 years... And I’m still proud to say it...No matter what is thrown at you, you still-inside your core-want to teach* (Jackie, left/leaving teaching, p18, lines 18-27 and p.19 lines 1-2).

She was clearly saying that being a teacher was a major part of her identity, it was much more than just a job and teaching was at her core and she needed to protect it by crafting in whatever way possible (see Towers & Maguire, 2017) Interestingly, Jackie said:

And it’s got nothing to do with the status or the money or anything else that comes with it. I’m still proud of the fact that teaching is a vocation, that we are important in society and I can’t think of a more important, well I can’t think of any jobs that are as important to society as a teacher (Jackie, left/leaving teaching, p.18, lines 32-34).

The words “status” and “money” are the words used by Wrzesniewski et al. (1997) to discriminate vocation from the other two forms of work orientation and these two words were dismissed by Jackie as less important than vocation. The importance she attached to teaching gave her a sense of value and purpose; it was fulfilling, socially valuable and she felt drawn to it, so it was a Calling.

Sarah's sense of vocation also started early. She was a much older sister and liked the idea of *'being able to make children happy and do nice things and do a bit of magic with them'* (Sarah, left/leaving teaching, p.2, lines 39-40). Teaching was meaningful because it helped others. She also wanted to challenge herself, to get to the 'essence' of teaching and so transferred to a Steiner school and SEN schools and found this sector fulfilling and socially useful:

I've been here [her present school] for about 18 years now in this special education and I mean every class, every single class I have found very enriching and hopefully they've had benefits (Sarah, left/leaving teaching, p.3 lines 30-33).

Stephen's Calling was based on the idea of *'inspiring young people, getting the best outcomes for them'* (Stephen, left/leaving teaching, p.1, lines 42-43). He was fulfilled by the work and saw it as socially useful. As with the previous interviewees, he wanted to test his vocation by engaging *'with the more difficult to reach children that I think are often marginalised'* (Stephen, left/leaving teaching, p.1, lines 51-53). He likened himself to a *'crusader'* (Stephen, left/leaving teacher, p.1, line 53) and so sought out *'the toughest of jobs and that's why I've always put myself in the toughest roles in the toughest schools. That's always been my passion, yes'* (Stephen, left/leaving teaching, p.1, line 53-p.2 lines 1-3). He has been a 'man on a mission' and had a strong sense of public and moral duty.

Unlike the previous teachers Tom did not have an early vocation, he did not come from a 'teaching family' and had considered careers other than teaching. However, once he had embarked on a teaching career a sense of vocation quickly developed and he became committed. Having worked abroad in demanding circumstances, he returned to the UK, working in a progressive comprehensive school and finding it a very rewarding experience, *'being amongst young people with whom one can be aware you are having quite a strong influence'* (Tom, left/leaving teaching, p.3, lines 28-30). He saw teaching as an experience,

not a career, enjoying the broad opportunities, such as extra-curricular work, that existed outside of the classroom and was content to spend many years in one school rather than moving around. Tom got value from the fulfilment of teaching, from the positive impact on others and from finding his occupational niche.

The five teachers mentioned so far had left, or were in the process of leaving, their teaching jobs and were looking for other areas to work in. They still had a strong sense of vocation because they found teaching fulfilling, they valued helping society and they felt drawn to their work. It thus seems illogical that they had left or were thinking of leaving secondary school teaching. This will be discussed in detail in a later theme but none of these teachers wanted to leave education itself. They all wanted to exercise their vocation, but not in traditional, secondary roles. Aron had moved to an educational charity. Jackie became a peripatetic SEN teacher. Sarah was in the process of leaving and was thinking of carrying out some educational research. Stephen was intending to move into part-time work in a college and into outdoor education and Tom had retired, but still taught part-time. They all wanted to maintain and develop their Calling and to do this they needed to craft their work by moving to different areas of education. Thus, this theme of *'Having the Call'* relates to the overarching theme of *'Crafting the Work'*.

The Newly Qualified Teachers (NQTs) also had a strong sense of Calling. Harriet held a service ethos,

... the personal, looking after them, that sort of thing. The pastoral....one of the things that I love about the job is that you get that trust and you get that relationship and they feel able to come and speak to you (Harriet, NQT, p.8, lines 7-10).

She was also motivated by getting students engaged with knowledge saying,

... the look in their faces when you teach them something that they're interested in and that they go home and they research some more and they come in with all this additional knowledge (Harriet, NQT, p.2, lines 3-7).

Linda, also an NQT, had been introduced to teaching at a young age by her mother who was a teaching assistant:

I always saw it as something that I wanted to do at some point because I like working with people...I was Head Girl when I was at school as well, so I quite like building up younger kids, even when I was younger I was doing a lot of mentoring programmes and stuff. (Linda, NQT, p.2 lines 19-21 and lines 39-41).

As well as wanting to provide for others she showed how she was drawn to teaching; her past enjoyable experiences had moulded her to want to repeat them with future generations.

Regarding the established teachers, Teresa had not considered teaching initially but was advised to think about it by her careers' advisor at school. She specialised in pastoral work and SEN and her Calling is shown in the following quote:

... I've always said that if I ever won the Lottery I'd still work because I absolutely adore my job. I love seeing how the kids develop into young adults and I know that when they leave, I can see the achievements they've made... (Teresa, established teacher, p.7, lines 47-50 and p.8, line 1).

She saw her work as socially valuable and fulfilling and she was not just influenced by the financial returns.

Julie made a career change in order to become a teacher believing '*it would give me an opportunity to help people and immerse myself in the subject that I loved myself*' (Julie, established teacher, p.1, lines 51-53). She valued classroom work and did not see teaching as simply a career leading to more administration saying, '*I think it's about like why would you*

want to be a manager and a data cruncher when you trained to be a teacher?’ (Julie, established teacher, p.12, lines 20-21). She dismissed the managerial work that comes with career advancement as mundane and lacking in meaningfulness, she did not want to be a “data-cruncher”. Like Julie, Roland had not originally considered teaching as an occupation but had been advised to try it and had developed a Calling rapidly. He felt he had been drawn to the right type of work, *‘I just felt like the job liked me ... and I liked it’* (Roland, established teacher, p.7 lines 12-13). It was fulfilling, *‘I just knew it felt right. It was vibrant, that’s the word, isn’t it’* (Roland, established teacher, p.2 lines 37-38). He enjoyed the classroom experience:

The excitement of having the freedom to explore new ways to articulate different ideas. That’s what I enjoyed and I enjoyed the way in which they were valued, both within the staff and the students (Roland, established teacher, p.4 lines 2-5).

He identified his vocation with that of the teachers he had known at the beginning of his time in teaching,

... there was an underlying vocation there in so far as there was a strong belief system which acted as a catalyst and a motivator for these teachers (Roland, established teacher, p.22, lines 25-28).

He felt this was the norm, his colleagues had a Calling too, this therefore was a key ingredient to the job. However now, interestingly, he said people may stay because *‘it offers a job, a career’* (Roland, established teacher, p.20, line 45) but he does not use the word ‘vocation’; in other words he felt the profession had changed from one where the key feature was Calling to one where it is money and career.

Anne’s parents were teachers and she originally thought she would never follow them into teaching because they always seemed to be working and she did not want to do that!

However she did and has ‘*loved it*’ (Anne, established teacher, p.2 line 18). She found the work intrinsically fulfilling and socially useful:

Kids keep you young they say, don’t they? They do, kids are engaging, kids are interesting people to be around....The challenge all the time, it stimulates your mind ... (Anne, established teacher, p.2 lines 23-32).

Anne had a Calling but she also saw teaching as a career and had become a senior leader. However, she saw her role as a way of fostering teachers to do something socially useful by encouraging them to be guided by ‘*a certain moral purpose. And we work an awful lot in trying to foster that. We’re all in it for a moral purpose*’ (Anne, established teacher, p.6, lines 45-46).

All of the teachers interviewed seemed to have a Calling because they worked for the fulfilment teaching brought them, saw it as a socially useful occupation and seemed to have been drawn to a niche which felt ‘right’. Having a Calling would seem to be a vital ingredient for motivating teachers.

Before analysis it was predicted that differences might occur between the established teachers, NQTs and teachers who had left or were in the process of leaving. It was surprising how little difference there was despite the differences in experience between the three groups. This could indicate that Calling underpinned all the teachers regardless of their length of employment. Other themes were generated and these indicated that in order to become an effective teacher (‘getting there’) the Calling had to be supplemented by other factors in order to nurture and develop these fully. These were ‘*Relationships matter*’, ‘*It’s all about the kids*’ and ‘*Love of Subject*’.

5.1.5. Theme: '*Relationships matter*'

'Relationship' refers generally to the connections between people based on social interactions ('Relationship', 1989). This theme suggested that the interactions between teachers, students and other staff mattered considerably in the development of Calling. For example, one established science teacher had been attracted to teaching by the need for social interaction, *'I didn't want to work in a lab. Where you never speak to anybody. I need to interact with people'* (Anne, established teacher, p.2, lines 10-11). Once she became a senior teacher she saw one of her roles as maintaining supportive professional relationships:

Yes, you've just got to remember the foot soldier on the ground when you are inventing new policies and new 'Oh yes, let's just do this'. Well what are we taking out then?....remembering constantly what it is like for that class teacher with 21 hours teaching, not me with my two hours you know. And having that reality check (Anne, established teacher, p.7, lines 5-14).

Here, Anne was showing the need for senior managers to maintain good professional relationships with the classroom teacher by ensuring that new policies were introduced in a way that would be manageable by the classroom teacher. Another established teacher, recounting how his school had been in the past said,

It was about human relationships...There was no hierarchy and that goes to students as well. I think about the distinction between say [members of staff] and their students in the classroom, there was no difference. I would have an in-depth conversation with students at lunch time, outside of teaching time, as I would with other members of staff. It was a place where ideas flourished! (Roland, established teacher, p.1 line 51 and p.2 lines 8-13).

He seemed to be describing a learning community based around strong, positive professional relationships. The importance of professional relationships was emphasised by the other interviewees. For example, one of the NQTs was absorbed by the role of tutoring because of the professional relationships with students that could be found. She said,

... one of the things that I love about the job is that you get that trust and you get that relationship and they feel able to come and speak to you....so when it comes to them having a problem, maybe school work related or personal, I feel I am able to cope with that (Harriet, NQT, p.8, lines 7-18).

The teachers who had left also stressed the value of relationships. Tom, when asked what he liked about teaching students said,

... you know [having] quite a strong influence on them and developing friendships and things of course, you know, I used to get on very well with the people in my language groups and we developed quite a tight community feeling really (Tom, left/leaving teaching, p.3, lines 29-32).

Talking of extra-curricular activities he again referred to relationships,

That was a way of kind of developing relationships in a slightly different way, doing something completely different (Tom, left/leaving teaching, p.3, lines 35-37).

Here, he was referring to more active activities such as cycling outside of the school; this was a way of extending relationships with students in a different context. Aron considered relationships, including those between the generations, to be important. When asked what kept teachers motivated, even when encountering difficulties he said,

Well, I think [the] relationships people invest in the job, they invest in, particularly young people. Some teachers I know are on their third generation of families that they've taught. They've taught the mum and the daughter and I suppose when you've

got that almost cult status, then you are going to be in there right 'til the end (Aron, established teacher, p.11, lines 14-21).

Inter-generational relationships can lead to a special type of identity-a 'cult status' and this can be a way of increasing perseverance through the generations.

The teachers all stressed the value of professional relationships with other teachers, students and parents and '*Relationships matter*' was considered such an important concept that a sub-theme developed from it, which I have given the title of '*Can't we be colleagues?*' As stated previously '*Relationships matter*' refers generally to the connections between people based on social interactions ('*Relationship*', 1989) but '*Can't we be colleagues?*' refers to collegiality, in other words the companionship and co-operation between colleagues for a common end ('*Collegiality*', 1989). This collegiality often takes place at work. It encompasses a variety of relationships in teaching between students, teachers and other staff. The title suggests that teachers see the need for collegiality, but feel it is slipping away to the detriment of the development of Calling.

5.1.6. Sub-theme: '*Can't we be colleagues?*'

Those teachers who had left their original teaching jobs saw the reduction of collegiality over time as one of the main reasons for their departure. For example, Jackie said:

Whereas you used to be able to work very much part of a team, now it seems to be that a lot of teachers are-not in a horrible way-but they've got to prove their own worth to the school because otherwise they won't go up the pay ladder ... (Jackie, left/leaving teaching, p.15, lines 40-48).

It seemed that a movement from a collective to an individualistic culture had occurred and this had led to a reduction in collegiality. She went on to say,

... and I found in some schools that teachers are a lot less likely to share their ideas or share things that have gone well because they feel as if they need to take the credit for what they've done in order to prove themselves as they go up the pay scale. So they're more unwilling to let somebody else in on their ideas in case that person gets the credit for them at the end of the day (Jackie, left/leaving teaching, p.16, lines 4-9).

Competition was stifling collaboration and some staff had left as a result. Another ex-teacher implied that collegiality had buffered him from becoming overwhelmed in the classroom,

... in all of those schools I think I had good support networks. And particularly from my colleagues in the maths department (Aron, left/leaving teaching, p.4, lines 32-36).

Sarah felt that collegiality was under attack from the introduction of Performance Related Pay (PRP):

... as a staff we've been very upset because it goes totally against the grain of what I was just talking about with that sort of collegial attitude and support for each other and trying to be positive. And that [PRP] comes down as this huge hammer... this is like a slap in the face (Sarah, left/leaving teaching, p.9, lines 34-39 and p.10, lines 7-8).

Sarah was not mincing her words. “Goes *totally against the grain*” stated that PRP is exactly what was *not* needed to encourage collegiality and “*this huge hammer*” suggested that PRP was introduced to bring about change in an aggressive way. “*...slap in the face*” seemed to make PRP personally insulting, as if all the hard work done in the past was a waste of time and of little value. Tom, who had retired after a long career in secondary mainstream teaching, thought collegiality was vital but when asked if he thought it had diminished replied:

Yes, I think so because I think the present set-up militates against there being collegiality because the head of department now is having to kind of make all kinds of targets which requires him to be driving members of the department (Tom, left/leaving teaching, p.5, lines 20-22).

The word ‘*militates*’ with its military connotations, suggests hierarchy, even dictatorship, a form of leadership which may not be useful when trying to bring about co-operation and collaboration.

The established teachers and those who had left or were leaving, saw the reduction in collegiality to have had negative consequences. Interestingly, those new to the profession who would not have seen the reduction, stated very clearly that they lacked a sense of belongingness and support. Harriet felt that her mentor, although always approachable, had little time to be effective, there was no time ‘*for that in-depth sit down, analyse this lesson, let’s figure out how you’re going to improve*’ (Harriet, NQT, p.5, lines 2-4). There was no time to develop a mutually supportive environment. The lack of support was emphasised in the following quote:

But you come in, you finish your training and you are let loose and it’s every trainees dream. I could not wait to be in my own classroom, doing my own thing. And that side of it’s great but where’s the support when things at home are a little bit rough?
(Harriet, NQT, p.24, lines 27-32).

Independence was good but collegiality and support were also needed.

Linda also felt that companionship and co-operation were necessary, but lacking and as a result found her time as an NQT difficult. The lack of time to meet with experienced staff was a problem and as a result she felt she was not being trained properly:

So one of the things that I find quite difficult is, I just feel like things take me a really long time to do because no one really, actually shows me how to do them properly (Linda, NQT, p.4, lines 39-42).

She needed to have teaching tasks demonstrated to her by working with others more often; this view was reinforced in the following quote:

I just felt like I was Linda in a classroom, if that makes sense, rather than actually being taught how to actually teach (Linda, NQT, p.4, lines 35-37).

She considered herself to have been proactive and organised in previous occupations but she was ‘*finding this very challenging because there just seems to be juggling so many balls at the same time if that makes sense*’ (Linda, NQT, p.5, line 48- p.6 line 2). She felt that she needed more experienced teachers to guide and help her with the emotions generated by her challenges. Despite her concerns, Linda was not overly critical. She said of her school:

I love the culture, it's very supportive...the staff are very friendly and there's a positive atmosphere. But even with that it's still on you just to get on with it (Linda, NQT, p.7, lines 19-21).

She felt isolated despite the friendly climate and she needed a more collegiate environment in the sense of having supportive training rather than just a friendly atmosphere. She seemed to want more collaboration between teachers.

Teresa left her secondary mainstream school to work in an SEN school because once the former had become an academy ‘*it did become far less supportive because you didn't have that close knit group of people that had once been there*’ (Teresa, left/leaving teaching, p.4, lines 25-28). The atmosphere had become stressful. In contrast, in her new, non-academy school, the atmosphere was ‘*so positive so that when everyone started work ... you were in*

that morning chatting to the people you had been with the day before, it was nice'' (Teresa, left/leaving teaching, p.17, lines 21-24).

The strongest comments about the need for collegiality came from Roland. Recounting his early days as a teacher he explicitly raised collegiality as a topic, *‘again, going back to that word ‘collegiality’, that togetherness, it was moving together in a direction that had an end’* (Roland, established teacher, p.4, lines 5-8), [but now] *‘the idea of collegiality is no longer there. And the thing with collegiality is you can’t enforce it in meetings and tell people ‘You must be collegiate’*’ (Roland, established teacher, p.16, lines 27-29).

As with *‘Having the Call’*, established, NQT and teachers who had left had similar responses, they all felt positive relationships, including collegiality, were vital. They also described how a reduction in positive relationships hindered them in their work and so stifled their ability to develop their Calling. For several of the teachers the reduction in collegiality contributed to them leaving. Jackie left her mainstream job and Sarah had handed in her notice partly because of the drop in collegiality. Linda was considering moving to part-time teaching partly because she felt under-supported. For the established teachers, Teresa had moved to SEN and Julie wanted to move to part-time work and Roland was looking for another job. Anne (the senior teacher) realised the need to encourage collegiality because recruitment and retention were her biggest problems. These points will be explained in more detail later.

Again, the teachers said they did not want to leave their work in education completely. They wanted to craft the work to stay in education, but move away from their traditional secondary roles. An interesting point arose from the NQTs. They were asked if they felt any new teachers they knew of, saw teaching as a stepping stone to other careers, outside of education. Their answers were very clear and precise. Harriet said, *‘Yes, absolutely, I think*

that would be accurate to say'' (Harriet, NQT, p.13, line 47) and Linda said, *‘‘Yes, for sure’’* (Linda, NQT, p.16, line 14). It could be that some new teachers, seeing the difficulties now in the profession and seeing how older teachers have difficulty sustaining themselves, are now contemplating moving to areas away from education. For them teaching is a career move, not a vocation, which contrasts to the notion of Calling which all participants seemed to see as so important in their commitment to teaching. If Calling is giving way to people actively going into teaching as a career move they may be quickly lost to teaching as they move into related professions. This would mean that these teachers would be lost to education completely.

5.1.7. Theme: *‘It’s all about the kids’*

The theme *‘It’s all about the kids’* articulates the idea that the educational welfare of the student, both academic and pastoral, should be at the centre of the teaching profession. This might appear as an obvious requirement but the teachers here showed frustration because this did not always seem to be the case. The title *‘It’s all about the kids’* was used because the teachers seemed to be saying that the system *ought* to place the students centrally, and if it did everything else would fall into place, but unfortunately this did not always occur. For example, Teresa thought that students in secondary schools were forced to concentrate too much on achieving high grades:

The well-being of pupils needs to be top priority, not pushing them and causing them so much grief and sleep deprivation that they’re worried about what the teacher’s going to say to them. Are they going to get double homework because they didn’t pass on this test? (Teresa, established teacher, p.10, lines 2-5).

The implication here is that teachers had been put in a position where they were causing young people stress rather than being a positive influence on them. Another established teacher said,

... the kids probably feel like they're on a production line sometimes. And you do lose track of what it's about and I think that's made me very ... I'm almost apologising sometimes for what I'm teaching them (Julie, established teacher, p.17, lines 1-12).

This suggested that the teacher had lost control of the educational process, instead it is controlled by a 'machine' and the teacher's judgement on what is best is no longer required. This goes directly against their values and Calling. Thus the teacher had lost faith in the system and is just having to follow the 'machine'. In a similar vein, Julie, talking about a trip to the theatre with her own children, went on to say:

And we had such a great time and obviously when I was there I was thinking about my kids at school, thinking this is what we should be doing, coming out, watching an intimate performance of Shakespeare, having a look at Shakespeare's house, learning a bit about the Tudors which will help us study the plays. But we can't do that because we're not allowed to go on trips because we have to teach our Year 11s [who have examinations] (Julie, established teacher, p.19, lines 35-43).

There is a hierarchy exerting control and the teacher is not allowed to do what they feel is valuable, it is not a collegiate structure. The teacher does not have the autonomy to use their judgement to the benefit of the student. Roland felt there was too much control exerted over students:

I think that the autonomy that we used to allow sixth-form students has gone and I think that to try and micro-manage teenagers what you end up with is them rebelling

and they don't want to do the work. And then it's an 'us versus them' scenario
(Roland, established teacher, p.12, lines 26-31).

Roland was stating there is more antagonism now and this is disrupting teacher-student relationships to the detriment of the student.

What has been seen in this theme so far, is that the teachers felt that the students' educational welfare was not central to the school. Instead, the students were under the control of a system that, in the judgement of the teachers, did not act in their best interests. This caused frustration to the teacher because they could not enhance their Calling. However, Anne, when asked about standards, felt students' Well-being was central. She said:

I think standards have certainly risen. Thinking back when I was at school the view is, no one actually, really cared and there you go. Nowadays I think that's very difficult and far more students are successful (Anne, established teacher, p.8, lines 40-48).

She thought students were given more attention than they used to be, contradicting what the other teachers said. However, she did feel that curriculum changes had narrowed access to the curriculum for some students. Her concerns were with the students:

Everybody's being pushed now towards this far more academic curriculum, which doesn't suit everybody. And that's why I believe you've got more permanent exclusions going on (Anne, established teacher, p.9, 14-19).

Despite her seniority she was unable to use her judgement on what is best for all the students and so experienced frustration in the same way the other teachers had done.

The NQTs did feel they were able to put the students at the centre of their work. Harriet said:

The rewards you get from these young people. I think yes, you get your difficult students and some of them, they may make you question your career choice. But

ultimately the majority of young people you get through the door are good and the ones that are not, they just need the guidance. And if you can provide that guidance then you are-it's fulfilling to do that, to provide someone with that help and support that they need (Harriet, NQT, p.10, lines 33-41).

Even difficult students should be and are, at the centre of the teacher's work. Linda also believed the teacher should place the student centrally,

I totally love it when you really get that breakthrough with a child. You know, either someone that's quite badly behaved and then you win them over somehow (Linda, NQT, p.3, lines 5-7).

However, she does not believe the teacher should be the servant of the student. She objected to having to 'chase' students for their homework, *"I shouldn't have to do that"* (Linda, NQT, p.30, line 21). The NQTs, like the established teachers, felt the students should be the focus of their work but unlike the established teachers they did not seem to feel they were being blocked in this aim. This is an area of difference between the NQTs and established teachers.

Aron, who had left secondary teaching, definitely felt students should be placed at the centre of a teacher's efforts. When teaching, he had liked to build variety into his work by taking on extra-curricular projects but even if he was offered opportunities to do this he said:

But actually, morally, is it right for me to not necessarily go and teach that important maths class in which it could make the difference for these children's futures because I've got a good opportunity overseas or something. Is that the right thing to do? And I think because even my own moral compass would be worried about that (Aron, left/leaving teaching, p.14, lines 35-43).

He was more concerned with student well-being than his own experience. He also said:

I always come back to the model of spend some time in school, then come out of school for a while and then go back into school for a while (Aron, left/leaving teaching, p.14, lines 45-48).

He preferred to leave his secondary teaching job completely to pursue other opportunities connected with education rather than disrupt the students' education and so he was seen to have put the students' welfare first.

Jackie had found her work most enjoyable when putting the students' interests first, in fact she gained most satisfaction from dealing with students with emotional and behavioural issues despite the challenges that these children may have. *‘That’s where I felt my niche was that’s where I seemed to get the most out of them’* (Jackie, left/leaving teaching, p.3, lines 28-30). However, she had to leave her niche because of bullying and move into peripatetic SEN teaching - her Calling had been blocked by a breakdown in relationships.

Stephen wanted to help the most difficult students and had a senior role in a school for children with behavioural difficulties, *‘I think probably the biggest kick I get out of teaching is engaging with the ones that people can’t engage with’* (Stephen, left/leaving teaching, p.2, lines 35-37). However, he was thwarted by funding problems and governmental interference:

I thoroughly loved the early part of my career but for me Michael Gove [Secretary of State for Education, 2012-2016] and Michael Wilshaw [Her Majesty’s Chief Inspector of Education, Children’s Services and Skills, 2012-2016] have completely, irreversibly destroyed education in this country (Stephen, left/leaving teaching, p.6, lines 10-13).

He seemed to think that particular figures had held too much adverse influence over education and his powerful language showed how he felt his Calling had been blocked by them.

Sarah had also enjoyed her time with the students more than any other aspect of her profession,

... I've been here for about 18 years now in this special education and I mean every class, every single class, I have found very enriching and hopefully they've had benefits. And yes, interesting. Some more challenging and less enjoyable in that you are a bit worried about how things are going. But, in essence, the time spent with the pupils has been all you'd wish it to be really as a teacher (Sarah, left/leaving teaching, p.3, lines 30-37).

When asked if she thought the roles that teachers carry out have changed much since she had started teaching, she said:

I think in essence no. The deep underlying roles of being that person who cares, who is there to lead by example and to bring learning. I think all that is still there (Sarah, left/leaving teaching, p.16, lines 1-3).

However, she went on to say ‘*but the requirements impinge upon that all the time. So it changes the possibilities*’ (Sarah, left/leaving teaching, p.16, lines 4-5). She felt that changes that had been brought in, such as PRP, and others, had ‘impinged’, in other words, resisted her ability to care for students. This friction had led to exhaustion which has led to her handing in her notice to leave. Tom had always put students at the centre, ‘*You know, I used to kind of teach throughout, you know the different classes and I enjoyed very much the, um being able to, um kind of bring out the best in people*’ (Tom, left/leaving teaching, p.3, lines 21-23). He did not value ‘red tape’ and would rather concentrate directly on the well-being of students.

Findings indicate the left/leaving teachers want to put ‘the kids’ first but factors “impinge” on this; it was the same for the established teachers. These factors seemed to

impact their values and hence their Calling. The NQTs however, did feel they could put 'the kids' first. For the established teachers, Julie felt this contributed to her wanting to go part time. Teresa had left her original school partly because the children were not at the centre. Anne (senior established teacher) was concerned that the narrowed curriculum was not good for students but did not link this directly to the Retention of teachers. Roland, (established teacher) felt that students were no longer central because the student-teacher relationship had been disrupted at the expense of students.

Aron (left/leaving teaching) had left his teaching job because he wanted variety but would not take on projects in school as this might adversely affect the student. Jackie (left/leaving teaching) moved to peripatetic teaching partly to concentrate on one to one teaching with SEN children. Stephen (left/leaving teaching) considered he could not look after his students properly because of a lack of resources and so was leaving. Sarah (left/leaving teaching) felt too many factors 'impinged' on her ability to put the student at the centre. Tom (left/leaving teaching) had always tried to put the student first but thought that bureaucracy had hindered him towards the end of his career.

Not being able to put the students first was one of the reasons many of teachers felt the need to craft their work by looking for new areas in education to occupy them. The NQTs, however, felt they were able to craft their work within their existing jobs.

5.1.8. *'Love of Subject'*

The last theme under '*Getting there, enhancing the Calling*' is called '*Love of Subject*'. All the teachers expressed clearly that teaching should provide an avenue for them to express their enthusiasm for their subject (or subjects) and the space to develop their interest still further. It is no exaggeration to say they loved their subject or subjects and wanted to pass

their knowledge and enthusiasm on to others. One established teacher, who began her career by teaching PE said: *‘I love it, love everything about it, every activity. I played for every school team, every county team’* (Teresa, established teacher, p.1, lines 48-50). Having moved into SEN teaching she relished the broad curriculum available to students:

I now work in a setting where one day, if I fancy it, I can change my lesson and we can go down the farm and milk some goats...or we can collect some eggs from the chickens. There’s just so much we can do (Teresa, established teacher, p.13, lines 41-49).

This was in contrast to her final years in her previous job where love of subject had to give way to an approach designed to ‘cram’ the students. Here the approach was, *‘This is a text book, this is what you need from the text book, this is what’s going to be in your exam’* (Teresa, established teacher, p.14, lines 8-10). She had re-established her freedom of choice by deliberately crafting a move to SEN teaching.

Julie wanted to teach English partly because it would give her the opportunity to *‘immerse [her] self in the subject that I loved myself’* (Julie, established teacher, p.1, lines 52-53). However, her love of English had been tempered by a *‘culture of exam factory and you feel like a production, that you’re on a production line. Or the kids probably feel like they’re on a production line sometimes’* (Julie, established teacher, p.16, line 48 - p.17 line 2). This metaphor with a factory system, suggests that the teacher is not able to teach the subject they love in the way they want to. Instead, they are on a production line with no control over their subject and where everything is uniform, as with a traditional production line. This led to a feeling of ‘anomie’, *‘you lose track of what’s it all about and it’s, and I think that’s made me disheartened’* (Julie, established teacher, p.17, lines 4-5). Roland also loved his subject saying, *‘I like talking about the ideas, I like talking about academic, philosophical arguments and I find them fascinating, I still do’* (Roland, established teacher,

p.1, lines 35-38). However, he saw attempts to direct the way he taught as blocking his relationship with his subject:

You know, there was a job that I knew what I was doing before. I was teaching subjects which I know a lot about. I have a first class degree and a PhD in the areas that I'm talking about, I know the subjects (Roland, established teacher, p.7, lines 20-24).

He valued his subjects and he wanted the expertise to promote them further. He continued, “and left alone to teach them, with the students, nobody mentioned ‘driving questions’ or ‘exam questions’” [which he had been told to include] (Roland, established teacher, p.7, lines 25-27). He knows what he needs to do and just needs the freedom to get on with it. The result is:

Well, I feel permanently distressed now, all the time. I don't know what's going on. Most of the stuff I just think's a complete waste of time (Roland, established teacher, p.6, lines 6-8).

This is a powerful statement, Roland seemed disorientated, almost helpless and disillusioned, as if the existing culture was inhibiting his relationship with the subject.

It might be expected that NQTs would concentrate on planning lessons and classroom control rather than the development of their subject but this was not the case. One said:

I think I am so passionate about history that seeing them become passionate about it and want to expand their knowledge...[brings] it to the realisation that actually it does affect your lives now and this is how it affects your lives now, this is why it's important (Harriet, p.2, lines 18-27).

She was passionate and enthusiastic about her subject and wanted to pass these attributes on to her students. Another NQT when asked why teachers stayed, despite the difficulties they encountered, said:

I guess because they really do truly love their subject so much that they want to continue producing the work and talking about it... (Linda, NQT, p.18, lines 1-3).

She reinforced this later saying, ‘*Because ultimately I feel like every teacher does really like their subject don’t they? ... But you never get to see it*’ (Linda, NQT, p.32, lines 32-37). She felt that school authorities did not care much whether teachers were engaged with their subject or not, cramming for exams ‘*come[s] at the expense of joy of the subject. Because every lesson you’ve got to do an exam question*’ (Linda, NQT, p.34, lines 25-28). She wished that teachers could discuss their subjects more with each other ‘*and then it brings the joy back to it, of actually why you did it in the first place. You never get that*’ (Linda, NQT, p.33, lines 2-3). The Call was still there but she was not able to express it because she did not have enough communication with other teachers and this seemed to make her mood melancholic.

It might be assumed that all of the teachers who had left or were leaving secondary teaching had grown tired of their subjects but all of them expressed an ongoing love of them. Aron implied a love of mathematics and was proud to be associated with it. When asked what he enjoyed most he said,

... if you are a good maths teacher, where children ‘get it’, you know those kind of Eureka, penny-drop moments where suddenly it all drops into place, and it’s quite rewarding when that happens (Aron, left/leaving teaching, p.3, lines 36-40).

He is now keen to promote his subject in a variety of places including charities and other organisations around the world, so his passion for the subject remains.

Stephen did not want to see education reduced to a series of ‘hoops’ which students had to negotiate just to achieve a grade:

Let's have debate and discussion. It's not all about writing. It's not all about marking and reams of feedback and spending all my time putting the different colours [work is marked in different colours depending on its quality] and 'Even better if' and 'What went well...' (Stephen, left/leaving teaching, p.14, lines 12-16).

He was trying to resist the pressure to focus on outputs and to retain the essence of learning. Stephen (and others) showed a sense of resistance, they were saying they did not like what they were being asked to do and they were prepared to say so. Thus, he intends to craft a new role for himself where he can still share his love of subjects with others but in a different medium.

Although Tom enjoyed the extra-curricular material around teaching, he also loved his subjects, in fact he did not want to retire because he enjoyed teaching them so much:

There were about three or four [students] and I'd just done the first year's German A' level with them and they were very good and I was looking forward to next year and then it transpired I was ripe for retirement (Tom, left/leaving teaching, p.6, lines 7-9).

He did not want to retire, he enjoyed language teaching too much, but because of his age he was advised to retire.

Love of subject was vital to nurturing a sense of calling and even those who had left teaching still retained their love of subject. Where it was stifled frustration set in and this meant it was more difficult to develop the Call. All the teachers interviewed saw calling as vital for teaching and they saw good relationships and collegiality, focus on student welfare and love of subjects as necessary to enhance the Call. Each teacher would like to have crafted their work to maximise these ingredients and so enhance their Calling, to ‘get there’ and so

make classroom teaching as effective as possible but frustration set in because they felt they were unable to do so. This then linked to Retention because most of the teachers had, or were considering, moving from their 'traditional' full-time jobs in secondary schools to other areas of education. A lack of quality relationships and collegiality, an inability to develop the interest in subject, an inability to put students first all reduced the enhancement of Calling.

Other themes were generated which specifically seemed to show a blocking, or even counter-acting movement against the development of Calling and these were entitled '*Is this really necessary?*' and '*The Bean Counters*' and they sat under the overarching theme of '*Resistance to the Calling*'.

5.1.9. Overarching theme: '*Resistance to the Calling*'

This overarching theme is so called because it shows how teachers reported that certain factors resist the enhancement of their Calling and can even counter-act it. The name evokes memory of resistance groups such as the 'French Resistance' from the Second World War who resisted the encroachment of the occupying force and also actively counteracted against them. Indeed, the participants found this topic very emotive and expressed their feelings of frustration and anger intensely at times and seemed relieved that the issues that inflamed them were being researched.

5.1.10. Theme: '*Is this really necessary?*'

'*Is this really necessary?*' encompasses the array of tasks that teachers said they had to carry out which seemed to be of little value and frustrated the teacher because they took up resources (mainly time and effort) that could have been used to develop their collegiality,

experience with students and love of subject. The title arose from the fact that several of the teachers sounded so exasperated by what they saw as meaningless tasks that I could imagine them saying, almost pleadingly, ‘Bearing in mind how much we have to do is this task really necessary?’ Looking at the established teachers, one said,

... teaching is becoming a paper-pushing exercise. Instead of teaching the children how to be young, reflective, considerate citizens we’re teaching them how to be pen-pushing paper wielding adults, who don’t really gain the social skills. I think we’re missing tricks in a lot of ways in what we can deliver from the curriculum (Teresa, established teacher, p.6, lines 41-47).

Teresa believed that much bureaucracy is unnecessary and at the expense of ‘real’ teaching. Another established teacher stated that she did not mind having a high workload if she felt the work was useful. She said, *‘I do think it’s the workload and the accountability. I think they’re the worst two things’* (Julie, established teacher, p.9, lines 19-21), indicating there is an interaction effect, it is the nature of the work not just the volume that affects the teacher.

A senior teacher admitted that teaching in secondary schools is much more accountable than it used to be but she saw her role as *‘shielding people from too much of that and reminding people of why we’re here... and it’s not about the data, it’s about everything else we’re doing as well’* (Anne, established teacher, p.8, lines 29-33). This then gives a *‘certain moral purpose. And we work an awful lot on trying to foster that’* (p.6, lines 46-47). Anne was trying to protect her staff from unnecessary tasks so they could concentrate on the educational welfare of the students. On the other hand, Roland implied that teachers were still doing too much unnecessary work, *‘paperwork, I don’t mind doing it if I felt [there] was a level of validity there’* (Roland, established teacher, lines 13-14). Instead he felt almost disorientated,

... logic dictates that you come into teaching because you want to teach the subjects that you do and everyone's on the same song sheet. Now it's not about that, it's about understanding data and forms and – which I don't understand (Roland, established teacher, p.8, lines 20-24).

Later he stated:

A lot of the things that we have to do, they don't exactly impact, they have a direct negative impact on our ability to teach, things that have nothing to do with the subject you are teaching that you are expected to do now. They're not just benign they actually have a negative impact (Roland, established teacher, p.21 line 44-p.22 line 2).

Here, Roland was referring to data analysis and paperwork. These were not just blocking the development of his Calling they were actually counter-productive, reducing his desire to teach in the way he felt suited the students best.

Even NQTs, who had nothing to compare with, said that certain tasks were unnecessary. One said:

I think planning a decent lesson is more important than the data-analysis...I think [if] you are analysing data, who are you analysing it for? You are analysing it for people above you, for the league tables (Harriet, NQT, p.22, lines 11-14).

Harriet was saying that the purpose of the data analysis was not for the benefit of the teacher or the student but for managers and ultimately civil servants. The problem was seen to be compounded when she asked if she finds the data unreliable and she said emphatically, *“One hundred per cent agree, yes, absolutely. A lot of it's very artificial”* (Harriet, NQT, p.22, line 28). The data was not seen as meaningful because it was not accurate.

Aron, one of teachers who has left teaching in secondary schools, felt teachers did not need to do all the tasks they do, *“but the culture suggests they do need to do it and everyone*

else is doing it'' (Aron, left/leaving teaching, p.18, lines 13-16). Some tasks had become normalised and accepted, they went unchallenged and as Aron then said, *'you've got to be a brave teacher and a very confident teacher'*'' (Aron, left/leaving teaching, p.18, lines 16-17) to question the system. He is suggesting there is something about the culture in schools which prevents teachers from resisting unnecessary tasks, it had become a group norm to engage in certain practices without question. Stephen was exasperated by the unnecessary tasks he had to carry out saying,

... you can't be ever bored with the ludicrousness of the inspection protocol or the pronouncements from the DfE [Department for Education] bless them, which seem to be very much out of touch for us up here (Stephen, left/leaving teaching, p.2 lines 20-23).

'Ludicrous' is a very powerful word. Stephen was astonished at the unnecessary tasks he was required to perform and "bless them" implied the authorities were so far removed from the realities of the school that we should almost feel sorry for them. Another teacher, in the process of leaving, was concerned at how much time was taken up processing data to try to show how children were progressing when on completion the data was of little value, *"often I hear the words 'Well that's done and nobody will ever look at it until the end of the term' "* (Sarah, left/leaving teaching, p.7, line 4). Data did not seem to be useful because its use can be put off until the end of term, when the situation will have changed anyway.

