

Gu, Qing (2014) The role of relational resilience in teachers' career-long commitment and effectiveness. Teachers and Teaching: Theory and Practice, 20 (5). pp. 502-529. ISSN 1470-1278

Access from the University of Nottingham repository:

 $http://eprints.nottingham.ac.uk/31990/1/Resilience\%20 and \%20 Pupil\%20 Outcomes \%20 Final_6.pdf$

Copyright and reuse:

The Nottingham ePrints service makes this work by researchers of the University of Nottingham available open access under the following conditions.

- Copyright and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners.
- To the extent reasonable and practicable the material made available in Nottingham ePrints has been checked for eligibility before being made available.
- Copies of full items can be used for personal research or study, educational, or notfor-profit purposes without prior permission or charge provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.
- · Quotations or similar reproductions must be sufficiently acknowledged.

Please see our full end user licence at: http://eprints.nottingham.ac.uk/end_user_agreement.pdf

A note on versions:

The version presented here may differ from the published version or from the version of record. If you wish to cite this item you are advised to consult the publisher's version. Please see the repository url above for details on accessing the published version and note that access may require a subscription.

For more information, please contact eprints@nottingham.ac.uk

The Role of Relational Resilience in Teachers' Career Long Commitment and Effectiveness

Qing Gu

School of Education, University of Nottingham

Qing.Gu@nottingham.ac.uk

The Role of Relational Resilience in Teachers' Career Long Commitment and

Effectiveness

Abstract

At a time when the contemporary landscape of teaching is populated with successive and

persisting government policy reforms that have increased teachers' external

accountabilities, work complexity and emotional workload, understanding why and how

many teachers are able to sustain their capacity to be resilient and continue to work for

improvement is an important quality retention issue. The purpose of this paper is to

build upon but take further current understanding of resilience in teachers by exploring

in greater depth the nature of resilience in teachers as a relational concept and the ways

in which it may be related to the learning and achievement of their pupils. The empirical

basis of the paper draws upon analyses of twice yearly semi-structured face-to-face

interview data from 300 teachers in different phases of their careers in 100 primary and

secondary schools in England over a consecutive three year period. Through these

analyses, the paper contributes additional empirical evidence to the emerging but still

limited literature on the factors which influence teachers' capacity to be resilient. The

paper concludes with a consideration of the implication of the findings for the quality

retention of teachers.

Keywords: teacher retention, teacher resilience, teacher commitment, teacher

effectiveness

Introduction

Over the past two decades research on teachers and teaching has consistently reported that teaching is an emotionally, physically and intellectually demanding job (Hargreaves, 1994; Kyriacou, 2000; Troman and Woods, 2001; Wassell and LaVan, 2009; Zembylas and Schutz, 2009). Excessive working hours, pupils' disruptive behaviour and a lack of leadership support challenge teachers' capacity to maintain their enthusiasm and passion for teaching and are often found to be key contributing factors to teacher attrition and stress (Ingersoll, 2003; Smithers and Robinson, 2003 and 2005; Johnson, 2004; Bryk et al., 2010; Day and Gu, 2010). Externally, the rapidly growing international interest in 'surpassing Shanghai' and outperforming the world's leading systems (Tucker, 2011) has, to differing extent, exacerbated the already intensified emphasis upon standards, performativity and accountability in many countries. Moreover, for many teachers internationally, wide ranging reforms of curriculum and the fast changing knowledge economy have exerted additional pressure on their workload volume and complexity. The wide-spread expectation is that they must become 'high-level knowledge workers' who 'constantly advance their own professional knowledge as well as that of their profession' (OECD, 2012a, p. 11). Thus, although teaching has always been an intellectually and emotionally demanding job, it is becoming even more so in today's increasingly learnercentred, outcomes-driven, creativity-oriented and culturally diversified classrooms.

However, despite these internal and external pressures on teachers, research also consistently shows that many teachers across the world have managed to maintain their passion and commitment to help children learn (OECD, 2005 and 2011; Day and Gu, 2010). Three interrelated conditions – teachers' vocational selves, social and professional relationships with colleagues, and leadership support and recognition – are found to be integral in enabling them to sustain their educational purposes and successfully manage the 'unavoidable uncertainty' (Shulman, 2005, p. 1) inherent in the everyday life of a teacher (Gu and Day, 2013).

The author has explored the meaning of teacher resilience with her colleagues in earlier publications (e.g. Gu and Day, 2007 & 2013; Gu and Li, 2013; Day and Gu, 2014). What we have learned from our research is that teacher resilience is a *dynamic quality* which enables teachers to maintain a sense of moral purpose and commitment to help children learn and achieve in their everyday world of teaching. This resilience is beyond 'bouncing back' from adversity and setbacks. For many teachers in our research, their capacity to be resilient was perceived to be driven in part by their vocational commitment to make a difference to the learning of the children, but also through the dynamic interactions between teachers' professional assets (essentially associated with their vocation, efficacy and commitment) and the quality of external intellectual, social and organisational environments in which they work and live. Thus, teacher' capacity to be resilient is not an innate quality and can fluctuate.

The purpose of this paper is to build upon but take further current understanding of resilience in teachers. It explores in greater depth the nature of resilience in teachers as a *relational* concept and the ways in which it may be related to the learning and achievement of their pupils. The empirical basis of the paper draws upon analyses of twice yearly semi-structured face-to-face interview data from 300 teachers in different phases of their careers in 100 primary and secondary schools in England over a consecutive three year period. Through these analyses, the paper contributes additional empirical evidence to the emerging but still limited literature on teacher resilience. The paper concludes with a consideration of the implication of the findings for the quality retention of teachers.

Teacher Retention: Quality Matters

The important role of a high quality teaching profession in raising standards and transforming educational outcomes cannot be better emphasised in research papers nationally and internationally. Research on teacher effectiveness consistently reports that teachers' classroom practices have the largest effects on student learning and

achievement (Rockoff 2004; Hallinger, 2005; Rivkin, Hanushek and Kain 2005; Leithwood et al., 2006). The positive effects of high quality teaching are especially significant for pupils from socio-economically disadvantaged backgrounds. Evidence suggests that when taught by very effective teachers, pupils can gain an extra year's worth of learning (Hanushek, 1992; Sutton Trust, 2011). Internationally, comparative research evidence from the Organisation for Economic Co-operation and Development (OECD) affirms that 'teacher quality' is the single most important school variable influencing student achievement (OECD, 2005). Indeed, its recent Teaching and Learning International Survey (TALIS) concluded that making teaching a more attractive and more effective profession must be the priority in all school systems if they are to secure and enhance effective learning (OECD, 2009 and 2011). In a similar vein, McKinsey's reports on the experiences of the world's best performing school systems concluded that getting the right people into the teaching profession and, once in, developing them to become effective teachers, has played a central role in enabling these systems to come out on top, and more importantly, keep getting better (2007 and 2010).

It remains the case, however, for diverse and complex socio-economic and political reasons, that for many countries retaining and developing committed and effective teachers is a real challenge. In many developing countries, for example, where school enrolment is on the rise, an acute shortage of primary teachers represents one of the greatest hurdles to providing education for all school-age children (UNESCO 2011). A lack of resources and financial incentive packages to attract qualified personnel into teaching has meant that quantity, rather than quality, continues to be a primary concern in their efforts to provide basic education. This has meant that, unfortunately, children in countries needing teachers the most, tend to be taught by the least qualified personnel (UNESCO, 2006).

In contrast, in the developed world, such as the USA, the UK and many European countries, shortage of teacher supply tends to be a particularly pressing problem for core subject areas such as maths, modern foreign languages and science (European Commission, 2012) and for schools serving socioeconomically deprived communities (Ingersoll, 2001; Guarino et al., 2006; Boyd et al., 2008). Grissom's (2011) study found that higher teacher turnover rates in disadvantaged schools result in part from the ineffectiveness of the principal. His analysis of national school and teacher surveys showed that teacher satisfaction is likely to be lower, and the probability for teachers to leave schools is significantly greater when the leadership of the principal is weak and ineffective. Moreover, there are also troubling indicators which suggest that teacher quality is especially lower in schools which serve high-need communities (Loeb et al., 2005; Boyd et al., 2008; Goldhaber and Hansen, 2009) where most children, who are already disadvantaged in accessing or benefiting from rich capital and social capital in their early years, are then denied access to the quality education to which they are entitled when entering the formal school system.

There are other emerging and ongoing problems concerning teacher supply and quality in the developed world. Recent significant falls in the proportion of graduates applying for teacher training programmes across many European countries have culminated in an urgent call to increase efforts to transform the conditions of teaching and through this, attract more suitably qualified people to the profession (Auguste et al., 2010; OECD, 2011; European Commission, 2012). At the same time, the ageing population of the existing teaching workforce (Grissmer and Kirby, 1997; Guttman, 2001; Chevalier and Dolton, 2004; OECD, 2005; Matheson, 2007; Aaronson, 2008; European Commission, 2012) poses pressing challenges to the nature of its composition in the future. In England, for example, close to half of the full-time teachers (46%) are aged over 40, with 23% of these aged over 50 (Department for Education, 2012). This situation is the most pronounced in primary schools in Germany, Italy and Sweden where nearly half of the full time teachers are older than 50 (European Commission, 2012). Moreover, high

rates of attrition of teachers in their first five years of teaching (Darling-Hammond, 1997; Ingersoll, 2003; Kados & Johnson, 2007; Burghes et al., 2009; Shen and Palmer, 2009; OECD, 2005 and 2011) remain a persistent teacher retention problem. Although some studies show that on average, early career leavers tend to be less effective than stayers as measured by the test score gains of the students in their classrooms (Henry et al., 2011; Goldhaber et al., 2011; Boyd et al., in press), others suggest that teachers with stronger qualifications and more competitive university backgrounds are more likely to exit early (Lankford et al., 2002; Boyed et al., 2005; Guarino et al., 2006; Feng and Sass, 2011).

The reasons behind teachers' decision to leave are complex. A common critique has, at least in part, attributed teacher attrition to a whole-sale redefinition of teacher professionalism driven by 'a culture of accountability, performance, and measurability' (Luke, 2011, p. 370; see also Rots and Aelterman, 2008; Smith and Kovacs, 2011). Luke (2011) laments that 'the normative, the ethical, the cultural – matters of value – have quietly slipped from policy discussion (Ladwig, 2010), overridden by a focus on the measurable, the countable, and what can be said to be cost efficient and quality assured' (2011, p. 368). Within such a performativity culture, teacher professionalism has become more closely aligned with national educational policy which tends to define educational success in relatively narrow, instrumental terms (Furlong et al., 2008). Alongside this, the power of government regulatory bodies for the setting and adjudication of standards has been increased significantly over time. This has been complemented by more detailed and bureaucratic monitoring of what teachers do in their classrooms and how they do it - irrespective of whether what they are required to do is educationally and/or culturally meaningful (Luke, 2011). Thus, whether or not teachers agree with the centrally prescribed policy agendas and strategies, they are expected to conform to them in their day-to-day practice (Furlong, 2008).