Unnecessary tasks took up time and other resources that could be better spent if the teacher was free to choose how to use them. In some cases they were counter-productive to good teaching and reduced the ability of the teacher to fully enhance their Calling. Another theme, under the overarching theme of *'Resistance to the Calling'* is called *'The Bean Counters'*, a pejorative term (used, for example, in the satirical magazine *"Private Eye"*, see

<https://www.private-eye.co.uk>) for administrators who audit their organisations in ways that may seem inappropriate to the people that work there.

5.1.11. Theme: ‘*The Bean Counters*’

In schools, accountability is audited by gathering data on student progress and this is benchmarked against OFSTED criteria and once given a rating by OFSTED, schools can be compared with each other through league tables (see Ball, 2008b). Most of the teachers seemed to think that OFSTED and data analysis were of little value. Roland even felt that any attempt to quantify student or teacher progress was counter-productive because “*when you start to micro-manage time, people only do exactly what they’re asked to do*” (Roland, established teacher, p.30, lines 11-13). They will be reluctant to do more.

Julie did not feel OFSTED should be scrapped completely but it did need “*a radical shake-up*” (Julie, established teacher, p.4 line 30). She also felt that league tables should go because “*it seems like the machine has taken over and it’s gone too far. I just think that they’ll just have a workforce of people that work in teaching for ten years and leave*” (Julie, p.5, lines 1-3). Again, this ‘production line’ metaphor appeared, with Sarah implying that teachers had lost their autonomy. They were under the control of machine-like control systems which can use them up and then dispose of them after ten years-they are disposable. This resonates with the idea that teaching may become a stepping stone for newer teachers, if they know established teachers think ten years is the maximum ‘shelf life’ then there is little incentive to do more.

Teresa saw OFSTED as a problem in mainstream secondary schools but not in SEN schools “*because [in mainstream] you are constantly at fear for your job, if you are not getting the grades*” (Teresa, established teacher, p.3, lines 3-5) whereas in SEN schools

where few examinations are taken, they were *‘trying to show just how supportive of the students, [they were] what we have in place to make it accessible for all their very unique needs’* (Teresa, p.2, line 50-p.3 lines 1-2). It is the examinations and league tables that were seen to be a problem here.

The teachers who had left, or were leaving, also saw aspects of OFSTED as a problem. One suggested school leaders should move to a peer regulation system of accountability which would be more supportive and less *‘draconian’* (Aron, left/leaving teaching, p.7, line 26). He also felt that OFSTED prevented teachers crafting their work in the way they felt best,

... [the] *accountability agenda drives you in a direction which is not really why you signed up to be a teacher in the first place. You know, you signed up because you want to do the right thing; you want to give young people a good experience and to open their eyes to the world of the subject and someone to love mathematics. And you find yourself going, ‘This is what you need to do if you want to get a grade ‘C’* (Aron, left/leaving teaching, p.4 lines 48-p.5 line 6).

The current climate conflicted with one that fostered Calling. Jackie saw OFSTED as making inaccurate judgements because in reality many schools were not as bad as OFSTED say, *‘A good school will retain their staff. And I don’t mean ‘good as in OFSTED good’ I mean a good solid school’* (Jackie, left/leaving teaching, p.32, lines 41-43). “Good” to Jackie did not calibrate with OFSTED’s rating. She equated ‘good’ with solidity and that linked to the retention of staff:

It’s always a sign to me when I go in as a supply where there’s staff that have been there lots of years because you think, ‘Well actually then, it’s got to be a pretty good school in order for those teachers to want to stay (Jackie, left/leaving teaching, p.32, lines 43-47).

She did not think that OFSTED aided Retention. These inaccurate judgements can then lead to further problems; referring to a school she knew of that went from a 'Good' to 'Requires Improvement' rating she noticed the effect on the headteacher, *"That was the end, he quit after that"* (Jackie, left/leaving teaching, p.29, lines 8-9). OFSTED, with its possibly flawed assessments, becomes a turning point for Resilience - the head could not continue with his work.

I think it is important to add that none of the teachers interviewed seemed to be 'grinding an axe', they were not ideologically opposed to OFSTED or accountability in general. For example, Teresa found OFSTED's procedures in SEN schools to be fair and noted that in her school 'Well-being' had been introduced to the annual appraisal system. Anne saw the accountability regime to be of value if she shielded her staff from its negative effects. Aron noted that *"OFSTED, to be fair to them, often say, 'We don't require all this evidence' but people don't believe it, so they produce the evidence anyway"* (Aron, left/leaving teaching, p.6, lines 26-28) and Sarah says that OFSTED *"in some cases it is beneficial looking and advising and making sure everybody's doing what they should be doing"* (Sarah, left/leaving teaching, p.5, lines 26-28). However, overall Stephen and Tom seem to sum up attitudes to accountability processes, such as OFSTED, in that they feel it is too punitive and not supportive:

It's a judgemental organisation but it's not one that helps in the development of any of the teachers they come to, I mean they don't actually offer any advice do they (Tom, left/leaving teaching, p. 9, lines 27-28).

This theme was called *'The Bean Counters'* because the suggestion was that accountability in schools, especially accountability through OFSTED, had gone too far and this formed a resistance to the development of Calling and in some cases was counter-productive. This caused teachers to spend time and effort dealing with accountability issues

that could have been better spent on what they saw as more useful tasks. In some cases this led to teachers thinking about recrafting their work and moving to other areas of education and so adding to the potential retention problem in secondary education.

Two sub-themes were produced from the *'Bean Counters'*. The first one referred to the lack of resources in the form of money, time and staffing and I have called this, *'Please Sir, Can I have some more?'*

5.1.12. Sub-theme: *'Please Sir, Can I have some more?'*

This phrase reminded me of Oliver Twist asking for extra gruel in the Workhouse and being refused in no uncertain terms by the Beadle who sees his request as impertinent. Dickens was trying to show Oliver Twist as part of the 'undeserving poor' who should only expect the bare minimum (Dickens, 1838). At the time this research was carried out schools needed resources but they were refused as part of an ongoing austerity programme.

The impression I got from the interviews was that teachers felt they were 'undeserving' and should put up with the lack of resources they encountered. In the original novel Oliver actually says, "Please, Sir, I want some more" (Dickens, 1838, p.10) but I felt that even if the less demanding and provocative question in this sub-theme was used, teachers' requests would still not be listened to. Anne (established teacher) stated that people were her scarcest resource:

The biggest challenge is recruitment of staff and retention. That's without a doubt, which is why I felt that I ought to contribute to your study. It absolutely is (Anne, established teacher, p.2, lines 47-50).

She said this emphatically and reminded me that one of the reasons for doing the research was to see if positive psychology could increase recruitment and retention.

The NQTs have stated previously that time and support were in short supply and Aron believed teachers did not have enough time to pursue a variety of activities outside the classroom. Sarah regretted the cutting of the training budget,

... there isn't the funding in schools to let teachers go off during the days, it always has to be in your own time. And there are fewer things that you can go to (Sarah, left/leaving teaching, p.4, lines 6-10).

Stephen, a senior teacher in a PRU, was exasperated by the lack of money he receives for his students. He calculated that he was underfunded by £1,682 per child and felt the system was unfair:

We're not funded like any mainstream [school]. We're not treated like any mainstream and yet we're inspected like a mainstream. And the whole system is just laughable and slightly moronic I'm afraid (Stephen, left/leaving teaching, p.5, lines 30-31).

This linked with his previous statement that it is all 'ludicrous'. 'Laughable' and 'moronic' are also powerful words and seem to suggest that the situation to him, was beyond belief.

The other sub-theme of the '*Bean Counters*' is '*The Problem with Academies*'. The teachers complained that academies were not run in a collegiate way, putting the students' interests first, but in a corporate way, following a traditional business model. This simply tried to maximise grades, in order to earn a good position in the league tables, which would, in their opinion, satisfy OFSTED.

5.1.13. Sub-theme: '*The Problem with Academies*'

Teresa (an established teacher) had left mainstream and moved to an SEN school under LEA control because the academisation of her previous school meant '*it was just a totally different*

environment and not a pleasant one to work in by the end'' (Teresa, established teacher, p.10, lines 10-22). When asked whether she preferred the LEA school she replied that the latter was much better,

... everyone's wanting to work there. People have come from mainstream and taken pay cuts because the atmosphere is better, it's just a nicer place to work (Teresa, established teacher, p.4, lines 41-44).

She went on to say that:

[Academy schools] are becoming businesses. The amount of Academies that are coming through where they're only worried about how much money the school is making, they see-and it's put down, put in writing that each child is a 'client' and you're saying in there, straight away, that this school is a business (Teresa, established teacher, p.8, lines 28-34).

Teresa was saying that academies are not just businesses in the sense of achieving a good position in the league tables but are actually overly interested in the finance, as if they were profit making organisations, as well. Roland said that if a teacher is not allowed to follow their Calling because their school had moved to a business model, where motivation comes from money or status, then teachers will have to be paid more and given more perks. He thinks following a corporate model '*would be ruinous but if you follow the business model, that's what you need. That's what I'm saying, you can't have your cake and eat it''*' (Roland, established teacher, p.19, line 24). The implication was that Retention will only be improved if more money is offered but even that would eventually be "ruinous", what is needed is intrinsic motivation coming from a sense of Calling.

Interestingly, the NQTs, who only had experience of academies, still saw problems in running a school as a business. Harriet noted that the new schools which had moved from Local Authority to Academy Trust control,

... are businesses. And this is a problem because have those people at the top set foot in a school? Do they know the runnings of a school and how young people work? Have they worked with young people and do they understand them? (Harriet, NQT, p.26, lines 6-23).

She was suggesting they do not and implying that knowledge needed to come from the bottom up in order to make informed decisions about education. Referring to her last school Linda said:

The investors [academies are required to have a financial backer] had far too much influence. They were like private equity bankers and had no experience in education yet they were dictating what the curriculum was. And any teacher's opinion was absolutely squashed even though it was 'Have you ever spoken to a child before?' This is not going to work (Linda, NQT, p.27, lines 26-32).

In summary, in the overarching theme of '*Resistance to the Calling*' two themes have been generated, '*Is this really necessary?*' and '*The Bean Counters*', which has two sub-themes, '*Please Sir, can I have some more?*' and the '*Problem with Academies*'. Very little difference has been found between established, NQT and leaving teachers. These resistances are counter-productive, they actually reduce the ability of the teacher to develop their Calling meaning the teacher finds it more difficult to craft the work in a way that develops their Calling. The implication from this is that the teachers then choose to leave their traditional secondary teaching jobs to move into other areas of education.

5.1.14. Overarching theme: *'Staying there: Sustaining the Calling'*

The final overarching theme is called *'Staying there: Sustaining the Calling'* and addresses how the teachers felt they could overcome the factors that reduced their ability to craft work in a way that enhanced their Calling. It is comprised of three themes, *'Resilience is not enough'*, *'Where have all the good times gone?'* and *'Something must be done'*. 'Sustaining' refers to the ability to maintain function at a certain level ('Sustaining', 1989) and to me it also implies an element of struggle; at the present time there is much discussion about sustaining the environment and the fact that this will be a struggle requiring a great effort by all people. *'Staying there: Sustaining the Calling'* implies that teachers have had to make a great effort to craft their work in order to sustain their Calling and in some cases this has meant they have left their secondary jobs to move to other areas of education, increasing the Retention problem in secondary schools.

5.1.15. Theme: *'Resilience is not enough'*

The first theme to be examined is *'Resilience is not enough'*. Those teachers who had left (or were about to leave) secondary teaching still expressed a real interest in education and had not moved to completely different fields of work. They still felt a strong Calling but simply trying to build Resilience in their existing work by working harder and 'keeping calm and carrying on' was not enough. To cope they had to craft their work by moving to fields other than traditional secondary teaching jobs. Looking at the established teachers, Roland was convinced the existing system is not sustainable and said,

... I have no confidence in the system. I believe I know better than the way the system is being run at the moment. It sounds very arrogant but I've sat on both sides of the fence and fortunately or unfortunately I've had high degrees of structural imposition

and I've experienced both. And the former far outweighs the latter, both in terms of your own mental health and the student's Well-being, education and everything else. So it's pessimistic, the outcomes [poor] (Roland, established teacher, p.32, line 41-p.33, lines 1-2).

Roland believed that too much of the wrong type of management had reduced his ability to sustain the work and so he had crafted the work by shortening his working week, but even this was not enough, '*I've reduced my hours and I'm going to find another job*' (Roland, established teacher, p.23, lines 19-20). He also suspected that other staff had left because they find the situation unsustainable,

... it's not a coincidence that any of [the] old staff that were here, they were very good at what they were doing. They worked under the same kind of academic, social and political economies but we were all invested in. There's hardly any of us left. That's not an accident (Roland, established teacher, p.11, lines 22-27).

Roland felt sad at what has happened. '*There's hardly any of us left*' sounded like a soldier looking at his unit after an unsuccessful battle and yet feeling the problems could have been avoided; it is not a coincidence or accident, staff had made a conscious effort to recraft their work by leaving. Teresa moved from a secondary mainstream academy to an LEA, SEN school because she found the former regime unsustainable. In particular, she felt the academy was out of touch with the needs of the students,

... they came in as a business model to take over schools and make them work effectively...you query why the Ministers for Education that we've had have never set forth in a rural county school where half of your kids, or half of the intake are children from farming backgrounds, which is the mainstream model I was in (Teresa, established teacher, p.9, lines 9-17).

She felt that the academies were like an invading force occupying ‘our’ schools under the direction of ministers with a metropolitan background who did not understand what was going on at ground level. Teresa’s way of crafting was to move to SEN schools and then her vocation could be maintained. Here, the schools were run by LEAs, who maintained a public sector ethos rather than a business model, and because the students were not able to take many public examinations, were not judged solely on examination results but on non-quantifiable factors as well.

Julie seemed to be care-worn and finding teaching unsustainable. When asked, at the beginning of the interview, how she was feeling she replied “*Oh, not too bad*” (but not good) and when asked why she had decided to be a teacher said, “*I often wonder now*” (Julie, established teacher, p.1, lines 20-36). She went on to say that the job “*just seems to get harder each year, I feel*” (Julie, established teacher, p.2, lines 9-10) and felt that full-time teaching is “*not really sustainable*” any more (Julie, established teacher, p.4, lines 4-5) and as a result said, “*I think at times in the last couple of years I could easily have handed in my notice*” (Julie, established teacher, p.5, lines 11-12). Her method of crafting, in order to sustain herself, was to apply to work part time. She said, with some desperation,

... I can’t stay in it full time. I have been really tempted to say no, that’s it and just leave and get anything. But if I can go part-time I’ll stay but I just don’t see how anyone would want to do a full timetable any more (Julie, established teacher, p.24, lines 21-25).

On the other hand, Anne (a senior member of staff) thought the work was sustainable. She believed that teachers who were absent with stress were usually on a capability process (where they were deemed to be under performing and so needed monitoring) anyway and it is this process that’s causing the stress, not the work itself:

Well that's going to be stressful. It's not stress necessarily because of the background nature of everything...but actually they're not performing (Anne, established teacher, p.5, lines 29-38).

Anne assumed the teacher was to blame for being stressed because it was due to their lack of capability. The large recruitment and retention problem at her school was attributed to the fact that teachers now have many more opportunities to pursue other careers, not because the work itself was stressful. Regarding accountability she says, *“it is what it is and I think if you are going into it you understand that”* (Anne, established teacher, p.8, lines 27-28). She assumed her teachers knew what they are letting themselves in for but she then went on to say:

And I do think it's about the leadership shielding people from too much of that [accountability] and reminding people of why we're here. And it's not about data. It's about everything else we're doing as well (Anne, established teacher, p.8, lines 28-30).

Anne seemed to be ambivalent, on the one hand she was saying the work is only stressful if you are under performing (which is your fault); on the other that staff need shielding. I think she was sustaining herself by having a ‘foot in both camps’. She felt schools offered more opportunities to staff because they *“can be creative now [because they control their own budgets] and create posts for all kinds of things and retention can be achieved through management posts which build leadership”* (Anne, established teacher, p.9 line 47-p.10, lines 1-2). She assumed Retention is linked to career advancement but not necessarily Calling. When asked if opportunities existed for a teacher who wants to carry on in the classroom she seemed almost surprised:

Well you can do that. You are not going to earn as much money. And it's what's your motivation, do you want to stay in a classroom? (Anne, established teacher, p.11, lines 6-8).

Money and career seemed to trump the Calling to classroom teaching.

Linda, an NQT, although teaching for less than two years, was already having worries about whether she could sustain her efforts in the classroom:

I don't actually know if I can do it and it makes me really sad...Is there some other educational, like youth work thing that I can do that doesn't involve so much pressure? (Linda, NQT, p.9 line 40-p.10 lines 1-3).

She seemed stressed and was already looking to craft her way out of secondary teaching and in to a new area of education to sustain herself. In addition, she realised that in the next academic year *'I'm going to have a bigger timetable, more classes, just going to be more stress there'* (Linda, NQT, P.13, lines 2-3). She was doubting her ability to sustain the work:

I mean, at the moment I genuinely am looking at all these teachers just being like-any teachers in the world-I'm just like 'How have you been doing this for so long?' Sometimes I feel like I can't really cope on a daily basis. How are you still going?
(Linda, NQT, p.22, lines 5-11).

She went on to say, *'I just don't see how it's sustainable but I mean, it must be because it's just been going on for years hasn't it?'* (Linda, NQT, p.23, lines 48-50). Linda actually uses the word "sustainable", It is an issue she has thought about, and she has considered a way of crafting:

Honestly, I would genuinely think about doing it part-time, actually say I won't continue unless it is a part-time role (Linda, NQT, p.24, line 13-15).

After less than two years teaching she felt the best way to sustain herself was by part-time working.

Harriet was more confident about her ability to sustain herself at work. When asked how she saw her future in teaching she said:

It's okay at the minute. I have nearly survived my first year. There have definitely been times when I've thought I can't do this but I think I've been lucky to have a good support network around me (Harriet, NQT, p.26, line 49-p.27, line 2).

Having a “good support network” is vital.

Later she said:

So I think it's positive. I'm positive. I'm excited to see what next year brings, as well as nervous and apprehensive because of all the changes. But I'm still here and I'm still surviving (Harriet, NQT, p.27, lines 33-36).

However, it is significant that she uses the word “surviving”, not ‘thriving’. Earlier she said:

And I also think that it's a hard job to stay in forever because the pedagogy, because the curriculum changes so much and the attitude of young people changed, it's a hard job for people to stay in (Harriet, NQT, p.14, lines 39-42).

Continual change was stressful to her.

She also said:

And I think because everything's changing and the way I was trained to teach is completely different to the way I'm now asked to teach, I'm like, I don't know what I'm doing. I don't know what you want from me (Harriet, NQT, p.23, lines 32-35).

So although she was not looking for another job she was apprehensive about her ability to sustain herself.

Looking at those teachers who have left, or are in the process of leaving, Aron moved out of mainstream secondary teaching to build more variety into his work:

One of the big drivers for me leaving though was not necessarily around workload and stress and all those things, it was more to do with the inflexibility of the teaching

timetable and workload. So the nature of the work I do, in being in and out of lots of schools and quite innovative work is that lots of opportunities came up (Aron, left/leaving teaching, p.8, lines 41-47).

He did not mind the high workload, it was the inflexibility in the system, the fact that he felt he could not run his own projects that affected him. He was clearly crafting his work by moving to a job in a charity which allowed him to move around several different schools. He was keen to emphasise that he was still involved with education, this was part of his identity,

... I spent some years in school, I then came out of schools and went to work. I was still in education but for the Further Maths Support Programme ... still working with schools but not in a school (Aron, left/leaving teaching, p.8, lines 20-26).

Stephen wanted to stay in education but felt unable to stay in his present job in a school for students with behavioural issues because of the lack of funding. This was clearly a serious issue for him:

Just before the Grenfell Tower tragedy we were told we wouldn't be having fire alarms because we didn't really need it in this school and I refused to move my kids into this school building without fire alarms and CCTV (Stephen, left/leaving teaching, p.3, lines 16-20).

Despite this he said:

I work my pants off because I'm passionate about my job. If I have to work 'til late, I do it. What irritates me is the lack of support and guidance from the government. That is what is destroying, or has destroyed my interest in continuing to teach (Stephen, left/leaving teaching, p.7, lines 43-49).

He was willing to go above and beyond his job description but had no recognition or support for doing so. He was crafting by moving to a part-time teaching post and out-door pursuits

work. Sarah said, *‘My main reasons for leaving now are because I can’t, I don’t feel happy with the amount of my own time that I’m having to do’* (Sarah, left/leaving teaching, p.8, lines 15-18).

She still felt drawn to teaching children, she just could not sustain the amount of time she has to spend in the job:

I love working with the children, I don’t have an axe to grind at all with the school and I know it’s difficult for everybody. But I just can’t, I’ve done my homework since I was five years old, I can’t do any more (Sarah, left/leaving teaching, p.8, lines 22-26).

Sarah feels her workload is excessive and is stressed by it. Stress in teaching has been linked to workload (Travers et al., 1996). If some support was offered to Sarah perhaps she could carry on, but this was not forthcoming and so she will be crafting her work by leaving. In Sarah’s case it is not just the volume, but the nature of the work, she finds the administration process arduous,

‘You haven’t done your assessments yet’, ‘You should have done those files’. But it hangs over you and I found it spoiled my family time a bit (Sarah, left/leaving teaching, p.27, lines 25-29).

As with the other teachers, she wanted to stay in education, in her case by carrying out educational research.

Tom, who had retired from teaching, had sustained himself until retirement by constantly crafting his work. He had stayed at an innovative school where crafting was actively encouraged. He said,

... nobody actually was discouraged from doing any subject or actively discouraged from doing A’ level for example. Whereas nowadays all kinds of pressure are put on

people to squeeze them out and put the figures up (Tom, left/leaving teaching, p. 8, lines 29-34).

He had been able to sustain himself because he had the freedom to craft his work. At the present time teachers are expected to respond to managerial directives which cause pressures which overcome the teacher's resilience and they are 'squeezed' out of the system.

This theme indicated that Resilience alone is not enough. In other words, teachers cannot be expected to keep 'bouncing back'. Thus, working harder and 'keeping calm and carrying on' and bouncing back is not possible. The teachers felt they could not remain in their roles and overcome the difficulties associated with them simply by becoming more resilient. Instead, they had to craft the job itself or craft their position within education by moving to a new job.

Again, each group, whether established, NQT or left/leaving teaching, showed similar responses to the stresses of teaching. The established teachers had to craft to make their work sustainable. Teresa had moved from mainstream to SEN. Julie is planning to work part-time and Roland is looking for a different job. Anne realised she had to shield her staff and Linda wishes to work part-time. Aron had moved to a charity and Jackie to peripatetic SEN. Simon is moving to part-time and Sarah has handed in her notice. Tom survived by finding a school where he could do 'his own thing' and craft his work. None wanted to leave education altogether because they saw it as their Calling but by leaving or reducing their teaching jobs in secondary they were adding to the retention problem.

5.1.16. Theme: *'Where have all the good times gone?'*

This theme refers to the implicit self-beliefs of Hope, Self-efficacy, Optimism, Work-orientation and Mindset. The theme indicates which of these (plus any other points raised by

the interviewees) have affected how the teachers have functioned. The two implicit factors that were mentioned most often were Hope and Optimism, but some other factors came out as well. The theme was named after the anthem by Pete Seeger and Joe Hickerson called “Where have all the Flowers Gone” (Seeger & Hickerson, 1960). This melancholic, anti-war song suggests that pleasant things, such as flowers and the potential of youth, have been sacrificed because of war. In the song Seeger asks, “When will we ever learn?” (Seeger & Hickerson, 1960) and this seems to evoke a feeling of a lack of optimism and even hope. The suggestion here is that the problems mentioned previously, the difficulties enhancing the Calling and the resistance to it, have led to an erosion of implicit self-beliefs.

All of the established teachers felt strongly that levels of Hope and Optimism were too low. One said, *“I don’t think they [the teachers] really have anything to hope for other than to get good grades”* (Teresa, established teacher, p.15, lines 13-14) *“but to hope for happy, healthy students, that’s not there really”* (Teresa, established teacher, p.15, lines 23-24). Referring to Optimism she said:

I’ve found a lot of ex-colleagues [in secondary mainstream] to be quite pessimistic about their future, the future of the school, the future of how things are going (Teresa, established teacher, p.15, lines 33-36).

She was saying that pessimism was universal and affecting all areas of teaching. Roland unequivocally stated that *“Hope’s gone”* (Roland, established teacher, p.30, line 42). In fact, he went on to say *“I think it is Hope-less at the moment until things radically change. And I can’t see that happening any time soon”* (Roland, established teacher, p.31, lines 10-11). He had a similar view of Optimism:

Now in teaching, if we are just looking in terms of the outcomes of certain criteria, that’s all we’re focussed on. But it makes people extremely unhappy (Roland, established teacher, p.20, lines 4-6).

Because teachers had to follow a narrow set of criteria their optimism was greatly reduced.

Julie also used forceful language about Hope, *‘It’s almost been crushed out’* (Julie, established teacher, p.16, line 47). She felt the system seemed to have almost deliberately squeezed out hope as if it was not important. Anne felt more hope was needed in schools. When asked if Hope could lead to thriving she agreed and stated, *‘which is the essence of it really, yes’* (Anne, established teacher, p.14, line 5). ‘Thriving’ is a much used word in positive psychology in relation to hope and so it seems appropriate that it has been used here. She saw Hope as a ‘glue’ holding everything together. She saw it as such a necessity that she had paid for a commercial organisation to come to her school to try to develop it:

We are working next week with an organisation called ‘We Thrive’....They’ve never worked with a school before, they work with big business and they’ve done us a bit of a deal (Anne, experienced teacher, p. 12, lines 27-36).

Although she was *‘desperate not to spend a lot of money’* (Anne, experienced teacher, p.14, lines 20-21) and could only use the company for a short period of time she felt that developing Hope was so important she must try. However, she is assuming that it is the individual who must change, not her organisation.

The NQTs might have been expected to be hopeful because they were at the beginning of their careers, yet their responses were similar to the established teachers and were stated in a very direct and definite way. Harriet stated:

I don’t think teachers have enough Hope. I think they are bogged down with everything they have to do and that kind of kills it and it kills their passion (Harriet, NQT, p.21, lines 16-18).

Passion for teaching was their initial motivator. Now, she thought schools actively extinguished Hope. She went on to use another geological metaphor (the last one was

‘crushing’) when she said *‘Hope is chipped away at’* (Harriet, NQT, p.21, lines 24-25). She was implying that teachers start off with a nodule of Hope but the system chips it away. As far as Optimism is concerned Harriet was also very clear, *‘Oh, we are glass is half empty people’* (Harriet, NQT, p. 23, line 7) and then reinforced it by saying, *‘I think we’re a pessimistic bunch of people’* (Harriet, NQT, p.23, line 21). Harriet also commented on teachers’ Self-efficacy. In her experience teachers appeared boastful, they were over-confident and unreflective and made the interesting comment that,

... maybe the boastfulness of some teachers is to cover up the fact that they’re actually quite insecure about what they’re doing... there could be a confidence issue (Harriet, NQT, p.22, lines 42-44).

Linda, the other NQT, had views similar to Harriet. When asked if teachers should be more hopeful she immediately said, *‘Yes, definitely. That, I think, is actually what I’m saying, that’s what’s lacking’* (Linda, NQT, p.20, lines 27-28). Like Anne she realised that Hope is the ‘glue’ that seems to be missing. Linda wants to be optimistic but finds her optimism, at times, to be slipping away,

... I am sometimes like, I’ll finish my NQT then at least the option is still to do something else if I’m still finding it incredibly stressful, which, like I said, is a shame because I think that actually a lot of the school life suits me very well (Linda, NQT, p.17, lines 35-39).

She found the school life suited her, she wanted to be optimistic, but the stress of the job diminished it.

Aron, unlike all the other teachers, felt that teachers were hopeful, and as a result they felt they are making a difference to students. It is the pressures that they encounter that make them leave because they are unable to live up to their hopeful aspirations:

Whereas I don't think there are teachers leaving the profession because they felt they weren't making a difference. I think it's always going to be to do with pressures on themselves that make them think that what they're doing is not sustainable over a period of time for whatever reason. And that might be financially unsustainable, it might be physically unsustainable in terms of the demands on their lifestyle and so on (Aron, NQT, p.15, line 44-p.16, line 1-2).

He also felt that teachers are optimistic and, unlike Harriet, modest rather than lacking in self-efficacy. However, the other three leavers were more down-beat. Jackie said:

I think teachers like to believe there's still hope for the students. But I think a lot of us have lost a lot of hope in our vocation. I think a lot of us harp on about the good old days. And they weren't great let's face it, they weren't fantastic (Jackie, left/leaving teaching, p.24, lines 24-38).

She was trying to take a balanced view, not everything was great in the past but she went on to admit, ‘*But I think there's a lot of desperation out there ... And then you start to lose hope in yourself*’ (Jackie, left/leaving teaching, p. 24, lines 24-38). Stephen was also trying to take a balanced view, but concluded overall that there is a lack of hope:

As far as hope's concerned, there's always going to be Hope because you are working with young people...But you can't under estimate the darkness and negativity of the Michael Gove and Michael Wilshaw years on the teacher's psyche...It's still there that kind of despondency, that pointlessness to it all (Stephen, left/leaving teaching, p.18, lines 48-49 and p.19, lines 1-11).

In this theme, Hope, Optimism and in some cases Self-efficacy, seem to be implicit factors that have become diminished. When these are not present teachers find it difficult to stay in their jobs and have to recraft. The next theme examines what can be done to retain

teachers in the secondary sector and in particular to see if developing these implicit factors could encourage teachers to stay.

5.1.17. Theme: ‘*Something must be done*’

The final theme was produced in response to questions addressed to the interviewees about whether anything could be done to improve retention in secondary schools. The title is based on a famous statement made by Edward VIII in the 1930s when he visited the economically depressed areas of South Wales. He felt that action should be taken to reduce the level of unemployment (see Marr, 2009). In reality he did little, and became preoccupied with abdicating his throne, but in the end something had to be done. I think something will have to be done to alleviate the problems of recruitment and retention in schools and wanted to see if positive psychology could help.

The interviewees generally felt that attempts to develop the growth Mindset (Dweck, 1999) should not be carried out through discrete training sessions. For example, Aron said, “*the culture of the school will have more of an influence of whether or not it’s successful than the actual programme itself*” (Aron, left/leaving teaching, p.13, lines 18-21). Similarly, Jackie felt that developing a harmonious culture generally was more important than an actual programme of Mindset training. In fact, she was a little suspicious of what she had already seen of Mindset courses. She thought they were “*like ideas come from America*” (Jackie, left/leaving teacher, p.22, line 41) which could be misused by managers, “*We should all be in this mindset [the one wanted by managers] together*” (Jackie, left/leaving teacher, p.21, lines 7-8).

Likewise, Sarah thought it was a gimmick and she said, with tongue in cheek, Mindset was a “*bright, shiny, beacon of wonderfulness*” (Sarah, established teacher, p.19,

lines 5-6). She was also concerned about the idea of ‘progress’ as associated with Mindset. She thought schools might be tempted to adopt an incremental rather than a growth approach because they might only be interested in achieving goals, increments, rather than developing genuine mastery (Dweck, 1999). She was touching on the idea of performance versus mastery. Performance is concerned with achieving goals whereas mastery is concerned with achieving knowledge and skills (Dweck, 1999). Stephen had used mindset training on staff, he thought it could be taught discretely but the trainer would need to be careful how it is delivered; it needs to be personalised by showing how growth Mindset can be used in the teacher’s personal life and linked to the teacher’s values in order to make it meaningful.

Harriet had been overexposed to the mindset concept when training and so she thought it was a faddish concept which she referred to as ‘*fluff*’ (Harriet, NQT, p.18, line 45). She also felt that it would be difficult to train teachers in growth Mindset because it required them to be reflective, and because she thought they were boastful, ‘*they’re not the people that are going to accept criticism*’ (Harriet, NQT, p.19, lines 13-14). On the other hand, Linda thought some kind of training in growth Mindset ‘*should be compulsory or something*’ (Linda, NQT, p.18, lines 13-14). However, she did not think it should be delivered formally because ‘*the inspiration from the INSET [In-Service Education and Training] day quickly fades away*’ (Linda, NQT, p.19, lines 31-32). Rather, it should be similar to counselling sessions or one to one coaching where the NQT meets up with an advisor on a regular basis.

Looking at the established teachers, Teresa also had doubts about the value of growth Mindset training and said concisely, ‘*I’m not sure*’ (Teresa, established teacher, p.12, line 25). It seemed she had seen initiatives like this used before without success. Julie was more positive, she thought training in growth Mindset would ‘*definitely*’ be useful because ‘*teachers need to be more introspective and reflective which is one thing they don’t have the chance to do*’. However, she added some caution:

If it became more of a burden, if it became another chore or another thing on your 'to do' list then it won't be beneficial it would just be breeding resentment (Julie, established teacher, p.16, lines 24-33).

Julie had been to training sessions which became just 'another chore' and this should not become one of them.

Anne was already running workshops teaching growth Mindset to staff but she saw a danger in the training becoming too prescriptive; she warned that it should not be *"rammed down everybody's throats. It's about nuance of a language, isn't it?"* (Anne, established teacher, p.11, lines 31-33). She wanted to build a positive culture using appropriate discourse rather than just going through a series of bullet points. Roland felt his school used to have a growth Mindset (although it wasn't labelled as such), it was just *"'Give this a go; give that a go', everyone worked really hard, so everyone was doing the best they could"* (Roland established teacher, p. 3, lines 17-19) and *"'as far as I'm concerned I like the idea that I'm going to do the best I can do; the students are going to do the best do and let's see what happens'"* (Roland, experienced teacher, p.6, lines 38-40). The problem he saw with teaching mindset is that it would then need to be measured and *"as soon as you measure it you are going back into the economy that we are currently under where it becomes a quantitative outcome"* (Roland, established teacher, p.28, lines 18-20). Working towards fixed criteria would not be useful because the teacher is only achieving performance criteria, they need the freedom to gain mastery.

All the teachers said that Mindset should not be taught as a traditional training programme. Some said it would not be useful, rather the right type of organizational culture should be established instead. Others maintained that an appropriate culture should be formed and then the programme taught. If taught discretely careful thought should be given to the manner of delivery, it should be personalised and language should be nuanced.

The attitude to the other implicit factors was different. Apart from Teresa and Sarah all the teachers felt that Hope should be taught directly in some way. Julie said that training for Hope should be based around a programme designed to encourage reflection and celebration:

Thinking about what did you hope to achieve and are you achieving that? Setting some kind of project for yourself almost. You know, is that happening, are you achieving that? And how can you go about it because sometimes you lose track of it, like I have really. If I think about it I feel at a little bit of a loss really (Julie, established teacher, p. 17, lines 24-29).

She seemed to feel a little disorientated, she was not sure if she was achieving anything and this made her lose some Hope, but if she could feel she was achieving then her levels of Hope would improve. As far as Optimism was concerned, she had tried smiling even when she felt sad and found this caused students to reciprocate and then she feels happier and more hopeful and so techniques like that could be useful. Anne was already employing a commercial organisation to run workshops on raising levels of hopefulness and so encourage thriving. Roland would ‘*teach it as a series of questions that make them enquire into those ideas* [implicit concepts] *and I would do it in a discussion-based forum*’ (Roland, established teacher, p.33, lines 37-39). It should not be taught as a series of bullet points, but more as a seminar with an expert in charge and then, ‘*Now clearly it would work, definitely work*’ (Roland, established teacher, p.34, line 20). He felt there would be a real value in teaching some of the techniques associated with positive psychology.

Although Harriet (NQT) was not in favour of training for growth Mindset, she wanted it for the other techniques and she felt one to one coaching which concentrated on the development of strengths, rather than weaknesses would be useful (this would fit with the ideals of positive psychology). Linda was wholly in favour of teaching about Hope and the

other concepts and felt this might be suited to an online, interactive approach (she mentions using some kind of ‘post-it board’, p.21, line 31) because this would save time but could also be accessed at any point.

Looking at the teachers who had left, Aron was whole-heartedly in favour of training for concepts such as Hope. His reply was “*Yes, absolutely*” when asked (Aron, left/leaving teaching, p.18, line 42) but, as with growth Mindset, he felt the right type of organisational culture was needed first, “*you need to embed it [Hope] and make it work*” (Aron, left/leaving teaching, p.18, lines 46-47). He went on to say it is “*definitely worth teaching it*” (Aron, left/leaving teaching, p.19, line 21) and he believed it fitted with positive psychology because it addressed the question, “*Actually, how do we keep teachers feeling mentally well rather than treating them after they become ill ?*” (Aron, left/leaving teaching, p.19, lines 48-49).

Jackie thought there was definitely a place for teaching positive psychology techniques, such as hope development:

I think it could be taught and I think it could do very well because teachers need, we need to be told that actually we’re doing okay, that actually we’re not as bad as the media make out or as OFSTED make out (Jackie, left/leaving teaching, p.28, lines 37-45).

She would implement the process by having a stand-alone course to establish the basics and then have some kind of counselling or coaching for individual teachers based on trusting relationships. Later staff could meet as a whole to see how they want to move the process on and progress would be based from the bottom-up, “*it’s got to feel as if it’s come from the staff*” (Jackie, left/leaving teaching, p.31, line 20). Stephen felt Hope could be taught, but not as a one off session, rather time should be allocated weekly to teach it “*I think this is the way we need to be going*” (Stephen, left/leaving teaching, p. 22, line 21). However, he was sceptical about whether this could be done as he thought not enough resources would be

available. Tom also thought it would be a good idea to teach these techniques, but did not specify how.

Two teachers, Teresa and Sarah, did not think that teaching positive psychology concepts such as Hope would be useful. Teresa said, *‘From experience, I would think that some teachers would rather have a better use of their time’* (Teresa, established teacher, p.16, lines 8-10) and *‘I would see it would be more problematic than helpful in some ways’* (Teresa, established teacher, p.16, lines 17-19). She would rather see senior leaders getting teachers working together on activities, such as outdoor pursuits, and having fun that way, because that would build confidence and Hope. Sarah felt Hope might need to *‘develop itself’* [because]

... it’s a very strange thing to put into a professional life. And we’ve just had to fill in- twice in the last year- a questionnaire to say how, I don’t know about hopeful but that happy in our well-being...And all that. And I was very against it, I didn’t want to do it at all. I thought ‘What business of anybody else’s is this’ (Sarah, left/leaving teaching, p.20, lines 36-47).

She had also had some bad experiences of training sessions in this area:

And we’ve had a couple of CPD [Continuing Professional Development] little things where people said, ‘We’ve got to do meditation. And I was enraged with this because I thought ...it’s nothing to do with anybody else. It’s very personal (Sarah, left/leaving teaching, p.21, lines 4-10)

Instead, she thought building a collegiate system would be better and this could be done by simply sharing some simple activities, such as going out for lunch together once a week, and just having time to talk, *‘People don’t have time to talk. I think time to talk, just a chat about the day’* (Sarah, left/leaving teaching, p.22, line 49-p.23, line 1).

Most of the teachers did not see the value of teaching growth Mindset discretely but felt it would be more useful to develop a supportive, collegiate type of culture. However, most felt that implicit factors, particularly Hope and Optimism could be developed through training although some kind of seminar based approach, akin to coaching would be more useful than a lecture style. By raising the levels of these implicit factors teachers would feel better about their work, they would feel they were crafting in a constructive way, and by implication would be less likely to want to change their role.