It is perhaps, then, not surprising that this highly prescriptive culture of neoliberal accountability and performativity has been criticised by scholars as having contributed to a wide-spread lack of deep trust in teachers' professional standing, judgment and capability. This is claimed by some to have led to high levels of professional vulnerability and stress (Hargreaves, 1994; Macdonald, 1999; Kyriacou, 2000; Lasky, 2005; Kelchtermans, 2009) and increasing levels of dissatisfaction with their working conditions (Helen, 2007; Smethem, 2007). Over the last decade, statistics continue to suggest that teaching is one of the most stressful professions in the 21st century (HSE, 2000 and 2011; PWC, 2001; Nash, 2005) and that this profession has experienced relatively higher turnover compared to many other professions (Ingersoll, 2003; Ingersoll and Perda, 2011).

For some years now, a substantial number of studies on teacher retention have been overly concerned with a narrow problem-focussed agenda. Although this body of research has improved our understanding of the factors which may cause some teachers to struggle and/or exit, it offers rather limited explanation as to why so many other teachers who are working with similar challenges embedded in outcomes driven educational systems are willing, able and committed to continue to teach to their best. What tends to be absent from many of the investigations of teacher stress, attrition and job satisfaction of individual teachers is the integral role that teachers' professional, role and organisational identities, wellbeing and sense of vocation play in enabling them to meet the daily challenges of teaching and learning (Day and Gu, 2014); and the part played by school leaders in mediating the sometimes negative effects of educational policies and through this, shaping and influencing many, if not all, teachers' sense of job fulfilment, commitment and effectiveness. The positive impact of strong leadership on student learning through building supportive school culture and creating favourable working conditions for teachers is well documented in the teacher development, school improvement and school effectiveness literature (Hallinger, 2005; Johnson, 2004; Leithwood et al., 2004 and 2006; Gu et al., 2008; Day et al., 2011; Sammons et al.,

2011). There is also evidence which points to strong and positive associations between school leaders' administrative support and low teacher retention rates (Ladd, 2009; Boyd et al., 2011). In addition, a strong sense of staff collegiality has been found to be crucial in building intellectual, emotional and social capital in schools so that teachers, and especially those working in schools serving socioeconomically deprived communities, are able to maintain their integrity and commitment in times of change (Gu and Day, 2007; Allensworth et al., 2009; Day et al., 2011; Holme and Rangel, 2012). More importantly, we know from research that pupils of highly committed teachers are more likely to perform better academically (Day et al., 2007).

It would be more fruitful and educationally more meaningful, then, if greater attention were paid to the factors which enable those who decide to stay to maintain committed to their own learning and the learning and achievement of their pupils. This is, in essence, a *quality* retention issue because, as Johnson and her colleagues (2005) have argued, the *physical* retention of teachers, 'in and of itself, is not a worthy goal':

Students are not served well when a district retains teachers without regard to quality. Little can be achieved (and much might be lost) when a district succeeds in reducing teacher turnover if some of those teachers are incompetent, mediocre, disengaged, or burnt out. Instead, student learning is the goal, and schools must seek to retain teachers who demonstrate that they are skilled and effective in the classroom, are committed to student learning, and are ready and able to contribute to the improvement of their school.

(Johnson et al., 2005, p. 2)

However, to teach at one's best over time is not easy. In reflecting on her professional work with teachers over the course of her career, Nieto's (2011) expressed the greatest respect for such teachers: 'My belief in teachers is stronger than ever because I have seen the best of them do unbelievable work in sometimes harsh circumstances' (2011,

p. 133). These are the teachers who give witness to the essential meaning of 'everyday resilience' that Day and Gu have elaborated in their recent work on the work, lives and effectiveness of teachers (Day and Gu, 2014).

Over the years, scholars have used different conceptual and methodological lenses to explore issues around improving the quality of provision of teaching and learning in schools. We chose resilience because it provides a useful lens for teachers, school leaders and policy makers to understand how and why many teachers have managed to weather the often unpredictable 'storm' of school and classroom life (Patterson and Kelleher, 2005) and sustain their commitment and motivation in the profession. It enables us to probe teachers' inner and external professional worlds to explore why many are able to remain committed and passionate about making a difference and continue to do so – irrespective of the unpredictable nature of every school and the many physical, emotional and intellectual challenges that are associated with this.

In this paper I focus more closely on teachers' relational resilience, exploring how establishing connections with colleagues and students produces collective intellectual and emotional capital which stimulates teachers' professional learning and development and through this, enables them to build and develop their capacities to be resilient. The research reported in this paper also probes the critical role of school leaders in creating organisational conditions for the seeds of trust, openness, collegiality and collective responsibility to grow and flourish on their school sites; and more importantly, how such conditions nurture the development of teachers' resilient qualities which enable them to continue to make a difference to the success of their students.

By demonstrating the significant associations between teacher resilience and teacher effectiveness, as perceived by themselves as well as measured by the progress of their students' academic outcomes, the paper provides new empirical evidence which contributes to current debates among policy makers, academics and the teaching

profession about the retention of high-quality and effective teachers.

Teacher Resilience: A Relational Concept

What we already know

Over the past twenty years, a considerable body of research has established that resilience is a relative, multidimensional and developmental construct (e.g. Rutter, 1990; Howard et al., 1999; Luthar et al., 2000). Although there are differences in how it is defined by scholars from multiple disciplines (e.g. psychology, trauma studies, social work and biology), there are also shared core considerations across the disciplines which suggest that resilience presupposes the presence of threat to the status quo and is thus a positive response to conditions of significant adversity (e.g. Masten et al., 1999, Gordon et al., 2000); that it is a dynamic process within a social system of interrelationships influenced by the interaction between the individual and the environment (Garmezy and Rutter, 1983; Benard, 1995; Luthar et al., 2000); and that it can be promoted, nurtured and enhanced (Cefai, 2004).

However, advances in understandings about resilience are primarily built upon research on children. The empirical work on adults is still in its infancy. Emerging evidence reaffirms that resilience in adults, like that in children, is not associated with personal attributes only (Luthar and Brown, 2007). Rather, it is 'a social construction' (Ungar, 2004, p. 342) influenced by multidimensional factors that are unique to each context (Ungar, 2004). In his work on cognitive-behaviour approach to resilience, Neenan (2009) adds that it is not a quality that is reserved for 'an extraordinary few'; rather, it can be learned and achieved by the 'ordinary many' (Neenan, 2009, p. 7). He advocated the concept of 'routine resilience' to emphasise that resilience comprises cognitive, behavioural and emotional responses to the vicissitudes of daily life. Through an 'active process of self-righting and growth' (O'Connell Higgins, 1994, p. 1), it enables individuals to move forward towards their goals and pursue what is perceived to be important to them, 'however slowly or falteringly' (Neenan, 2009, p. 17). He argues that

'attitude (meaning) is the heart of resilience' (2009, p. 17).

Advancement in understandings of resilience in different disciplines provides important conceptual bases for the research work on the meaning of resilience in teachers. We have discussed in our earlier publications (Gu and Day, 2007 & 2013; Gu and Li, 2013) that teacher resilience bears three distinctive characteristics. First, it is context specific in that teachers' resilient qualities are best understood by taking in not only 'the more proximal individual school or classroom context', but also 'the broader professional work context' (Beltman et al., 2011, p. 190; see also Mansfield et al., 2012). There is abundant evidence in the educational literature which shows that in-school management support for their learning and development, leadership trust and positive feedback from parents and pupils are key positive influences on teachers' motivation and resilience (e.g. Huberman, 1993; Webb et al., 2004; Brunetti, 2006; Leithwood et al., 2006; Day et al., 2007; Castro et al., 2010; Meister and Ahrens, 2011). Empirical evidence on how successful principals mediate the negative influences of macro-level policy contexts and meso-level external school intake contexts and through this, create a positive school culture which nurtures teachers' capacity for learning and development is also strong and evident (Leithwood et al, 2006; Day and Leithwood, 2007; Gu et al., 2008; Robinson et al., 2009; Leithwood et al., 2010; Sammons et al., 2011; Gu and Johansson, 2013).

Second, teacher resilience is, also, *role specific* in that it is closely associated with the strength and conviction of teachers' vocational commitment and it is indeed this inner calling to teach and commitment to serve which distinguishes teaching from many other jobs and occupations (Hansen, 1995). In his research on teachers working in inner-city high schools in the United States, Brunetti (2006) defined teacher resilience as 'a quality that enables teachers to maintain their commitment to teaching and teaching practices despite challenging conditions and recurring setbacks' (2006, p. 813). Over time research has also consistently found that teachers' self-efficacy beliefs as to whether

they have the capacity to effectively help children learn and achieve are one of the most important factors influencing teachers' resilient qualities (Kitching et al., 2009; Morgan et al., 2010; Hong, 2012). In this sense, resilient teachers are not survivors in the profession because they 'do more than merely get through difficult emotional experiences, hanging on to inner equilibrium by a thread' (O'Connell Higgins, 1994, p. 1; see also Gu and Li, 2013). Rather, they display capacity for growth and fulfilment in pursuit of personally and professionally meaningful goals which, as research on teachers and teaching tells us, 'joins self and subject and students in the fabric of life' and connects their 'intellect and emotion and spirit' in their *hearts* (Palmer, 2007, p. 11).

Third, we have learned from teachers in our research that being a resilient teacher means more than 'bouncing back' quickly and efficiently from difficulties. In addition to the routine pressures and unavoidable uncertainties which feature many teachers' everyday work and lives (and thus the need for 'everyday resilience' (Day and Gu, 2014)), they also face challenges that are specific to their professional life phases. Empirical evidence from Gu and Li's study of 568 primary and secondary school teachers in Beijing, for example, shows that although the scenarios that challenge them in each milestone of their professional and personal lives may be different in nature, the intensity of the physical, emotional and intellectual energy required to manage them can be very similar. Given this, we have argued that teachers' ability to be resilient 'is not primarily associated with the capacity to 'bounce back' or recover from highly traumatic experiences and events but, rather, the capacity to maintain equilibrium and a sense of commitment and agency in the everyday worlds in which teachers teach' (Gu and Day, 2013, p. 26).