In Chapter 5 thus far, the vital role of crafting in order to maximise Calling and resist impositions that detract from the crafting have been explained as has the desire for positive psychological interventions. The next section will discuss the findings from the qualitative study in more detail. In Chapter 6 these will be integrated with the quantitative results to examine the meaning and implications of the findings more widely.

5.1.18. Discussion of the qualitative findings

In the qualitative study all the teachers interviewed reported a strong Call to teach, in other words they found the work fulfilling, socially useful and it seemed to be work that ‘beckoned’ them, they felt they had found their niche. A sense of Calling was an important self-belief variable that sustained them. In order to enhance their Calling and maximise their potential, to ‘get there’, the calling needed to be developed fully. Because it facilitates sustainability and retention it should also be used to enhance teacher recruitment. UK Governments have tried to increase teacher retention by introducing salary packages designed to attract and retain teachers particularly in shortage subjects such as mathematics (so called ‘golden hellos’) (Towers and Maguire, 2017) but retention remains a problem. A growing body of research is examining identity theory to understand teacher retention (Day et al., 2006) but little research

has been carried out specifically on Calling (Bullough et al., 2012). The findings suggest that if Calling can be developed retention can be improved. The interviewees suggested ways this could be achieved.

They needed to be able reinforce positive relationships with other teachers, students and support staff. In particular they needed to nurture co-operation and collaboration, in other words collegiality. The need for supportive relationships is supported by the literature. Gu and Day (2007) explain the need for beginning teachers to have a sense of belongingness and positive relationships is a core construct in Seligman's (2011) PERMA model. Flores and Day (2006) found that good quality mentoring was more important than initial teacher training. The interviewees also needed to nourish their love of their subject and be able to put the student at the centre of their work. Cohen (2009) emphasised the need for a love of subject and McIntyre (2010) emphasised the important role of student-centred-ness (both referred to in Chapter 2).

All of the teachers reported they were unable to develop some, or all, of these themes fully and this led to frustration and so they tried to craft their work in order to maximise their Calling as much as possible. '*Crafting the Work*' then became the Superordinate Theme. One way of crafting was to move to part-time work or to move to another area of education, that way the vocation could be maintained by pursuing work in education but away from the traditional secondary school work they had been doing, adding to the problem of retention in this sector.

Other themes were generated which articulated factors that created resistance and even counter-acted against 'getting there'. These came under the overarching theme of '*Resistance to the Calling*'. One theme, '*Is this really necessary?*' showed the factors in the school which took up time and energy which the teachers felt could be better spent on the educational welfare of students. In some cases these frustrated teachers to the point of exasperation

(which affected their Well-being negatively) and contributed to them crafting their work by leaving, or contemplating leaving, or moving to part-time work and so adding to the retention problems. They did not believe in much of what they were doing or saw the value of the so-called ‘meaningless tasks’.

Another theme, *‘The Bean Counters’*, showed that teachers felt that quantitative techniques, particularly data capture and analysis, and OFSTED, did not aid their work but created resistance to it. Whilst ‘auditing’ their work the teachers felt they were considered ‘undeserving’ of more support. This ‘quantitative approach’, where outputs were operationalised and measured had been made worse by the introduction of Academies. These operate under the traditional business model where the ‘bottom line’ for the school is to generate goals that would satisfy OFSTED and so maximise financial returns. The teachers felt this did not allow for the individual needs of all students and hence worked against their Calling, and the factors that contributed to their Calling being nurtured and developed.

Bearing in mind that many teachers stay in secondary school teaching (Worth et al., 2018) the third overarching theme, *‘Staying there, Sustaining the Calling’*, examined how the teachers tried to enhance their Calling and overcome the factors that resist it.

The first theme, *‘Resilience is not enough’* suggested that simply expecting teachers to be more resilient by working harder and ‘Keeping calm and carrying on’ is not enough. Instead, some will craft by leaving or working part-time. Specifically, they felt that levels of Hope, Optimism and Self-efficacy were too low. According to these teachers these implicit self-belief factors had contributed to ‘good-times’ going. ‘Something’, then, ‘must be done’. Most of the teachers did not think that direct instruction in developing growth Mindset would be useful, rather it would be better to produce an organisational culture where teachers could naturally ‘grow’.

One of the surprising findings from the qualitative analysis was how similar the responses from each of the three groups of teachers. It might be expected that NQTs would have higher levels of Optimism, for example, than older teachers who might be suffering from burnout. In fact, Gu and Day (2007) state that at *all* stages teachers can experience negative effects. At the beginner phase they can experience reduced efficacy. In the first part of the middle phase they can experience reduced motivation as self-belief factors motivate less and this can extend to the first part of the veteran phase. Finally, they can have reduced Well-being and feel tired and trapped.

In the survey, Optimism, Self-efficacy and Mindset predicted Well-being so perhaps these were lacking at all stages in the interviewees and this accounted for some of their negative comments, even as NQTs. The main difference seemed to be that some NQTs (though not those interviewed in this study) knew that some of their colleagues saw teaching as a 'stepping stone' to other careers, outside of education; they saw that some of their contemporaries viewed teaching as part of a career plan rather than a calling. This could be because the stresses in teaching are now well documented and so some teachers are aware of the difficulties in teaching before they start and so never intend to stay. Retention is thus not an issue to these teachers because they never planned to remain as teachers in the long term.

Regarding how these findings 'fit' with existing literature reference will first be made to calling. Referring to Chapter 2, Serow (1994) noted that when comparing teachers who said they were called with those who were not the former displayed considerably more enthusiasm and commitment than the latter. Dinham and Scott (2000); Richardson and Watt (2006 as cited in Bullough and Hall-Kenyon, 2012, p.8) and Rawat and Nadavulakere (2015) found similar findings. This fits with the analysis here which indicates that the teachers were sustained by their Calling.

The career stage theories for teachers referred to in Chapter 2 (Huberman, 1993; Hargreaves, 2005; Day & Gu, 2007; Day & Gu, 2010) all emphasised how the attitudes of teachers can vary with years of service or teachers can consistently maintain or lose their motivation but what was surprising here was how similar the NQT, established and left/leaving teachers were. Huberman (1993), noted how new teachers were often unhappy with their roles and explored new ones until they arrived at a stable phase, and this could fit the experience of the NQTs interviewed. They had not yet found stability.

Gu and Day (2007) note that beginning teachers experience ‘transition shock’ as they try to develop a sense of professional self in their interactions with students, staff and parents and try to develop a sense of belongingness within the profession. It can be inferred here that the NQTs did experience transition shock because they were not happy with their interactions with other staff and did not seem to have fully developed a sense of belongingness. Day and Gu (2010) note that the way the teacher deals with this transition shock can influence whether they stay or leave. Flores and Day (2006), also mentioned in Chapter 2, noted how NQTs needed good quality mentoring, as exemplified here, and that this was more important than initial teacher training. Flores and Day (2006) also noted that new teachers had to be more compliant with the norms of the school once they started working compared to when they were student teachers. This could cause frustration but they also noted that teachers with a sense of calling managed to stay more optimistic.

The quantitative findings show that Work orientation-calling decreases during the beginner phase but then increases. A sense of calling then, needs to be nurtured to enhance Retention. This could be achieved by allowing teachers to develop their Calling by developing the themes mentioned above. There are also implications for recruitment of teachers. Much recruitment advertising, particularly in shortage subjects, has been based around appealing to ‘job’ factors, in other words salary (so called ‘golden hellos’). Other

advertising has emphasised ‘career’ factors, such as that designed to attract graduates to the ‘Teach First’ scheme. Here, rapid promotion to leadership roles is heavily promoted (<https://www.teachfirst.org.uk/training-programme>). Yet, retention remains a problem, particularly in urban schools (Towers & Maguire, 2017).

Looking at the middle years of teaching (a category into which some of the established teachers in the current sample fell into) Hargreaves (2005) states that some teachers do remain motivated whereas Huberman (1993) found the mid years can be traumatic with 28% of teachers wishing to leave. This may not be due to a lack of well-being but because they did not have a deep calling in the first place. Others may hit a crisis or suffer from burnout. For those that sustain themselves some are motivated by the ‘job’, the material rewards would be less elsewhere. Significantly, a final group avoided crises by adjusting their working conditions (such as working part-time) but not leaving. The established teachers in this sample would seem to fall into this group, they crafted their work by moving to other areas of the education system but did not leave education completely.

Gu and Day (2007) found some teachers felt sustained and motivated, others had a decreasing sense of self-efficacy and even switched careers. Gu and Day (2007) do not explain where the leavers go, but in this research the interviewees are seen to stay in education, because they have a Calling, they just cannot cope with the environment in secondary schools. The key factors for maintaining motivation in Gu and Day’s (2007) research were staff-collegiality, good personal and professional relationships and continuing professional development. This links closely with the findings in this thematic analysis where professional relationships and collegiality formed a theme and sub-theme and were vital to the development of a Calling.

Gu and Day (2007) found those that reached the veteran phase were sustained by the quality of the relationships with other teachers and students. Again, this ‘fits’ with the

findings from this analysis. Importantly, this group still needed the assistance of colleagues to cope with crises and sustain themselves and so '*Relationships matter*' even for the veterans, indicating that even when 'staying there' the Calling is still needed. This is supported by McIntyre (2010) (see Chapter 2), who found that retention in long serving teachers was aided by good relationships, including collegiality.

Cohen (2009), identified three traits needed for retention: psychological hardiness, a degree of narcissism and a real love of the subject being taught. The latter fits with the theme '*Love of Subject*' which is needed to enhance Calling but also indicates that love of subject is needed to *sustain* the Calling. Hardiness is a psychological concept linked to positive psychology and so is relevant to this research. It is similar to resilience and so can be developed by increasing Self-efficacy and Optimism, as shown in the quantitative study. However, narcissism does not fit because it implies that putting the teacher, not the 'kids' at the centre of schools is necessary and so goes completely against the theme of '*It's all about the kids*'.

Gu and Day (2007) found that veteran teachers fell into three groups: those who sought motivation through promotion and career advancement, those who crafted their jobs to sustain themselves and those who had been unable to sustain themselves and whose motivation declined. In our sample one teacher (Anne) sought promotion but all the others were trying to maintain motivation through crafting. It is therefore important that teachers are given the opportunity and freedom to craft their work according to their professional judgement because a significant number will not be motivated through promotion, they wish to stay with the 'kids' in their classrooms, which corresponds to what McIntyre (2010) discovered.

Little research has been carried out to examine hope in teachers. Bullough and Hall Kenyon (2011; 2012), noted that it could be improved by promoting agency and went on to

state that this can be achieved by removing the culture of accountability which would give the teacher a greater sense of autonomy. As stated above, this would allow for flexibility and reduce the frustration mentioned by the teachers. In this analysis, the overriding theme of *'Resistance to the Calling'* demonstrated the need to reduce unnecessary accountability through the two themes, *'Is this really necessary?'* and *'The Bean Counters'*. Reducing accountability would also allow for the teacher to build subject appreciation rather than just 'teaching to the test' and so add to *'love of subject'*.

As with hope, there is little research available examining optimism in teachers, although two studies are mentioned in Chapter 3, one by Jibeen (2014) and the other by Williams et al. (2015). The qualitative data suggested that Optimism was low in some teachers and this was due to a corrosive school culture although some, like Aron, thought teachers were fundamentally optimistic. The implication from these findings is that teachers need higher levels of optimism but also need the school culture in their work that would support this optimism.

Self-efficacy, the belief that the teacher's capabilities and actions can bring about the effects wished for, is connected to the concept of sustainability. The teachers in the interview study felt they could not sustain themselves and so had to craft their work to fulfil their Calling. In particular they wanted to build collegiate relationships and put students at the centre of their work. The NQTs implied they experienced a lack of Self-efficacy. According to Woolfolk Hoy and Burke Spiro (2005), this is to be expected in the first year of teaching as the new teacher has a sudden increase in responsibility compared to being a student teacher but they also note that with the right amount of support the loss of Self-efficacy can be kept to a minimum. Caspersen and Rasen (2013) found that all teachers need a collegiate environment so they feel able to call on networks to support them. Here, the interviewed teachers felt that relationships and especially collegiality mattered, but because they were

lacking this could reduce the development of Self-efficacy. Importantly, for this research, Coladaci (1992) found that as self-efficacy reduces, staff retention also goes down. The interviewed teachers were moving from their jobs where they were needed to move to other areas to maintain their Calling but in doing so were contributing to the retention crisis in secondary schools.

As stated in Chapter 2, little research has been carried out on mindset in teachers and so it is a useful concept to consider here in order to try to expand the knowledge base. Gero (2013) found that teachers who adopted a growth Mindset valued learning over reputation and so were willing to take risks which made them better teachers. In this thematic analysis the teachers felt growth Mindset was worth considering but they all provided cautionary points. Anne felt it could be taught discretely but that special attention should be given to the use of language and Stephen felt it should be designed to appeal to the values of the teacher. The others felt it should not be taught as a traditional training programme, rather the correct type of organisational culture should be established instead. Others said that an appropriate culture should be established and then the programme could be taught. There was little difference between the responses of the established, NQT and leaving teachers. It is thus more important to try to change the school culture first in order to make it more collegiate than it is to run discrete training programmes on the development of the growth Mindset without considering the culture of the school.

One of the main factors to emerge from the qualitative research is the value of Calling. This causes teachers to craft their work in order to maintain it. The common outcome for both teachers who have left the profession and those who have remained is that they all wish to stay in contact with the world of education, those that leave secondary teaching are doing so not to leave education completely but to craft their work so that they can maintain their Calling.

The interviews demonstrated a ‘strong love for teaching’ which needed to be sustained through crafting. If Calling is vital then methods of recruitment need to emphasise its value rather than simply concentrating on pay and career prospects. Effective tools need to be developed to applicants who have a calling as they would be predicted to be more likely to stay in teaching, longer term. However, as the interviews demonstrated, Calling still has to be maintained and nurtured for those already in teaching if they are to ‘stay there’. The key to developing Calling is the development of relationships, including collegiality. If appropriate relationships are nurtured then teachers can ‘develop the Calling’, as shown in the thematic analysis. This enables them to craft by overcoming ‘*resistance to the Calling*’ and then ‘*to sustain the Calling*’.

No other qualitative studies have been found looking at these areas within the teaching profession. In response to Objective 2, the in-depth teacher accounts indicate the self-belief factors of Self-efficacy, Optimism, and Hope should be extended to improve Well-being and Resilience. A sense of Calling should be developed in teachers as this will sustain them and so improve Retention. These factors apply to all teachers regardless of their stage of career.

At the moment teachers are job crafting to stay within the world of education but this is taking them away from secondary school classrooms which is where they are really needed.

Critique

The ecological validity of qualitative studies is often higher than quantitative because they *tend* (Braun & Clarke, 2013, p.280) to gather data in ways that are nearer to the real world than quantitative studies do. Actually, interviews are not ‘real life’ to most people but sitting in a room and talking to someone or speaking over the telephone may be more realistic than completing a questionnaire (Braun & Clarke, 2013). The findings from the interviews could

be argued to not be very generalisable because they only reflect the views of a group of interviewees at a particular time. However, the aim of qualitative research is not to produce generalisable results, in that sense it is similar to a case study. The findings of the study may have idiographic generalisability, it does provide a deep interpretive analysis which can contribute to wider knowledge (Braun & Clarke, 2013).

The sample of teachers did reflect different career stages and come from a range of schools and educational backgrounds but the findings illustrated similar patterns. It may also have transferability, other teachers may give similar responses if they are in similar contexts to the teachers interviewed here (Braun & Clarke, 2013). The findings here were cohesive across the teachers and bearing in mind the wide geographical spread the findings came from it would seem something important in teachers' experiences is being explored.

The teachers' responses seemed to be authentic. This was probably helped by my status as a fellow teacher and so they felt they could identify with me and knew I would understand and recognise the issues they were discussing. I was able to build a rapport with them by sharing anecdotes which they could understand and this, hopefully, built trust. Thus, being in the dual role of teacher and researcher enabled me to obtain information that I might not have gained if I had only been in one of the roles. On the other hand, a challenge for me was that I had strong views and ideas based on my experience of the profession. These may have affected the direction of the interviews. Although reflexivity allows for some personal opinions, I was conscious of my own views and so tried to take a measured approach.

Reliability, as used in quantitative research, is not applicable to qualitative work because each situation studied is unique and so is not repeatable. It is impossible to compare one interviewee with another as each interview is unique. However, by building trust with the interviewees, the 'dependability' (Braun & Clarke, p. 279) of the findings can be considered

good. This means a common thread of authenticity exists between the interviewees which constitutes a form of reliability (Braun & Clarke, 2013).

The thematic analysis could be extended to examine infant and primary schools to identify differences across the educational sectors. It could also be used in other geographical areas such as Scotland or Wales to note any differences. The existing eleven interviewees could be re-interviewed at intervals to obtain longitudinal data to see if their views changed over time and why. It would also be interesting to seek out teachers in senior positions to analyse their motivations for pursuing their careers. For example, it would be relevant to find out if their career aspirations have compromised their sense of calling in any way. In the next chapter the relationship between the two strands, quantitative and qualitative, is examined.

Chapter 6. General discussion

The purpose of Chapter 6 is to address Objective 3: to explore the relationship between Objective 1 and 2 and examine applications for improving Resilience, Well-being and Retention. The chapter examines the relationship between the survey and interview data and also describes psychological interventions that could be used with teachers. The important role of contextual factors is also shown.

The survey showed that most of the variables increased as the teacher moved through the professional life stages. Resilience and Well-being increased but (as expected) Intention to Quit decreased. The changes were slower in reaching the middle stage but then accelerated towards the veteran stage. Gu and Day (2007) found this happened with some teachers but others felt trapped and burnt out by the time they reached the veteran stage. The difference could be because those who had decided to leave had done so already and so experienced teachers in the survey study were those who had decided not to leave (even if they had been tempted to in the early part of their career). They had been able to develop the self-belief and outcome variables that motivated them. Alternatively, the experienced teachers may have possessed higher levels of the variables from the beginning which gave them the capacity to remain in teaching.

The quantitative findings indicated that levels of Work orientation-calling were lower during the beginner phase compared to later stages; a similar result was found in the interviews. The NQTs reported having a Calling but did not always appear optimistic and were concerned at the low level of Optimism in some established teachers. A sense of Calling needs to be nurtured to enhance Retention and this could be achieved by allowing teachers the autonomy to develop it.

The survey indicated that Work orientation-calling, on its own, is not enough. Although this was the only predictor of Intention to Quit from the self-belief variables, the

mediation analysis indicates Well-being is important because it enhances the effect of Resilience.

The qualitative data shows that although Calling is vital, other factors, such as adequate resourcing and an appropriate organisational climate were needed. It can be inferred that the factors highlighted in the interviews, such as collegial support and student-centredness, might contribute to Well-being and thus reduce Intention to Quit and aid Retention. This would need further research. The survey, making use of the quantitative data, shows that Hope and Optimism predicted Well-being but contextual factors, highlighted by the qualitative data, such as collegial support and the general teaching environment (as well as the self-belief factors), do need to be considered.

Little research has been carried out to examine hope in teachers either quantitatively or qualitatively. Bullough et al. (2007), showed hope remained high throughout the career stages whereas in the current survey, Hope remained at a medium level ($M=46.41$, max. 64.00) although it rose as the veteran stage was approached. In the thematic analysis some of the teachers did express low levels of Hope, even hopelessness, which was not so clearly reflected in the survey data. However, the survey showed a spread of scores for Hope indicating some teachers had a low level. The survey data was also measuring general levels of hope whereas the interviews were specifically referring to hope in the workplace. The survey did clearly indicate that Hope predicts Well-being and Resilience.

Luthans, Youssef et al. (2007), describe a psychological intervention based around Snyder's approach to hope, which has been successful. Firstly, challenging but achievable goals are set and these form the basis of the intervention. Next, the pathways to achieve the goals are considered. To prevent a feeling of being overwhelmed and so maintain agency, the final goal is broken down into smaller, sub-goals or steps, to make the process manageable. The individual should be free to construct their own pathways and develop levels of agency as

this leads to greater motivation. They should recognise their own achievement as steps are achieved and this acts as a self-reward system. The teacher will need resources, including the support of others, at work or home and if possible, any formal training that is available. Luthans et al. (2006) provide evidence for the effectiveness of the intervention, where it has been used on management students, managers, engineers and employees generally. He has not used it on teachers but there is no reason to think it would not be successful

This is mirrored in the qualitative study. In the interviews the teachers seemed to be saying exactly this, they wanted the flexibility and autonomy to craft their work in the way they wanted, and the resources and time to do it. They did not mention Hope directly, but the factors they said they needed are closely aligned to the aspects of the psychological intervention described. Giving staff the autonomy to craft their work, resources and a supportive, collegiate environment would further develop Hope. Thus, contextual, as well as self-belief factors, need to be considered when developing Hope.

As with hope, there is little research examining optimism in teachers, although two studies were mentioned in Chapter 2, one by Jibeen (2014) and the other by Williams et al. (2015). The former found that optimism buffered neurotic effects and increased satisfaction with work and the latter that optimism predicts happiness (the multiple regression showed it predicted Well-being, which is a similar construct).

Optimism among the teachers in the survey sample was medium ($M=19.91$, max. 22.54). It increased as teachers moved through the life stages. However, it was perceived to be low amongst some of the teachers in the thematic analysis, such as Linda and Roland. The survey showed no correlation between Optimism and number of hours worked. This was surprising as a negative correlation would be expected because the literature indicates that in teaching, increased workload leads to excessive stress and then a reduction in well-being (Travers & Cooper, 1996; Department for Education, 21/7/2018). However, Optimism was

related to Resilience, Well-being and Intention to Quit. The interviews suggested Optimism to be lower than in the survey perhaps because the participants were able to articulate their dislike of the school climate they found themselves in.

Positive psychological interventions could improve optimism levels. Schneider (2001), presents an intervention that has been successful in the workplace consisting of three stages: leniency for the past, appreciation for the present and opportunity seeking for the future. Leniency for the past means the individual acknowledges the realities of a situation where they had not performed as well as they intended but realise some aspects of the situation were beyond their control. Not all of the responsibility can be attributed to them. For example, if a teacher has a class where behaviour is a problem they may realise that there are problems unique to that group which are beyond their control. This resonates with the themes, *'Is this really necessary?'* and the *'Bean Counters'*, where teachers were expected to be accountable for factors that *were* beyond their control and so felt stressed. .

Appreciation for the present means that even within a difficult situation, there will be some aspects in which the teacher is succeeding, perhaps improved attendance or punctuality. Again, other teachers will need to be able to point this out. They may also find other teachers have similar problems with the group, and that progress is being made with all their other groups. This links with *'Relationships matter'*, showing that collegiality is vitally important. Working in isolation and not sharing experiences could lead to greater levels of self-blame whereas collegiate working leads to a more optimistic outlook.

Opportunity seeking for the future suggests that a difficult situation should be seen as 'work in progress' and that with persistence the situation will improve. Once the teacher has developed new strategies to control the group their behaviour will improve. 'New strategies' implies the teacher has the autonomy and resources to craft a better situation and generate Optimism. The process will require the assistance of other staff to look for solutions and so it

again underlies the theme of '*Relationships matter*' and the sub-theme of '*Can't we be colleagues?*'. Without a collegiate approach it is unlikely that this method of increasing Optimism would be successful on its own.

Malouff and Schutte (2017) carried out a meta-analysis to evaluate psychological interventions aimed at increasing optimism. They examined 29 studies with a total of 3319 participants and their results indicated that psychological interventions can increase optimism.

The survey showed that Self-efficacy increased through the professional life stages and had a mean value of $M = 5.69$, max. 8. It did not predict Intention to Quit but did predict Resilience. Although Resilience did not predict Intention to Quit, it is enhanced by the mediating effect of Well-being which, in turn, is predicted by Optimism and Hope (and growth Mindset). Therefore, if these are increased alongside Self-efficacy, Intention to Quit is reduced.

Regarding psychological interventions, Luthans and Youssef (2004), have shown that efficacy can be developed through the opportunity to experience mastery/success, vicarious learning/modelling, social persuasion and positive feedback as well as psychological and physiological well-being. Mastery and successful experiences can be developed in the teacher by practising tasks in which efficacy is to be developed. The task can be broken down into sub-tasks and each mastered one at a time allowing the teacher to experience success more often and develop more autonomy at the same time. Then, small tasks can be amalgamated into a whole task.

Further efficacy can be built through cognitive processes such as vicarious learning/modelling, in other words observing other teachers' successes and also their mistakes. The teacher will identify more with teachers in a similar role, rather than a more distant professional trainer and so the use of peer mentors should be encouraged. Social persuasion/positive feedback refers to teachers being encouraged regularly – 'you can do it',

‘you are doing well’. Many organisations, including schools, now use performance related pay and have other formal reward systems (Towers & Maguire, 2017) but they often ignore every day encouragement (Luthans, Youssef et al., 2007). Thus, teachers need recognition on a regular, informal basis. This links again with the need for collegiality, rather than formal, managerial reward systems.

Psychological Well-being is related to Self-efficacy. The survey data showed Self-efficacy and Well-being to be strongly correlated ($r=.60, p<.01$) although Self-efficacy did not predict Well-being. Fredrickson (2001), states that any factor that encourages a positive emotion will energise the cognitive processes. Luthans, Youssef et al. (2007) suggest it is this energising effect that leads to increased self-efficacy. The survey shows that all factors apart from Mindset and Work orientation-job and career, correlated positively to Well-being with medium to large effects. It could thus be predicted that an increase in any self-belief factor will increase Self-efficacy which in turn correlates positively with Well-being. Luthans et al. (2006) have evaluated psychological interventions for self-efficacy and shown they are successful.

The literature in Chapter 2 states that with the right amount of support self-efficacy can be increased (Woolfolk Hoy & Burke Spiro, 2005), but if it becomes too low it can lead to burnout (Brissie, Hoover-Dempsey & Bassler, 1988) or what Leiter (1992) calls a ‘crisis in self-efficacy’. Here, the teacher experiences a reduced sense of accomplishment, emotional exhaustion and depersonalisation. Social support, therefore, should lead to improvements in accomplishment and well-being. This corresponds with the interview data which suggests that social support (*‘Relationships matter’*) allows the development of Calling but by implication, greater accomplishment and therefore Self-efficacy. Thus, improved Self-efficacy needs contextual, as well as psychological factors.

Self-efficacy is needed to generate Resilience, Well-being and Retention. Well-being also mediates the effects of Resilience and further reduces Intention to Quit. Self-efficacy is improved not only by psychological intervention but by contextual factors, such as social support, as well.

In fact, the actual psychological intervention for self-efficacy itself also requires contextual factors such as time, space and other resources in order to be carried out. All of the procedures in this psychological intervention require the cooperation of other members of staff. Mastery needs inputs from other teachers to guide the individual in how to break the job down and then practise it. Vicarious learning needs suitable role models and positive feedback must be given by a respected colleague.

The contextual factors found in the qualitative study, especially social relationships and having the resources and autonomy to craft thus aid the development of Self-efficacy. Indeed, the same was said of Hope and Optimism and so a trend is emerging: the two strands represented in Objectives 1 and 2 show that both psychological factors, developed by interventions, contribute to increased Resilience and Well-being and reduced Intention to Quit. However, the psychological factors are also enhanced by contextual factors, such as autonomy, collegiality and social support. In addition, contextual factors such as time and finance are also needed to develop the psychological interventions in the first place because teachers need these inputs in order to be fully trained in them.

Contextual factors have largely emerged from the interviews whereas psychological factors have emerged from the quantitative data. Using both forms of data has enabled a more comprehensive analysis to take place. Overall, the development of the psychological factors (those that emerged from the quantitative data) need to be complemented with a consideration of contextual factors (which emerged from the qualitative data) when considering factors that affect Resilience, Well-being and Retention.

Physiological factors can also improve self-efficacy (Luthans, Youssef et al., 2007). All secondary schools and colleges have sports equipment which, if complemented with time, could be used by staff.

A psychological intervention to improve well-being is based on a concept developed by Gable et al. (2004), which states that communicating positive, personal events with others improves mood and well-being, in excess of the effects of the event itself and any other unrelated, positive events. Seligman (2011), used the intervention successfully with the United States Army, but it could be used in educational establishments as well. The client is taught to respond to good news from others in an active and constructive way and this builds the relationship and induces well-being. (The quality of relationships is one of the components in Seligman's (2011) PERMA model). The interview data here would suggest that collegiate relationships, by their very nature, are supportive and so would have a similar effect to these formal interventions. Thus, well-being is improved through the psychological intervention itself but also through contextual factors.

As stated in Chapter 2, little research has been carried out on teacher Mindset. From the quantitative data growth Mindset correlates positively with Resilience, Hope, Self-efficacy and Optimism but only with small effect sizes. It is a suppressor variable in the prediction of Well-being. In the interviews, most teachers felt it was more important to change school culture rather than provide interventions to increase growth Mindset. However, as it contributes to the prediction of Well-being, and some teachers said intervention would be useful after the climate had improved a psychological intervention should be considered. As stated previously, based on the data from this study, intervention should only be used for Mindset if resources were available after the development of other self-belief variables. The quantitative analysis found Mindset to be a suppressor variable, rather than having a direct role in the enhancement of Well-being.

One way of doing this has been suggested by Dweck (2014). She refers to the ‘fixed Mindset voice’ which warns us not to take risks and to give up if a setback occurs, but suggests the teacher should challenge the voices and remind themselves that they can learn from mistakes and should try again, perhaps trying a different strategy. Teachers could also use this method with colleagues who also feel the need to move to a more flexible Mindset. Again, this psychological intervention would depend on contextual factors such as strong and trusting relationships between staff. It does not appear to have been evaluated.

One of the main factors to emerge from both strands of the research was the value of Work orientation-calling. The survey showed it predicted Intention to Quit. The interviews showed it caused teachers to craft their work in order to maintain it. The common outcome in the interviews for both teachers who had left their secondary school and those who had remained was that they all wished to stay in contact with the world of education. Those that left secondary teaching were doing so not to leave education completely but to craft their work so they could maintain their Calling. Snyder et al. (2011) when examining the use of positive psychology in schools, mention teaching as a calling and say,

When positive psychology tenets are applied to teaching we believe that the instructors behave as if they had callings in that they demonstrate a profound and strong love for teaching (p.406).

However, they do not provide evidence for this, but the survey showed significant correlations between Work orientation-calling and Hope and Self-efficacy. Correlations with Optimism and Mindset were not significant and so it would be profitable to concentrate research on Hope and Self-efficacy.

One of the problems of formal interventions generally and raised in the interviews, is that they need to be integrated with the daily work of the teacher rather than being ‘bolt-ons’, if they are to be effective. Another problem is that they can be seen as a ‘sticking plaster’

which covers up structural problems within the organisation (Braverman, 1974). A headteacher, for example, may perceive a problem with low optimism, arrange an intervention, and then assume the problem is solved simply because the staff have attended a training session. A possible solution to this was suggested by Roland during his interview. He suggested that a regular amount of time be used to address issues of, say, well-being. Initially, staff discuss the issue informally but are also guided to literature and possible interventions. The way the intervention takes place originates from the staff themselves, it is a bottom-up process where the teachers craft their own interventions with guidance and so use the concept of job crafting. This process also indicates that to implement a formal psychological intervention requires contextual factors because the training would require time, money and the ability to allow the staff enjoy a level of autonomy.

The need for discrete training in the psychological interventions was reflected in the comments of the interviewees. Most of the teachers felt that the implicit factors, particularly Hope and Optimism should be developed through training sessions. However, most did not see the value of teaching growth Mindset discretely. Anne felt it could be taught separately but that special attention should be given to the use of language and Stephen felt it could be taught as long as it appealed to the values of the teacher. Thus, the teachers would be willing to take up the interventions which would then improve Well-being, Resilience and Retention.

Interventions would need to be focused because it is unlikely that enough resources will be available to increase all the self-belief variables to a maximum. The most important variable is Work orientation-calling because this is the only variable that reduces Intention to Quit. Well-being should be prioritised as this mediates the effect of Resilience on Intention to Quit. Well-being is predicted by Hope, Optimism and so they should be prioritised as well. However, the role of Mindset is as a negative suppressor. This is a useful function, but as it

has a low beta value and was treated with scepticism in the interviews, it should not be prioritised if resources are limited.

Self-efficacy predicts Resilience with a beta value of .44. However, Resilience has less of an effect on reducing Intention to Quit than Well-being. On the other hand, the interviews suggested that Self-efficacy could give teachers the confidence to be more autonomous (resources permitting) which would enhance a sense of Calling. Self-efficacy, Hope and Optimism have very strong inter-relationships and so an intervention to improve Hope and Optimism would improve Self-efficacy as well. Thus, Self-efficacy should be developed in the long run but after Hope, Optimism and Calling.

Intervention would be of benefit at each professional life stage. However, most of the self-belief factors showed the lowest values at the middle stage and so this is where intervention is required the most.

The interview data also showed the centrality of Calling. Teachers need to be able to craft and recraft in order to develop Calling and the key to this development was building quality relationships. These relationships allowed the Calling to then withstand '*resistance to the Calling*' and to '*sustain the Calling*', but this requires contextual factors such as time, resources and autonomy.

One process that could initiate the development of collegiality in schools is through Professional Learning Communities (PLCs) (Owen, 2016). These were introduced in Chapter 2, but to reiterate, a PLC consists of a group of teachers, often teaching similar subjects, who collaborate actively to consider the problems of teaching and learning. These communities allow for supportive relationships to develop along with new skills. Where one-off conferences are used for professional learning without collegiate support following it is much more difficult to bring about significant improvements in student learning (Owen, 2005, as cited in Owen, 2016, p.404). Collaboration, or collegiality, is the basis of the PLC.

Owen (2016) sees a real link between PLCs and positive psychology, especially the development of well-being. She does not mention retention but the mediation used with the survey data shows Well-being mediates Resilience and so increases Retention. Initially, individuals in the PLC concentrate on students they teach, rather than teacher learning but at the 'mature' level the emphasis is on working with colleagues and supporting each other. Owen (2016), emphasises that in the mature stage the teacher moves from coping better to flourishing because the collaborative process activates the five constructs from the PERMA model.

Evidence for this comes from her own thematic analysis where she interviewed 15 teachers in the primary and secondary sectors in Australia. They were asked questions related to the changing role of the teacher, different types of school-based professional learning and the importance of PLCs in supporting teaching. Six themes emerged: 'the different types of PLCs'; 'shared vision and pleasure'; 'trusting relationships and meaning'; 'practical activities and accomplishment'; 'supportive leadership and positive emotion' and 'collaborative inquiry and learning engagement'. These will be examined in more detail because they relate to the PERMA model and so combine the quantitative and qualitative approaches.

The 'different types of PLCs' refers to the variety of PLCs that exist, but more importantly to what they have in common, they all involved teachers collaborating and improving student learning. 'Shared vision and pleasure' links to the ambitions the teachers have in common; two common factors were being student-centred and a deep care for students. This clearly overlaps with the theme '*It's all about the kids*' in this study. 'Trusting relationships and meaning' refers to the need for collegiality ('*Can't we be colleagues?*') and carrying out teaching which is meaningful to the teacher and therefore not superficial; this resonates with '*Is this really necessary?*'

‘Practical activities and accomplishment’ means learning from other teachers’ strengths. This resonates with Seligman’s idea of ‘signature strengths’, the strengths we have that, through interventions, can be made even stronger (Seligman, 2011). It has been stated previously that accomplishment links with Self-efficacy. ‘Supportive leadership and positive emotion’ means that a good leader should provide the resources the teacher needs (such as time, space and opportunities to go on conferences) and also allows for bottom-up decision making and so overlaps with the superordinate theme of ‘*Crafting the Work*’. The teacher has the autonomy and resources to do the crafting and this will result in improved well-being in the teacher.

Finally, ‘collaborative inquiry and learning engagement’ refers to a collegiate approach to discussing the teaching process and also being engaged, such that positive and constructive criticism is accepted (and given to) others. This, again, links in with ‘*Can’t we be colleagues?*’ but also, ‘*Love of Subject*’ because it is very difficult to engage fully with the learning process without a real interest in the subjects being delivered.

Significantly, Owen (2016) states that these themes energise each construct in the PERMA model (although she does not go into detail). As her themes overlap with several of the themes in the interview study it implies that the themes in the interview study overlap with the PERMA construct from the survey indicating (albeit tentatively) another link between the two strands of this research.

PLCs aim to develop collegiality and through it well-being. However, by developing collegiality a sense of calling can also be developed. They encourage autonomy and bottom-up decision making. They are not a ‘bolt-on’ intervention, rather they encourage a type of working which teachers in the interviews said they would prefer anyway. They would require the complete cooperation of school management and in a time of top down managerialism, linked to performativity (Ball, 2008b), this may not be feasible in some schools. However,

initially teachers could try to develop support groups outside of school time. These already exist within some subjects and often have a ‘parent’ organisation run at the national level (such as the Association for the Teaching of Psychology, see [https:// www.the atp.uk/](https://www.theatp.uk/)). They encourage collegiality, through sharing ideas about the development of the curriculum and the educational welfare of students. They do, however, require the teacher to commit time.

Very little research has been carried out on the use of positive psychology and implicit self-belief factors in teachers and the way techniques can be used to improve retention. Although quantitative studies have been carried out on hope, self-efficacy and optimism in the workplace no other studies appear to have been performed on mindset and work orientation and their effects on resilience, well-being and retention. Quantitative, demographic data, such as that relating to how career stage affects the variables is also novel. No other qualitative studies have been found examining these variables within the teaching profession. The findings of this thesis therefore make a significant and valuable contribution to knowledge in the field.