Relational resilience

Teachers' world is organised around distinct sets of role relationships: 'teachers with students, teachers with other teachers, teachers with parents and with their school principal' (Bryk and Schneider, 2002, p. 20). There is strong and consistent evidence

from educational research which suggests that the social organisation of the school – when characterised with supportive, trusting and collegial relationships between different stakeholders – fosters teachers' collective capacity, commitment and effectiveness (Bryk and Schneider, 2002; Tschannen-Moran and Barr, 2004; Sammons et al., 2007; Day and Gu, 2010). However, as yet, the relational nature of resilience in teachers has not been sufficiently investigated.

Empirical evidence from neuroscience and psychology foregrounds the role of relationships in building and developing resilience in adverse and everyday circumstances. Neuroscientists' discovery of the social brain reveals that 'we are wired to connect' (Goleman, 2007, p. 4) and provides a biological basis for understanding he importance of good quality relationships in maintaining a sense of positive identity, well being and effectiveness in our daily work and lives. Goodwin (2005), from a psychological perspective, maintains that 'close relationships act as important 'social glue', helping people deal with the uncertainties of their changing world' (2005, p. 615, cited in Edwards, 2007, p. 8). In positive psychology, particular attention has been given to the importance of relationship-based assets and their contribution to resilience (Masten, 2001; Gorman, 2005; Luthans et al., 2007). Luthar (2006) argues that 'Resilience rests, fundamentally, on relationships' (2006, p. 780).

Relationships lie at the "roots" of resilience: when everyday relationships reflect ongoing abuse, rancor, and insecurity, this profoundly threatens resilience as well as the personal attributes that might otherwise have fostered it. Conversely, the present of support, love, and security fosters resilience in part, by reinforcing people's innate strengths (such as self-efficacy, positive emotions and emotion regulation) with these personally attributes measured biologically and/or behaviourally.

(Luthar and Brown, 2007, p. 947)

As yet, however, most psychological studies of resilience have been slow to move away from 'a "separate self"' model of development (Jordan, 2004), which tends to continue to imply that resilience resides largely within the person (Luthar and Brown, 2007).

Relationships are seen as an external, 'given' asset, resource or protective factor which has a substantive influence on individuals' personal attributes and through this, the development of their wellbeing, self-efficacy and resilient qualities (Engh et al., 2006; Luthar, 2006; Taylor, 2007). The emphasis of the benefits of relationships is thus placed upon the individual who is in need of support; and the focus of investigation tends to be narrowed down in a 'one-directional way from the point of the view of the individual looking for support from another individual or group' (Jordan, 1992, p. 1). The underlying problem of this approach is that it fails to fully address the role of individual agency and capacity in maintaining connection and/or forming reconnection with secure, trusting and enduring attachments to others.

In contrast to the 'traditional' definition of resilience, Jordan (1992, 2004, 2006 & 2012) has proposed a model of *relational resilience* to emphasise that 'resilience should be seen as a relational dynamic' (1992, p. 1). She argues that 'resilience resides not in the individual but in the capacity for connection' (2012, p. 73). A toxic cultural system which denies the importance of connection for growth is detrimental in two interrelated ways: on the one hand, it devalues our need of others and impedes our ability to turn to them for support in distress (Jordan, 2010); on the other hand, it challenges 'our capacity to form supportive and resilience building relationships' (Jordan, 2012, p. 74). Drawing upon recent discoveries in neuroscience studies, Jordan (2012) argues that despite the pressures in dysfunctional cultures which block the natural flow of disconnection-connection, our brains' robust ability to change can enable people to rework back into healthy connections, achieve more secure attachment and through this, 'begin to shift underlying patterns of isolation and immobilization' (2012, p. 74). Therefore, for Jordan, being resilient does not necessarily mean 'bouncing back' to a previously existing state; rather, it entails 'movement through and beyond stress or suffering into a new and more

comprehensive personal and relational integration' (Jordan 1992, p. 1). Mutual empathetic involvement, empowerment and efforts to discover a path back to connection are at the core of this movement; and personal transformation (i.e. positive and creative growth) and social change which promotes greater connection and mutually enhanced relationships and growth are the ultimate consequences of this movement (Jordan, 2004).

Jordan's relational model of resilience resonates powerfully with the conceptualisation of caring and trusting relationships in the educational literature, especially in relation to the ways in which they influence teachers' sense of commitment, resilience and effectiveness. Noddings (2005) argues that a caring relation is, 'in its most basic form, a connection or encounter between two human beings - a carer and a recipient of care, or cared for' (2005, p. 15). Solomon and Flores's (2001) work on trust adds to her argument in emphasising that a trusting relationship is 'cultivated', 'a matter of human effort' and and thus 'never something "already at hand": 'it can and often must be conscientiously created, not simply taken for granted' (2001, p. 87). By extension, once trusting and open professional relationships have been created, nurtured and developed within the school gates and beyond, they may function as 'bonding social capital' which, as research shows, not only facilitates coordinated actions between individuals, but also allows people to pursue their goals, and serves to bind the organisation together and through this, improve its efficiency (Putnam, 1993; Field, 2008; Hargreaves and Fullan, 2012). For teachers, social relationships and networks in and between workplaces bring intellectual, spiritual and emotional resources which they can use to enhance their collective efficacy and shared beliefs of professional control, influence and responsibility and, ultimately, improve the achievement of their students (Goddard, 2002; Goddard et al., 2004; Mawhinney et al., 2005).

Thus, the conceptual strengths of using the relational model of resilience to examine teachers' work and lives are threefold. First and foremost, the model acknowledges the

relational nature of teachers' professional worlds and the important role of supportive relationships in sustaining their sense of wellbeing and commitment in the profession. Second, by placing relationships at the centre of teachers' work and lives, it acknowledges that a collective sense of collegiality, efficacy and effectiveness is an outcome of their joint, collaborative efforts which connect them intellectually, emotionally and spiritually and which, at the same time, enable the seeds of deeper trusting and caring relationships to grow and flourish among them. Last but not least, it reminds us that the role of school leaders in creating favourable organisational structures and conditions which nourish collaborative efforts for learning is of paramount importance for teachers to achieve a sense of fulfilment and success with their students.

The research reported in this paper takes account of these considerations. The aims of the research were to examine variations in work, lives and effectiveness of 300 teachers in 100 primary and secondary schools in England. In analysing what has kept 73% of these teachers committed in the profession, resilience emerged as an intellectually and emotionally important concept which brought us to the heart of the quality retention issue. My previous work with other colleagues (e.g. Gu and Day, 2007 and 2013; Day and Gu, 2010 and 2014; Gu and Li, 2013) has explored in greater depth how a sense of vocation can provide many committed teachers with internal drive, strength and optimism to help every child learn on every school day.

The Research

The key aim of the original VITAE study from which the data in this paper are drawn was to investigate variations in teachers' work, lives and effectiveness and identify factors that contribute to the variations (Day et al., 2006 and 2007; Sammons et al., 2007). The research recognised that effectiveness involves both teachers' perceptions of their own effectiveness and their impact on students' progress and attainments.

Data collection

An initial teacher survey in seven local authorities (LA) which were nationally and geographically representative and included both large shire counties and authorities in ethnically diverse and deprived inner cities assisted in the selection of samples of 100 schools and 300 case study teachers for the study. Half of the sample were primary teachers (Year 2 and 6; aged 7 and 11) from 75 primary schools. The secondary teachers taught English or mathematics to Year 9 (aged 14) in 25 schools. These teachers were representative of the national profile in terms of age, experience and gender. The schools themselves were selected to be representative in terms of level of social disadvantage (measured by percentage of pupils eligible for free school meals and attainment levels). The choice of teachers in Years 2, 6, and 9 was such that they key stage national curriculum test results could be used as pupil outcome measures.

The research reported here focuses on how teachers interpreted their lived experiences and constructed the meanings of their experiences within the contexts in which they worked. It is thus positioned in the phenomenological research tradition in which the researchers aim to identify the essence of the experiences as related by the research participants (Creswell, 2003) and reveal in detail the ways in which the participants interpret their experiences, construct their worlds and create their meaning (Merriam, 2002). The data concerning teachers' perceived effectiveness were collected through twice yearly semi-structured, face-to-face interviews over a consecutive three year period. These longitudinal interview data provided us with rich descriptions of teachers' perceptions of the variations in their work, lives and effectiveness over time and were used as the main evidence for the study. These were supplemented at various stages of the research by document analysis and interviews with school leaders and groups of students.

Measures of teachers' relative effectiveness as expressed through improvements in students' progress and attainment which were collected through matching baseline test results at the beginning of the year with students' national curriculum results at the end

in English and Mathematics. Results were categorized into several 'effectiveness' groupings, ranging from significantly below expectation to significantly above expectation, using the confidence limits associated with the individual residual estimates. This strategy helped to distinguish groups of teachers who were relatively less or relatively more effective in promoting their students' academic attainments. Typical levels of teacher effectiveness were identified from the 'as expected' category (within +/-1 standard error). Students of teachers in the 'as expected' category had made progress in line with that predicted across the whole sample, given their prior attainment and other background factors. Teachers of such classes, therefore, could be considered to be typical or average in their effectiveness, neither relatively better nor relatively poorer than the majority of teachers in the study.

Of the VITAE teachers, 243 had a value-added score for at least one cohort, and 136 (56% of the sample) had a value-added score for 2 years (2002–2003 and 2003–2004). To link the quantitative value-added data on teachers' relative effectiveness with the qualitative data sets, teacher effectiveness profiles were compared for the relatively 'more effective' and 'less effective' groups, as identified by the multilevel analysis. The criteria for greater or lesser effectiveness included teachers who were above or below expectation ('++' or '+' as compared with '-' or '-') in either of the two main year cohorts (details see Day et al., 2008).

Portraits of the 300 teachers were then used as an essential database for further cross-case analyses focussed upon teachers' professional life phases, commitment and resilience. These validated portraits presented teachers' own accounts of the reality of their work and lives and it is these portraits on which this paper draws its warrant.

Data analysis

The data were collected and analysed in an iterative and evolving process consistent with the use of grounded theory methods (Strauss, 1987; Glaser, 1992). Case studies

were developed for all 300 teachers and this involved qualitizing quantitative evidence, quantitizing qualitative evidence, the integration of the two (and a consequent synergistic interpretation) (Day et al., 2008). This interactive combination of data collection, ongoing analysis, tentative hypothesis generation and testing and interpretation of results (see Day et al., 2006) provides greater mapping, analysis, interpretation and holistic understandings of the research area than would be gained if relying on a single paradigm or approach (Tashakorri and Teddlie, 2003).