Figure 6.1 summarises the main findings from Chapter 6:

Figure 6.1. Visual graphic of findings

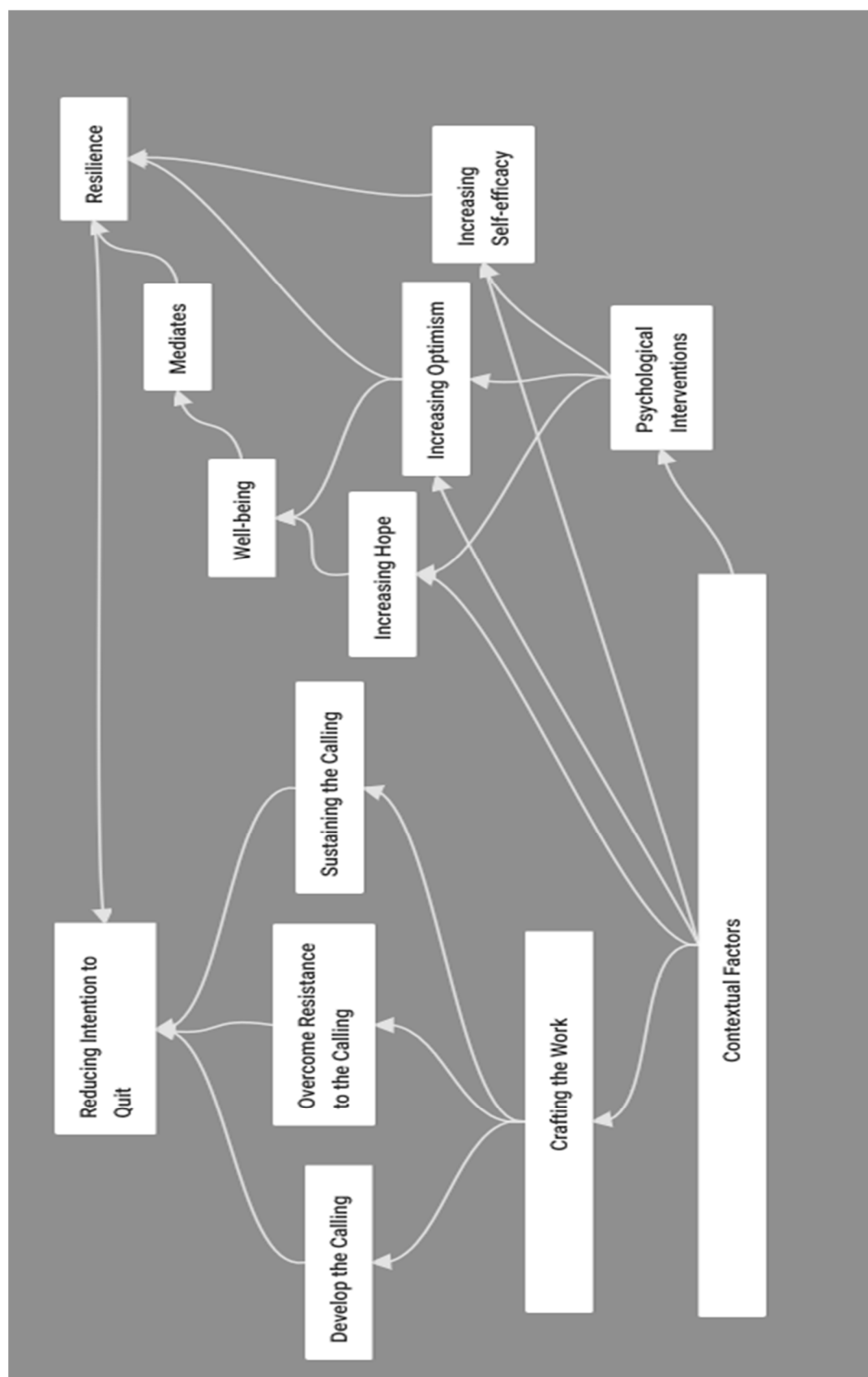


Figure 6.1 shows visually the description given in Chapter 6. Contextual factors (derived from the interviews), such as autonomy, are needed for '*Crafting the Work*'. The teacher can then craft their work to develop themes like '*Love of Subject*'. Collegiality and student centred-ness can also be developed. This allows for the teacher to generate a strong sense of Calling. Being able to fashion work to overcome '*Resistance to the Calling*' and then sustain it means that the sense of Calling can be maximised. The results from the survey suggest that Work orientation-calling then predicts a reduction in the Intention to Quit and so Retention is improved.

Contextual factors also help to increase Hope, Optimism and Self-efficacy. The interviews indicated that Hope is improved through autonomy and positive relationships. Optimism is increased by giving teachers the autonomy needed to produce new strategies and not subjecting them to excessive accountability. Self-efficacy is increased through positive social support.

Psychological interventions can also increase levels of Hope, Optimism and Self-efficacy. However, the interventions also need contextual factors such as time and finance if they are to be successful. Increasing Hope and Optimism predict Well-being and Optimism and Self-efficacy predict Resilience. Well-being and Resilience improve the experience of teaching but they do not predict a reduction in Intention to Quit. However, the quantitative analysis indicates that Well-being mediates Resilience such that increasing Resilience leads to a reduction in Intention to Quit.

Critique of research

The strengths and weaknesses of using surveys and interviews have already been stated. Looking at the study as a whole both strands have limitations. For example,

participants for both strands of the study were volunteers and so were self-selecting. As stated, the State Scale (Snyder et al., 1996) may be a more accurate measure of hope than the Trait (Snyder et al., 1991). In reality, a scale measuring hope in the workplace rather than generally may need to be developed. Because Calling was found to be an important aspect in the findings the Work orientation measures require more attention. A more sophisticated and sensitive scale is needed to measure the different crafting approaches with extensive testing on its reliability and validity.

The Theory of Reasoned Action (Ajzen & Fishbein, 1980) indicates that intention to quit is a good proxy measure of attrition. However, not all intentions lead to behaviour (Ajzen & Fishbein, 1980). The survey study could thus be repeated using teachers who had actually left secondary teaching (although some of the interviewees had left secondary teaching).

On the other hand, the in-depth qualitative study and survey have findings that resonate with each other which adds to the reliability and credibility of the findings. From the perspective of triangulation the results of the two strands of the study align in several important points. Both obtained similar findings for the effects of self-belief variables on outcomes. For example, both showed that Self-efficacy and Optimism were important in developing Resilience and Well-being and, importantly, both showed the central role of Work-orientation-calling in aiding retention. Thus, triangulation does provide a form of reliability checking in this study. Apart from type of school and positions of responsibility both strands covered the same factors.

Future research

Certain issues, such as the ethnicity and social class of teachers, were not considered and future research could be extended to examine factors such as these. The study could also be

extended to examine infant and primary schools to identify differences across the educational sectors. It could also be used in other geographical areas such as Scotland and Wales to note any differences between the variables that might occur due to the differing educational systems. This does not appear to have been studied to date. In addition, more local contextual factors could be examined such as differences between affluent and less affluent areas.

The existing eleven interviewees could be re-interviewed at intervals to obtain longitudinal data to see if their views changed over time, and, if so, why. It would also be of interest to seek out teachers in senior positions to analyse their motivations for pursuing their careers and to find out if career development has compromised their sense of calling.

Now that the most important variables for improving retention are known, this study provides an excellent starting point for understanding the impact of positive psychology on retention further. One extension would involve examining a new cohort of NQTs and measuring variables which improve retention, but include a scale for levels of social support. This contextual factor was found to play a vital role in the development of Calling because it overlaps with '*Relationships matter*' and so if it could be operationalised then quantitative data could be obtained to complement the qualitative. The NQTs could be tracked over several years to obtain longitudinal data to see if the variables change over time. Any that leave teaching could be interviewed to find the reasons for their decision. This would allow longitudinal data to be obtained, including the role of social support and how these link to Retention. Information could also be gained on what happens to the participants after they have left teaching, such as whether their well-being improves. This information could then be used to make further recommendations to improve retention in schools.

The recommendations from the Carter Review of initial teacher training (ITT), the training given immediately before entering the NQT phase (Carter, 2015), resonate with some of the findings in this research. Carter recommends that more emphasis should be placed on

the development of subject knowledge. This overlaps with the theme, *'Love of Subject'*. He also recommends that a more pupil focussed approach be taken and this links with *'It's all about the kids'*. He maintains that greater attention should be given to mentoring student teachers by experienced staff and implies this would enhance the well-being of the trainees. Importantly, he suggests strongly that resources (such as time) must be found for this mentoring to take place properly. This clearly resonates with the findings from the interviews stating that training given to teachers must consider contextual factors such as adequate resourcing if they are to be successful.

Carter explicitly states the need for resilience training, linked with stress management training, to be given to trainees. He also emphasises the need for support to extend into the NQT phase and throughout the teachers career, in other words through the professional life stages, as found in this study. Thus, this research can inform ITT, as well as the other phases of a teacher's working life.

Another logical extension of this research would be to evaluate interventions focused on positive psychology, particularly the role of calling. This would provide data on how to improve the interventions, if necessary.

In conclusion, developing self-belief factors would improve the retention of teachers in English schools. In particular, Calling should be developed because this is the only factor that reduces Intention to Quit directly. Optimism and Hope should also be developed because they predict the formation of Well-being which mediates the effect of Resilience and so also increases Retention. In the long run, Self-efficacy needs to be developed more because this causes the development of Resilience. Although this does not directly encourage Retention it improves the experience of teaching and it correlates with Hope and Optimism.

In response to Objective 3, there is a relationship between Objectives 1 and 2. Hope Optimism and Self-efficacy can be developed through psychological interventions. They will

also benefit from appropriate contextual factors such as autonomy, collegiality and social support. Contextual factors, such as time and finance also need to be considered when training staff in the psychological interventions because the training cannot take place successfully without them. Calling is developed by the crafting of contextual factors, especially positive relationships and student centred-ness. It is then maintained by further crafting. This means the teacher must be given the autonomy to be allowed to craft their work so they can develop and maintain their sense of Calling.

Chapter 7: Summary and Conclusion

This thesis has shown that not enough teachers are being retained in secondary schools in England and a lack of well-being is one of the reasons for teachers leaving. However, most teachers stay in teaching and some flourish. The rationale for the thesis was to discover the reasons that enable these teachers to stay. If the characteristics aiding retention could be found then they could be developed in the teacher. This led to the overarching aim of the thesis: to explore factors influencing the level of teacher Resilience and Well-being and how these impact on their Retention.

The research examined retention from the perspective of positive psychology. This branch of psychology considers not only the repair of deficits but the development of strengths that encourage flourishing and so might aid retention. The self-belief factors examined were Hope, Optimism and Self-efficacy; these were selected because they had been included in previous research in positive psychology, although only rarely with teachers. In addition, two other factors were studied: Mindset and Job crafting. Mindset has been widely investigated in schools with students but not teachers and so it was felt this needed investigation. Job crafting, the ability of a worker to craft their work from the bottom up without managerial control, was selected because top down managerialism seems to be a source of stress and therefore reduced well-being in teachers and so job crafting might be a way of encouraging well-being. Because job crafting is controlled from the individual it has trait-like properties, similar to the other self-belief constructs. These factors were investigated quantitatively through a survey and addressed Objective 1: to measure demographic and psychological factors predicting teacher Resilience, Well-being and Retention.

Of the demographic factors only positions of responsibility and number of years in teaching were related to Resilience, Well-being and Retention. These were therefore included in the analysis going forward.

Regression analysis found that Self-efficacy and Optimism predicted Resilience and Hope, Optimism and growth Mindset (as a negative suppressor variable) significantly predicted Well-being. Only Work orientation-calling reliably predicted Intention to Quit. Mediation showed that Well-being is a mediator of Resilience which then significantly predicts a reduction in Intention to Quit.

The quantitative analysis explains the ‘what and when’ but not the ‘how and why’ and so Objective 2 was designed to explore in-depth teacher accounts, at different career stages, about factors contributing to decisions to stay or leave the profession. To do this, NQT, established and teachers who had left, or were in the process of leaving, secondary school teaching were interviewed and the transcripts underwent thematic analysis.

The two strands, quantitative and qualitative originate from different ontological positions and so there is potentially a tension between them. However, they were reconciled by adopting a critical realist approach.

The thematic analysis demonstrated that the teachers interviewed all wanted to craft their work to maintain their sense of Calling. Those that had left, or were in the process of leaving and had moved, or intended to move, to areas other than secondary schools to maintain their Calling. Calling was thus a central aspect of both the two strands of this research.

The third objective was to explore the relationship between Objectives 1 and 2 and examine applications for improving Resilience, Well-being and Retention. The two strands of the study triangulated at several important points, especially the central role of Calling in aiding Retention. They also showed the value of psychological and contextual factors. Psychological factors, especially Hope and Optimism, should be developed through interventions to increase Well-being because this acts as a mediator enhancing the effect of

Resilience on reducing Intention to Quit. Psychological factors also benefit from appropriate contextual factors, especially autonomy.

Calling needs contextual factors. In particular, teachers need the autonomy and social support to be able to craft their jobs to develop collegiate relationships which would allow them to develop their Calling. Knowing this, recommendations can be made to policy makers to improve Resilience, Well-being and especially Retention in secondary schools:

Recommendations

- Build Optimism and Hope through psychological interventions as soon as possible. This will build Well-being which will improve the experience of teaching and aid Retention.
- In the longer run, build Self-efficacy through psychological intervention in order to develop Resilience. This will improve the experience of teaching, and with Well-being, improve Retention.
- Self-belief factors can be developed in any of the professional life stages but they tend to be at their lowest in the middle stage, so should be prioritised here first.
- Psychological interventions will need contextual factors such as time and finance to be successful. All interventions need the support of the management of the school.
- Reduce the number of tasks seen as unnecessary by involving teachers in reviewing the existing processes so they can state what they feel is irrelevant.
- Shift the context in which teachers work so that they have the autonomy to craft their jobs to build collegiate relationships, put students first and develop a love for subjects taught, in order to develop Calling.
- Shifting context will also help the development of Hope, Optimism and Self-efficacy. All three will benefit directly from increased levels of autonomy, collegiality and social support.

- Changing context would require structural change initiated at the political level. This is unlikely to occur in the short run. Therefore, in the short run, teachers should develop their own mini-PLCs based around existing subject groups which would initiate collegiality, student-centred-ness and develop the curriculum.

No other study has looked at these combinations of self-belief factors and their effect on Resilience, Well-being and Retention and no other study has used the two strands of research. It provides opportunities for improving Retention and for further analysis:

- Researchers could examine scores for self-belief variables in other occupational groups and the context in which they work to see how they relate to Resilience, Well-being and Retention. The findings could be compared to teachers to see if similar findings occur. If they do, generic interventions could be produced. If not, they would need to be bespoke.
- Different educational systems could be examined, for example those in Scotland and Wales.
- Longitudinal data could be generated by examining groups of teachers over a period of years.
- Infant and primary schools could be studied.

In September 2019 I retired from teaching after many years of service. Levels of well-being and retention amongst teachers appeared to me to be lower than when I started in the profession. This was reflected in the academic and popular literature. I would like to think that the findings of this research could help to improve the situation.

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Appendices

Appendix 3.1. The Questionnaire

Well-being and Resilience in Schoolteachers' Questionnaire (copy)

Page 1: Invitation to participate in a project examining self – belief factors affecting the well-being and resilience of schoolteachers

Dear Teacher

Thank you for taking the time to read this questionnaire. It has been sent to teachers in your school via the head teacher or to you via social media. The questionnaire forms the first phase of a doctoral research project that is based at the University of Northampton. As a practising schoolteacher you are in a good position to answer this questionnaire.

The aim of the project is to investigate some of the self-belief factors that affect resilience and well-being in UK schoolteachers. Self-belief factors include Hope (formulating goals, finding a pathway to achieve them, and having the energy to get there), Self-efficacy (believing you can achieve your goals), Mindset (whether you feel ability is fixed at a set level or can be developed over time), and Optimism. Resilience can be thought of as the ability to endure and succeed in adverse circumstances and being in a state of well-being means being able to flourish.

The following information will help you to decide whether or not you wish to participate in this study. Please take your time to read this information sheet and contact me with any questions you may have.

There has been considerable research on how factors such as stress affect the well-being of teachers. Indeed much of Psychology since World War Two has tended to focus on correcting aspects of people's lives that have gone wrong. For example clinical psychology concentrates on mental illness and educational psychology on learning deficits. Positive Psychology is concerned with the development of positive qualities in life and includes the ideas of hope, self-efficacy, mindset, optimism and resilience. There are documented high levels of attrition among teachers and well-being among some is low. In this context positive psychology might be useful in identifying factors that are associated with well-being and attrition and to explore whether these might be used to assist teachers in the future.

This study is exclusively for adults over the age of eighteen. Your participation will require you to complete seven questionnaires covering factors associated with well-being of teachers. Each question is scaled and you choose the number which you think is the best.

All answers will be treated confidentially and individual schools and staff members will not be identified in our research. If you have any questions concerning this research then please do not hesitate to contact us using the details below.

Thank you very much for your assistance.

Andrew Chitty

Andrew Chitty BSc (Hons), MSc, PGCE, MA(Ed), DipPsych., MBPsS

Department of Social Sciences - Psychology

The University of Northampton

Park Campus

Boughton Green Road

Page 2: Participant information

This questionnaire forms the first phase of a doctoral research project to investigate how self-belief factors affect well-being and resilience in schools. The attached invitation letter has been addressed to you because as a practising teacher you are in a good position to answer the questionnaire. All answers will be treated confidentially and individual schools and staff members will not be identified in my research. If you have any questions concerning this research then please do not hesitate to contact me using the details below.

How did you get my contact details?

The researcher has used websites and public databases to identify secondary schools and then has contacted your head teacher directly to see if the questionnaire could be sent out to teaching staff. Alternatively you have received the questionnaire via social media.

What happens if I don't want to answer all of the questions, to fill in the questionnaire at all or withdraw information already given?

While I hope that you will complete the questionnaire I would like to emphasise that you are free to answer as many or as few of the questions as you choose. If you decide that you do not want to answer any of the questions, then you do not need to contact the researcher at all. If in the two weeks following the return of your completed questionnaire you would like to withdraw any of the information given, then you can contact the researcher using the details given on the next page and that information will then be removed from the study. You will make up a code to go with your questionnaire and you will be given full instructions on how to do this. This will allow your questionnaire to be removed anonymously after submission if you request it.

What will happen to the information that I provide?

Data collected from completed questionnaires will be kept securely in a locked computer with a password linked system and will only be seen by the researcher and his supervisors. Any personal details provided in the questionnaire will not be made available to anyone else. The researcher and his participants are members of the British Psychological Society and are bound by the Society's Code of Ethics and Conduct. All information is protected by the Data Protection Act (1998). Findings from the questionnaire data may then be disseminated through conference presentations or publications in academic journals. Data will be included in the final thesis which will be available online and, potentially in other publications. However this data will only be referring to whole cohorts of participants. No data from individuals or from individual institutions will be available. The researcher will not gain financially or commercially through such activities and the research will remain the property of the University of Northampton. It is hoped that through this study a better understanding of well-being in schoolteachers will be achieved which will enable the researcher to identify practices that seem beneficial to teachers.

All information will remain anonymous and no link can be made between the participant and their on line responses.

Independence of the researcher.

The researcher is working independently of any school and is carrying out this research only under the supervision of the University of Northampton.

How can I contact the researcher?

If you would like to contact the researcher at any time to discuss the questionnaire, any issues arising, to withdraw some or all of your data or find out about the findings of the study, then please contact the researcher, Andrew Chitty, in the first instance. His details are as follows:

Andrew Chitty

Department of Social Sciences-Psychology, The University of Northampton, Park Campus, Northampton, NN2 7AL

Tel: 01296 714206

Email: andrew.chitty.5@btinternet.com

Dr. Roz Collings (supervisor), can be contacted at the following:

Dr. Roz Collings

Department of Social Sciences – Psychology,

The University of Northampton, Park Campus, Northampton, NN2 7AL

Tel: 01604 892111

Email: Roz.Collings@northampton.ac.uk

Page 3: Consent page

1. I have read and understood the invitation letter and the participant information page *Optional*

☐ Yes ☐ No

2. I understand that I am under no obligation to take part in this study and I am free to answer as many or as few of the questions as I choose *Optional*

☐ Yes ☐ No

3. I understand that I have the right to withdraw my data from the study in the two weeks following completion of the questionnaire

☐ Yes ☐ No

4. I understand that all the information I provide will be treated in strict confidence and that only the research team will have access to my data

☐ Yes ☐ No

5. I agree to participate in this study

☐ Yes ☐ No

6. Where did you receive the questionnaire link?

- ☐ Work
☐ Social media
☐ An associate/friend passed it on

7. In order to allow you to withdraw, whilst maintaining anonymity, we ask you to create a code using the following instructions: Use the first letter of the street you lived in when you were eleven. Then the first letter of the school you attended at eleven. Then the first letter of your surname. Finally add your birthday (date and month only). For example an individual, Joe Bloggs, who lived in Downing Street and attended Queen Margaret School and was born on 29th February would have a code as follows: DQB2902.

Page 4: Background Information

8. What is your age (in years)?

9. What is your gender?

☐ Male

☐ Female

☐ Other

10. How many years have you been teaching?

11. On average how many hours in a week do you work? Include in and out of school

12. Do you hold any positions of responsibility that are rewarded with responsibility payments such as Teaching and Learning Responsibility (TLR) payments or management spine points? If so please state below the type of responsibility payment (eg. TLR1a), position on management spine or any other type of reward

13. Which type of school do you work in? Please tick the appropriate type of school

- ☐ Comprehensive Community School
- ☐ Comprehensive Foundation School
- ☐ School for students with additional needs
- ☐ Faith School
- ☐ Free School
- ☐ Selective Academy
- ☐ City Technology College
- ☐ State Boarding School
- ☐ Sixth Form College
- ☐ Further Education College
- ☐ Independent School
- ☐ Grammar School
- ☐ Non-selective Academy
- ☐ Secondary Modern School

Page 5: Well-being and resilience in schoolteachers' questionnaire (Section A)

Directions

Please read each item carefully and using the scale provided select the option that best describes you.

14. I can think of many ways to get out of a jam

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

15. I energetically pursue my goals

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

16. I feel tired most of the time

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

17. There are lots of ways around any problem

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

18. I am easily downed in an argument

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

19. I can think of many ways to get the things in life that are important to me

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

20. I worry about my health

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

21. Even when others get discouraged, I know I can find a way to solve the problem

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

22. My past experiences have prepared me well for life

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

23. I've been pretty successful in life

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

24. I usually find myself worrying about something

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

25. I meet the goals that I set for myself

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Definitely False	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Definitely True

Directions

Please read each item carefully and using the scale provided select the number that best describes you

26. I will be able to achieve most of the goals that I have set for myself

	1	2	3	4	5	6	7	8	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

27. When facing difficult tasks, I am certain that I will accomplish them

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

28. In general, I think that I can obtain outcomes that are important to me

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

29. I believe I can succeed at almost any endeavour to which I set my mind

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

30. I will be able to successfully overcome many challenges

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

31. I am confident that I can perform effectively on many different tasks

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

32. Compared to other people, I can do most tasks very well

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	8	
--	---	---	---	---	---	---	---	---	--

39. It's important for me to keep busy

9 / 20

33.

Please

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

Please

40. I hardly ever expect things to go my way

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

Please

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

35. It's easy for me to relax

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

36. If something can go wrong for me, it will

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

37. I'm always optimistic about my future

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

38. I enjoy my friends a lot

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

39. It's important for me to keep busy

9 / 20

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

40. I hardly ever expect things to go my way

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

41. I don't get upset too easily

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

42. I rarely count on good things happening to me

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

43. Overall, I expect more good things to happen to me than bad

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

Page 6: Section B

Directions

Please read each item carefully and using the scale provided select the option that applies most to you

44. There is a lot I can do to change my intelligence level

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

45. You have a certain amount of intelligence, and you really cannot do much to change it

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

46. Your intelligence is something about you that you can change

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

47. You can learn new things, but you can't really change your basic intelligence

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

Please read each item carefully and using the scale provided select the option that applies most to you

48. I am able to adapt to change

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

49. I can deal with whatever comes my way

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
--	---	---	---	---	---	--

50. I try to see the humorous side of things

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

51. Coping with stress can strengthen me

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

52. I tend to bounce back after illness or hardship

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

53. I can achieve my goals despite obstacles

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

54. I can stay focused under pressure

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

55. I am not easily discouraged by failure

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

56. I think of myself as a strong person

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

57. I can handle unpleasant feelings

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Not true at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	True nearly all of the time

Page 7: Section C

Directions

Please read each item carefully and using the scale provided select the option that applies most to you

58. In general, to what extent do you lead a purposeful and meaningful life?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

59. How much of the time do you feel you are making progress towards accomplishing your goals?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

60. How often do you become absorbed in what you are doing?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

61. In general, how would you say your health is?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Terrible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excellent

62. In general, how often do you feel joyful?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

63. To what extent do you receive help and support from others when you need it?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

64. In general, how often do you feel anxious?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

65. How often do you achieve the important goals you have set for yourself?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

66. In general, to what extent do you feel that what you do in life is valuable and worthwhile?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

67. In general, how often do you feel positive?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

68. In general, to what extent do you feel excited and interested in things?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

69. How lonely do you feel in your daily life?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

70. How satisfied are you with your current physical health?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

71. In general, how often do you feel angry?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

72. To what extent have you been feeling loved?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

73. How often are you able to handle your responsibilities?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

74. To what extent do you generally feel you have a sense of direction in your life?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

75. Compared to others of your same age and sex, how is your health?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Terrible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excellent

76. How satisfied are you with your personal relationships?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

77. In general, how often do you feel sad?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always

78. How often do you lose track of time while doing something you enjoy?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
--	---	---	---	---	---	---	---	---	---	---	----	--

Never	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Always
-------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------

79. In general, to what extent do you feel contented?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

80. Taking all things together, how happy would you say you are?

Please don't select more than 1 answer(s) per row.

	0	1	2	3	4	5	6	7	8	9	10	
Not at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completely

Page 8: Section D

Directions

Please read each item carefully and using the scale provided select the response that applies most to you

81. I would choose my current work life again if I had the opportunity

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

82. I enjoy talking about my work to others

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

83. My work is one of the most important things in my life

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

84. My work is a chance to give back to the community

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

85. When I am not at work, I do not think much about my work

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

86. I never take work home with me

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

87. I expect to be in a higher-level job in my field in five years

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

88. I view my job primarily as a stepping stone to other jobs

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

Directions

Please read each item carefully and using the scale provided select the response that applies most to you

89. As soon as I can find a better job, I will leave the profession

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

90. I am actively looking for a job in another profession

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

91. I am seriously thinking of quitting my job

Please don't select more than 1 answer(s) per row.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Strongly agree

Page 9: Debriefing statement

Thank you very much for completing this questionnaire

I would like to emphasise that all information will remain anonymous and you have the right to withdraw your completed questionnaires for up to two weeks after completion by contacting me at the address below.

If you feel distressed by any of the questionnaire items please contact the occupational health advisor attached to your school/college and your general practitioner.

I would be happy to discuss any aspects of this questionnaire with you. If you would like to contact me then please use the details provided below:

Andrew Chitty

Department of Social Sciences – Psychology

The University of Northampton

Park Campus

Boughton Green Road

Northampton

NN2 7AL

andrew.chitty.5@btinternet.com

Tel: 01296 714206

Invitation to take part in a follow-up interview

The next phase of this research into Well-being and Resilience in teachers will involve interviewing teachers to examine the potential of Positive psychology for addressing teacher retention. If you are interested in taking part please use the following email address:

andrew.chitty.5@btinternet.com

Dear Head teacher

Please forgive this unsolicited contact but I Hope you can help me by participating in a research project I am conducting to investigate Resilience and Well-being in UK schoolteachers. As an initial step I am sending out a questionnaire to some head teachers. The questionnaire forms the first phase of a doctoral research project that is based at the University of Northampton.

I would be very grateful if you could read the questionnaire to see if your school would be interested in taking part in this research.

To access the questionnaire please click on the link below:

<https://northampton.onlinesurveys.ac.uk/teacherwellbeing1>

If you approve of the questionnaire and would be willing for your teaching staff to access it please forward the attachment.

Thank you very much for your assistance.

Andrew Chitty

Dear Teacher

I have been contacted by a practising teacher who is carrying out a research project to investigate Resilience and well- being in UK schoolteachers. He encloses a questionnaire which forms the first phase of a doctoral research project that is based at the University of Northampton.

Please read the questionnaire to see if you would be interested in taking part in this research.

It can be accessed by clicking this link:

<https://northampton.onlinesurveys.ac.uk/teacherwellbeing1>

Thankyou

Head teacher

Appendix 3.2. Participant Information Sheet, Consent form and Interview schedules

Participant Information Sheet

Thank you for your interest in participating in this study. Please read the following information about the project before deciding whether or not you wish to give your consent to participate.

Project title: Self-belief factors affecting the Resilience and Well-being of UK schoolteachers

This research is investigating the cognitive reasons why some teachers wish to stay in the teaching profession whilst others wish to leave, and why some feel they are flourishing whilst others feel they are not. I am interested in finding out things such as:

- the perceived reasons why teachers leave the profession
- the reasons why some will stay
- whether developing factors connected to positive psychology such as ‘Mindset’, ‘Hope’, ‘Self-efficacy’, ‘job-crafting’ and ‘Optimism’ could improve teacher Well-being and Resilience
- whether positive psychology could be a useful strategy to support teachers

Knowledge and understanding of your experiences in these areas could help schools to:

- understand why some teachers leave the profession
- understand why some teachers will stay
- find out if the development of constructs such as Mindset, Hope, Self-efficacy and Job crafting can improve teacher Well-being and Resilience and therefore improve teacher Retention

I will be recording the interviews using a digital recorder so that we can transcribe the data afterwards. All of the data will be anonymised to protect your identity; any hard copy will be stored under lock and key and any electronic copy will be stored on a password protected computer. The recording will be destroyed once it has been transcribed by completely

deleting it from the recorder. Any hard copy will be shredded. Direct quotes will be used but will not be attributed to any individual and so will remain anonymous.

If you are asked anything that you would prefer not to answer, please do not feel obliged to answer. The researcher will be happy to move onto a different topic. If you would like to withdraw from the study at any time (up until two weeks after the interview), you are free to do so and you do not need to give a reason. You can do this by simply telling the researcher you do not wish to continue.

It is intended that the findings from this study will be used to find out if the factors associated with positive psychology could be used to assist teachers in a bespoke training programme.

The researcher's supervisory team will view the transcripts and will ensure they are anonymised. The findings will also be shared externally through conference presentations and/or written publications for the benefit of other institutions. Again all participants will remain anonymous.

The details of the project have been approved by the University Ethics Committee.

If you have any queries about the research, want more information or wish to withdraw your data after the study (up until two weeks after the interview) please contact:

Andrew Chitty

Department of Social Sciences-Psychology

The University of Northampton

Park Campus

Boughton Green Road

Northampton

NN2 7AL

E-mail: andrew.chitty.5@btinternet.com

Supervisory team:

Dr. Roz Collings

Department of Social Sciences – Psychology

The University of Northampton

Park Campus

Northampton

NN2 7AL

E-mail: Roz.Collings@northampton.ac.uk

Dr. Rachel Maunder

Associate Professor

Department of Social Sciences – Psychology

University of Northampton

Park Campus

Boughton Green Road

Northampton

NN2 7AL

E-mail: Rachel.maunder@northampton.ac.uk

Consent Form for Interviews

Please read the following statements carefully and put a cross in the appropriate circle. If you are happy to proceed with the study, please sign the consent statement below.

- I have read the information about this project

☐

Yes

☐

No

- I understand that my participation is voluntary and that I can withdraw from the study at any point (up to 2 weeks after the interview) if I wish to do so

☐

Yes

☐

No

- I understand that the interview will be recorded for transcription purposes only and the copy of the recording will be destroyed after transcription has taken place

☐

Yes

☐

No

- I understand that transcripts will be anonymised by the researcher to protect my identity

☐

Yes

☐

No

- I am aware that anonymised data from this project may be used for publication

☐

Yes

☐

No

Consent Statement

Having read the statements above, I am happy to consent to participating in this project

----- (signature)

----- (write name)

----- (signature of researcher taking consent)

----- (researcher's name)

Interview schedule for teachers new to the profession

- Why did you decide to become a teacher?
- What aspects of teaching have you enjoyed so far? Can you give me any examples?
- What aspects of teaching have you found difficult? Can you give any examples?
- Do you have a mentor to help you navigate through difficult times? How do they help you?

- Do you get support from other teachers new to the profession? How do they help you?
- Have you developed any coping strategies of your own? Can you give any examples?
- You may be aware that there is a concern that a significant number of teachers are leaving the profession within the first five years of service. Why do you think this is?
- The majority of teachers still stay. Why do you think this is?
- Do you think some new teachers see teaching as a stepping stone to another career outside of teaching? If so, what transferrable skills will teaching give them?
- The concept of 'Mindset' is used widely with children in schools (explain if necessary). Do you think you would benefit from having training to develop the 'Growth Mindset'?
- To what extent do you think such training programmes would be of assistance to other new teachers?
- What do you understand by the term 'Hope'?
- In a similar vein, what do you understand by 'self-confidence' (Self-efficacy), 'Optimism' and 'autonomy'?
- Hope, Self-efficacy, Optimism and autonomy are terms used in Positive Psychology and Positive psychology is concerned with the development of positive qualities in life such as Well-being and Resilience.
- To what extent do you think that teaching positive psychology techniques to teachers, as a way of trying to support Well-being and Resilience, would be useful?
- How do you see the future of teaching?

Interview schedule for Established teacher

This will be a semi-structured interview and so these questions are an indication only.

- Why did you decide to become a teacher?
- What aspects of teaching have you enjoyed? Can you give me any examples?
- What aspects of teaching have you found challenging? Can you give me any examples?
- During challenging/difficult periods can you tell me how you have navigated your way through the problems?
- Can you give me an example of a recent problem you have encountered and how you managed it?
- Some challenges in teaching are cyclical – for example, at certain times of the academic year there may be lots of exams. to mark. How do you cope with these unavoidable challenges?
- Why do you think a significant number of teachers are leaving the profession before their retirement date?
- The majority still stay. Why do you think this is?
- In what way do you think the profession has changed since you entered teaching? Can you give any specific examples?
- What positive changes have occurred since you became a teacher?
- Do you think the roles that teachers carry out have changed since you started your career. For example, are there now more roles to do outside of the classroom? Can you give any examples?

- The concept of ‘Mindset’ is now used widely in schools with children (explain how it is used if the teacher is unfamiliar with the term). Do you think it would be useful to have training to develop the ‘Growth Mindset’ with teachers?
- What do you understand by the term ‘Hope’
- In a similar vein, what do you understand by ‘self-confidence’ (Self-efficacy), ‘Optimism’ and ‘autonomy’?
- Hope, Self-efficacy, Optimism and autonomy are terms used in Positive Psychology and Positive psychology is concerned with the development of positive qualities in life such as Well-being and Resilience.
- To what extent do you think that teaching positive psychology techniques to teachers, as a way of trying to support Well-being and Resilience, would be useful?
- Do you think the reasons for people entering the teaching profession are different now to when you joined?

Interview schedule for a teacher who has left the profession

- Why did you decide to become a teacher?
- What aspects of teaching did you enjoy? Can you give some examples?
- What aspects were the most challenging? Can you give examples?
- During challenging/difficult periods can you tell me how you navigated your way through the problems?
- Some challenges in teaching are cyclical – for example, at certain times of the academic year there may be lots of exams to mark. How did you cope with these unavoidable challenges?

- To what extent did you receive support from other teachers where you were working?
- What were your reasons for leaving the teaching profession? Can you give some examples?
- Do you think there was a particular incident or turning point that made you decide to leave teaching?
- Why do you think other teachers are leaving, before their retirement date, at the present time?
- The majority of teachers stay in teaching – what do you think keeps them from leaving?
- Did you have any additional roles and responsibilities when teaching? Did these make the job more interesting or create unwanted stress?
- The concept of ‘Mindset’ is used widely with children in schools (explain if necessary). Do you think you would have benefitted from having training to develop the ‘Growth Mindset’ when you were teaching?
- To what extent do you think such training would have enabled you to stay in teaching longer?
- What do you understand by the term ‘Hope’?
- In a similar vein what do you understand by ‘self-confidence’ (Self-efficacy), ‘Optimism’ and autonomy’?
- Hope, Self-efficacy, Optimism and autonomy are terms used in Positive psychology and positive psychology is concerned with the development of positive qualities in life such as Well-being and Resilience
- To what extent do you think that teaching positive psychology techniques to teachers as a way of trying to support Well-being and Resilience would be useful?

- Do you have a different occupation now and is it preferable to teaching?

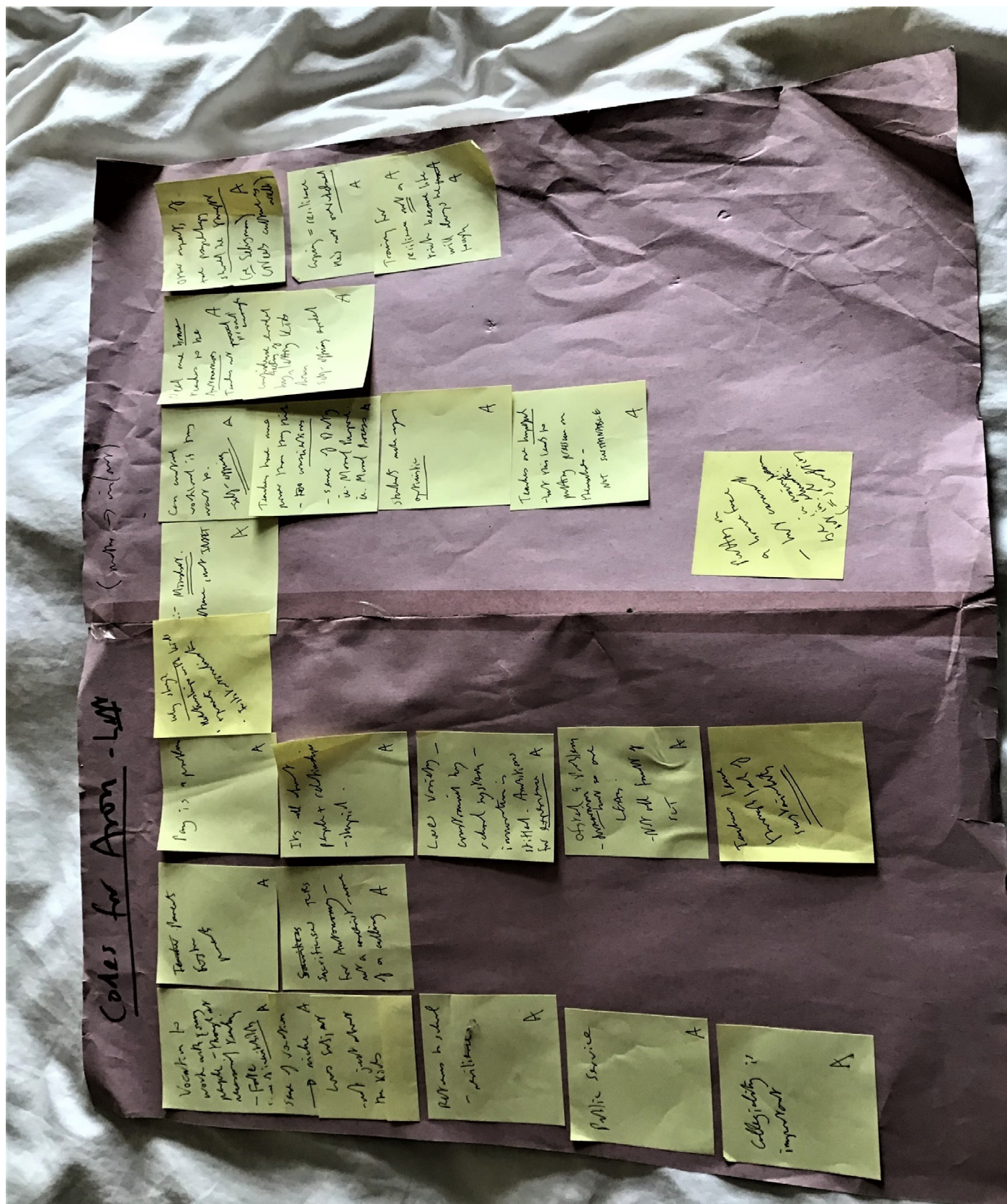
Appendix 3.3. Example of Transcript with coding:

UNIVERSITY OF NORTHAMPTON
Andrew Chitty

Interviewee:
Date of interview: September 2018

Recording Time	Utterance	Analysis
1	that peer assessment and say whether you agreed or	
2	disagreed or disagreed, and why.	
3		
4	0:09:04.2AC Okay. So defeats the object a bit of peer assessment	
5	doesn't it? (laughter)	
6		
7	0:09:10.7 Int Somewhat, yes!	
8		
9	0:09:11.3 AC Before you left teaching, did you find you were able	
10	to navigate your way through these difficult periods	
11	and so on or did it just build up?	Academy = final straw
12		
13	0:09:24.3 Int I think the unravelling - I managed to navigate my way	
14	through to a certain extent until it all started to unravel	
15	at the new academy that I want to. And I found that I	Workload is a problem
16	was given very little time to do my SENCO work, I was	at an academy
17	still doing some mainstream English work and the	
18	marking that went with that and that was a very	
19	stringent marking policy, very in-depth. And I found	
20	that I just didn't have any time to pursue -	
21		
22	0:10:01.9 Unfortunately, although the school said that they	
23	would help me and support me with the rest of my	
24	Masters, I just needed my dissertation, that's all I	Lack of support is a
25	needed to do, but they weren't forthcoming with that	problem at an academy
26	at all in the slightest. I had no opportunities to take	Academies cannot be
27	students out, to talk to them, to do the interviews that	runned
28	I needed to do to do the study that I needed to do.	
29		
30	0:10:32.5 It was - yes, the promises were there but they never	
31	materialised.	
32		
33	0:10:37.6 AC So were you able to complete it?	
34		
35	0:10:38.5 Int No. Well - no. I ended up being bullied continuously	Bullying is a problem
36	by a member of the senior leadership team and several	
37	others. It was an incredibly unhappy place to work.	
38		
39	0:10:57.6 AC So they were bullying you about your - about what?	
40		
41	0:11:02.6 Int They were bullying me because they were very short	Inability to recruit is
42	staffed, they couldn't get teachers come love nor	a problem
43	money. The adverts just go out and nobody would	Management is panicking
44	apply.	
45		
46	0:11:11.0 AC Was this for English?	
47		
48	0:11:13.9 Int XXXXX school. Across the board, across the board.	Having to teach maths is
49	And when - the point where I really had to try and dig	a problem
50	my shoes in and say, 'Look, this is ridiculous' was when	Sense of anomie ⁵

Appendix 3.4. Photograph showing codes being arranged into themes for an interviewee, using adhesive notes:



Appendix 4.1. Missing data analysis

Missing Patterns (cases with missing values)

Case	# Missing	% Missing	Missing and Extreme Value Patterns ^a									
			LOT2	LOT3	LOT5	LOT6	LOT9	LOT10	LOT7	LOT8	LOT1	LOT4
93	1	10.0									\$	
124	1	10.0									\$	
165	1	10.0							\$			
161	2	20.0							\$	\$		
175	1	10.0								\$		
184	1	10.0										\$
267	1	10.0									.	\$

- indicates an extreme low value, while + indicates an extreme high value. The range used is (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

a. Cases and variables are sorted on missing patterns.