In more detail, using these qualitative and quantitative data, the research team constructed detailed, holistic profiles of teachers' work and lives over time to see if patterns emerged over a three year period in terms of perceived and relative effectiveness and, if so, the reasons for these (Day et al., 2006). The results from the quantitative, multilevel analyses of teachers' relative effectiveness were conducted independently at first, but later incorporated into the initially independent qualitative analyses of teacher profiles. These were then used as one of several important attributes in subsequent qualitative analyses in order to understand the potential influences on variations in effectiveness more fully. New insights from the emerging grounded analyses also provoked investigation of appropriate literature on emergent themes (particularly teachers' well-being, identity and resilience). Discussion of this integration of data by the mixed methods team (not the integration itself) led to the identification of resilience as a key feature of teachers' work and lives. A total of 232 teachers' profiles were analysed under this theme. This was mainly because the longitudinal data collected from these teachers were more complete and thus provided sufficient evidence for the team to make informed judgement about their perceived capacity to be resilient. The focus of further analyses was then placed upon its association with teachers' perceived effectiveness and, later in the research process, between teachers' resilience and their relative effectiveness (measured by value-added analyses).

Findings: Relational Resilience and Effectiveness

Teachers' resilience building processes are nested in 'a web of communal relationships' (Parker, 2007, p. 97) and are influenced, positively or negatively, by the quality of the relationships in which their work and lives are embedded. Three sets of relationships were found to be at the heart of this web: teacher-teacher relations, teacher-principal relations and teacher-student relations. Individually and collectively, they shaped the social and intellectual environments of the workplace and through this, fostered or hindered teachers' sense of professionalism, resilience and commitment.

The former two relations, in particular, were found to have provided necessary organisational and social conditions for teachers' collective and collaborative learning and development. Through such learning and development, many teachers were able to harness the commitments, expertise and wisdom of their colleagues for their own professional growth. The alignment of values within 'a tight team' was perceived by many as the moral foundation for the achievement of a strong sense of collective efficacy and professional fulfilment – which contributed to their enhanced capacity to be resilient on every working day.

With regard to teacher-student relationships, *emotional attachments* between teachers and students were found to be closely connected with a strong sense of calling that had brought many teachers into the profession. More importantly, for the majority of teachers in the VITAE research, such emotional attachments remained a primary source of job fulfilment and resilience over the course of their careers.

Building relational resilience with teachers

Collegial, emotional and intellectual connections with colleagues were reported by most teachers as a positive influence on their wellbeing, commitment and capacity to sustain a sense of effectiveness on every working day; and this is the case for teachers in all six professional life phases identified in the VITAE research (Day et al., 2007; Day and Gu, 2010). Between 78% and 100% of teachers in different phases of their professional lives

emphasised how their colleagues' passion, enthusiasm and support contributed to their sense of belonging, collective responsibility and commitment. This was especially the case for those in schools serving socioeconomically challenging communities. For example, for Malcolm, a Year 9 English teacher with 26 years of experience, it was the *closeness of the relationships* with his colleagues that made him feel that his current inner city school, and his department in particular, was the 'best place' that he had every worked:

Personally I love working down here. It's the best place I've ever worked for – team spirit, keenness and motivation that I have and the rest of the department has. ... Over here (department) I'm happy. I'm enjoying things. I'm working with people that I rate and value and I feel value me.

Related to this finding is the observation that teachers who described their workplaces as a supportive and friendly community where there was 'a good sense of "team"' among the staff were more likely to maintain their commitment and capacity to teach to their best. A total of 91% of teachers who managed to sustain their capacity to be resilient and commitment reported the positive influence of collegial and collaborative support on their morale and capacity to teach to their best. In contrast, only 71 per cent of teachers who did not manage to sustain their resilience and commitment reported this. The benefits of such support were found to be both intellectual and emotional. Results of a Chi-Square test show that the observed difference is statistically significant ($x^2=10.903$, df=1, p<0.01).

The importance of open, trusting and enduring working relationships between peers in promoting individuals' learning and growth and through this, creating creative and productive intellectual capital within the workplace, is well documented in the educational and organisational change literature (e.g. Nieto, 2003; Hargreaves and Fink, 2006; Lieberman and Miller, 2008; Hargreaves and Fullan, 2012; Louis, 2012). Evidence

from the VITAE research reaffirms the main thrust of the earlier observations. Among those who reported the positive impact of staff relationships on their work, close to one in six (16%) described that working with 'really good, extremely motivated and effective staff' had the *greatest* impact on their satisfaction, morale and commitment. Central to this observation was a consistent message that being able to learn from each other, generate ideas with each other and share ideas together 'affects the effectiveness in the classroom' (Roger, 23 years in teaching).

Sustained dialogue and interaction amongst colleagues were seen by many as an effective way of building a shared repertoire of expertise and wisdom in their department and/or school. As a late entrant into the teaching profession who was now in the watershed phase of her teaching career (with 8-15 years of experience), Margaret, a primary school teacher, was especially appreciative of the strong social and intellectual bonds in her school which enabled her to connect her own learning and her own teaching practices with those of her colleagues:

We try and share. We discuss problem children. We discuss strategies. We share what knowledge we have, what expertise we have. We feel free to ask people without feeling vulnerable because we don't know the answer. We feel we can ask each other.

For Kathy, who had more than 30 years of teaching experience in the primary sector, professional support from her colleagues and teaching assistants was still regarded as the most 'invaluable' and 'important' influence on her sense of efficacy, motivation and commitment. She proudly described her school as 'a very, very caring place' and attributed this to a collegial culture of sharing where expressing the need for help and advice was not regarded as a sign of weakness, but an entitlement to and an opportunity for learning and growth.

I don't think anybody is afraid to hold their hands up and say, I can't do this or I don't know how to do this, help me somebody, and somebody will always help. Nobody puts themselves up as a prime example of the perfect teacher because we all know that we're not.

As Noddings (2005) argues, 'caring is a way of being in relation' (2005, p. 17). The ethics of care for and about the teachers has to be grounded in the belief that as they 'learn how to talk together honestly, to engage in knowledge work both as producers and critical consumers of new theories and ideas, and to make connections between their own learning, their teaching practices, and the impact these on students', they will 'begin to see themselves and act differently; they reinvent themselves as teachers and reinvigorate their careers' (Lieberman and Miller, 2008, p. 101). In a similar vein, Little (1990), Palmer (2007) and Hargreaves and Fullan (2012) have urged teachers themselves as well as school leaders to de-privatise the teaching profession and develop 'a more collaborative and collegial profession – not just because this is professionally supportive but because it also improves student learning and achievement' (Hargreaves and Fullan, 2012, p. xi-xii). Yet even today, there are many teachers who continue to teach, literally and metaphorically, behind closed doors.

The nature of connection within caring and trusting communities of learning among colleagues does not lie only in the physical communications between individuals, but also in the values and interests which they share in making a difference to the learning and achievement of every child. For Tony, a senior leader with more than 20 years' experience in the primary sector, it was the *intellectual challenges from his colleagues* within such a community that had enabled him to learn and grow:

The biggest asset in terms of professional support is my teaching colleagues in the school. We are part of a very active bunch of monitors – we will watch each other teach and will comment on areas of strength and development and

I am monitored like everybody else by curriculum co-ordinators and that's a real support to me and the quality of the learning support provision makes a huge difference in the classroom and helps to raise standards in the classroom in a large variety of ways.

Tony's experience (and that of his other 155 primary and secondary peers in our sample) provides another testimony to how such communities encourage teachers to come together to 'inquire into the need for, and then create improvements that benefit all students' (Hargreaves and Fink, 2006, p. 128).

The contribution of collegial support to teachers' sense of wellbeing and resilience is not only intellectual, but also emotional. Over the past twenty years educational research has consistently reported that teaching is, by its very nature, an emotional practice (Hargreaves, 1998; Sutton and Wheatley, 2003; Kelchtermans, 2005; Zembylas, 2005 and 2011; Day and Gu, 2009; Zembylas and Schutz, 2009). The inherent interconnectedness between emotion and cognition and the impact of positive emotional contexts on teachers' learning and thinking have also been acknowledged in the literature (Nias, 1996; Frijda, 2000; vanVeen and Lasky, 2005). In the VITAE research, there is also an abundance of evidence which points to the importance of the relationship between strong emotional ties with colleagues and teachers' sense of motivation and commitment. For almost all the 185 teachers who reported the positive impact of close staff relationships on their work, it was the trust between colleagues and the 'pats on the back' that 'makes a difference when you get up to go to work in the morning'. For example, Andrea, a primary school teacher with 26 years of experience in the profession, had been increasingly struggling with work-life tensions. Although her commitments to the children had remained high, her enjoyment of the job 'isn't the same as it used to be' because of 'all the pressures from outside and the pressure to do all this paperwork'. Given this, she was especially appreciative of the social environments of her school

which she described as 'a lovely place' because the staff worked hard in an atmosphere of mutual support and good humour:

People I work with are all very good and very supportive and I think that's one of the things in this school that keep us going. The staff in this school all get on and that is a big help when you are feeling a bit low. There is always someone to offer support and advice.

For Cherry, an early career English teacher in a challenging urban secondary school, the 'close knit team' within her department and the wider supportive ethos in her school made a significant difference to her motivation, sense of efficacy and decision to stay in teaching:

It's something that the school's just managed to grasp and I don't know if it's the type of people that work here or it comes from above, I don't know, but the staff seem to fit and support each other. If that side wasn't there I wouldn't still be here because if you didn't have your staff members to turn to or go for a drink with on a Friday night. It is a very tough school to teach in and the problems and the workload; and if you didn't have the backup from the staff you wouldn't put up with it.

The emphasis upon the importance of collegial care, sympathy and moral support to their motivation and commitment is almost universal among the 185 teachers who reported close relations with their colleagues. The texture of care, connectedness and emotional bonds between colleagues has been found to be 'woven principally of social and interpersonal interests' (Little 1990, p. 513). For many teachers, those working in schools serving socioeconomically challenging communities in particular, such interests often rest upon a feeling that 'we're all in the same boat and you've got to pull together; otherwise, the boat is going to sink' (Paul, 26 years of experience). In the experience of

David, a primary school teacher with five years' experience, 'a good sense of community' was 'all about sharing, caring and learning'.

The mutually supportive ethos between colleagues – professionally as well as on a personal level – provided a necessary positive psychological, intellectual and social environment which helps teachers learn and develop. Such ethos serves to 'bank' their positive emotions about teaching (Fredrickson, 2001 and 2004), nourish their sense of subjective wellbeing (OECD, 2013) and keep their resilience strong. What matters most to teachers, it seems, is working in a professional school and/or departmental culture which is blended with shared values and positive emotions. This is more likely to help teachers 'transform themselves, becoming more creative, knowledgeable, resilient, socially integrated and healthy individuals' (Fredrickson, 2004, p. 1369). All students in all contexts, as Edwards (2003) argues, 'deserve to be taught by enthusiastic, motivated individuals' (2003, p. 11).