Tabulated Patterns

Number of Cases	Missing Patterns ^a										Complete if ... ^b
	LOT2	LOT3	LOT5	LOT6	LOT9	LOT10	LOT7	LOT8	LOT1	LOT4	
272											272

Patterns with less than 1% cases (3 or fewer) are not displayed.

a. Variables are sorted on missing patterns.

b. Number of complete cases if variables missing in that pattern (marked with X) are not used.

Appendix 4.2. Tests of normality

Tests of Normality

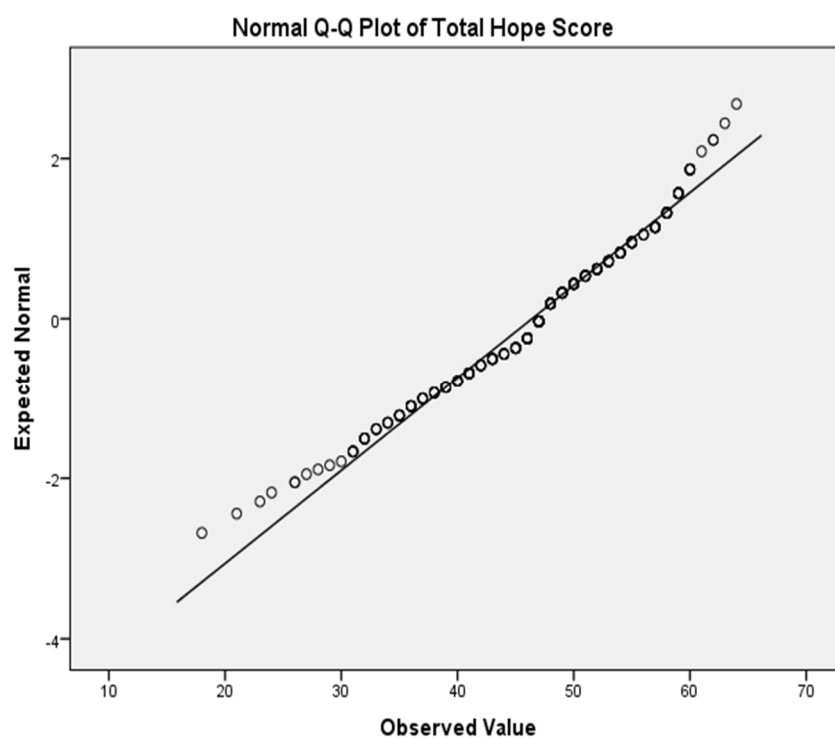
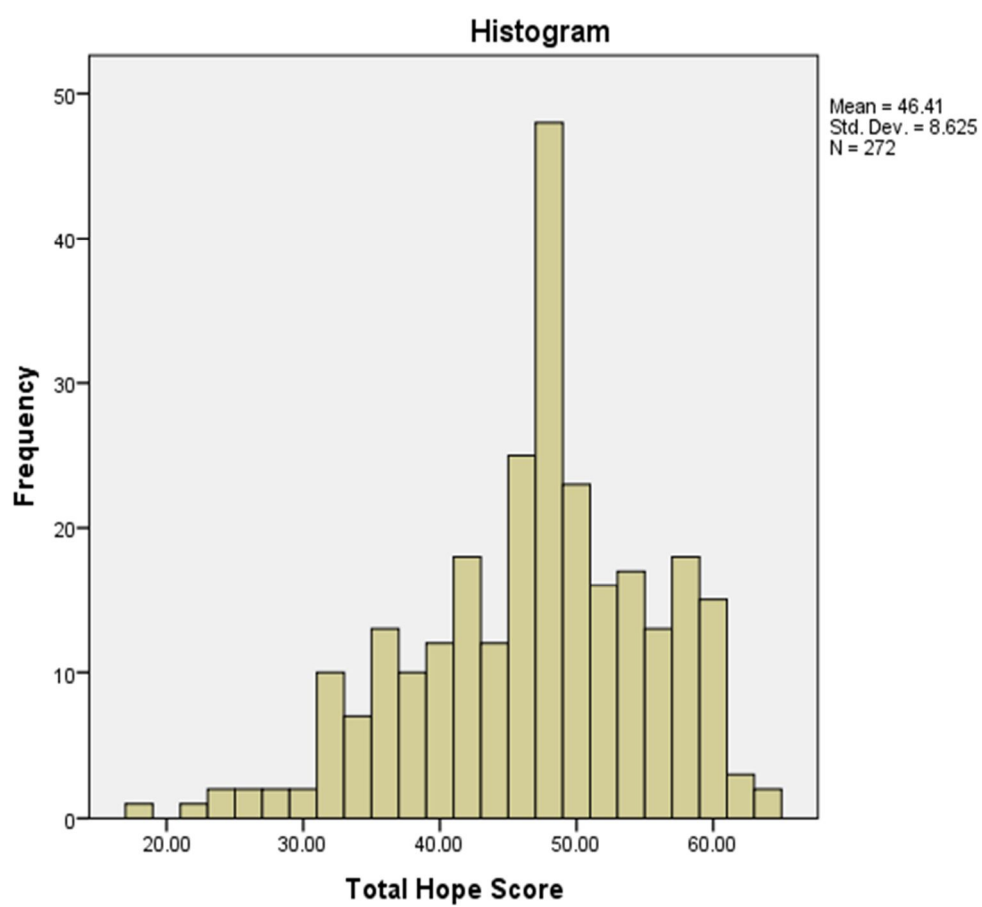
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total Hope Score	.106	272	.000	.976	272	.000
Total Optimism	.059	273	.021	.985	273	.007
Average Self Efficacy	.102	279	.000	.967	279	.000
Total Mindset	.120	279	.000	.973	279	.000
Total Job	.280	278	.000	.733	278	.000
Total Career	.170	274	.000	.895	274	.000
Total Calling	.120	278	.000	.959	278	.000
Total Resilience	.084	274	.000	.977	274	.000
Total Wellbeing Scale	.089	278	.000	.964	278	.000
Total Intention to Quit	.166	276	.000	.872	276	.000

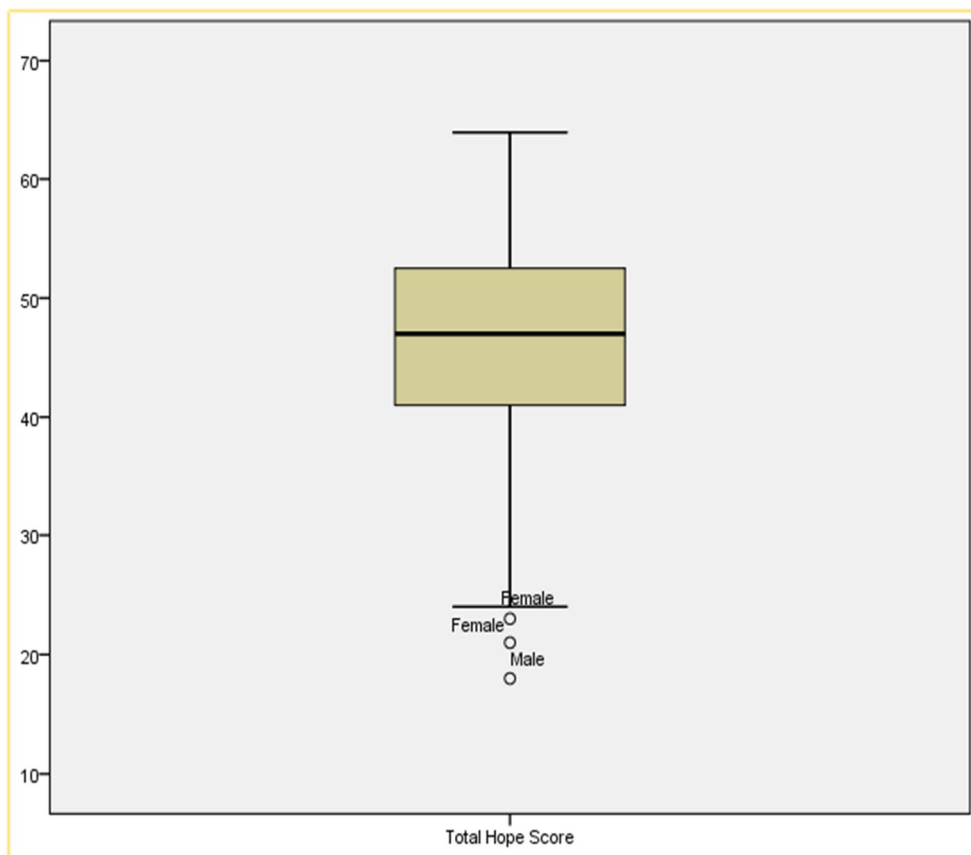
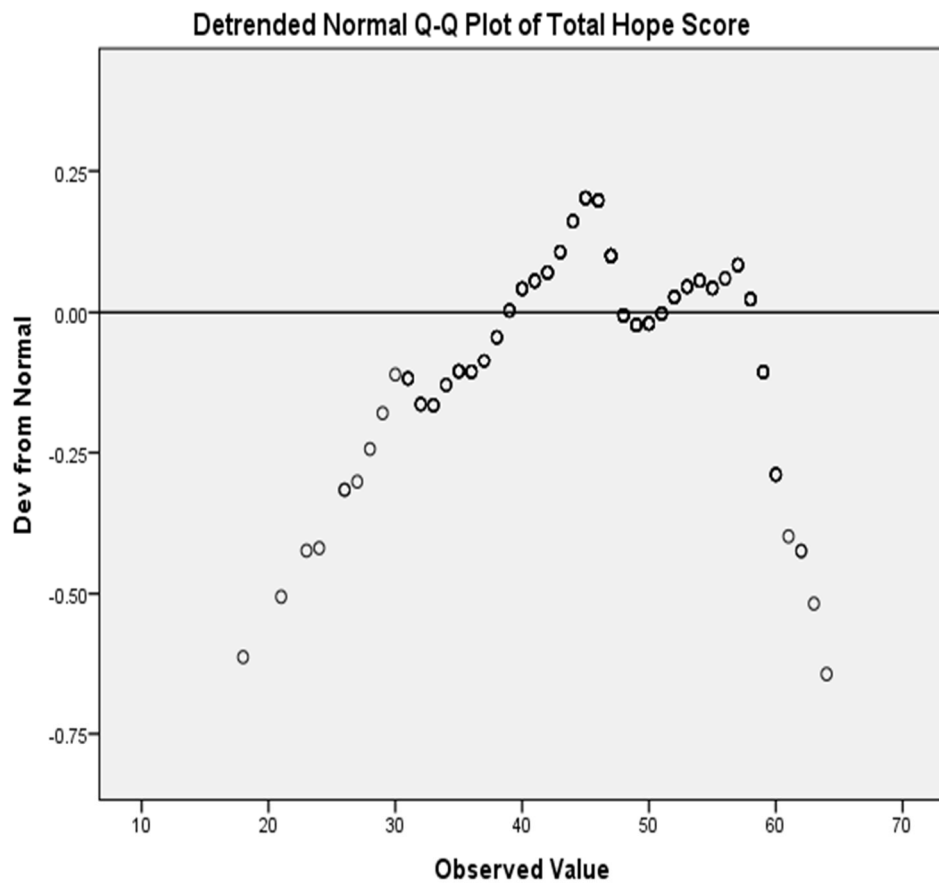
a. Lilliefors Significance Correction

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Total Hope Score	272	97.5%	7	2.5%	279	100.0%
Total Optimism	273	97.8%	6	2.2%	279	100.0%
Average Self Efficacy	279	100.0%	0	0.0%	279	100.0%
Total Mindset	279	100.0%	0	0.0%	279	100.0%
Total Job	278	99.6%	1	0.4%	279	100.0%
Total Career	274	98.2%	5	1.8%	279	100.0%
Total Calling	278	99.6%	1	0.4%	279	100.0%
Total Resilience	274	98.2%	5	1.8%	279	100.0%
Total Wellbeing Scale	278	99.6%	1	0.4%	279	100.0%
Total Intention to Quit	276	98.9%	3	1.1%	279	100.0%

Total Hope Score

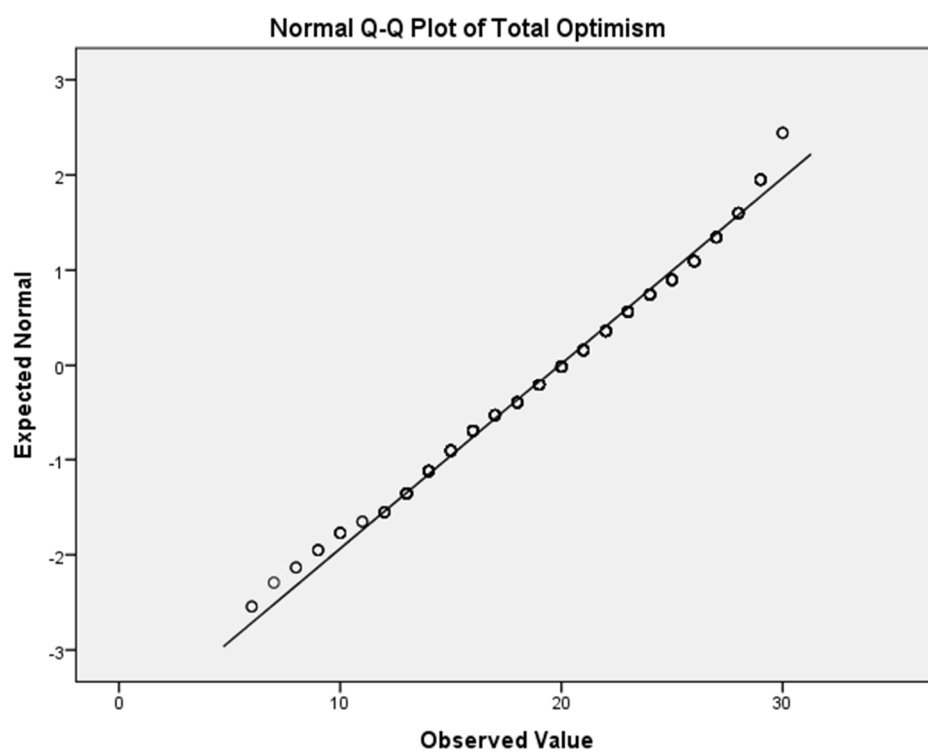
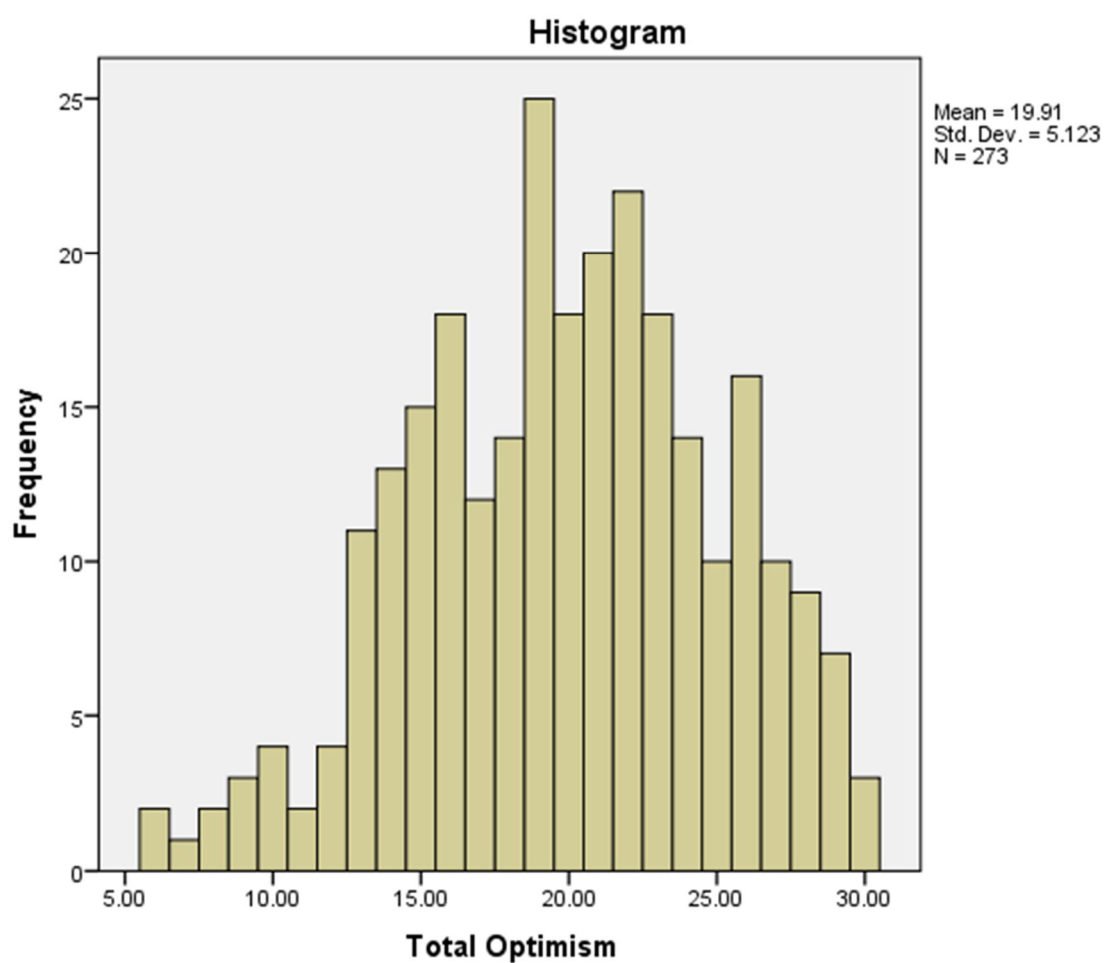


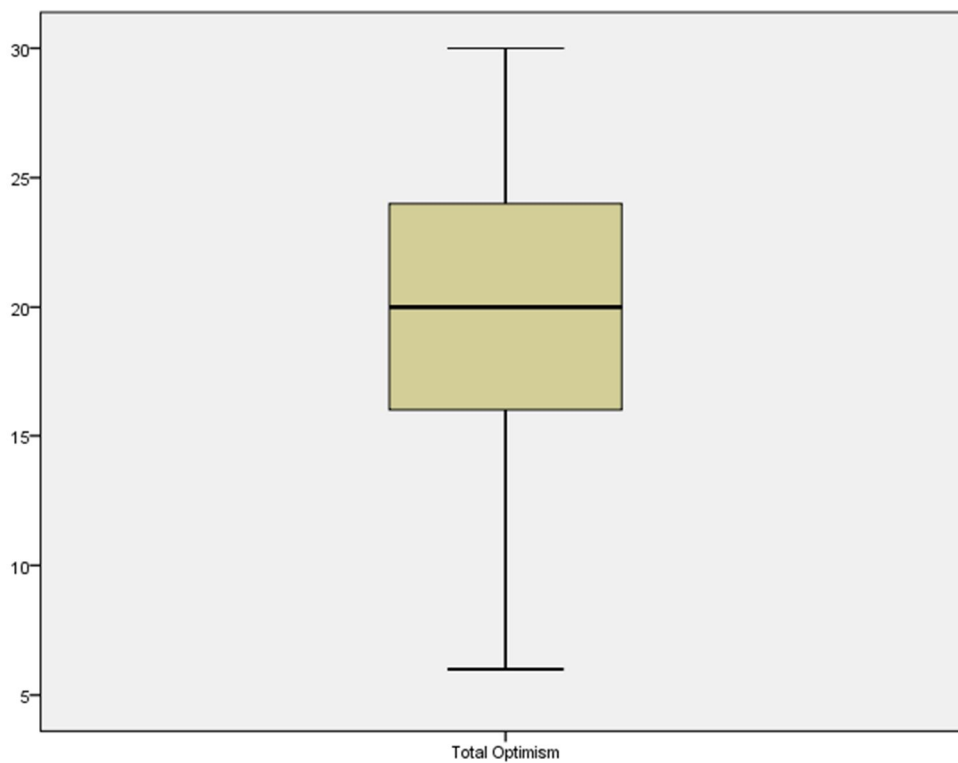
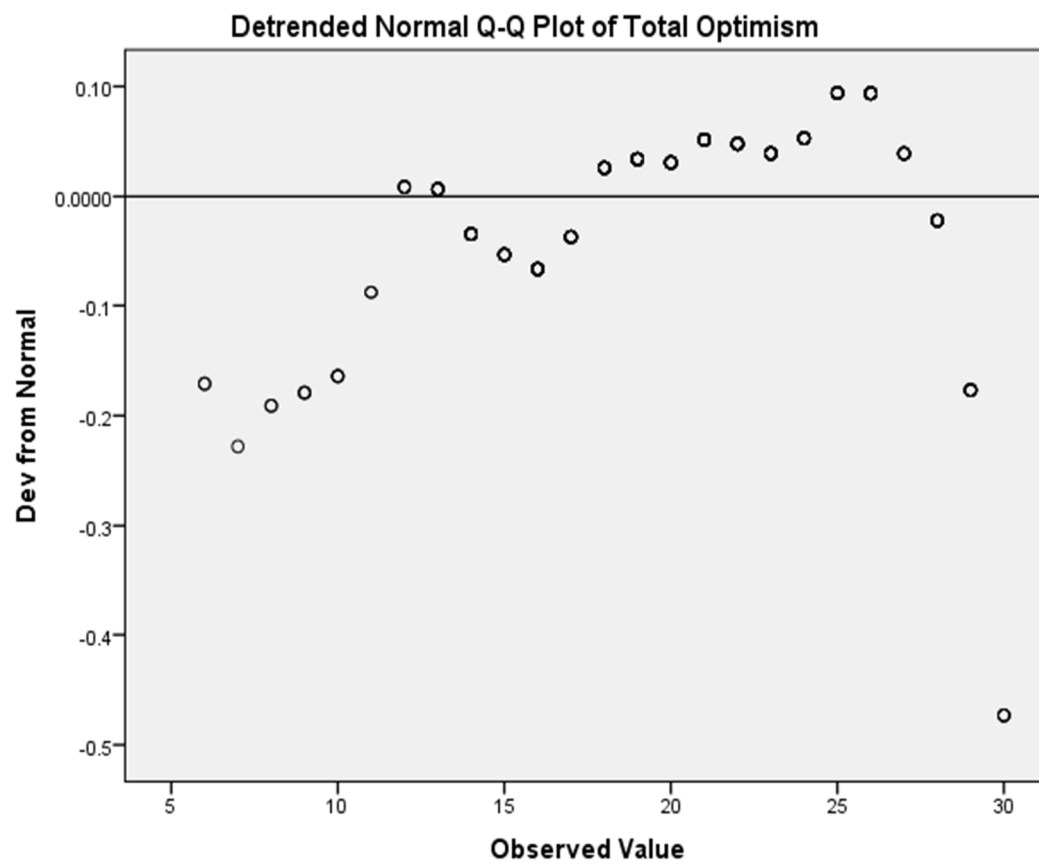


Lowest minimum possible=8

Highest maximum possible=64

Total Optimism

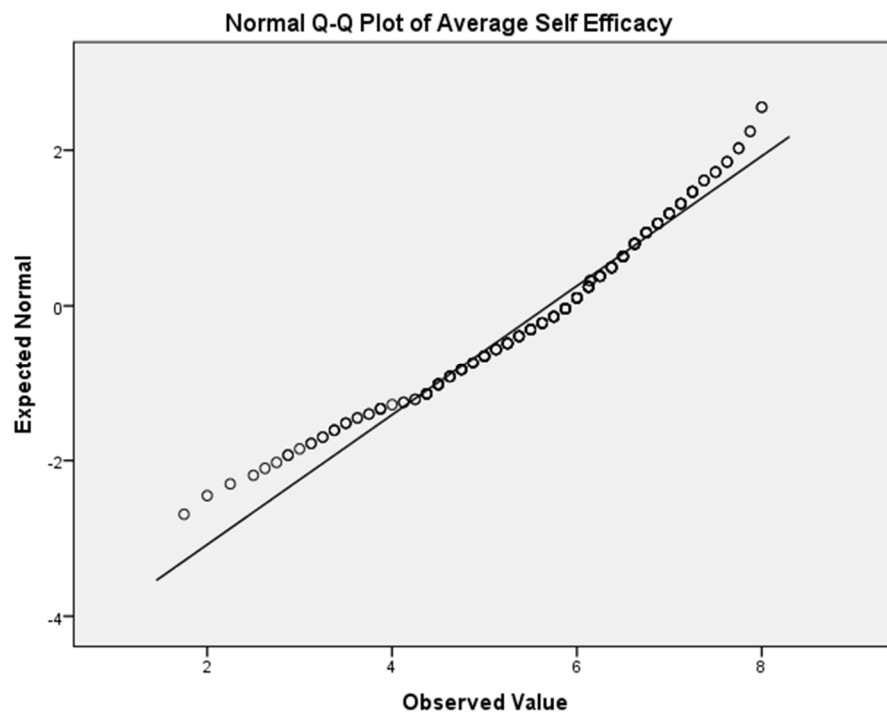
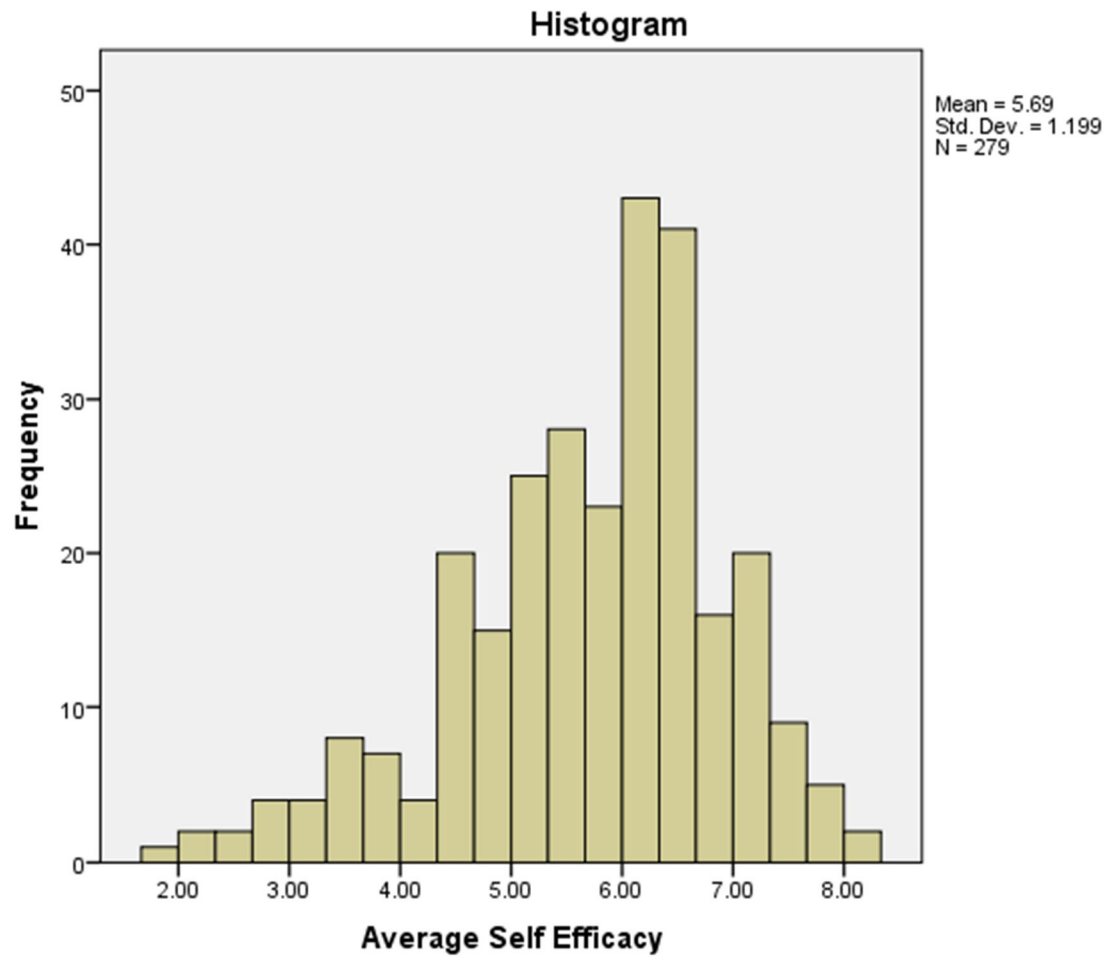


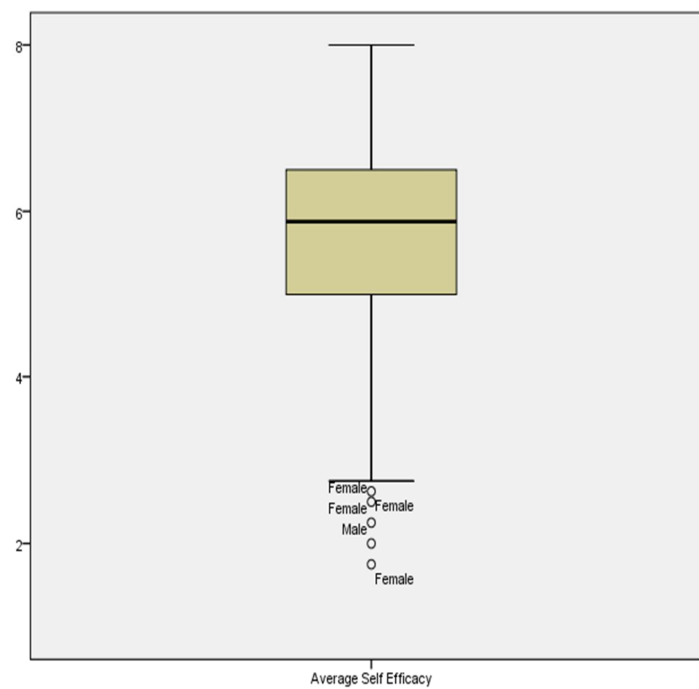
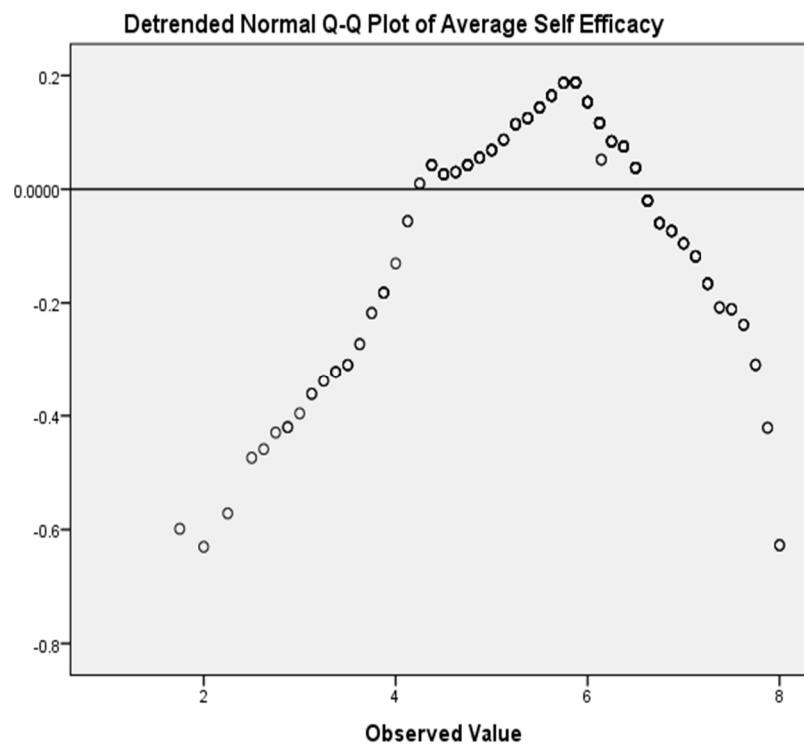


Lowest minimum possible score=6

Highest maximum possible score=30

Average Self Efficacy

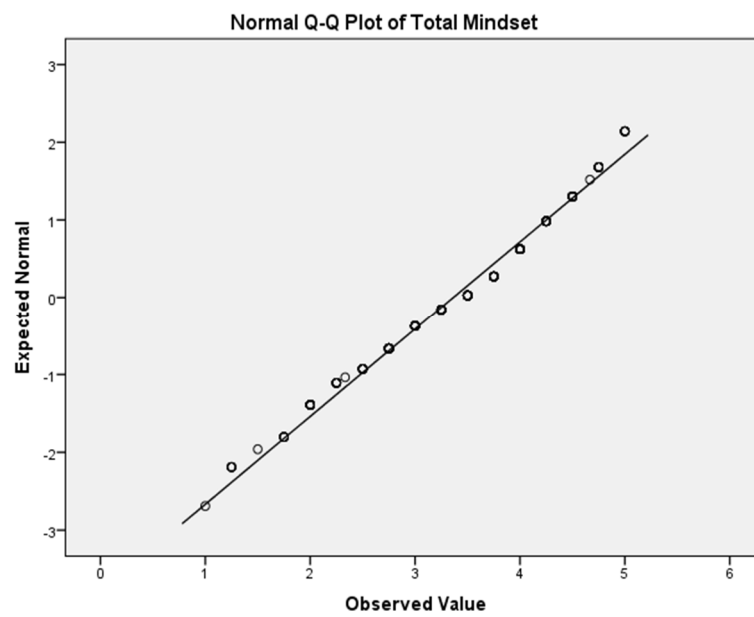
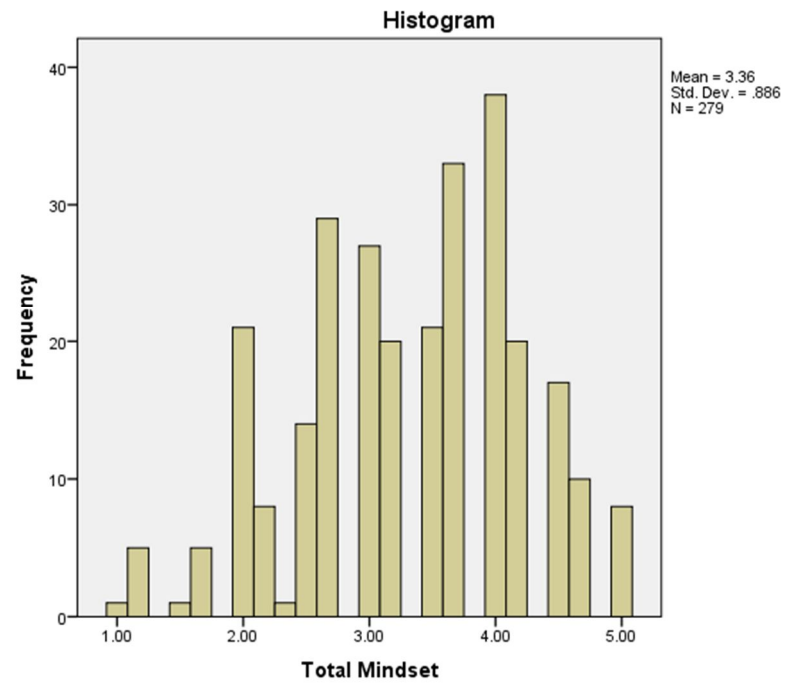


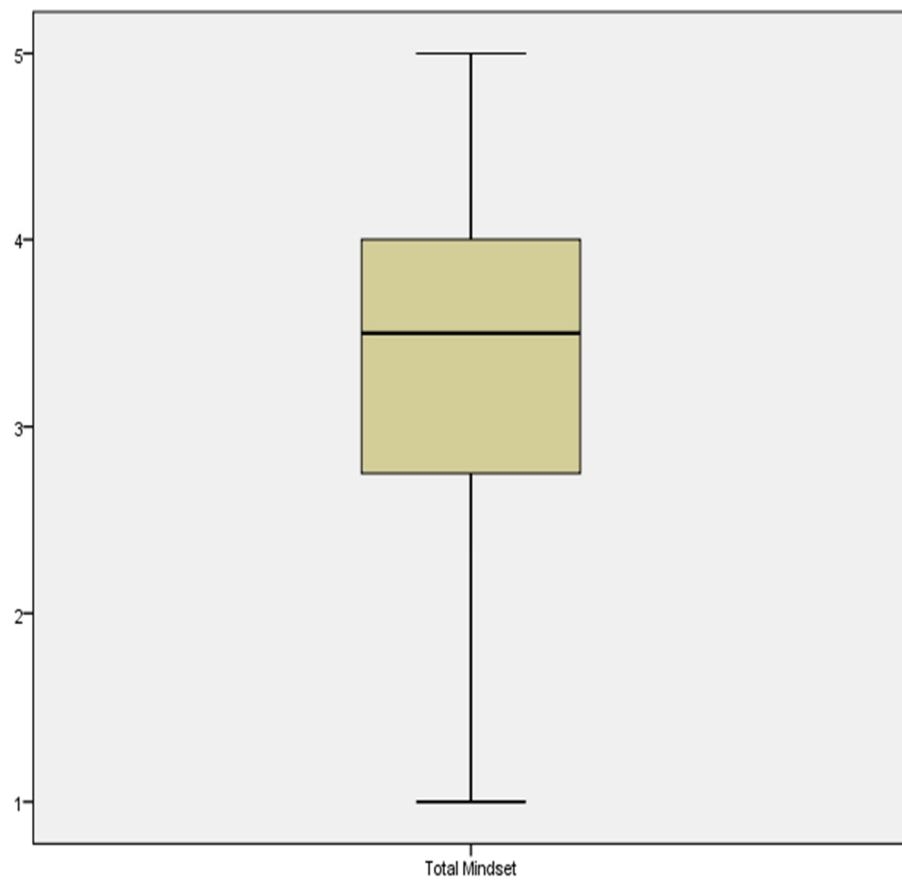
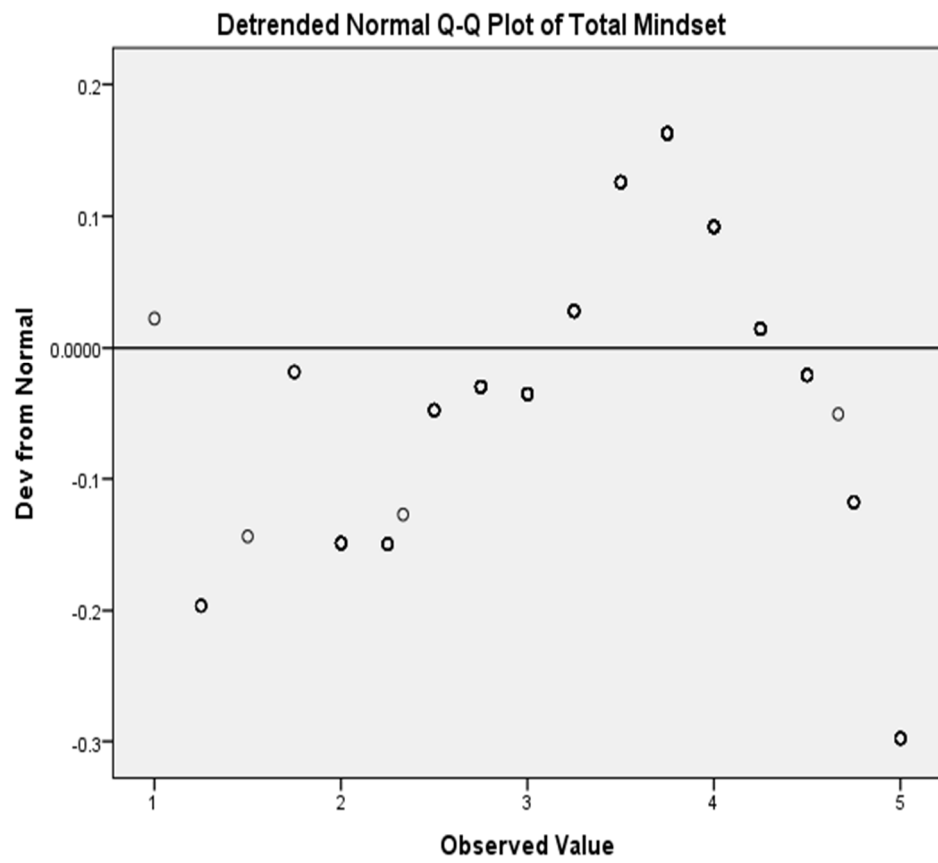


Lowest minimum possible= 1

Highest maximum possible= 8

Total Mindset



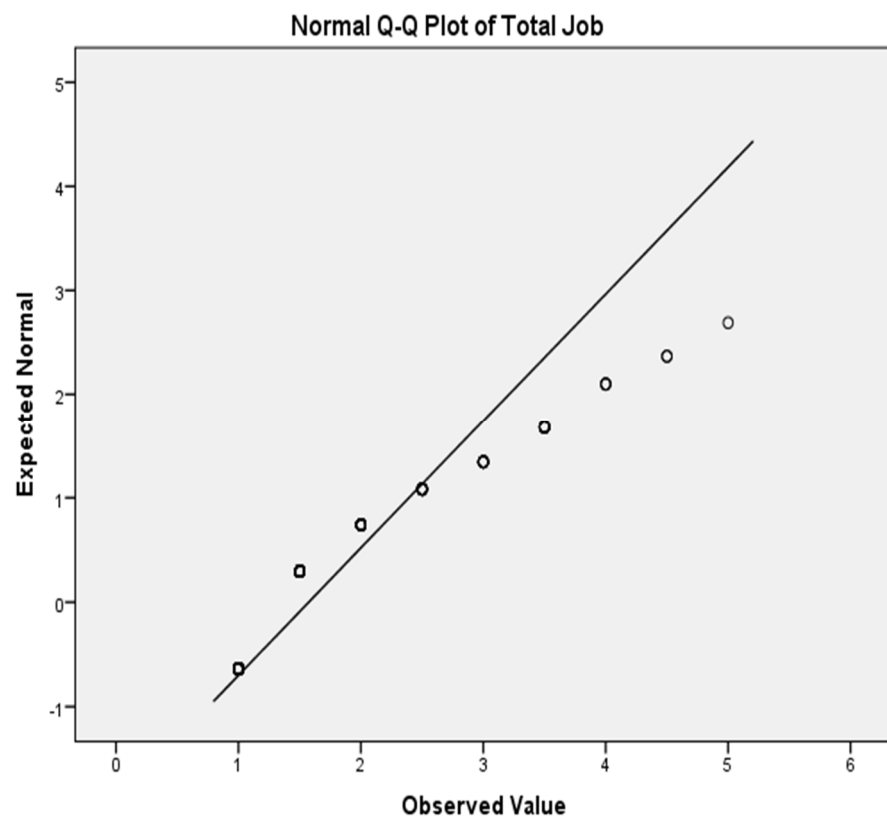
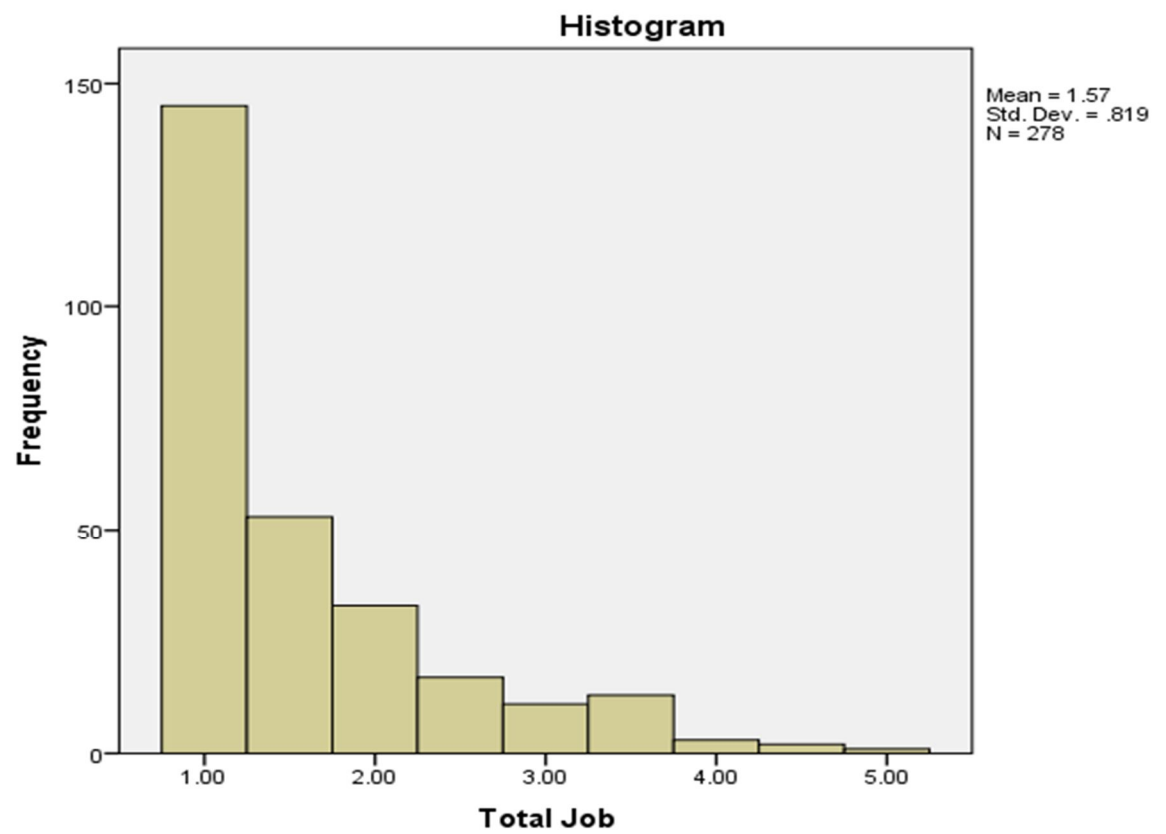


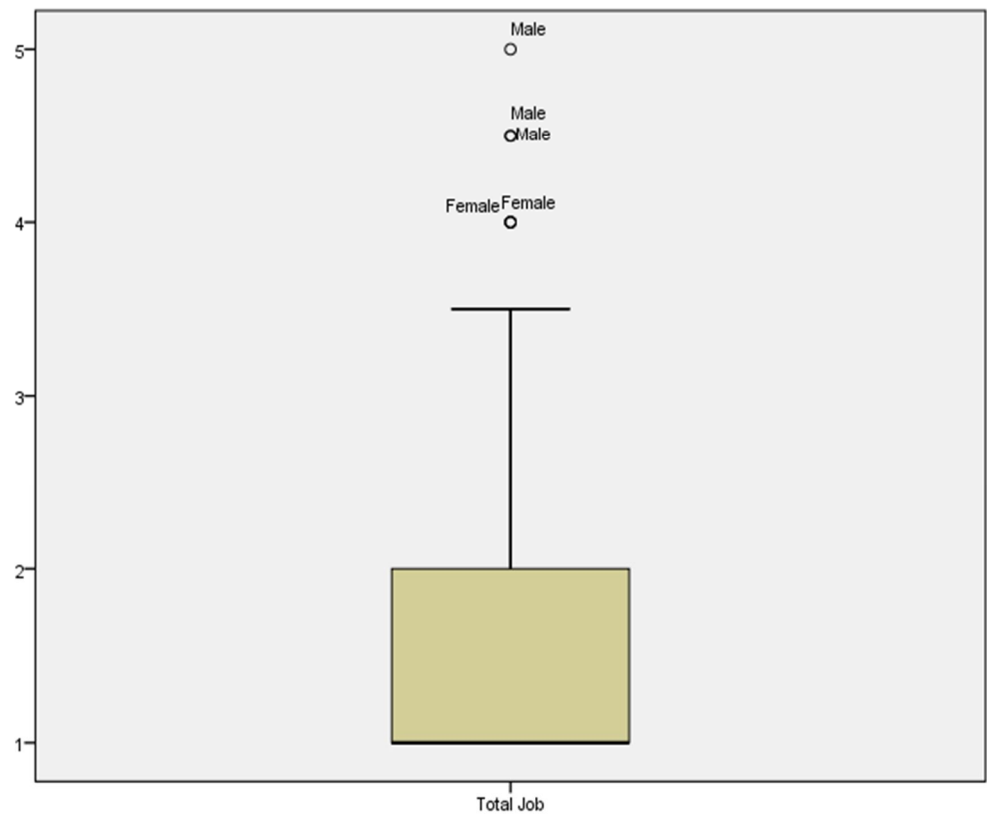
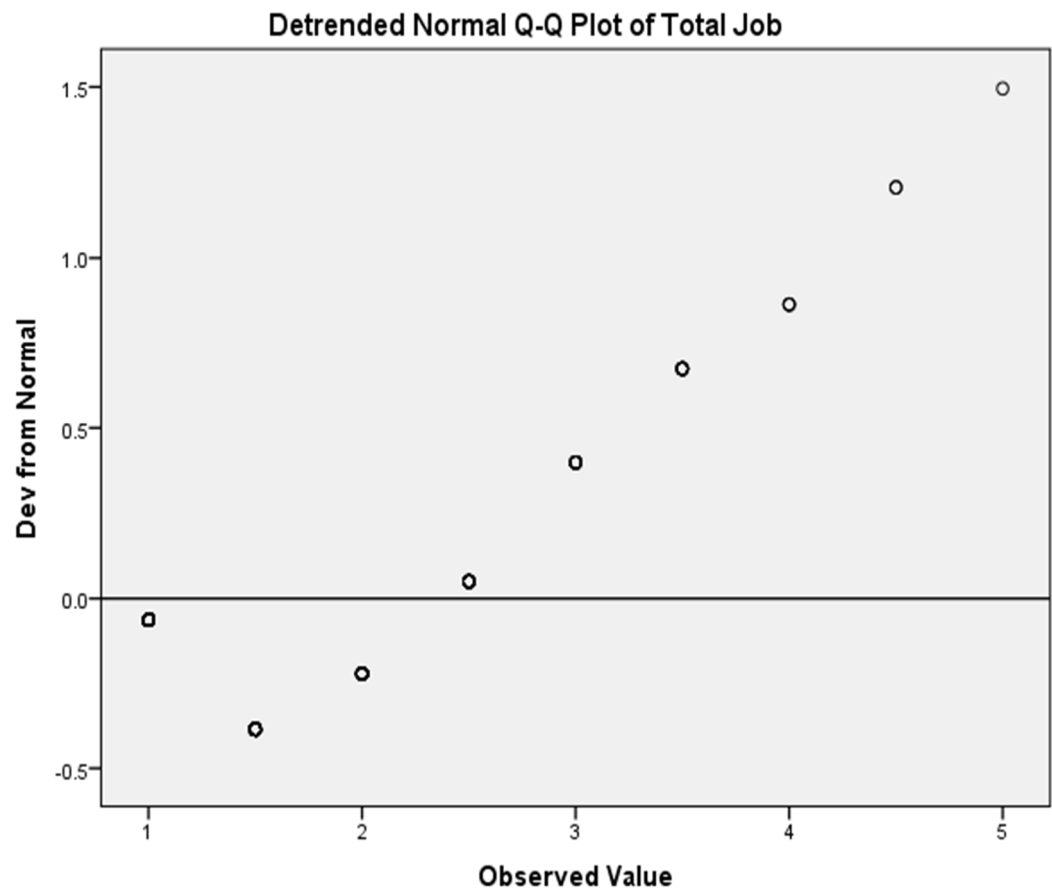
Strong fixed Mindset = 1

Strong Growth Mindset=

5

Total Work orientation-job

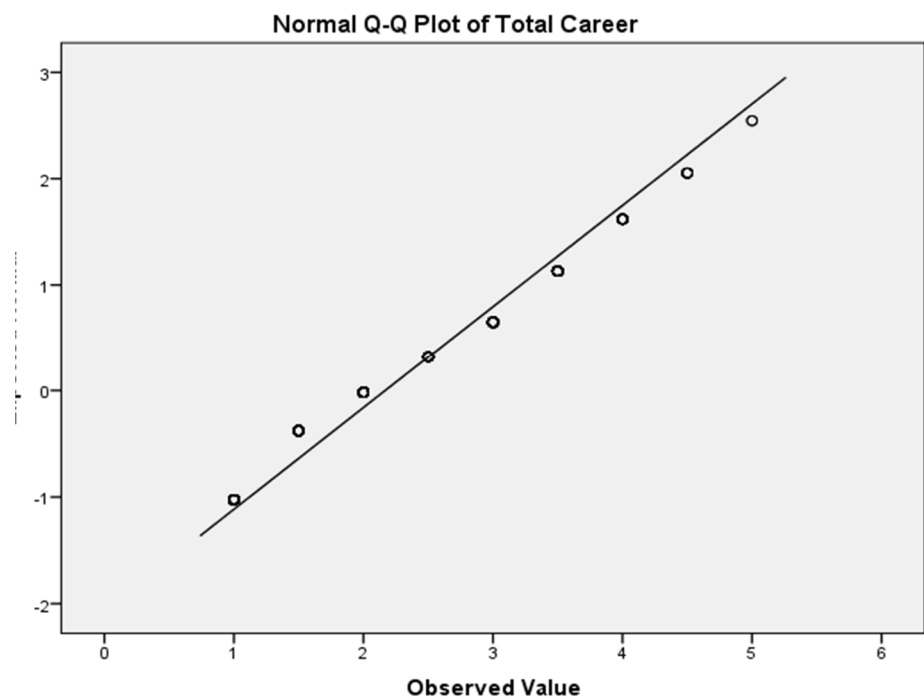
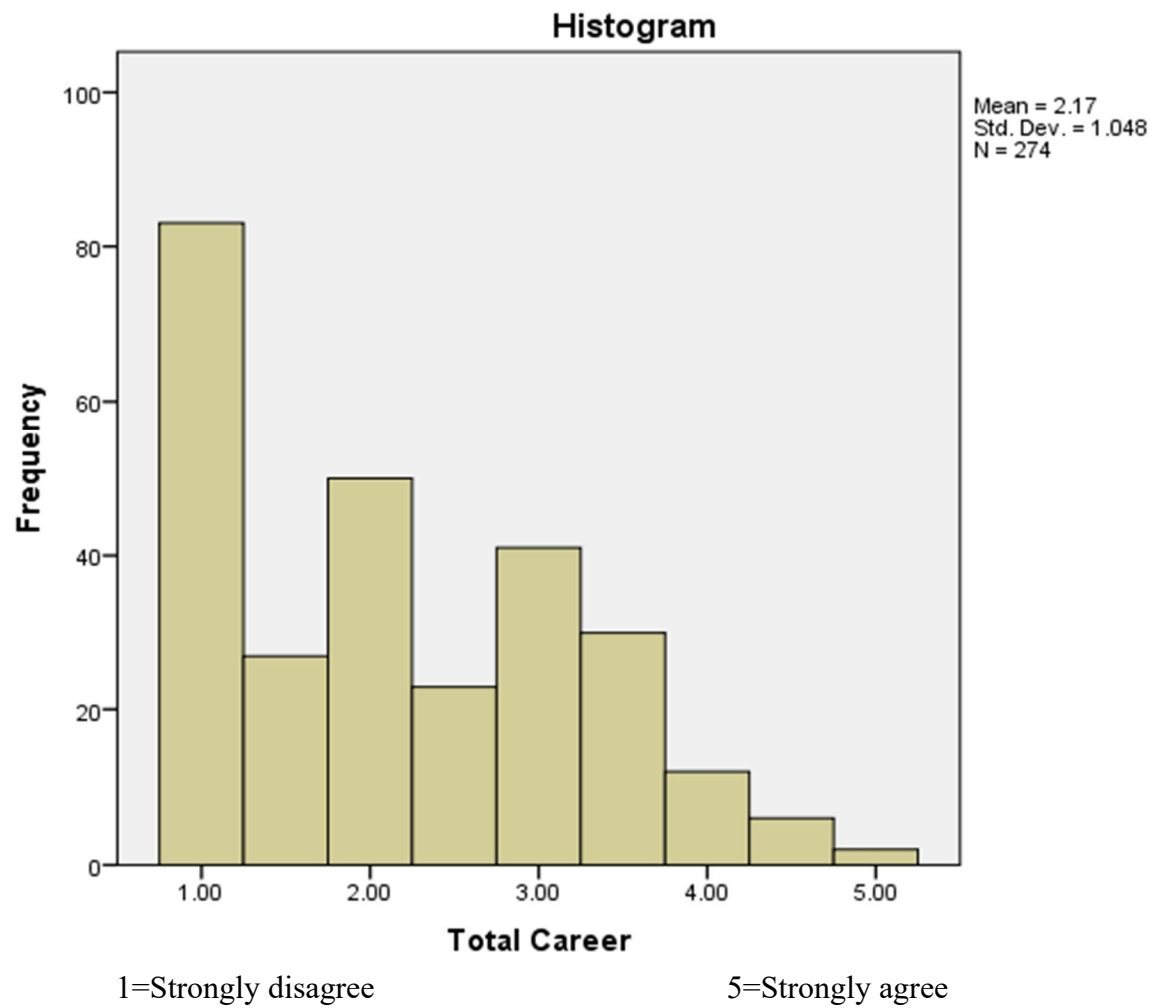


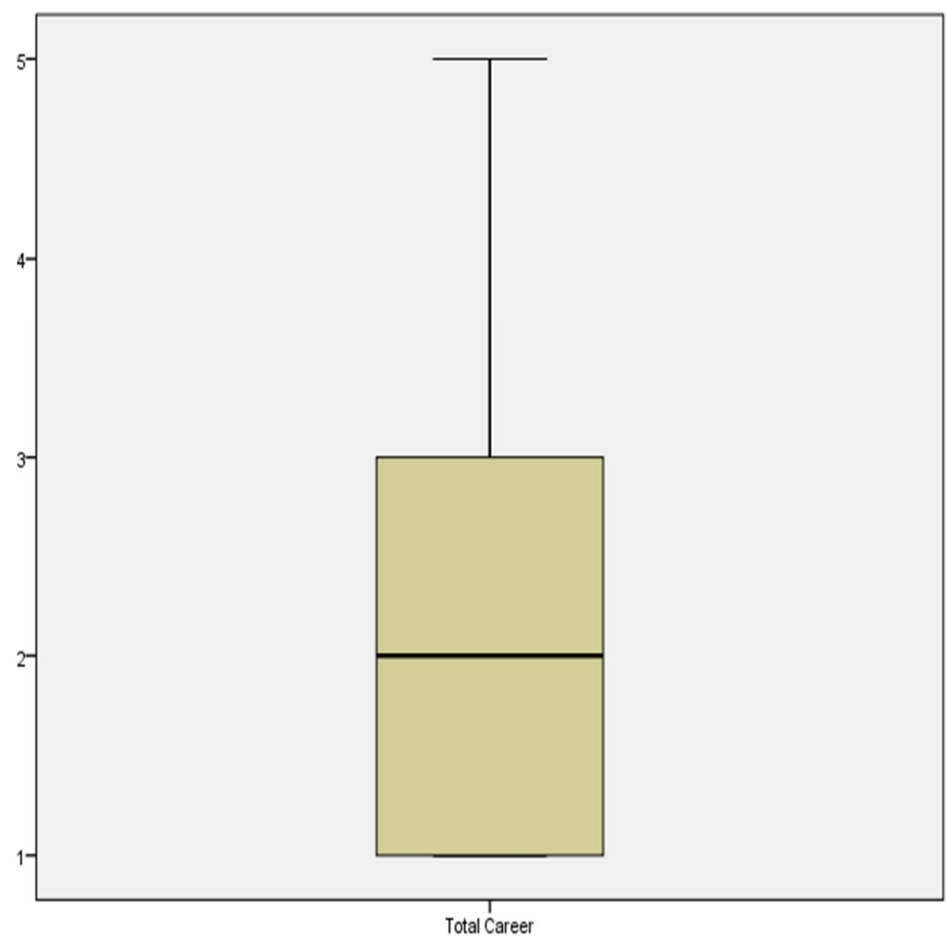
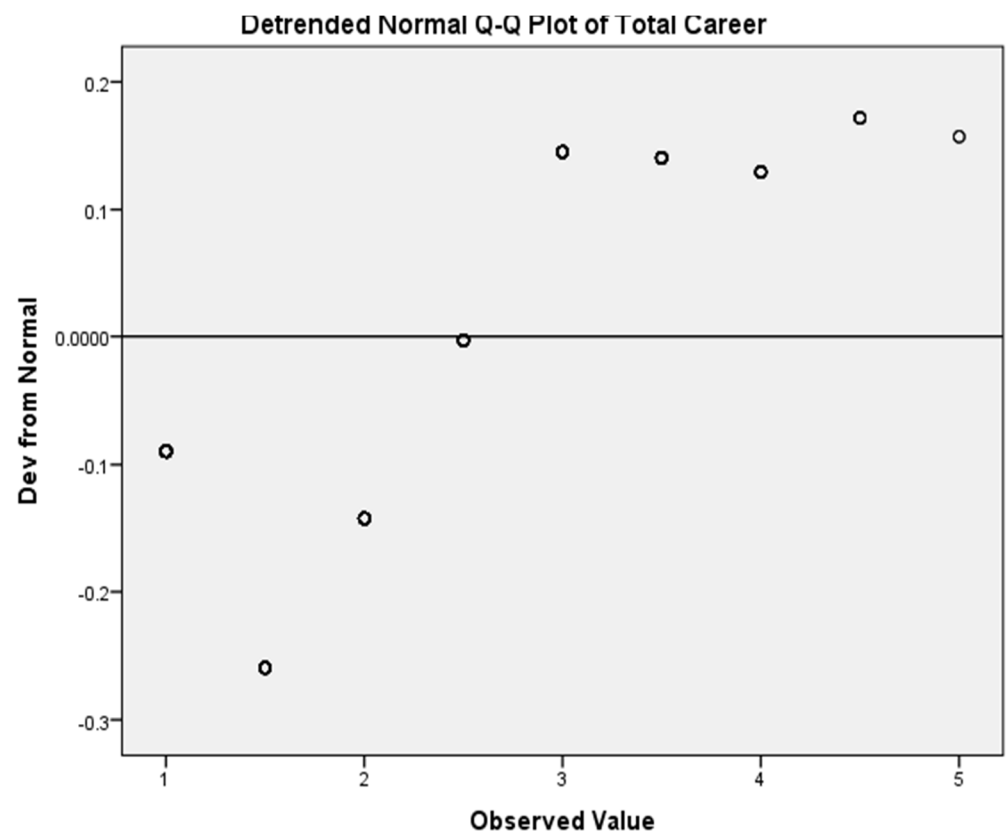


Weak work orientation- job = 1

Strong work orientation- job = 5

Total Work orientation-career

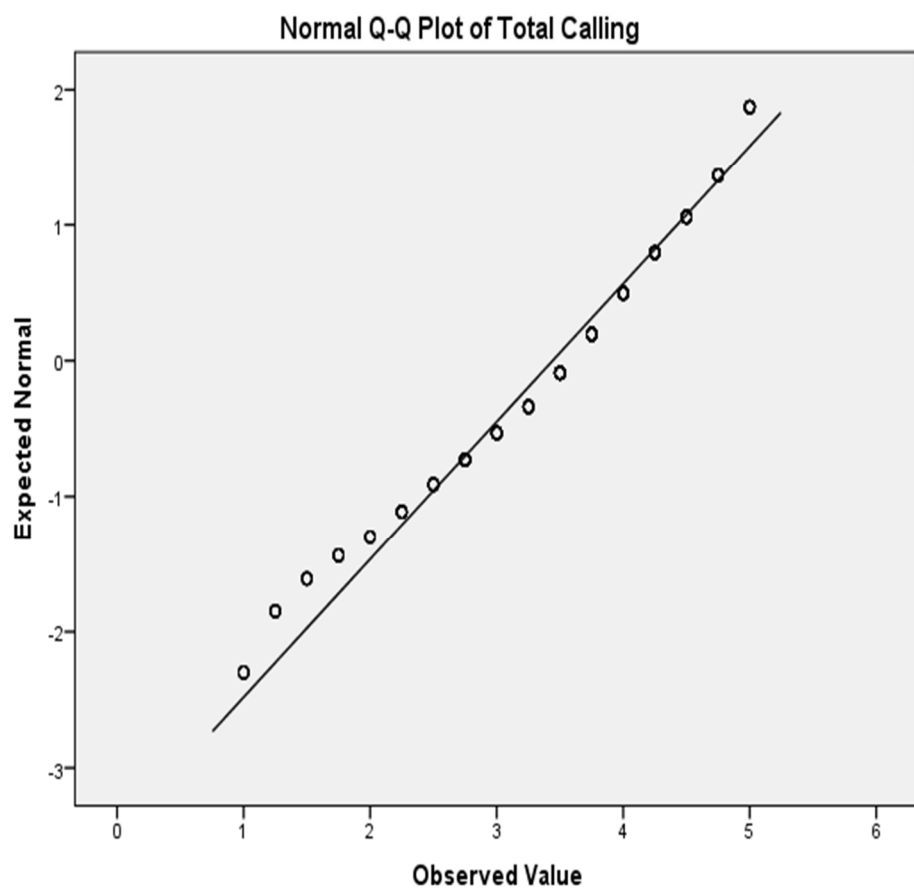
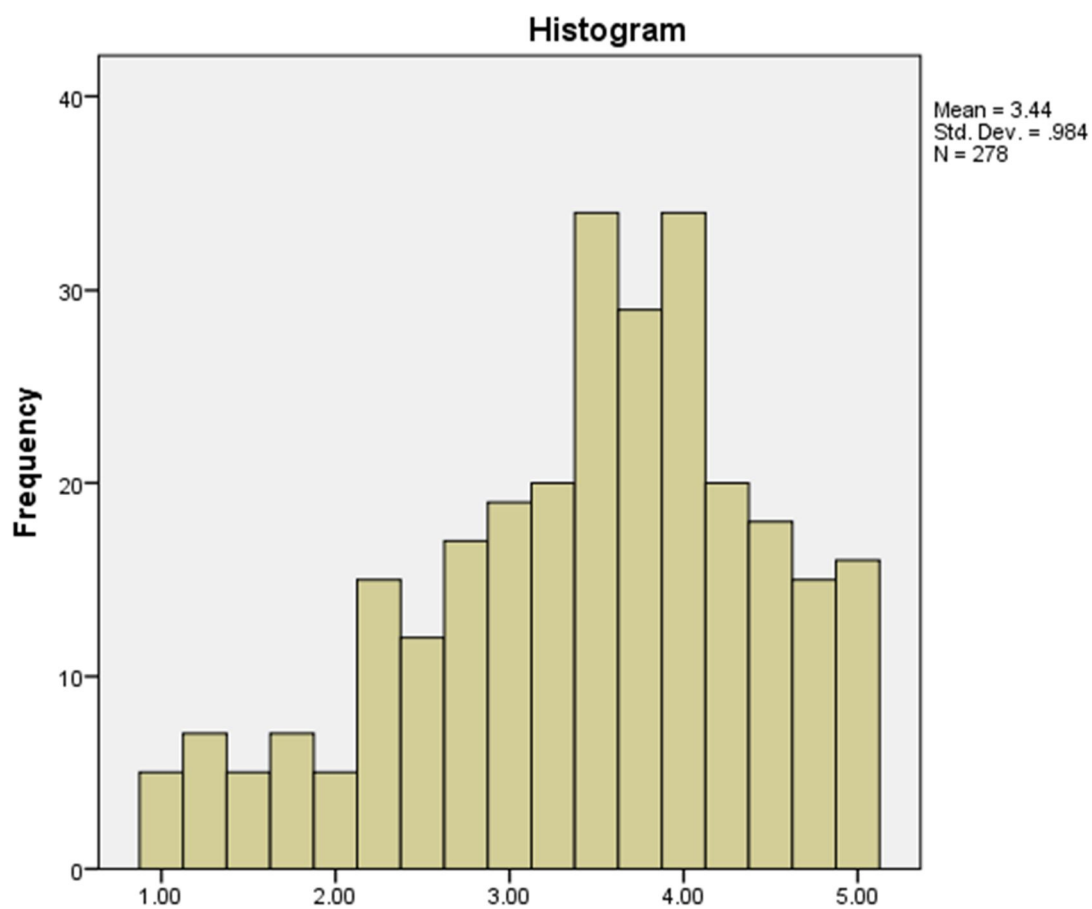


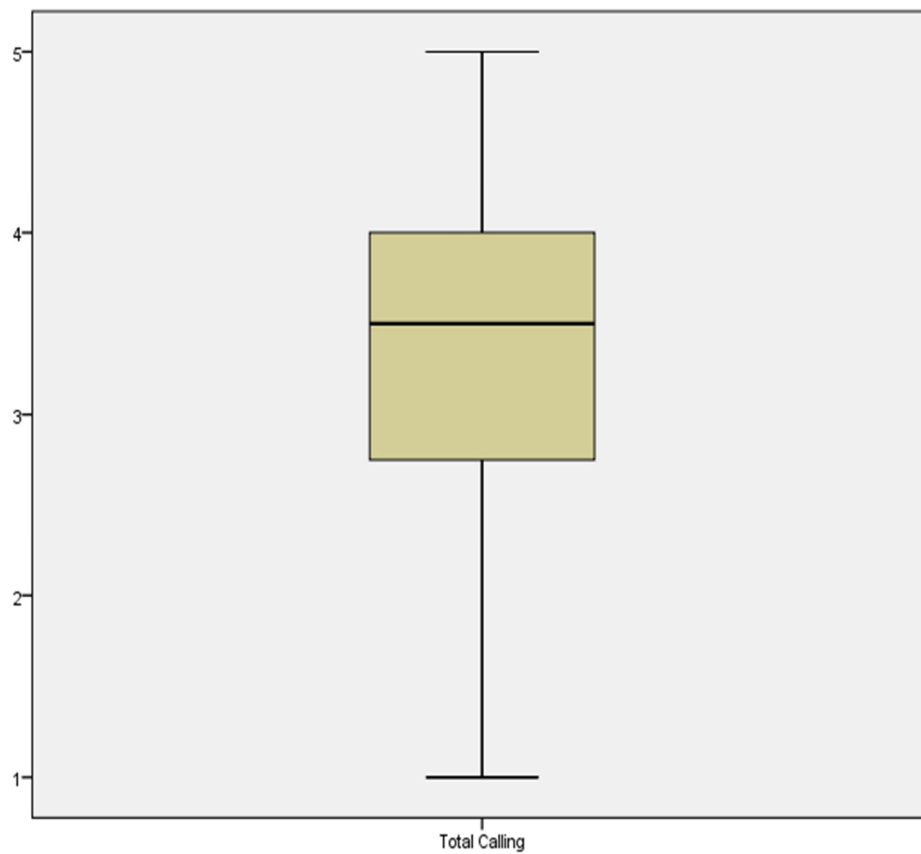
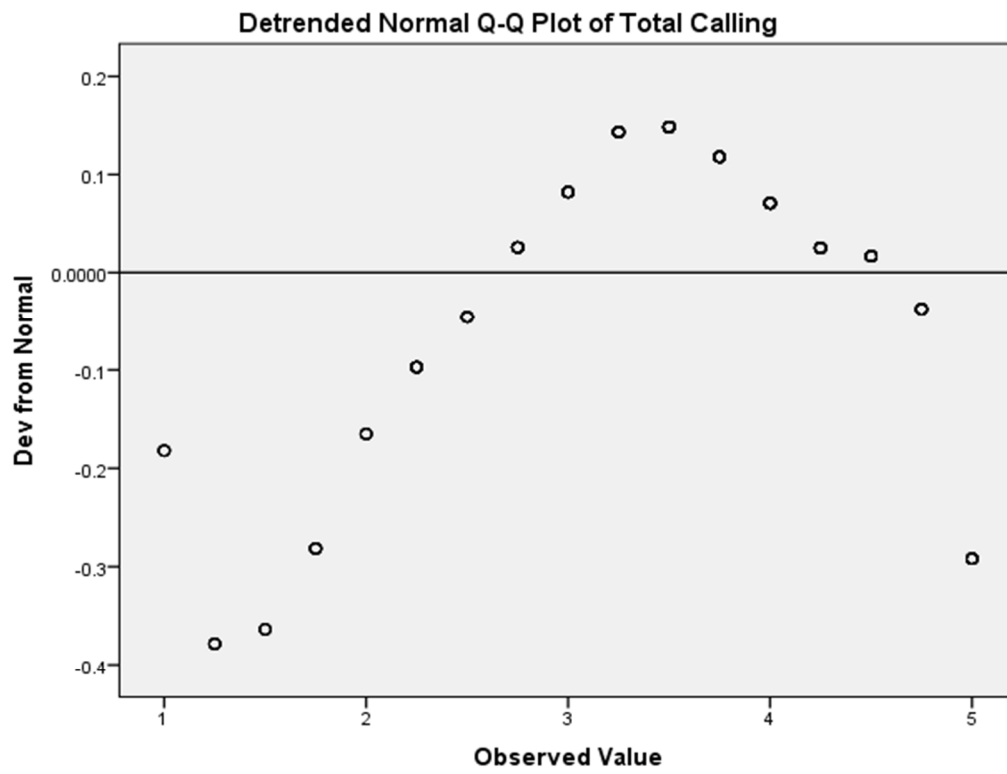