Building relational resilience with leaders

The need for strong leadership in creating and building a positive and collegial professional culture in schools has been consistently reported in the educational literature (e.g. Leithwood et al., 2006 and 2010; Deal and Peterson, 2009; Hargreaves and Fullan, 2012; OECD, 2012a and 2012b; Gu and Johansson, in press). There is also abundant evidence that trusting relationships between the head and their staff are a key feature of successful schools (e.g. Bryk et al., 2010; Day et al., 2011). In their work on successful urban schools, Bryk and Schneider (2002) found that 'teachers who perceive benevolent intentions on the part of their principal are more likely to feel efficacious in their jobs' (2002, p. 29).

In the VITAE research, we also found that teachers who reported *support and* recognition from school leaders (including principals, senior and/or middle leaders) were more likely to develop and sustain a sense of commitment and resilience in the

profession (x²=7.155, df=1, p<0.01). Seventy-four per cent of teachers who managed to do so, compared with 52.5% who did not, reported the positive impact of school leadership on their morale, motivation and commitment. Moreover, amongst the 118 who maintained their commitment to the learning of their students, one in seven (14%) felt that leadership support made a difference to their perceived effectiveness in the classroom. As Shirley, a primary teacher with eleven years of experience, put it, 'It [support from the head and deputy head] makes you feel better about yourself and your role, and then it makes you a more effective teacher.' In a similar vein, Kwame, a midcareer secondary school maths teacher, felt that it was the personal support and 'constructive advice on everything' from his head of department that improved his effectiveness in teaching. For Liz, a primary teacher with 25 years of experience in teaching, it was the openness and recognition from the senior leaders that made a difference to her sense of effectiveness: 'Since the change in management I've been given much more responsibility and feel a lot more valued than before; and I think that's made me a more effective teacher and a more effective leader.'

Relationships of trust and caring are the heartbeat of such positive leadership effects. Ample examples from the research show that such relationships are founded on a collective sense of moral purpose and responsibility and are the culmination of mutual acceptance and recognition between the leader and the teacher of their competence, integrity and commitment. For example, Janet, a primary school teacher with more than 30 years in teaching, attributed her enjoyment of the final phase of her teaching career to the leadership of her head teacher – whose trust in the commitment and integrity of the teachers, and vice versa, bounded them together for a shared purpose of achievement:

He is a very good leader but very fair. He does not bombard us with all the new initiatives. He sort of protects us in a way, I mean we all pull our weight. We had a very good OFSTED, but he doesn't bombard us and go around

breathing down your neck to make sure everything is done. People are trusted to do their job and I think that works very well.

The motivation of Melanie, a secondary school maths teacher with eight years of teaching experience, increased significantly when she was treated by the new Head as a 'de facto' second in command: 'That's given me more satisfaction because I feel like I've been given more responsibility. Even though I'm finding it hard work, I'm enjoying it.' Moreover, what also kept her motivation and commitment high was the collective culture of caring and appreciation that was created by the new head:

I think it's the sort of school we work in where you do give, and people always say the level of caring about the kids and doing things for the good of the kids is so high here in comparison to other schools. ... If you take part in something, the head will thank everybody. You get a personal letter of thanks.

It was indeed within the many reciprocal exchanges between teachers and leaders which are essential to the development of relational trust that many teachers in the VITAE research saw their motivation and commitment grow and their sense of effectiveness improve. Like many other healthy social relationships, reciprocity, trust and trustworthiness (Field, 2008) are also key features of teacher-leader relations.

Leaders are the architect of such relations. Their personal and leadership qualities and values (such as openness, fairness, respect, compassion and discernment of talent) were perceived by many VITAE teachers as central to the creation and development of a tight sense of community in their schools. For example, Penny, a primary school teacher who had spent 25 years in teaching, believed that the leadership of head teacher impacted on her commitment and capacity to teach to her best because 'The head has a vision, knows how to get there, shows us the vision rather than telling us. It makes everyone

want to go with it.' For Meryl, a late-career secondary school English teacher, the visibility that the head had with the staff and his appreciation of their work had a positive effect on the motivation of her department: 'If you do something good, the head will come and thank you.'

The head here is wonderful – he knows the students, he does bus duty and says good night to the teachers. He'll be in the staffroom at break time and doesn't hide away in his office like lots of heads do.

Bryke and Schneider (2002) describe trusting relationships such as these as being based upon *relational trust* which is

appropriately viewed as an organisational property in that its constitutive elements are socially defined in the reciprocal exchanges among participants in a school community, and its presence (or absence) has important consequences for the functioning of the school and its capacity to engage fundamental change.

(Bryk and Schneider, 2002, p. 22)

By extension, building a collective sense of commitment and resilience in a school community is also a collective endeavour and requires organisational support. As the experiences of Claire, an early-career primary school teacher, show, it is more likely to happen if 'the leader becomes better able to open spaces in which people feel invited to create communities of mutual support' where they share the passion for teaching and learning (Palmer, 2007, p. 166).

The new head is exceptional. Everything seems to filter down really well, and everything seems to be discussed openly, and decisions were then made as a whole staff. ... Everyone is allowed to develop and all ideas are listened to. ...

We are now more focussed and working together on the action plans to improve the quality of teaching and learning.

Building relational resilience with pupils

Trusting teacher-student relationships are found to be essential for student learning (Bryk and Schneider, 2002). Our research shows that they are also crucial for maintaining teachers' job fulfillment and commitment in teaching. Elsewhere, I have argued that teachers' job fulfillment is a satisfying state of mind which they attribute to the reward they derive from their students' success and also, the ways in which their capacities have developed to enable them to bring about such success (Gu and Li, 2013). Students' appreciation of their effort connects their hearts and soul with the very people whom they care about and care for and adds an indispensible emotional dimension to their motivation and their feelings of being fulfilled. Evidence from this research reaffirms this, suggesting that teachers who enjoyed positive teacher-student relations were more likely to report a sustained sense of resilience and commitment to making a difference to students' learning and growth. Eighty-nine per cent of those who demonstrated commitment and capacity to teach to their best, compared with 71% who did not, enjoyed good relationships with their students. Results of a Chi-Square test show that the observed difference is statistically significant ($x^2=7.635$, df=1, p<0.01). Moreover, almost one in six (15%) of the former group emphasised how such relationships 'produced a good dynamic in classes' (Mike, an early career Maths teacher) and that 'the rapport with the children in the classroom' (Anita, a mid-career English teacher) had the greatest positive impact on their motivation and sense of effectiveness. For example,

Absolutely exhausted. Love it, just to see the smallest of progression with the children is enough. It just gives you buzz to keep going, even when a lesson that has been terrifically planned goes pear shaped. It's enjoyable, but it is also exhausting. It's not having enough hours in the day, but you want it to be right. (Maria, early career secondary school English teacher)

I have consciously worked at establishing a really good relationship with my pupils. They realised I actually value them and actually like them, and want them to achieve. We now have a lot of respect for one another. (Ruth, midcareer primary teacher)

What we also learn from these and other interviews, however, is that trusting relationships between teacher and student involve more than a positive, open and caring emotional connection between the two parties. They also encompass *teachers' belief in students' endeavour to achieve*. For example, Maggie, a primary school teacher with 26 years in teaching, described her pupils as 'a lovely bunch of kids' and felt that 'I can trust them because they are good kids. ... I know they will do their tasks ... and this makes me feel good.'

For Barbara, a late-career secondary school maths teacher, 'Teaching is a lot more personal now. ... I get a kick out of watching them grow up.' Similarly, for Malcolm, a secondary school English teacher with also 26 years' experience, his enjoyment of teaching was founded in the good relationships that he and his colleagues in the English department established with the pupils. Difficult students improved because of such relationships which, in his view, had a 'massive' positive impact on good results:

That's reflected in their behaviour, the work they produce, their results, also cross referenced to how they're performing elsewhere in the school. We don't have many problems down here in terms of attitude and behaviour, talking to the pupils. They enjoy English.

Discussion and Conclusions: Resilience, Effectiveness and Quality Retention

At a time when the contemporary landscape of teaching is populated with successive and persisting government policy reforms that have increased teachers' external accountabilities, work complexity and emotional workload, understanding why and how many teachers are able to sustain their capacity to be resilient and continue to work for improvement is an important quality retention issue. Hargreaves and Fullan (2012) argue that

Teaching is at a crossroads: a crossroads at the top of the world. Never before have teachers, teaching, and the future of teaching had such elevated importance. There is widespread agreement now that of all the factors inside the school that affect children's learning and achievement, the most important is the teacher – not standards, assessments, resources, or even the schools leadership, but the quality of the teacher. Teachers really matter.

(2012, p. xii)

The crucial question for schools and policy makers is, therefore, not simply about how to recruit quality teachers, but more importantly, how to improve their working conditions, give them opportunities to learn and develop and through these, keep their hearts and minds in teaching – so that they stay to make a difference to the learning of their students.

Evidence from the VITAE research which demonstrates the dynamic and relational nature of resilience enables us to 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. Thus, fostering relational resilience in teachers matters because it is closely associated with the growth of their intellectual, social and emotional wellbeing over time, and also, with the learning and achievement of their students. We have identified evidence of associations between resilience and measurable improvements in pupil attainment. The research team validated the groupings of

teachers' perceived career and resilience trajectories through a blind check with teachers and then explored the relationships between teachers' reported levels of resilience and their relative effectiveness, i.e. whether resilient teachers are more likely to make a difference to student outcomes. A statistically significant association for the two years (Cohorts 1 and 2) for which value-added data were available was found ($x^2=8.320$, df=2, p<0.05; $x^2=9.402$, df=2, p<0.01). Students of teachers who demonstrated a sustained sense of commitment and resilience were more likely to attain value-added results at or above the level expected.

Figure 1 illustrates the findings for Cohort 2 (n=162). In total, 69 per cent of teachers who sustained their capacity to be resilient, compared with 59 per cent of those who did not, saw their students achieve results as expected or better than expected in our measures of pupil progress. In contrast, 18 per cent of teachers in the resilient group, compared with 41 per cent of those in the vulnerable group, saw their students' academic progress fall below expectation. The association was by no means perfect; and we do not claim a causal connection, i.e. every resilient teacher will be effective. This is because, at least in part, 'a continuing dialectic between person and practices is more likely to occur in schools where there is a supportive environment for individuals' professional learning and development, and which build trusting relationships amongst staff, foster a collective sense of efficacy and resilience and, through these, sustain their continuing improvement' (Day and Gu, 2014: 147).