Weak work orientation- career= 1

Strong work orientation- career= 5

Work orientation- Calling

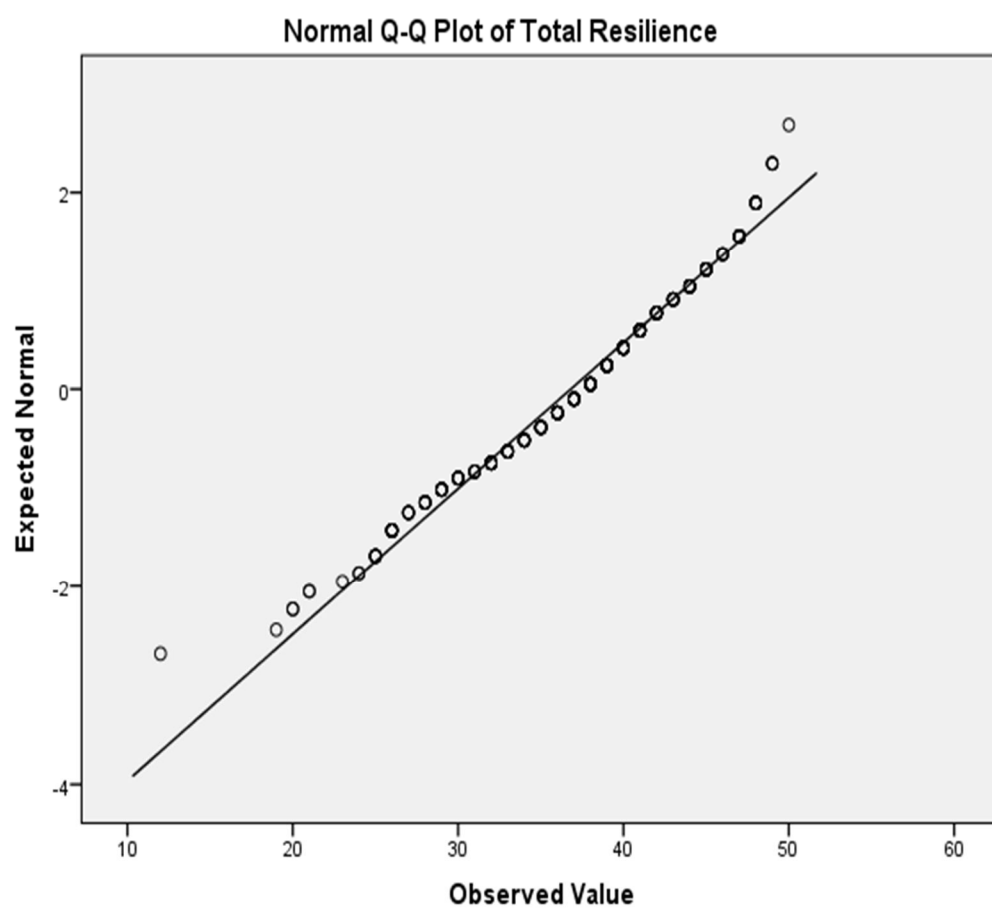
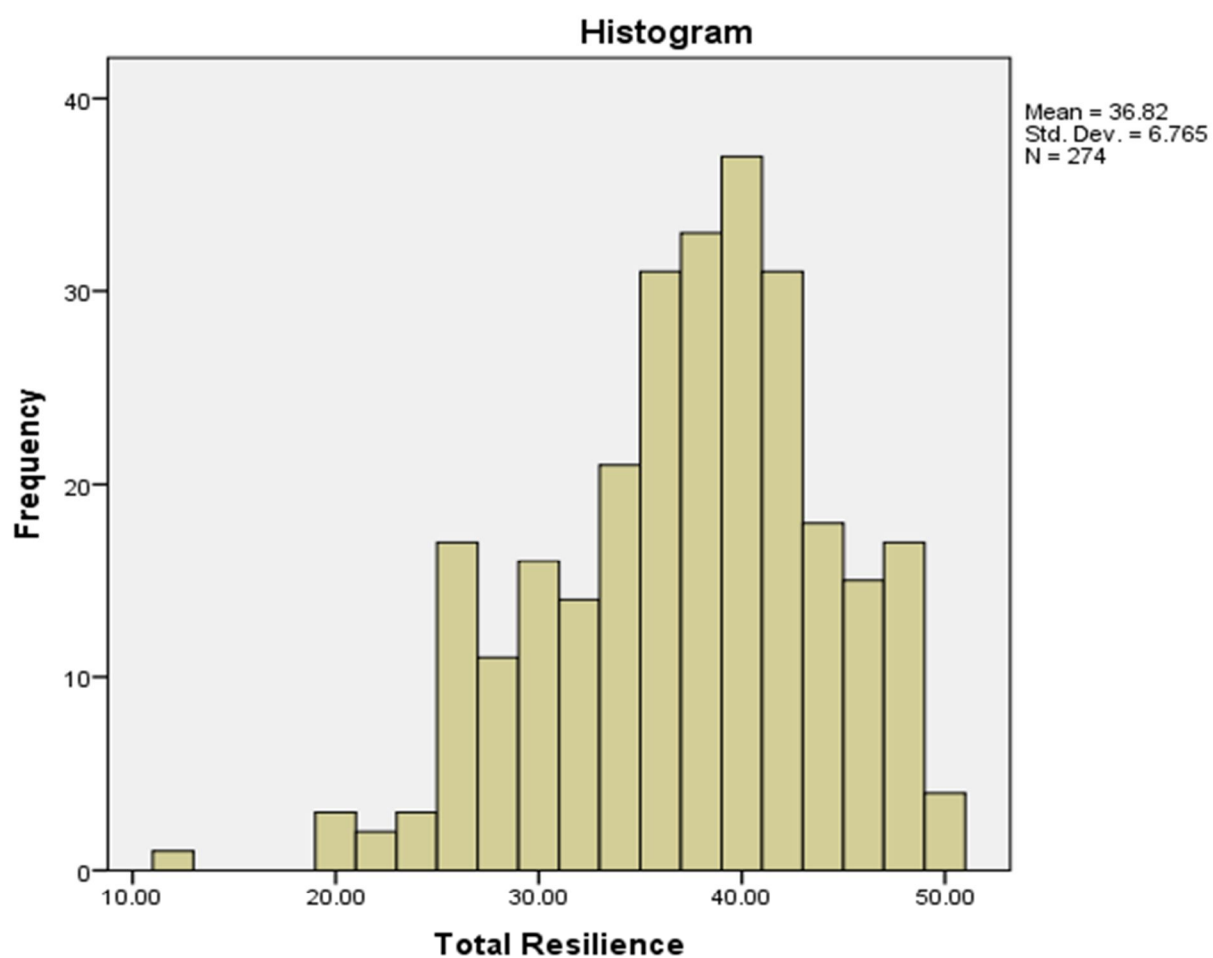


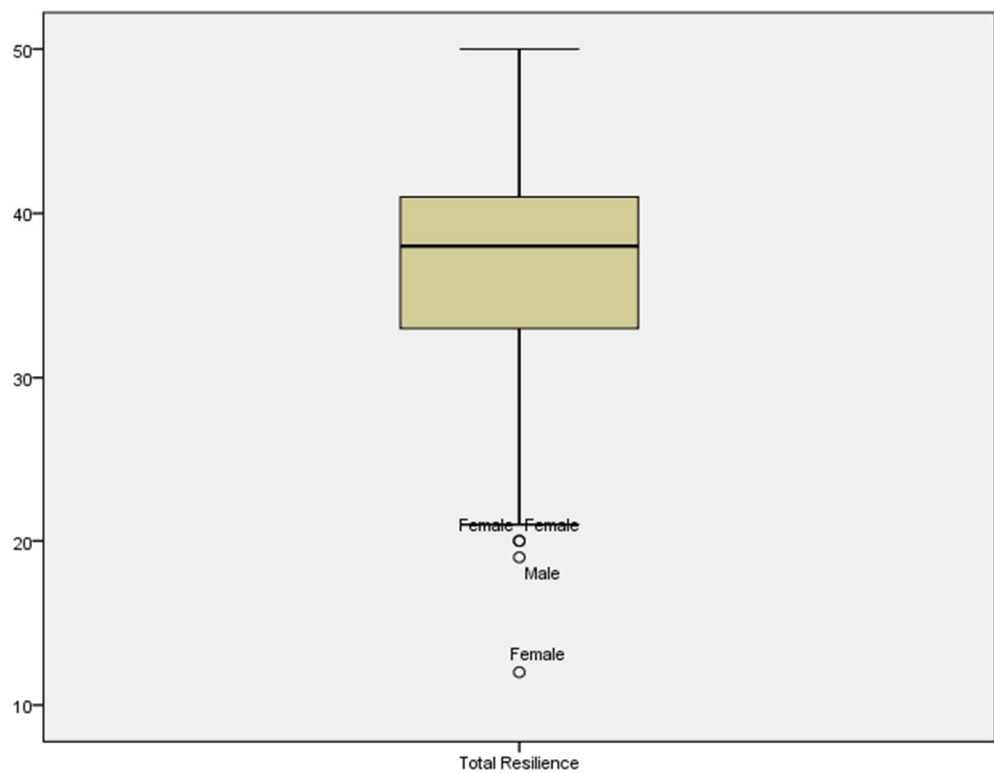
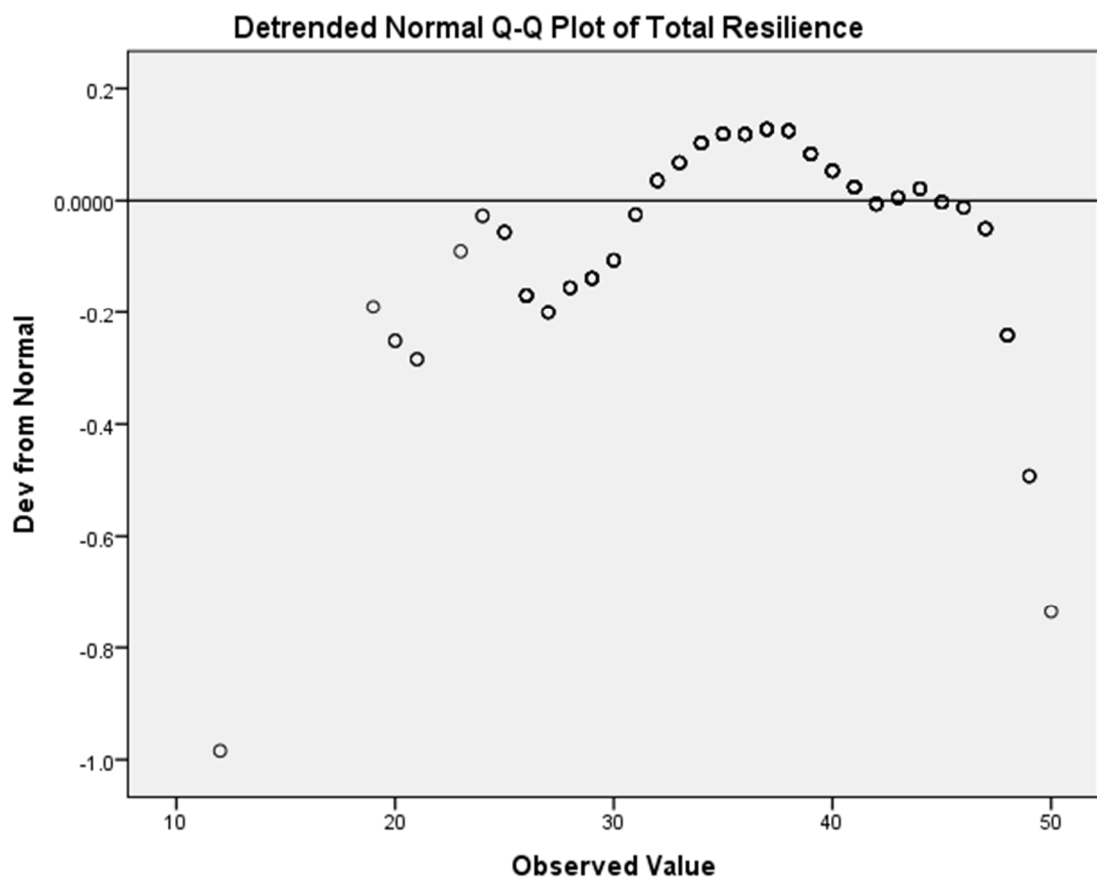


Weak work orientation- Calling = 1

Strong work orientation- Calling = 5

Total Resilience

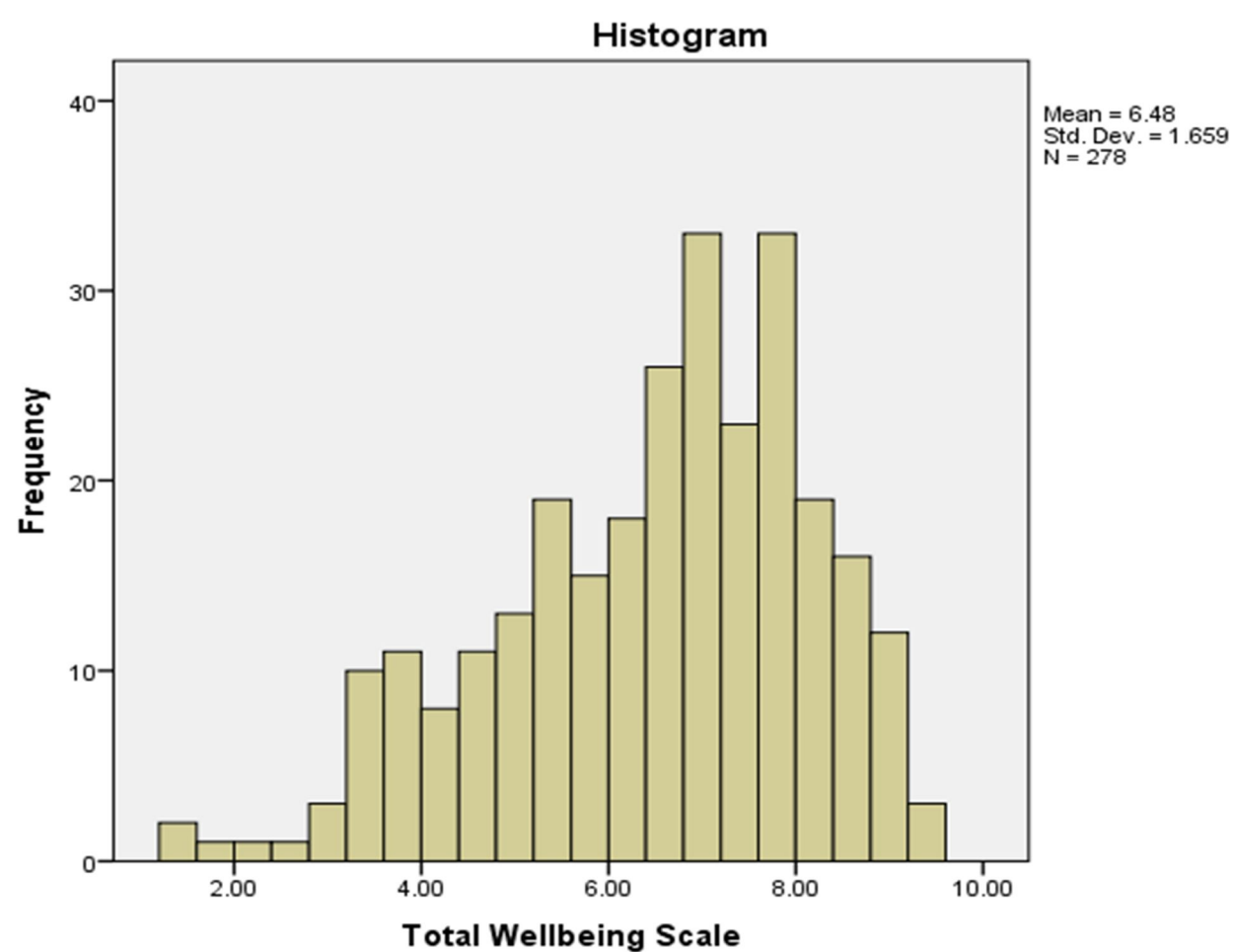


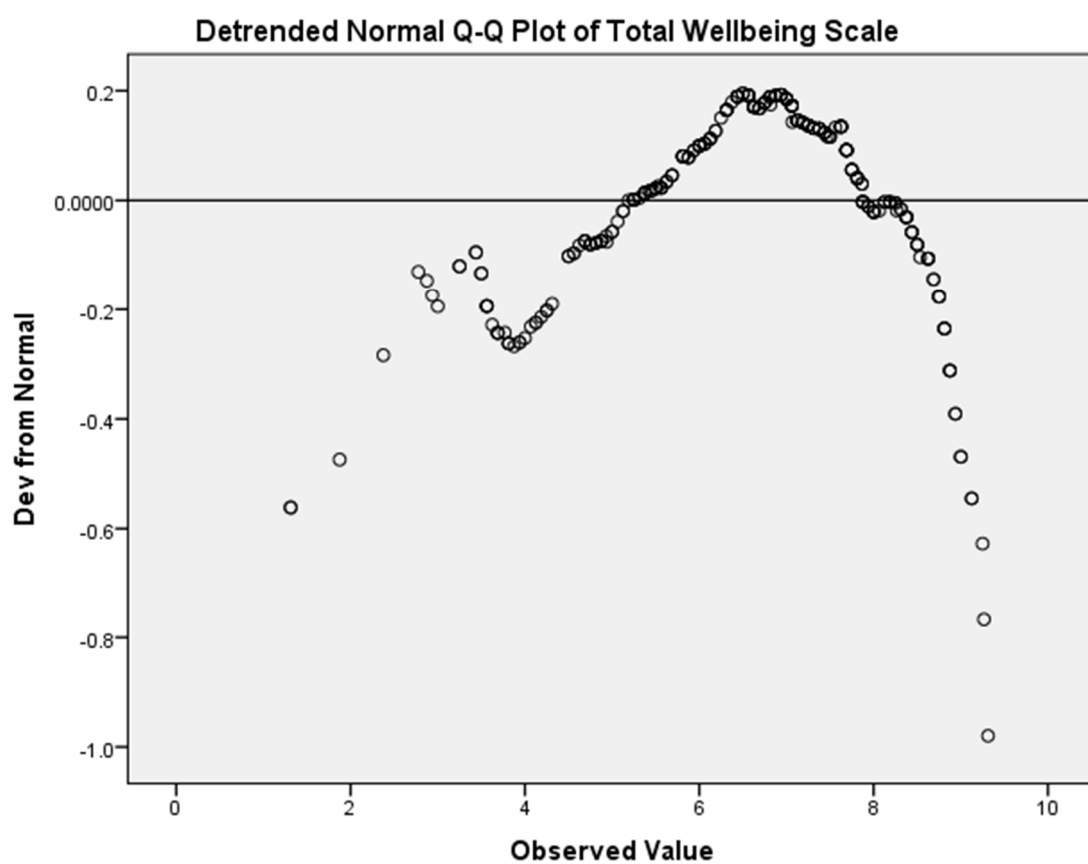
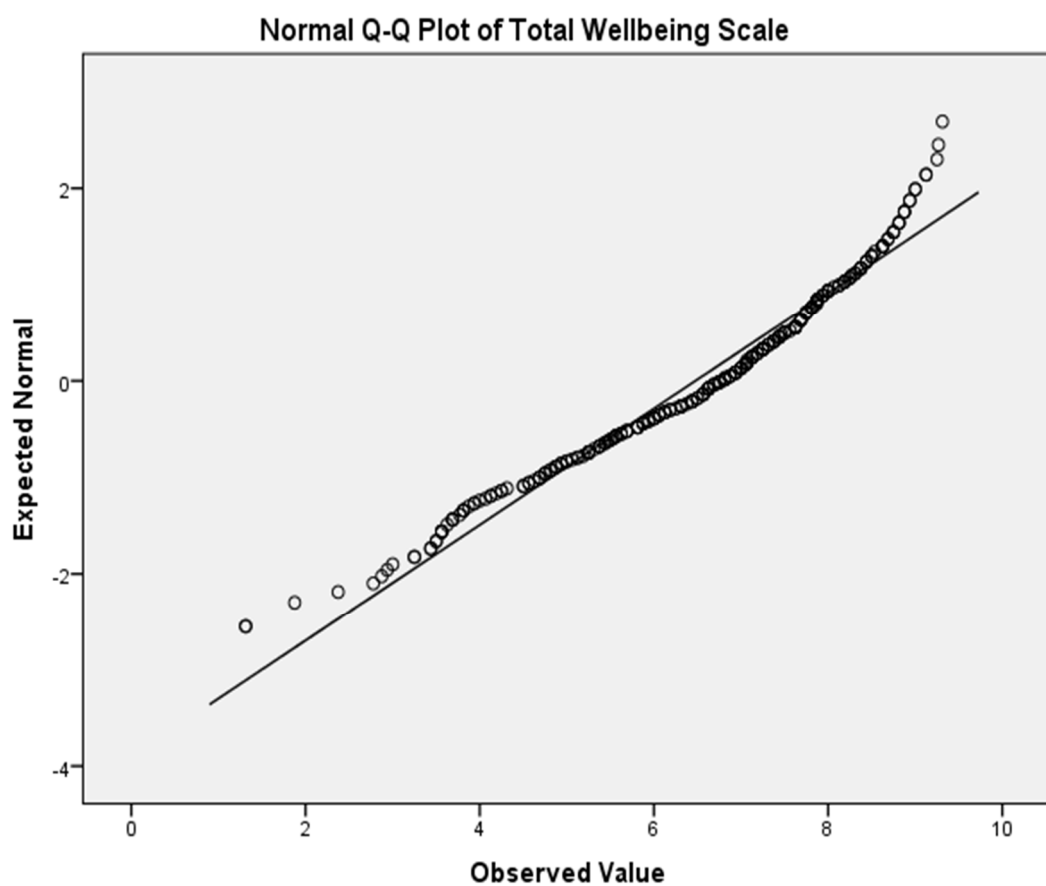


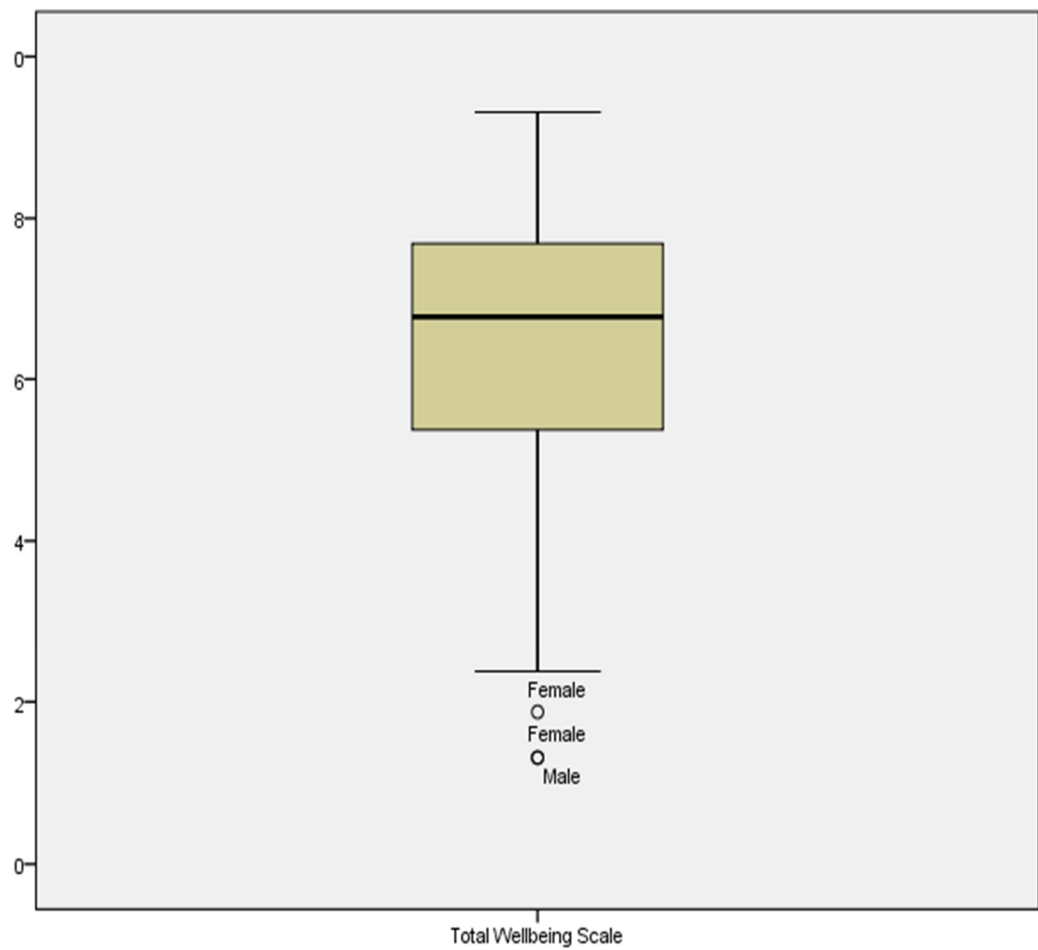
Lowest Resilience score= 10

Highest Resilience score= 50

Total Wellbeing Scale



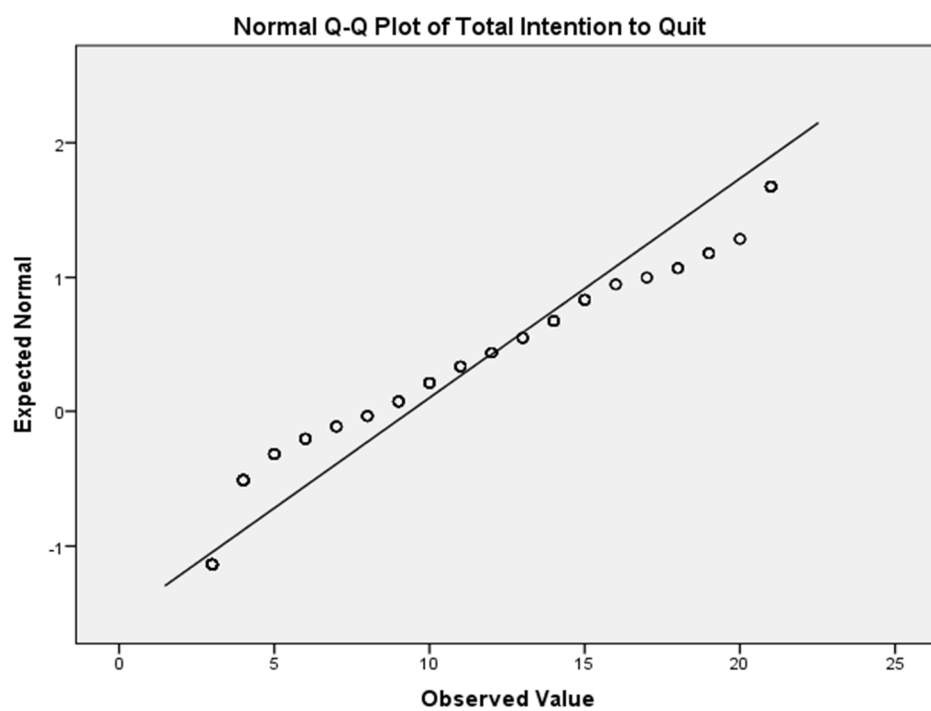
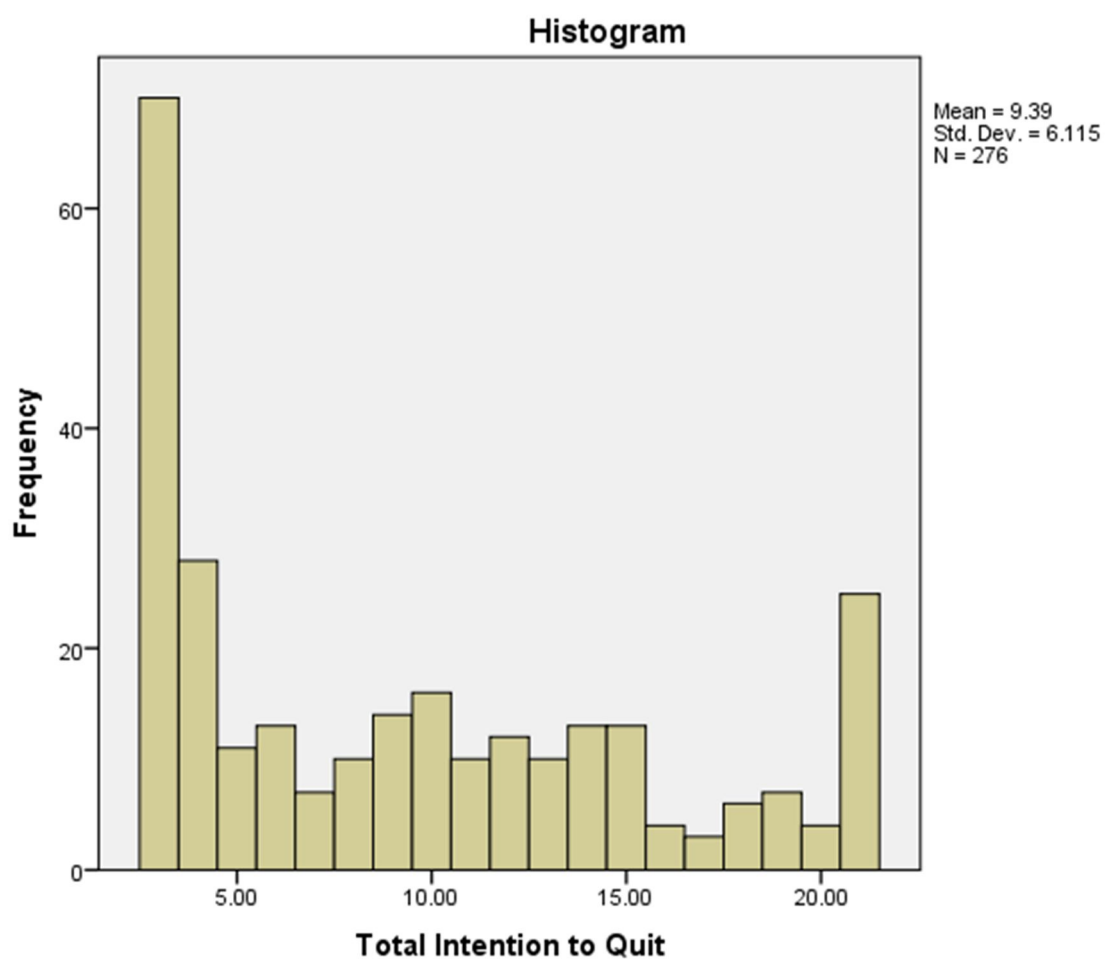


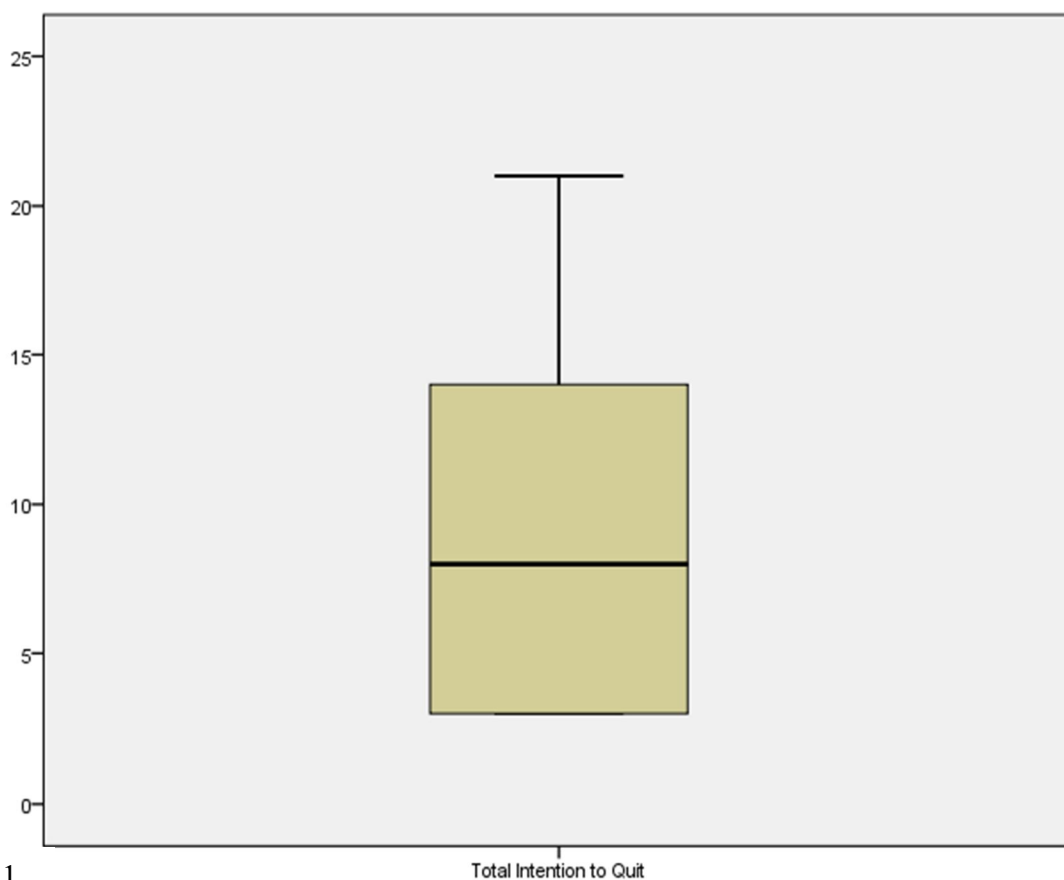
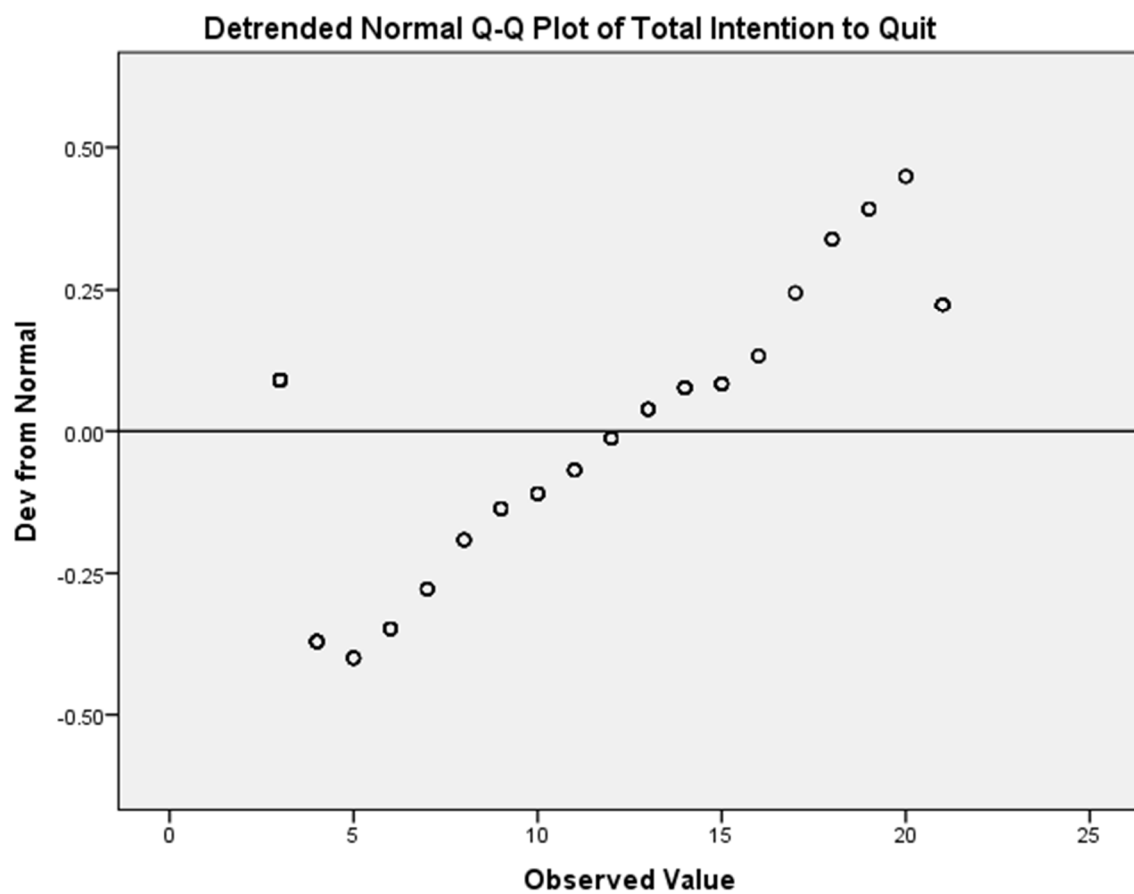


Lowest wellbeing score= 0

Highest wellbeing score= 10

Total Intention to Quit





Strong Intention to Quit= 21

Weakest Intention to Quit= 3

Appendix 4.3. Gender ANOVA

T-Test

Group Statistics					
9. What is your gender?		N	Mean	Std. Deviation	Std. Error Mean
Total Hope Score	Male	65	48.1385	9.32382	1.15648
	Female	207	45.8696	8.34379	.57993
Total Optimism	Male	65	21.2615	5.30412	.65789
	Female	208	19.4904	5.00434	.34699
Total Mindset	Male	68	3.4289	.92654	.11236
	Female	211	3.3440	.87434	.06019
Total Resilience	Male	68	37.8824	6.59382	.79962
	Female	206	36.4660	6.80002	.47378
Total Wellbeing Scale	Male	68	6.7365	1.65999	.20130
	Female	210	6.3922	1.65425	.11415
Average Self Efficacy	Male	68	5.8532	1.15744	.14036
	Female	211	5.6411	1.21004	.08330
Total Calling	Male	68	3.2978	1.11239	.13490
	Female	210	3.4893	.93743	.06469

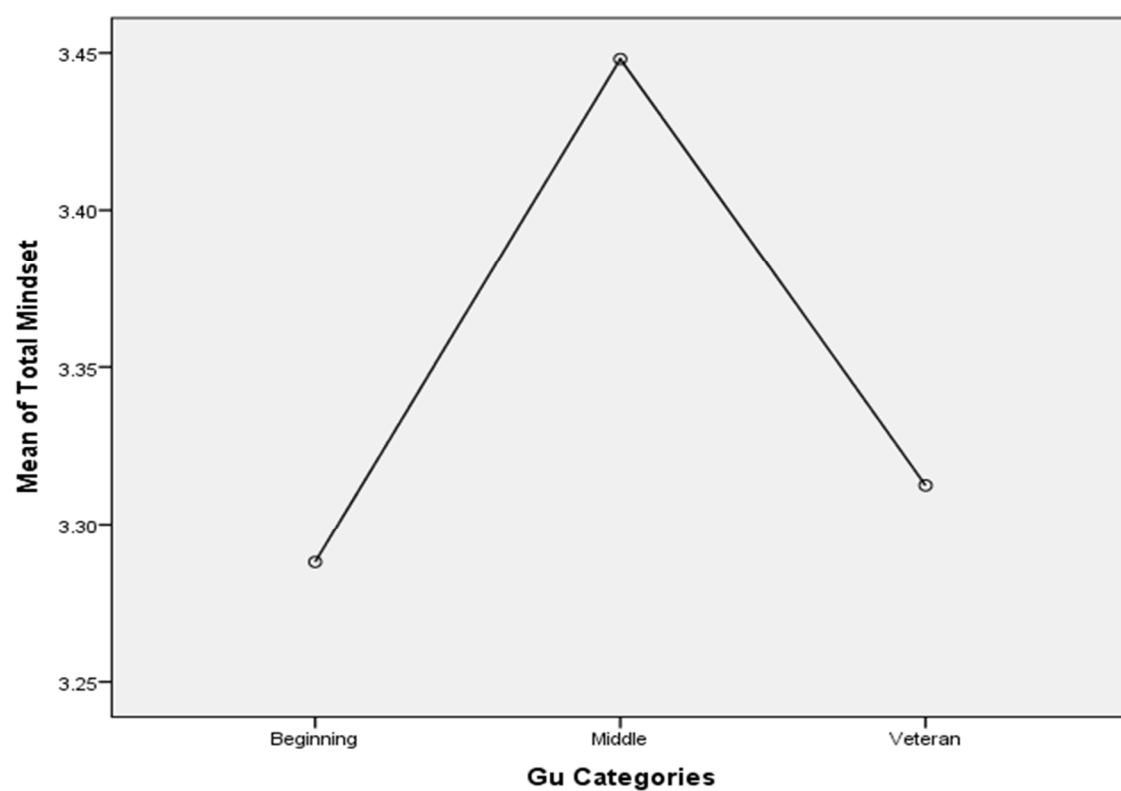
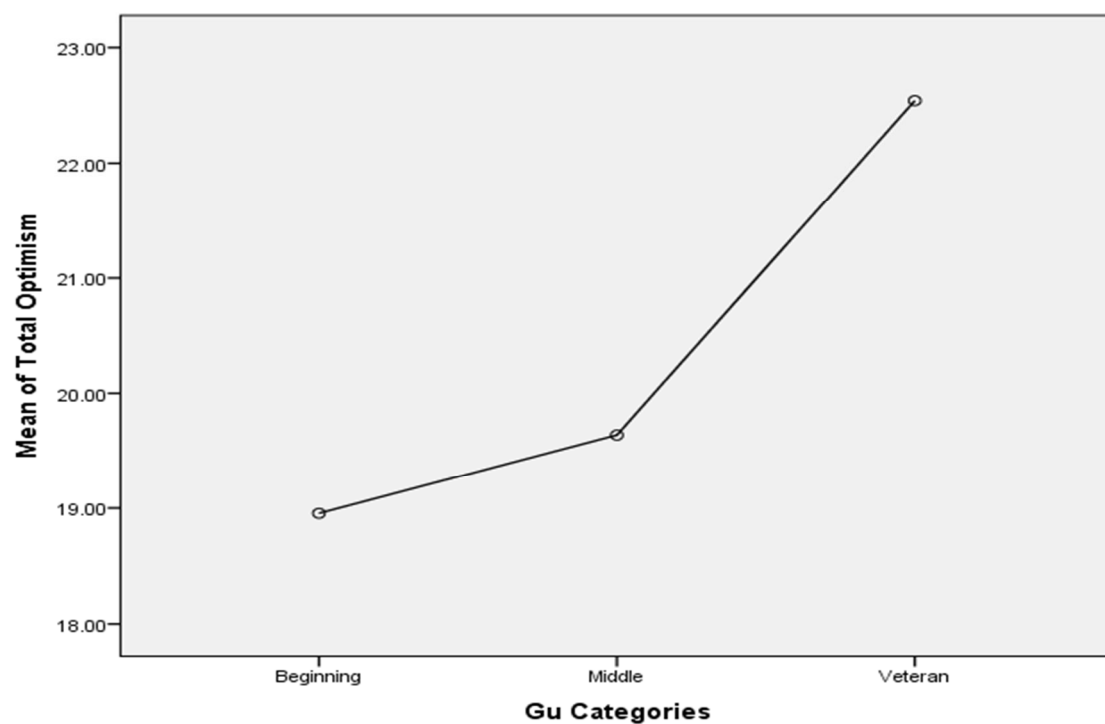
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total Hope Score	Equal variances assumed	1.559	.213	1.859	270	.064	2.26890	1.22080	-.13460	4.67239
	Equal variances not assumed			1.754	98.304	.083	2.26890	1.29374	-.29839	4.83618
Total Optimism	Equal variances assumed	.869	.352	2.455	271	.015	1.77115	.72140	.35089	3.19142
	Equal variances not assumed			2.381	102.116	.019	1.77115	.74379	.29587	3.24644
Total Mindset	Equal variances assumed	.458	.499	.686	277	.493	.08492	.12372	-.15863	.32848
	Equal variances not assumed			.666	108.133	.507	.08492	.12747	-.16773	.33758
Total Resilience	Equal variances assumed	.185	.667	1.500	272	.135	1.41633	.94402	-.44217	3.27484
	Equal variances not assumed			1.524	117.565	.130	1.41633	.92944	-.42428	3.25695
Total Wellbeing Scale	Equal variances assumed	.054	.816	1.490	276	.137	.34430	.23101	-.11045	.79906
	Equal variances not assumed			1.488	113.264	.140	.34430	.23142	-.11416	.80277
Average Self Efficacy	Equal variances assumed	.049	.826	1.270	277	.205	.21212	.16699	-.11661	.54086
	Equal variances not assumed			1.300	117.846	.196	.21212	.16322	-.11110	.53535
Total Calling	Equal variances assumed	7.006	.009	-1.396	276	.164	-.19149	.13712	-.46143	.07845
	Equal variances not assumed			-1.280	99.668	.204	-.19149	.14961	-.48832	.10533

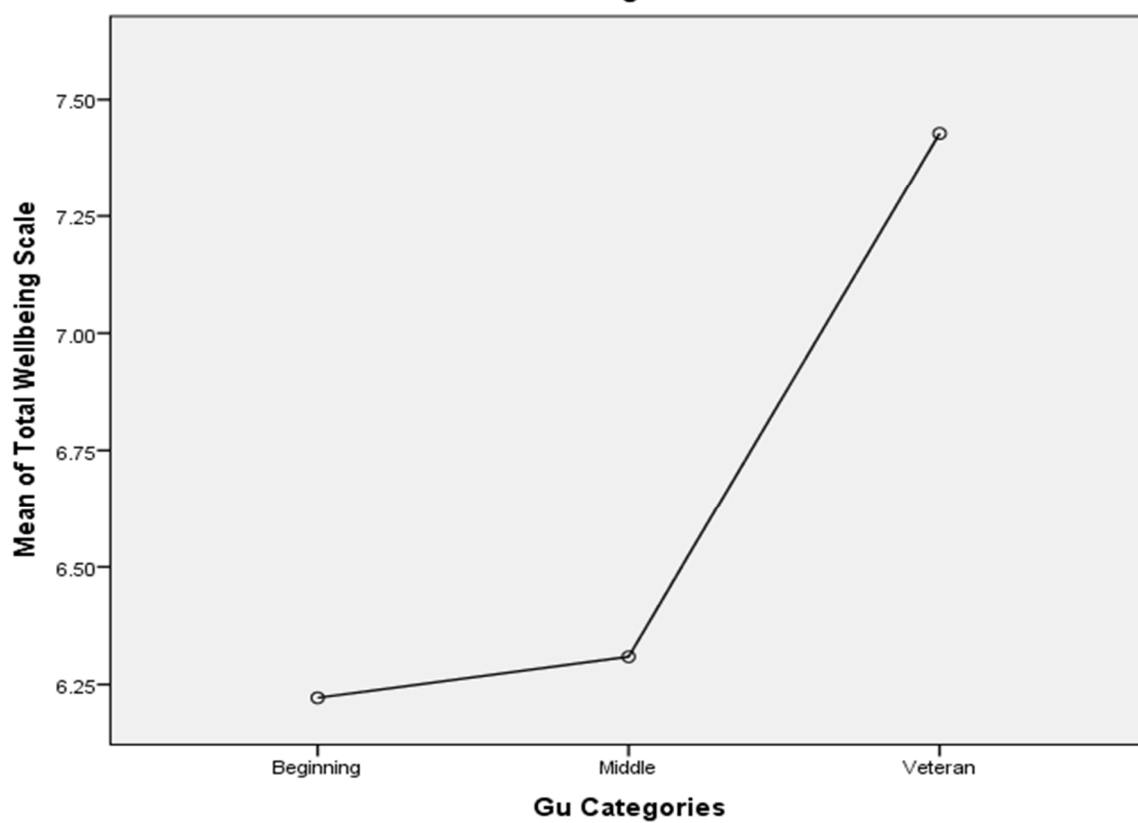
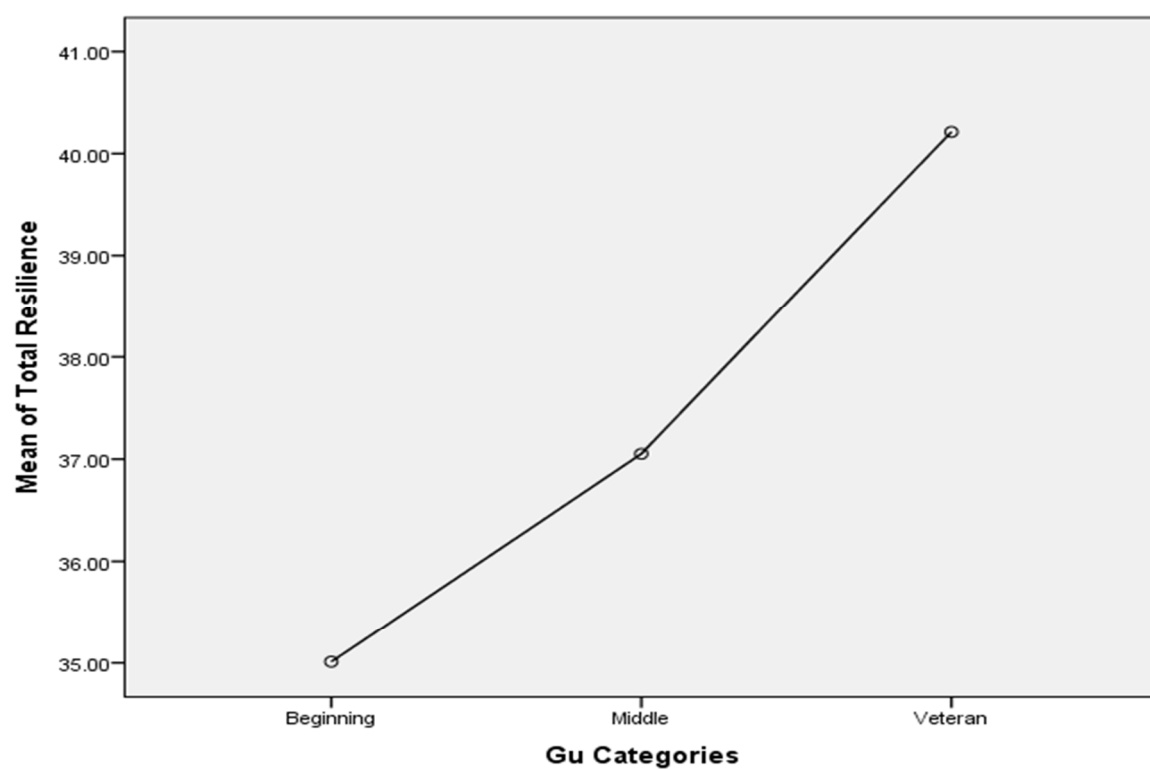
Appendix 4.4 Professional Life Stages

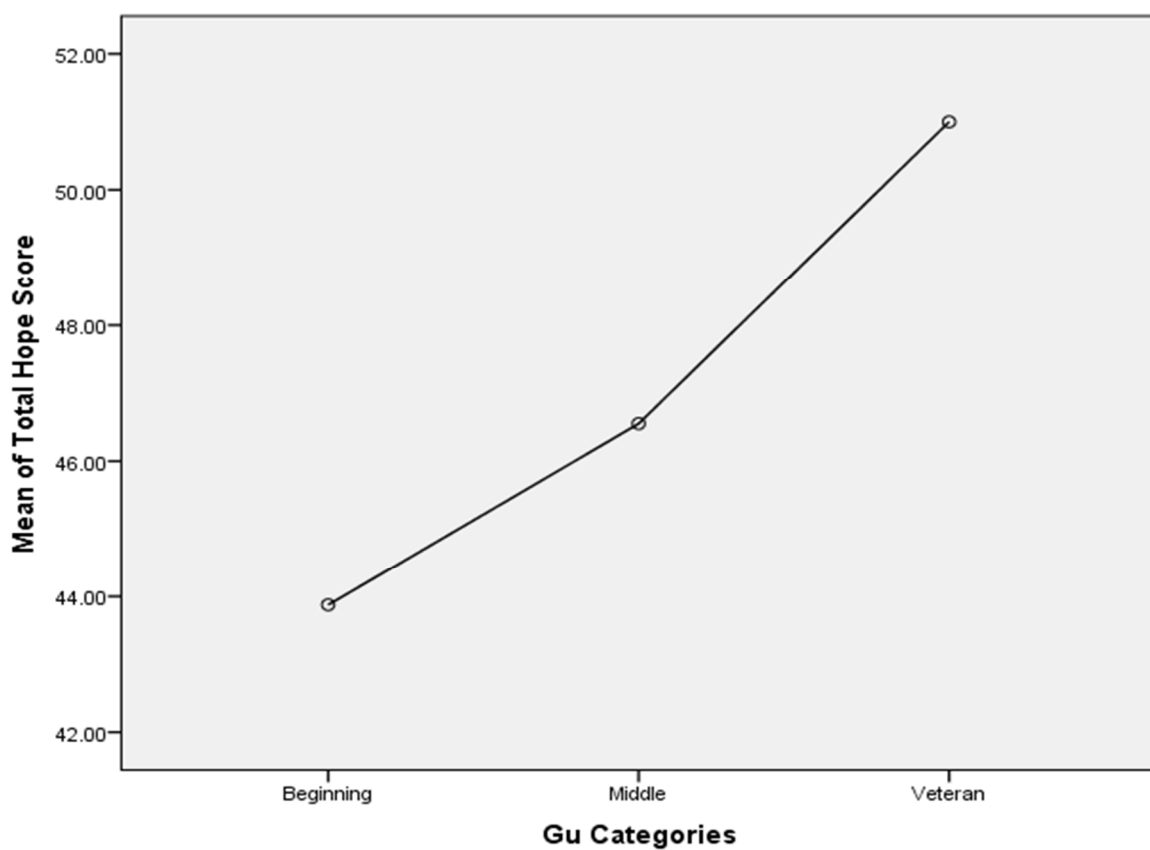
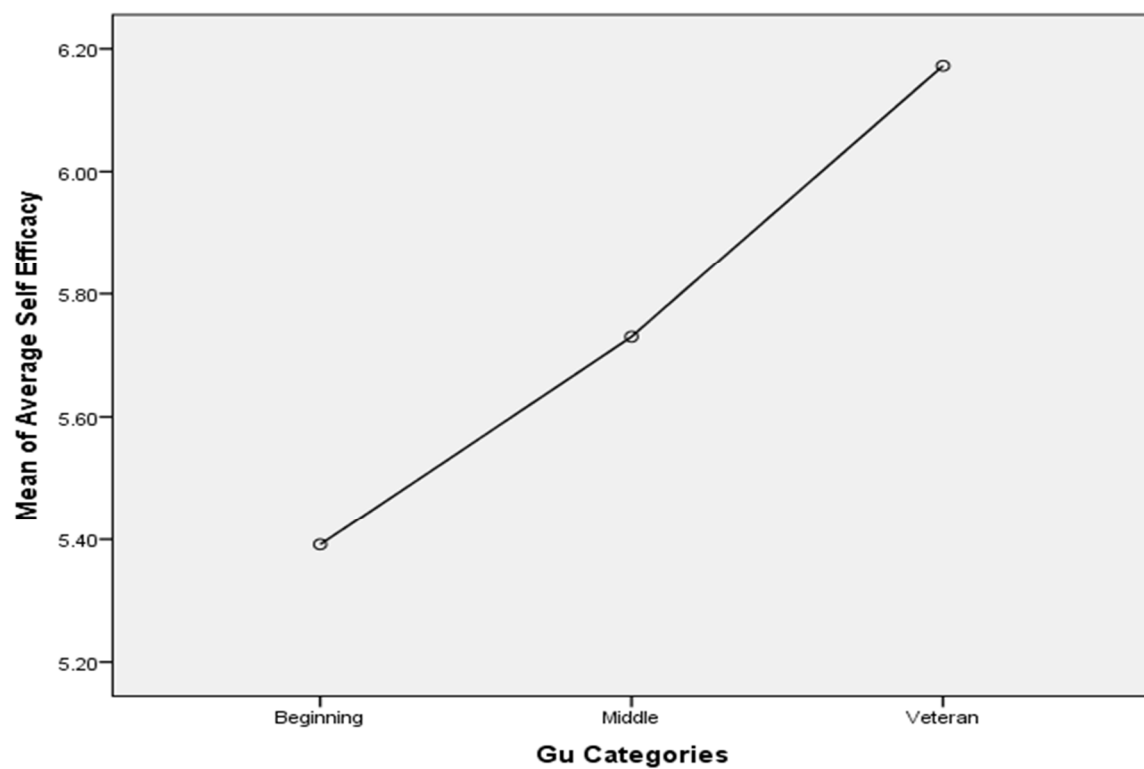
ANOVA

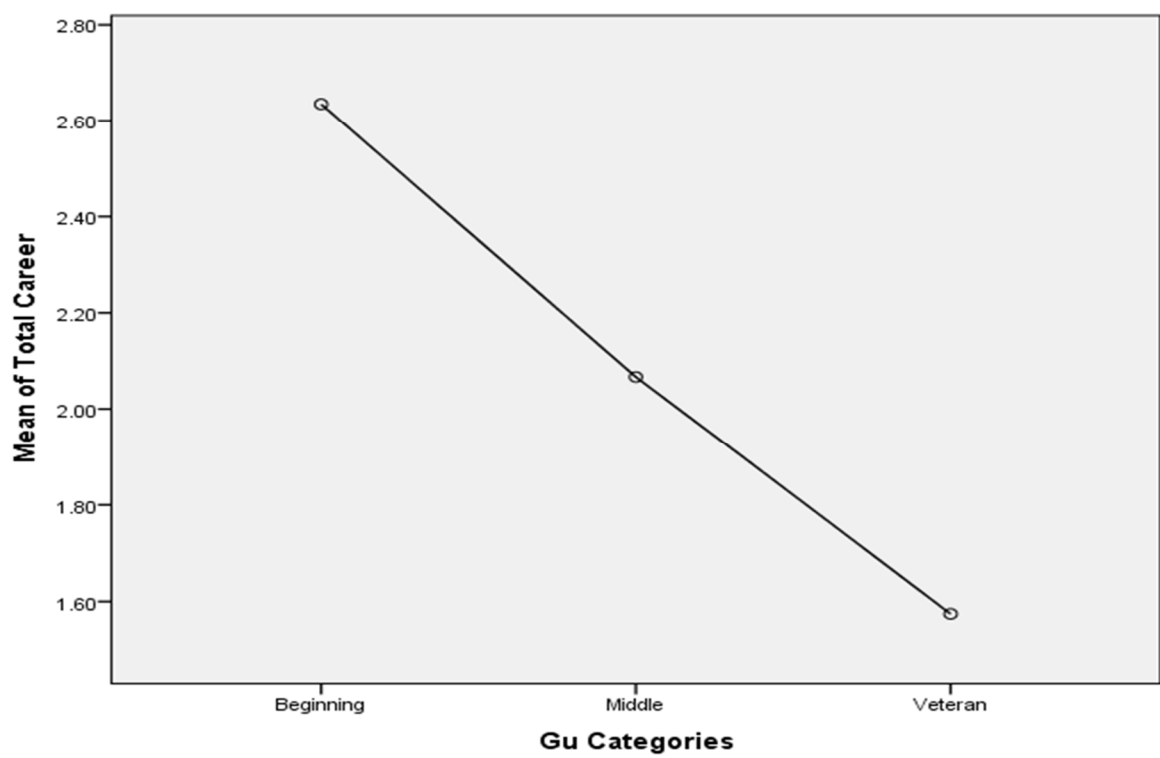
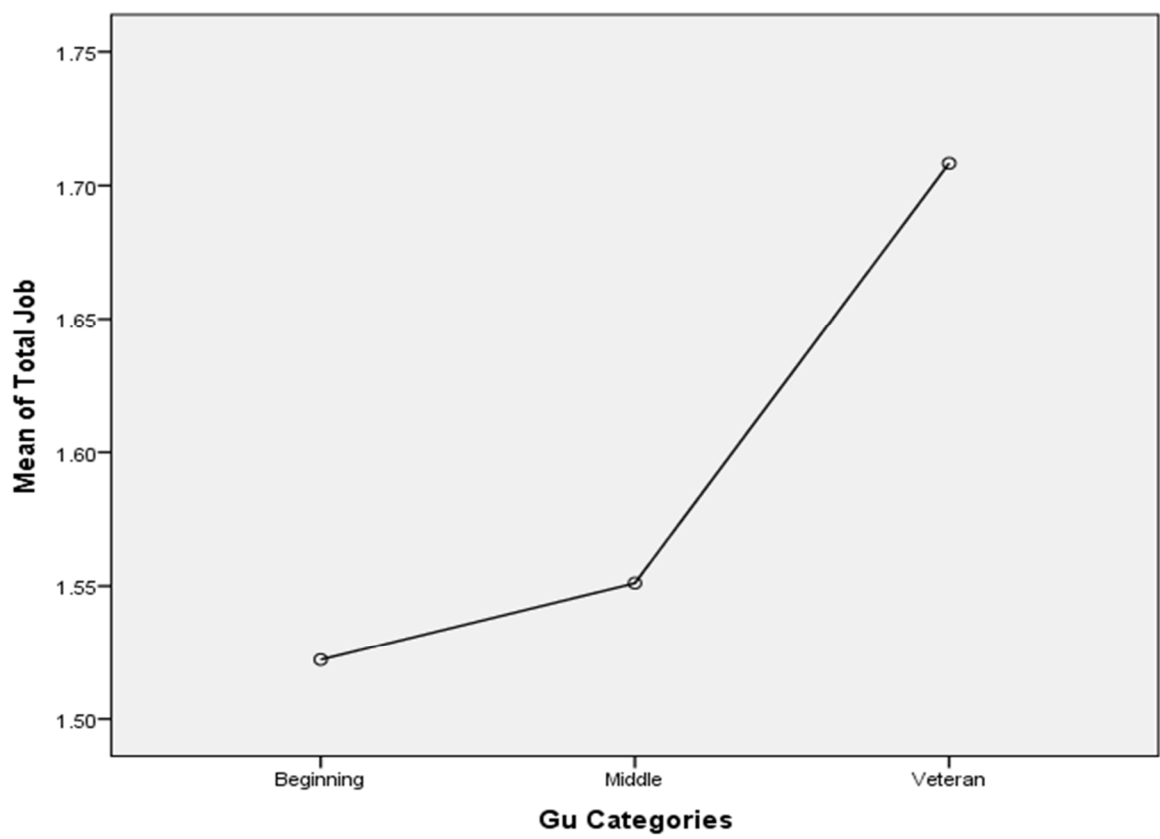
		Sum of Squares	df	Mean Square	F	Sig.
Total Optimism	Between Groups	421.852	2	210.926	8.506	.000
	Within Groups	6620.948	267	24.798		
	Total	7042.800	269			
Total Mindset	Between Groups	1.604	2	.802	1.020	.362
	Within Groups	214.554	273	.786		
	Total	216.158	275			
Total Resilience	Between Groups	836.170	2	418.085	9.974	.000
	Within Groups	11233.498	268	41.916		
	Total	12069.668	270			
Total Wellbeing Scale	Between Groups	53.131	2	26.566	10.210	.000
	Within Groups	707.735	272	2.602		
	Total	760.866	274			
Average Self Efficacy	Between Groups	19.384	2	9.692	7.033	.001
	Within Groups	376.203	273	1.378		
	Total	395.587	275			
Total Hope Score	Between Groups	1563.892	2	781.946	11.329	.000
	Within Groups	18428.775	267	69.022		
	Total	19992.667	269			
Total Job	Between Groups	1.173	2	.586	.884	.415
	Within Groups	180.515	272	.664		
	Total	181.687	274			
Total Career	Between Groups	37.339	2	18.670	19.298	.000
	Within Groups	259.271	268	.967		
	Total	296.611	270			
Total Intention to Quit	Between Groups	443.303	2	221.651	6.127	.002
	Within Groups	9767.313	270	36.175		
	Total	10210.615	272			
Total Calling	Between Groups	9.659	2	4.830	5.186	.006
	Within Groups	253.326	272	.931		
	Total	262.985	274			

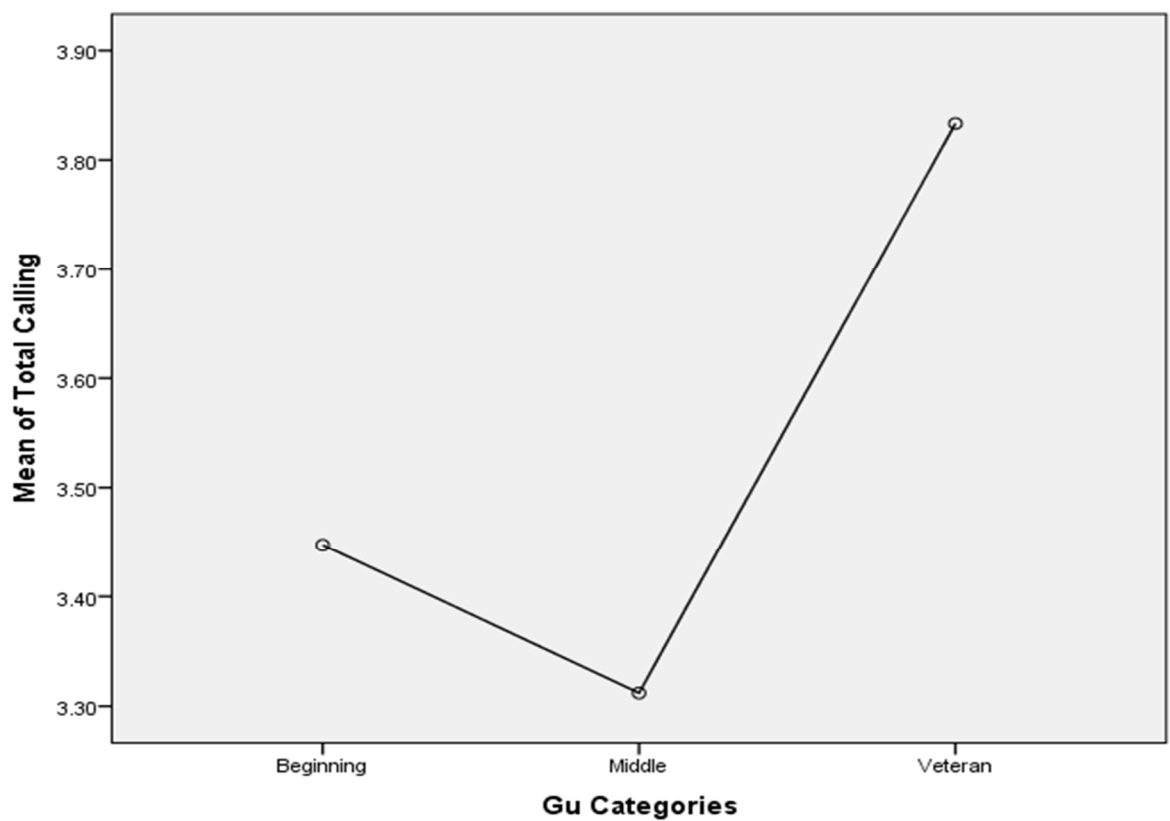
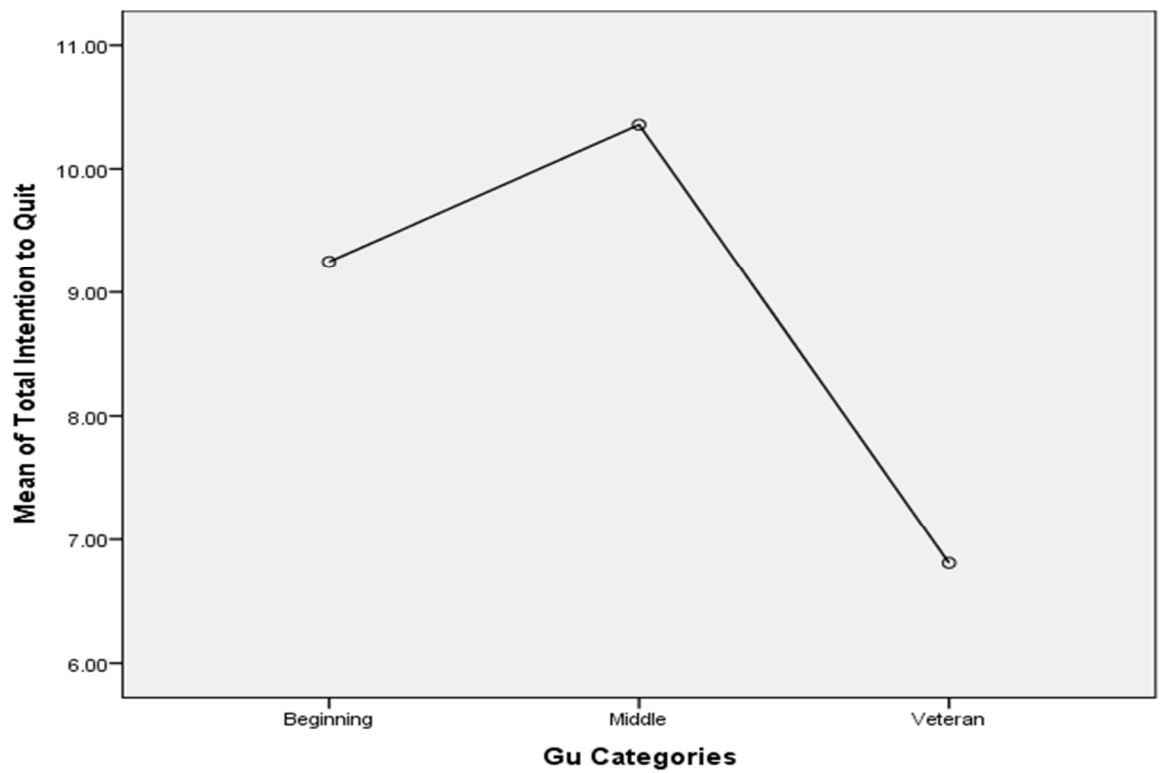
Means Plots











Gu category= Professional life stage as defined by Gu and Day (2007)

Appendix 4.5. Type of School

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Total Hope Score	Between Groups	241.687	3	80.562	1.018	.386
	Within Groups	16069.965	203	79.162		
	Total	16311.652	206			
Total Optimism	Between Groups	167.990	3	55.997	2.038	.110
	Within Groups	5577.063	203	27.473		
	Total	5745.053	206			
Average Self Efficacy	Between Groups	6.200	3	2.067	1.305	.274
	Within Groups	330.996	209	1.584		
	Total	337.195	212			
Total Mindset	Between Groups	2.374	3	.791	1.024	.383
	Within Groups	161.491	209	.773		
	Total	163.865	212			
Total Calling	Between Groups	2.301	3	.767	.780	.506
	Within Groups	205.390	209	.983		
	Total	207.691	212			
Total Job	Between Groups	6.778	3	2.259	3.231	.023
	Within Groups	146.152	209	.699		
	Total	152.930	212			
Total Career	Between Groups	1.924	3	.641	.556	.645
	Within Groups	237.700	206	1.154		
	Total	239.624	209			
Total Resilience	Between Groups	212.298	3	70.766	1.510	.213
	Within Groups	9654.697	206	46.867		
	Total	9866.995	209			
Total Wellbeing Scale	Between Groups	20.885	3	6.962	2.727	.045
	Within Groups	533.634	209	2.553		
	Total	554.519	212			
Total Intention to Quit	Between Groups	262.593	3	87.531	2.517	.059
	Within Groups	7197.463	207	34.770		
	Total	7460.057	210			

Appendix 4.6. Positions of Responsibility

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Total Hope Score	Between Groups	2163.389	2	1081.695	16.168	.000
	Within Groups	17996.493	269	66.901		
	Total	20159.882	271			
Average Self Efficacy	Between Groups	25.617	2	12.809	9.454	.000
	Within Groups	373.934	276	1.355		
	Total	399.551	278			
Total Optimism	Between Groups	636.357	2	318.179	13.209	.000
	Within Groups	6503.533	270	24.087		
	Total	7139.890	272			
Total Mindset	Between Groups	3.870	2	1.935	2.489	.085
	Within Groups	214.557	276	.777		
	Total	218.427	278			
Total Resilience	Between Groups	1106.424	2	553.212	13.164	.000
	Within Groups	11388.452	271	42.024		
	Total	12494.876	273			
Total Wellbeing Scale	Between Groups	46.079	2	23.039	8.842	.000
	Within Groups	716.569	275	2.606		
	Total	762.647	277			
Total Calling	Between Groups	11.152	2	5.576	5.959	.003
	Within Groups	257.302	275	.936		
	Total	268.454	277			
Total Job	Between Groups	1.649	2	.824	1.231	.293
	Within Groups	184.090	275	.669		
	Total	185.738	277			
Total Career	Between Groups	1.327	2	.663	.602	.548
	Within Groups	298.451	271	1.101		
	Total	299.777	273			
Total Intention to Quit	Between Groups	642.156	2	321.078	9.091	.000
	Within Groups	9641.583	273	35.317		
	Total	10283.739	275			

Appendix 4.7. Factorial ANOVA

Tests of Between-Subjects Effects

Dependent Variable: Total Wellbeing Scale

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	90.428 ^a	8	11.304	4.485	.000
Intercept	4519.981	1	4519.981	1793.329	.000
@12. Doyouholdanypositionsof responsibilitythatarerewa rdedwithresp	8.692	2	4.346	1.724	.180
Gucats	28.114	2	14.057	5.577	.004
@12. Doyouholdanypositionsof responsibilitythatarerewa rdedwithresp * Gucats	12.742	4	3.186	1.264	.285
Error	670.438	266	2.520		
Total	12292.984	275			
Corrected Total	760.866	274			

a. R Squared = .119 (Adjusted R Squared = .092)

Appendix 4.8. Multiple/logistic regression analysis

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Total Calling, Total Mindset, Total Optimism, Total Hope Score, Average Self Efficacy ^b		Enter

a. Dependent Variable: Total Resilience

b. All requested variables entered.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	12.359	1.806		6.844	.000	8.803	15.916		
Total Hope Score	.049	.062	.062	.787	.432	-.074	.172	.285	3.514
Average Self Efficacy	2.470	.451	.440	5.472	.000	1.581	3.359	.273	3.664
Total Optimism	.430	.082	.318	5.244	.000	.268	.591	.481	2.081
Total Mindset	-.004	.333	-.001	-.013	.989	-.660	.651	.961	1.041
Total Calling	-.123	.355	-.018	-.346	.729	-.822	.576	.664	1.505

a. Dependent Variable: Total Resilience

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Total Calling, Total Mindset, Total Optimism, Total Hope Score, Average Self Efficacy ^b		Enter

a. Dependent Variable: Total Wellbeing Scale

b. All requested variables entered.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.696	.405		1.720	.087	-.101	1.494		
	Total Hope Score	.061	.014	.316	4.312	.000	.033	.089	.282	3.545
	Average Self Efficacy	.067	.102	.050	.660	.510	-.134	.269	.270	3.707
	Total Optimism	.147	.018	.449	8.004	.000	.111	.183	.481	2.078
	Total Mindset	-.260	.075	-.138	-3.463	.001	-.408	-.112	.958	1.044
	Total Calling	.148	.080	.088	1.841	.067	-.010	.305	.664	1.507

a. Dependent Variable: Total Wellbeing Scale

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Total Calling, Total Mindset, Total Optimism, Total Hope Score, Average Self Efficacy ^b		Enter

a. Dependent Variable: Total Intention to Quit

b. All requested variables entered.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	21.645	1.940		11.155	.000	17.824	25.466		
	Total Hope Score	-.065	.067	-.091	-.965	.335	-.198	.068	.284	3.515
	Average Self Efficacy	.805	.487	.160	1.651	.100	-.155	1.765	.272	3.677
	Total Optimism	-.305	.088	-.253	-3.474	.001	-.478	-.132	.480	2.081
	Total Mindset	.658	.358	.095	1.838	.067	-.047	1.364	.959	1.042
	Total Calling	-2.919	.382	-.472	-7.638	.000	-3.672	-2.167	.665	1.503

a. Dependent Variable: Total Intention to Quit

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Total Wellbeing Scale, Total Calling, Total Resilience, Total Hope Score, Total Optimism ^b	.	Enter

a. Dependent Variable: Total Intention to Quit

b. All requested variables entered.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	22.192	1.901		11.675	.000	18.449	25.936		
	Total Hope Score	.023	.056	.032	.404	.687	-.088	.134	.407	2.455
	Total Optimism	-.251	.098	-.207	-2.566	.011	-.444	-.058	.388	2.578
	Total Calling	-2.767	.384	-.448	-7.209	.000	-3.523	-2.011	.657	1.522
	Total Resilience	.118	.064	.131	1.832	.068	-.009	.244	.499	2.006
	Total Wellbeing Scale	-.579	.295	-.157	-1.964	.051	-1.159	.002	.399	2.506

a. Dependent Variable: Total Intention to Quit

Logistic Regression

T-Test

Group Statistics					
	Quit groups High and Low	N	Mean	Std. Deviation	Std. Error Mean
Total Hope Score	Low intention to quit	95	50.9895	6.48483	.66533
	High intention to quit	82	42.2317	8.85452	.97782
Total Pathway Hope Score	Low intention to quit	96	25.2188	3.48290	.35547
	High intention to quit	84	21.2024	4.43366	.48375
Total Agency Hope Score	Low intention to quit	97	25.7938	3.67973	.37362
	High intention to quit	83	21.0964	5.35932	.58826
Average Self Efficacy	Low intention to quit	98	6.2017	.88088	.08898
	High intention to quit	85	5.2368	1.32063	.14324
Total Optimism	Low intention to quit	97	22.6598	4.63655	.47077
	High intention to quit	82	17.5854	4.94651	.54625
Total Mindset	Low intention to quit	98	3.4490	.95919	.09689
	High intention to quit	85	3.3824	.80879	.08773
Total Resilience	Low intention to quit	97	39.5155	6.45999	.65591
	High intention to quit	83	34.7831	6.55939	.71999
Total Wellbeing Scale	Low intention to quit	98	7.3492	1.32849	.13420
	High intention to quit	85	5.6361	1.61236	.17489
Total Calling	Low intention to quit	98	4.0867	.68780	.06948
	High intention to quit	85	2.7765	.95822	.10393
Total Job	Low intention to quit	98	1.6531	.85376	.08624
	High intention to quit	85	1.4765	.81979	.08892
Total Career	Low intention to quit	97	2.1856	1.06144	.10777
	High intention to quit	83	2.1024	1.09254	.11992

Logistic Regression without outlier

[DataSet1] C:\Users\Chittys\Desktop\Full data file

Case Processing Summary

Unweighted Cases ^a		N	Percent
Selected Cases	Included in Analysis	178	64.0
	Missing Cases	100	36.0
	Total	278	100.0
Unselected Cases		0	.0
Total		278	100.0

a. If weight is in effect, see classification table for the total number of cases.

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	109.935	3	.000
	Block	109.935	3	.000
	Model	109.935	3	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	135.723 ^a	.461	.616

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Classification Table^a

Observed			Predicted		
			Quit groups High and Low		Percentage Correct
			Low intention to quit	High intention to quit	
Step 1	Quit groups High and Low	Low intention to quit	80	16	83.3
		High intention to quit	20	62	75.6
	Overall Percentage				79.8

a. The cut value is .500

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a						
TotalCalling	-1.860	.338	30.208	1	.000	.156
TotalLOT	-.108	.062	2.983	1	.084	.898
TotalPERMA	-.318	.205	2.402	1	.121	.728
Constant	10.694	1.668	41.123	1	.000	44088.280

a. Variable(s) entered on step 1: TotalCalling, TotalLOT, TotalPERMA.

Appendix 4.9. Mediation

Regression

[DataSet1] D:\Northampton\Misc\Phd students\Andrew Chitty\Full dat

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Total Resilience ^b	.	Enter

a. Dependent Variable: Total Intention to Quit

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.281 ^a	.079	.076	5.89436

a. Predictors: (Constant), Total Resilience

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	805.731	1	805.731	23.191	.000 ^b
	Residual	9380.736	270	34.743		
	Total	10186.467	271			

a. Dependent Variable: Total Intention to Quit

b. Predictors: (Constant), Total Resilience

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.778	1.983		9.470	.000
	Total Resilience	-.255	.053	-.281	-4.816	.000

a. Dependent Variable: Total Intention to Quit

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Total Resilience ^b	.	Enter

a. Dependent Variable: Total Wellbeing Scale

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602 ^a	.363	.360	1.32823

a. Predictors: (Constant), Total Resilience

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	273.023	1	273.023	154.759	.000 ^b
	Residual	479.859	272	1.764		
	Total	752.882	273			

a. Dependent Variable: Total Wellbeing Scale

b. Predictors: (Constant), Total Resilience

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.028	.445		2.310	.022
	Total Resilience	.148	.012	.602	12.440	.000

a. Dependent Variable: Total Wellbeing Scale

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Total Wellbeing Scale, Total Resilience ^b		Enter

a. Dependent Variable: Total Intention to Quit

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.449 ^a	.201	.195	5.50005

a. Predictors: (Constant), Total Wellbeing Scale, Total Resilience

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2049.057	2	1024.529	33.868	.000 ^b
	Residual	8137.409	269	30.251		
	Total	10186.467	271			

a. Dependent Variable: Total Intention to Quit

b. Predictors: (Constant), Total Wellbeing Scale, Total Resilience

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.422	1.868		10.934	.000
	Total Resilience	-.017	.062	-.018	-.269	.788
	Total Wellbeing Scale	-1.611	.251	-.437	-6.411	.000

a. Dependent Variable: Total Intention to Quit