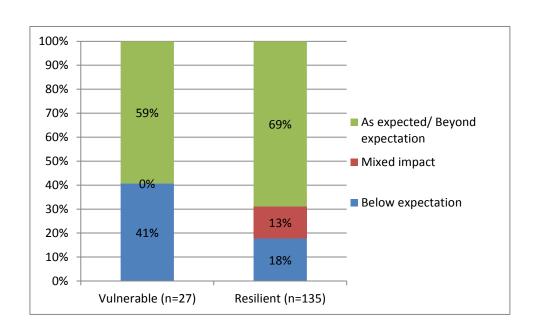


Figure 1: Associations between teachers' resilience and relative effectiveness

Taken together findings of the research, two key observations relating to the nature of resilience and the quality retention of teachers can be made.

First and foremost, the widely used definition of resilience as the capacity to 'bounce back' in adverse circumstances does not adequately or accurately describe the nature of resilience in teachers. This is because, at least in part, it fails to acknowledge that the ways in which teachers build their resilience are inherently embedded in their everyday professional lives. It is a complex, continuous and fluctuating process. It is influenced by a combination of workplace and personal factors and also the cognitive and emotional capacities of teachers to manage these. Resilience in teachers is about their capacity to manage the everyday challenges of the realities of teaching. It is driven by teachers' educational purposes and moral values and is thus closely associated with their vocational commitment to serve the learning and achievement of the children.

Second, our findings reaffirm observations of earlier studies that the nature and sustainability of resilience in teachers is not innate (e.g. Gu and Day, 2007; Beltman et al., 2011), but influenced by the strength of trust in the multilayered relationships in

which teachers' work and lives are embedded. Teacher resilience is a relational, multifaceted and dynamic construct. The resilience building process is embedded in a web of interpersonal relationships which interactively influence an overall level of resilience as perceived by teachers. It is the culmination and continuation of collective and collaborative endeavours driven by a common understanding of moral purpose. It is nurtured by the social and intellectual environments in which teachers work and live, rather than determined by nature.

Evidence in our research points to the importance of three sets of relationships: with colleagues, leaders and students. Although reciprocal trust and trustworthiness are found to be at the heart of all these relationships, each also plays a distinctive part in teachers' capacity to learn, develop and teach to their best.

- 1) Teacher-leader relations: Relational trust between teachers and school leaders is essential in developing resilient teachers. As Fullan (2003) has noted, relational trust 'reduces the sense of vulnerability when staff take on new tasks', and also 'creates a moral resource for school improvement' which affects teacher motivation, commitment and retention (Fullan, 2003, p. 42). School leaders are the architect of the social, emotional and intellectual organisation of the school and the growth of organisational trust. They 'weave' different human and material resources into a significant cultural tapestry (Deal and Peterson, 2009) which incorporates individual strengths and commitments into a collective and collaborative whole and provides a platform for collegial discourse to take shape.
- 2) Teacher-teacher relations: Collective and collaborative connections with colleagues are the culmination and continuation of a mutual endeavour. At a deeper level, strong and enduring peer connections are grounded in an on-going shared sense of commitment, integrity and drive for the achievement of the children. They provide the necessary social capital for professional learning communities to emerge, develop and mature in schools. The OECD TALIS survey found that teachers who

participate more actively in professional learning communities reported higher levels of self-efficacy (OECD, 2012b). Experiences of the VITAE teachers show that their enhanced confidence, efficacy and job fulfilment contribute to a collective sense of wisdom, expertise and empathy available in their workplace which nurture a collective sense of efficacy and relational resilience.

Exploring the resilience-building process through the lens of collegiality has enabled us to reaffirm our observation that resilience is not a quality that is reserved for the select few 'heroic' teachers. Nor is building and sustaining the capacity for resilience is the sole responsibility of the individual teacher (Day and Gu, 2014). Rather, building resilience in teachers must be both an individual and social process within school communities which are driven by a shared sense of moral purpose and in which building mutually supportive and 'growth-fostering relationships' (Jordan, 2006, p. 83) are shared goals.

3) Teacher-student relations: Making a difference to the lives of children draw many teachers into the profession (Hansen, 1995; OECD, 2005; Day et al., 2007). For many teachers in different phases of their professional lives, good rapport with the students continues to be central to their sense of fulfilment and commitment.

Relational trust between these two parties signals a mutual confidence in each other's endeavour to teach to their best and to learn to their best. It functions as a primary source of teachers' long-term job fulfilment and resilience – through which they feel that their hard work is rewarded and valued by the very people whose academic and individual welfare drew them into teaching.

A central task for all concerned with enhancing quality and standards in schools is, therefore, not only to have a better understanding of what influences teachers' resilience over the course of a career, but also the means by which the resilience necessary for these to be sustained may be nurtured in the contexts in which they work and live. As the teachers in the research reported, promoting and cultivating a healthy social culture

in schools is essential to how they feel about themselves as professionals in their schools and in teaching, the extent to which they are able to fulfilment their professional responsibilities, and through these, retain their commitment, resilience and capacity to teach to their best over time.

References

Aaronson, D. (2008) The impact of baby boomer retirements on teacher labor markets. Chicago Fed Letter, 254, September:

http://www.chicagofed.org/publications/fedletter/cflseptember2008 254.pdf

Allensworth, E., Ponisciak, S., & Mazzeo, C. (2009). The schools teachers leave: Teacher mobility in Chicago Public Schools. Chicago: Consortium on Chicago School Research.

Retrieved 1st April 2012, from

http://ccsr.uchicago.edu/publications/CCSR Teacher Mobility.pdf

Auguste, B., Kihn, P. and Miller, M. (2010) Closing the Talent Gap: Attracting and Retaining Top-Third Graduates to Careers in Teaching. New York: McKinsey & Company.

Beltman, S., Mansfield, C. and Price, A. (2011) Thriving not just surviving: A review of research on teacher resilience. *Educational Research Review*, 6: 185-207.

Benard, B. (1995) Fostering Resilience in Children. ERIC/EECE Digest, EDO-PS-99.

Boyd, D., Grossman, P., Ing, M., Lankford, H., Loeb, S. and Wyckoff, J. (2011). The influences of school administrators on teacher retention decisions. *American Educational Research Journal*, 48 (2), 303-333.

Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wycoff, J. H. (2008). *Who leaves?*Teacher attrition and student achievement. NBER Working Paper No. W14022.

Boyd, D., Lankford, H., Loeb, S., Ronfeldt, M., & Wyckoff, J. (in press). The role of teacher quality in retention and hiring: Using applications-to-transfer to uncover preferences of teachers and schools. *Journal of Policy Analysis and Management*.

Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). Explaining the short careers of high-achieving teachers in schools with low-performing students. *American Economic Review*, 95, 166–171.

Brunetti, G. (2006) Resilience under fire: Perspectives on the work of experienced, inner city high school teachers in the United States. *Teaching and Teacher Education*, 22: 812-825.

Bryk, A. S. and Schneider, B. L. (2002) *Trust in Schools: A Core Resource for Improvement.*

Bryk, A., Sebring, P., Allensworth, E., Luppescu, S. And Easton, J. (2010) *Organizing Schools for Improvement: Lessons from Chicago*. Chicago: The University of Chicago press.

Burghes, D., Howson, J., Marenbon, J., O'Leary, J. and Woodhead, C. (2009) *Teachers Matter: Recruitment, Employment and Retention at Home and Abroad*. London: Politeia.

Castro, A. J., Kelly, J. and Shih, M. (2010) Resilience strategies for new teachers in highneeds areas. *Teaching and Teacher Education*, 26 (3): 622-629.

Cefai, C. (2004) Pupil resilience in the classroom: a teacher's framework. *Emotional and Behavioural Difficulties*, 9 (3), 149-170.

Chevalier, A. and Dolton, P. (2004) Teacher shortage: Another impending crisis? *CentrePiece*, Winter, 15-21.

Coburn, C. E. (2003). Rethinking scale: moving beyond numbers to deep and lasting change. *Educational Researcher*, 32 (6), 3-12.

Creswell, John (2003). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 2nd edition. Thousand Oaks, CA: Sage.

Darling-Hammond, L. (1997) *Doing What Matters Most: Investing in Quality Teaching*. New York: National Commission on Teaching & America's Future.

Day, C. and Gu, Q. (2009) Teacher Emotions: Well Being and Effectiveness. In M. Zembylas and P. Schutz (Eds.) *Advances in Teacher Emotion Research: The Impact on Teachers' Lives*. Springer, pp. 15-31.

Day, C. and Gu, Q. (2010) The New Lives of Teachers. Abingdon, Oxon: Routledge.

Day, C. and Gu, Q. (2014) Resilient Teachers, Resilient Schools: Building and Sustaining Quality in Testing Times. Abingdon, Oxon: Routledge.

Day C. and Leithwood K. (Eds.) (2007) Successful Principal Leadership in Times of Change: An International Perspective. Dordrecht: Springer.

Day, C., Sammons, P. and Gu, Q. (2008) Combining qualitative and quantitative methodologies in research on teachers' lives, work, and effectiveness: From integration to synergy. *Educational Researcher*, 37 (6): 330-342.

Day, C., Sammons, P., Leithwood, K., Hopkins, D., Gu, Q. and Brown, E., with Ahtaridou, E. (2011) *School Leadership and Student Outcomes: Building and Sustaining Success.* Maidenhead: Open University Press.

Day, C., Sammons, P., Stobart, G., Kington, A. and Gu, Q. (2007) *Teachers Matter:*Connecting Lives, Work and Effectiveness. Maidenhead: Open University Press.

Day, C., Stobart, G., Sammons, P., Kington, A., Gu, Q. and Smees, R. (2006) *Variation in Teachers' Work, Lives and Effectiveness*. London: DfES.

Deal, T. E. and Peterson, K. D. (2009) *Shaping School Culture* (2nd edn). San Francisco, CA: Jossey-Bass.

Department for Education (2012) Statistical First Release: School Workforce in England: November 2011. London: Department for Education, 25th April 2012.

Edwards, E. A. (2003) Retention and Motivation of Veteran Teachers: Implications for Schools. Unpublished dissertation presented to the Faculty of the Department of Educational Leadership and Policy Analysis, East Tennessee State University.

Edwards, A. (2007) Relational agency in professional practice: A CHAT analysis. *Actio*: *An International Journal of Human Activity Theory*, 1: 1-17.

Engh, A. E., Beehner, J. C., Bergman, T. J., Whitten, P. L., Hoffmeier, R. R., Seyfarth, R. M., et al. (2006). Behavioural and hormonal responses to predation in female chacma baboons (Papio hamadryas ursinus). Proceedings of the Royal Society of London, Series B, 273, 707–712.

European Commission (2012) *Key Data on Education in Europe 2012.* Brussels: Education, Audiovisual and Culture Executive Agency.

Field, J. (2008) Social Capital (2nd edn). London and New York: Routledge.

Feng, L., & Sass, T. (2011). Teacher quality and teacher mobility. National Center for Analysis of Longitudinal Data in Education Research Working Paper 57.

Fredrickson, B. L. (2001) The role of positive emotions in positive psychology: the broaden-and-build theory of positive emotions. *American Psychologist*, 56 (3): 218-226.

Fredrickson, B. L. (2004) The broaden-and-build theory of positive emotions. *The Royal Society*, 359: 1367-1377.

Frijda, N. H. (2000). The psychologists' point ofview. In M. Lewis, & J. M. Haviland-Jones (Eds.), *Handbook of emotions*, (2nd ed) (pp. 59–74). New York/London: The Guilford Press.

Fullan, M. (2003) *The Moral Imperatives of School Leadership*. Thousand Oaks, CA: Corwin Press.

Furlong, J. (2008) Making teaching a 21st century profession: Tony Blair's big prize.

Oxford Review of Education, 34 (6): 727-739.

Furlong, J. ., McNamara, O., Campbell, A., Howson, J. and Lewis, S. (2008) Partnership, policy and politics: initial teacher educationin England under New Labour. Special issue of *Teachers and Teaching: Theory and Practice*: 'Research and Policy in Teacher Education: International Perspectives, 14 (4): 307-318.

Garmezy, N. and Rutter, M. (1983) *Stress, Coping and Development in Children*. New York: McGraw-Hill.

Glaser, B. G. (1992) *Basics of Grounded Theory Analysis*. Mill Valley, CA: Sociology Press.

Goddard, R. (2002). Collective efficacy and school organisation: A multilevel analysis of teacher influence in schools. *Theory and Research in Educational Administration*, 1, 169–184.

Goddard, R., Hoy, W., & Woolfolk Hoy, A. (2004). Collective efficacy beliefs: Theoretical developments, empirical evidence, and future directions. *Educational Researcher*, 33(3), 1–13.

Goldhaber, D., Gross, B., & Player, D. (2011). Teacher career paths teacher quality and persistence in the classroom: Are public schools keeping their best? *Journal of Policy Analysis and Management*, 30(1), 57–87.

Goldhaber, D., & Hansen, M. (2009). National board certification and teachers' career paths: Does NBPTS certification influence how long teachers remain in the profession and where they teach? Education Finance and Policy, 4(3), 229–262.

Goleman, D. (2007) Social Intelligence. New York: Arrow Books.

Goodwin, R. (2005) Why I Study Relationships and Culture. *The Psychologist,* 18 (10): 614-615.

Gordon, K. A., Longo, M. and Trickett, M. (2000) Fostering resilience in children. The Ohio State University Bulletin 875-99: http://ohioline.osu.edu/b875.

Gorman, C. (2005, January 17) The importance of resilience. Time, 165 (3): A52-A55.

Grissmer, D. and Kirby, S. N. (1997) Teacher turnover and teacher quality. *Teachers College Record*, 99 (1): 57-61.

Grissom, J. A. (2011) Can good principals keep teachers in disadvantaged schools? Linking principal effectiveness to teacher satisfaction and turnover in hard-to-staff environments. *Teachers College Record*, 113 (11): 2552-2585.

Gu, Q. and Day, C. (2007) Teachers resilience: A necessary condition for effectiveness. *Teaching and Teacher Education*, 23: 1302-1316.

Gu, Q. and Day, C. (2013) Challenges to teacher resilience: Conditions count". *British Educational Research Journal*, 39 (1): 22-44.

Gu, Q. and Johansson, O. (2013) Sustaining school performance: school contexts matter" *International Journal of Leadership in Education*, 16 (3): 301-326.

Gu, Q. and Li, Q. (2013) Sustaining resilience in times of change: stories from Chinese teachers. Special Issue of *Asia-Pacific Journal of Teacher Education*, 41 (3): 288-303.

Gu, Q., Sammons, P. and Mehta, P. (2008) Leadership characteristics and practices in schools with different effectiveness and improvement profiles. *School Leadership & Management*, 28 (1), 43 – 63.

Guarino, C. M., Santibanez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research*, 76(2), 173–208.

Guttman, C. (2001) A hard sell for teaching. *The Courier UNESCO*, October.

Hallinger, P. (2005). Instructional leadership and the school principal: A passing fancy that refuses to fade away. *Leadership and Policy in Schools*, 4(3), 1–20.

Hansen, D. T. (1995) The Call to Teach. New York: Teachers College Press.

Hanushek E.A. (1992). The trade-off between child quantity and quality. *Journal of Political Economy*, 100 (1) (February), 84-117.

Hargreaves, A. (1998) The emotional practice of teaching. *Teaching and Teacher Education*, 14(8), 835–854.

Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age.* London: Cassell.

Hargreaves, A. and Fink, D. (2006) *Sustainable Leadership*. San Francisco, CA: Jossey-Bass.

Hargreaves, A. and Fullan, M. (2012) *Professional Capital: Transforming Teaching in Every School.* New York, NY: Teachers College Press.

Health and Safety Executive (2000) The scale of occupational stress: A further analysis of the impact of demographic factors and type of job. Retrieved on 9th July 2011 from http://www.hse.gov.uk/research/crr_pdf/2000/crr00311.pdf

Health and Safety Executive (2011) Stress-related and Psychological Disorders:

Occupation and Industry (2007/8-2009/10). Retrieved on 9th July 2011 from

http://www.hse.gov.uk/statistics/causdis/stress/occupation.htm

Helen, G. (2007). Remodelling the school workforce in England: A study in tyranny.

Journal for Critical Education Policy Studies, 5. Retrieved from http://www.jceps.com/index.php?pageID=article&articleID=84

Henry, G. T., Bastian, K. C. and Fortner, C. K. (2011) Stayers and leavers: early career teacher effectivness and attrition. *Educaitonal Researcher*, 40 (6), 271-280.

Holme, J. and Rangel, V. (2012). Putting school reform in its place: Social geography, organizational social capital, and school performance. *American Educational Research Journal*, 49 (2), 257-283.

Hong, J. Y. (2012) Why do some beginning teachers leave the school, and others stay? Understanding teacher resilience through psychological lenses. *Teachers and Teaching: Theory and Practice*, 18 (4), 417-440.

Howard, S., Dryden, J. and Johnson, B. (1999) Childhood resilience: review and critique of literature. *Oxford Review of Education*, 25/3: 307-323.

Huberman, M. (1993) The Lives of Teachers. London: Cassell.

Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. American Educational Research Journal, 38(3), 499-534.

Ingersoll, R.(2003). Is there really a teacher shortage? Philadelphia, PA: Consortium for Policy Research in Education, University of Pennsylvania. Retrieved from http://www.gse.upenn.edu/pdf/rmi/Shortage-RMI-09-2003.pdf

Ingersoll, R., & Perda, D. (2011). How high is teacher turnover and is it a problem? Philadelphia: University of Pennsylvania, Consortium for Policy Research in Education.

Johnson, S. M. (2006). The workplace matters: Teacher quality, retention and effectiveness. Washington DC: National Education Association. Retrieved 2nd July 2011, from http://www.eric.ed.gov/PDFS/ED495822.pdf

Johnson, S. M. (2004) Finders and Keepers. San Francisco, CA: Jossey-Bass.

Johnson, S. M., Berg, J. H., & Donaldson, M. L. (2005). A Review of the Literature on Teacher Retention. Harvard Graduate School of Education.

Jordan, J. (1992) Relational resilience. Paper presented on April 1^{st} , 1992 as part of the Stone Centre Colloquium Series.

Jordan, J. (2004) Relational resilience. In Jordan J. and Walker, M. (Eds.) The complexity of connection: writings from the stone center's Jean Baker Miller Training Institute. New York: Gildford Press, pp. 28-46.

Jordan, J. (2006) Relational resilience in girls. In Goldstein, S. and Brooks, R. B. (eds.) Handbook of Resilience in Children, pp.79-90. New York, NY: Springer.

Jordan, J. (2012) Relational resilience in girls. In Goldstein, S. and Brooks, R. B. (eds.) Handbook of Resilience in Children, 2nd edn, pp.73-86. New York, NY: Springer.

Kardos, S. M. and Johnson, S. M. (2007) On their own and presumed expert: new teachers' experience with their colleagues. *Teachers College Record*, 109 (9): 2083-2106.

Kelchtermans, G. (2005) Teachers' emotions in educational reforms: self-understanding, vulnerable commitment and micropolitical literacy. *Teaching and Teacher Education*, 21: 995-1006.

Kelchtermans, G. (2009) Who I am in how I teach is the message: self-understanding, vulnerabilty and reflection. Teachers and Teaching: Theory and Practice, 15 (2): 257-272.

Kitching, K., Morgan, M., & O'Leary, M. (2009) It's the little things: Exploring the importance of commonplace events for early-career teachers' motivation. *Teachers and Teaching: Theory and Practice*, 15(1), 43–58.

Kyriacou, C. (2000) Stress busting for teachers. Cheltenham, Stanley Thornes.

Ladd, H. (2009). *Teachers' perceptions of their working conditions: How predictive of policy-relevant outcomes* (National Center for Analysis of Longitudinal Data in Education Research Working Paper No. 33). Washington, DC: CALDER.

Ladwig, J. G. (2010). Beyond academic outcomes. Review of Research in Education, 34, 113–141.

Lankford, M., Loeb, S. and Wyckoff, J. (2002) Teacher sorting and the plight of urban schols: a descriptive analysis. Educational Evalution and Policy Analysis, 13 (3), 256-268.

Lasky, S. (2005) A socioculturla approach to understanding teacher identity, agency and professional vulnerability in a context of seconary school reform. *Teaching and Teacher Education*, 21: 899-916.

Leithwood, K., Day, C., Sammons, P., Harris, A. and Hopkins, D. (2006) *Seven Strong Claims about Successful School Leadership*. Nottingham: National College for School Leadership.

Leithwood, K., Harris, A. and Strauss, T. (2010) *Leading School Turnaround*. San Francisco, CA: Jossey-Bass.

Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning*. St. Paul, MN: Center for Applied Research and Educational Improvement.

Lieberman, A. and Miller, L. (eds.) *Teachers in Professional Communities*. New York and London: Teachers College Press.

Little, J. W. (1990). The persistence of privacy: Autonomy and initiative in teachers' professional relations. *Teachers College Record*, 91, 509–536.

Loeb, S., Darling-Hammond, L., & Luczak, J. (2005). How teaching conditions predict teacher turnover in California schools. *Peabody Journal of Education*, 80(3), 44–70.

Louis, K. S. (2012) Learning comminities in learning schools: Developing the social capacity for change. In Christoday Day (ed) *The Routledge International Handbook of Teacher and School Development*. London and New York: Routledge, pp.477-492.

Luke, A. (2011) Generalizing across borders: policy and the limits of educational science. *Educational Researcher*, 40 (8): 367-377.

Luthans, F., Avolio, B.J., Avey, J.B., & Norman, S.M. (2007) Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60: 541-572.

Luthar, S. (1996) Resilience: A construct of value? Paper presented at the 104th Annual Convention of the American Psychological Association, Toronto.

Luthar, S. S. (2006). Resilience in development: A synthesisof research across five decades. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (2nd ed., pp. 739–795). New York: Wiley.

Luthar, S. and Brown, P. (2007) Maximizing resilience through diverse levels of inquiry: Prevailing paradigms, possibilities, and priorities for the future. *Development and Psychopathology*, 19: 931-955.

Luthar, S., Cicchetti, D. and Becker, B. (2000) The construct of resilience: a critical evaluation and guidelines for future work. *Child Development*, 71/3: 543-562.

Macdonald, D. (1999). Teacher attrition: a review of literature. *Teaching and Teacher Education*, 15, 835-848.

Mansfield, C. F., Beltman, S., Price, A. and McConney, A. (2012) "Don't sweat the small stuff:" Understanding teacher resilience at the chalkface. *Teaching and Teacher Education*, 28: 357-367.

Masten, A. S. (2001) Ordinary magic: resilience process in development. *American Psychologist*, 56: 227-239.

Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezy, N., & Ramirez, M. (1999) Adaptation in the context of adversity: Pathways to resilience and maladaptation from childhood to late adolescence. *Development and Psychopathology*, 11, 143–169.

Matheson, I. (2007) Current demographics in the school teacher population in Scotland. Paper presented at the Scottish Educational Research Association conference.

Mawhinney, H., Hass, J., & Wood, C. (2005). Teachers' collective efficacy beliefs in professional learning communities, *Leading & Managing*, 11(2), 12–45.

McLaughlin, M. and Mitra, D. (2001). Theory-based change and change-based theory: going deeper and going broader. *Journal of Educational Change*, 2 (4), 301-323.

Meister, D. G. and Ahrens, P. (2011) Resisting plateauing: Four veteran teachers' stories. *Teaching and Teacher Education*, 27: 770-778.

Merriam, S. B. and Associates (2002) *Qualitative Research in Practice: Examples for Discussion and Analysis.* San Francisco: Jossey-Bass Publishers.

Morgan, M., Ludlow, L., Kitching, K., O'Leary, M. and Clarke, A. (2010) What makes teachers tick? Sustaining events in new teachers' lives. *British Educational Research Journal*, 36 (2), 191–208.

Nash, P. (2005) Speech to Worklife Support Conference. *London Well Being Conference*, London, 21st April 2005.

Neenan, M. (2009) Developing Resilience. Hove, East Sussex: Routledge.

Nias, J. (1996). Thinking about feeling: The emotions n teaching. *Cambridge Journal of Education*, 26(3), 293–306.

Nieto, S. (2003) What Keeps Teachers Going? New York, NY: Teachers College Press.

Nieto, S. (2011) Critical hope, in spite of it all. In R. F. Elmore (ed.) *I Used to Think ...* and Now *I think.* Cambridge, MA: Harvard Education Press, pp.127-33.

Noddings, N. (2005) *The Challenge to Care in Schools*. New York and London: Teachers College Press.

O'Connell Higgins, G. (2004) *Resilient Adults: Overcoming a Cruel Past.* San Francisco, CA: Jossey-Bass.

OECD (2005) Teachers Matter. Paris: OECD.

OECD (2009) Creating Effective Teaching and Learning Environments: First Results from TALIS. Paris: OECD.

OECD (2011) Building a High-Quality Teaching Profession: Lessons from around the World. Paris: OECD.

OECD (2012a) *Preparing Teachers and Developing School Leaders for the 21st Century*. Paris: OECD.

OECD (2012b) Education Today 2013. Paris: OECD.

OECD (2013) OECD Guidelines on Measuring Subjective Well-being. Paris: OECD.

Oswald, M., Johnson, B. and Howard, S. (2003) Quantifying and evaluating resilience-promoting factors – teachers' beliefs and perceived roles. *Research in Education*, 70: 50-64.

Palmer, P. J. (2007) *The Courage to Teach: Exploring the Inner Landscape of A Teachers' Life*. San Francisco: Jossey-Bass.

Patterson, J. and Kelleher, P. (2005) Resilient School Leaders: Strategies for Turning

Adversity into Achievement. Alexandria, VA: Association for Supervision and Curriculum Development.

PricewaterhouseCoopers (2001) Teacher Workload Study. London: DfES

Putnam, R. D. (1993) The Prosperous Community: Social capital and public life. The *American Prospect*, 4 (13): 11-18.

Rivkin, S. G., E. A. Hanushek and J. F. Kain (2005). Teachers, schools and academic achievement." *Econometrica*, 73 (2), 417-458.

Robinson, V., Hohepa, M. and Lloyd, C. (2009) *School Leadership and Student Outcomes: Identifying What Works and Why.* Wellington, New Zealand: Ministry of Education.

Rockoff, J.E. (2004). The impact of individual teachers on student achievement: evidence frompanel data. *American Economic Review Papers and Proceedings*, 94 (2), 247-252.

Rots, I., & Aelterman, A. (2008). Two profiles of teacher education graduates: A discriminant analysis of teaching commitment. *European Educational Research Journal*, 7, 523–534.

Rutter, M. (1990) Psychosocial resilience and protective mechanisms. In Rolf, J., Masten, A., Cicchetti, D., Neuchterlein, K. and Weintraub, S. (Eds.) *Risk and Protective Factors in the Development of Psychopathology*. New York: Cambridge University Press.

Sammons, P., Day, C., Kington, A., Gu, Q., Stobart, G. and Smees, R. (2007) Exploring variations in teachers' work, lives and their effects on pupils: key findings and

implications from a longitudinal mixed-method study. *British Educational Research Journal*, 33 (5): 681-701.

Sammons, P., Gu, Q., Day, C. and Ko, J. (2011) Exploring the impact of school leadership on pupil outcomes. *International Journal of Educational Management*, 25 (1): 83-101.

Shen, J. and Palmer, L. B. (2009) Inadequate preparation does impact teacher attrition. In J. Shen (ed.), *School Leaders: Professional and Demographic Characteristics* (pp.125-140). New York: Peter Lang.

Shulman, L. (2005) The signature pedagogies of the professions of law, medicine, engineering, and the clergy: potential lessons for the education of teachers. Delivered at the Math Science Partnerships Workshop, hosted by the National Research Council's Centre for Education, February 6-8, 2005, Irvine, California. Retrieved on 1st March 2013 from http://www.taylorprograms.com/images/Shulman_Signature_Pedagogies.pdf

Smethem, L. (2007). Retention and intention in teaching careers: Will the new generation stay? Teachers and Teaching: Theory and Practice, 13, 465–480.

Smith, J. M. and Kovacs, P. E. (2011). The impact of standards-based reform on teachers: the case of 'No Child Left Behind'. Teachers and Teaching: Theory and Practice, 7 (2), 201-225.

Smithers, A. and Robinson, P. (2003) *Factors Affecting Teachers' Decisions to Leave the Profession*. Research Report 430. London: Department for Education and Skills.

Smithers, A. and Robinson, P. (2005) *Teacher Turnover, Wastage and Movements* between Schools. Research Report 640. London: Department for Education and Skills.

Solomon, R.C. and Flores, F. (2001) *Building Trust in Business, Politics, Relationships* and *Life.* New York: Oxford University Press.

Strauss, A. (1987) *Qualitative Analysis for Social Scientists*. Cambridge, England: Cambridge University Press.

Sutton Trust (2011). *Improving the Impact of Teachers on Pupil Achievement in the UK - Interim Findings.* London: The Sutton Trust.

Sutton, R. and Wheatley, K. F. (2003) Teachers' emotions and teaching: A review of the literature and directors for future research. *Educational Psychology Review*, 15 (4): 327-358.

Tashakkori, A. and Teddlie, C. (2003) *Handbook of mixed methods in social and behavioural research.* Thousand Oaks, CA: Sage.

Taylor, S. (2007). Social support. In H. S. Friedman & R. C. Silver (Eds.), *Foundations of health psychology* (pp.145–171). New York: Oxford University Press.

Troman, G. and Woods, P. (2001) Primary Teachers' Stress. London: Routledge.

Tschannen-Morgan, M. and Barr, M. (2004) Fostering student learning: The relationship of collective teacher efficacy and student achievement. Leardership and Policy in Schools, 3 (3): 189-209.

Tucker, M. (2011) *Surpassing Shanghai*. Harvard: Harvard Educational Publishing Group.

UNESCO (2006) Teachers and Educational Quality: Monitoring Global Needs for 2015.

Paris: UNESCO.

UNESCO (2011) The Global Demand for Primary Teachers - 2011 Update. Paris: UNESCO.

Ungar, M. (2004) A constructionist discourse on resilience: multiple contexts, multiple realities among at-risk children and youth. *Youth & Society*, 35, pp. 341–65.

vanVeen, K. and Lasky, S. (2005) Editorial: Emotions as a lens to explore teacher identity and change: different theoretical approaches. *Teaching and Teacher Education*, 21: 895-898.

Wassell, B. and LaVan, S. (2009) Tough transitions? Mediating beginning urban teachers' practices through coteaching. *Cultural Studies of Science Education*, 4: 409-432.

Webb, R., Vulliamy, G., Hämäläinen, S., Sarja, A., Kimonen, E. and Nevalainen, R. (2004) Pressures, rewards and teacher retention: a comparative study of primary teaching in England and Finland. *Scandinavian Journal of Educational Research*, 48 (2): 169-188.

Zembylas, M. (2005). Discursive practices, genealogies, and emotional rules: A poststructuralist view on emotion and identity in teaching. *Teaching and Teacher Education*, 21(8), 935–948.

Zembylas, M. (2011) Teaching and teacher emotions: A post-structural perspective. In Christopher Day and John Chi-Kin Lee (eds.) *New Understandings of Teachers' Work*. Springer, pp. 31-43.

Zembylas, M. and Schutz, P. (eds) (2009) Teachers' Emotions in the Age of School
Reform and the Demands for Performativity. Dordrecht: Springer.