ADVANCES IN MOTIVATION AND ACHIEVEMENT

Series Editors: Timothy C. Urdan and
Stuart A. Karabenick

Series Editor for Volumes 1–15: Martin L. Maehr

Recent Volumes:

Volume 10: Advances in Motivation and Achievement – Edited by Martin L. Maehr and Paul R. Pintrich

Volume 11: The Role of Context: Contextual Influences on Motivation – Edited by Timothy C. Urdan

Volume 12: New Directions in Measures and Methods – Edited by Paul R. Pintrich and Martin L. Maehr

Volume 13: Motivating Students, Improving Schools: The Legacy of Carol Midgley – Edited by Paul R. Pintrich and Martin L. Maehr

Volume 14: Motivation and Religion – Edited by Martin L. Maehr and Stuart A. Karabenick

Volume 15: Social Psychological Perspectives – Edited by Martin L. Maehr, Stuart A. Karabenick and Timothy C. Urdan

Volume 16A: The Decade Ahead: Theoretical Perspectives on Motivation and Achievement – Edited by Timothy C. Urdan and Stuart A. Karabenick

ADVANCES IN MOTIVATION AND ACHIEVEMENT
VOLUME 16B

THE DECADE AHEAD: APPLICATIONS AND CONTEXTS OF MOTIVATION AND ACHIEVEMENT

EDITED BY

TIMOTHY C. URDAN
Santa Clara University, Santa Clara, CA, USA

STUART A. KARABENICK
Combined Program in Education and Psychology, The University of Michigan, Ann Arbor, MI, USA

United Kingdom – North America – Japan
India – Malaysia – China

Emerald Group Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2010

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN: 978-0-85724-253-2
ISSN: 0749-7423 (Series)

Awarded in recognition of Emerald's production department's adherence to quality systems and processes when preparing scholarly journals for print

INVESTOR IN PEOPLE

This one is for Frank

Turner, J. C., Meyer, D. K., Cox, K. E., Logan, C., DiCintio, M., & Thomas, C. (1998). Creating contexts for involvement in mathematics. *Journal of Educational Psychology, 90*, 730–745.

Turner, J. C., Midgley, C., Meyer, D. K., Gheen, M., Anderman, E. A., Kang, J., & Patrick, H. (2002). The classroom environment and students' reports of avoidance strategies in mathematics: A multi-method study. *Journal of Educational Psychology, 94*, 88–106.

Turner, J. C., & Patrick, H. (2004). Motivational influences on student participation in classroom learning activities. *Teachers College Record, 106*, 1759–1785.

Turner, J. C., & Patrick, H. (2008). How does motivation develop and why does it change? Reframing motivation research. *Educational Psychologist, 43*, 119–131.

Urdan, T., & Turner, J. C. (2005). Competence motivation in the classroom. In: A. J. Elliot & C. S. Dweck (Eds), *Handbook of competence and motivation* (pp. 297–317). New York: The Guilford Press.

Walker, R., Pressick-Kilborn, K., Sainsbury, E., & MacCallum, J. (2010). A sociocultural approach to motivation: A long time coming but here at last. In: T. C. Urdan & S. A. Karabenick (Eds), *Advances in motivation and achievement* (Vol. 16B, pp. 1–42). London: Emerald Press.

Watt, H. M. G., & Richardson, P. W. (2008). Motivation for teaching. *Learning and Instruction, 18*, 405–407.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, UK: Cambridge University Press.

Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology, 89*, 411–419.

CURRENT AND FUTURE DIRECTIONS IN TEACHER MOTIVATION RESEARCH

Paul W. Richardson and Helen M. G. Watt[1]

INTRODUCTION

Educational psychologists have, over the last half century or so, directed their attention to the study of student motivation. While teachers have not entirely been ignored, there has been little inquiry into teacher motivation that has been systematic and theory-driven. The concentration on students has tended to overlook the centrality of teacher motivations as integral to teachers' goals, beliefs, perceptions, aspirations, and behaviours, and thereby to student motivations and learning. It is perhaps not surprising that those motivation researchers who have developed robust theories in relation to student learning in educational contexts would begin to turn their attention to teachers, to see whether those same theories might have explanatory power with regard to teacher motivations. Teacher self-efficacy research (e.g., Tschannen-Moran & Woolfolk Hoy, 2007; Woolfolk Hoy & Burke-Spero, 2005) has made important contributions to the study of teachers. Motivation researchers are now beginning to turn their attention to other aspects of the complex of motivational factors which demand greater attention and exploration. Robust theoretical frameworks already exist in the motivation literature, which can be applied to guide future research in this area.

The Decade Ahead: Applications and Contexts of Motivation and Achievement
Advances in Motivation and Achievement, Volume 16B, 139–173

ISSN: 0749-7423/doi:10.1108/S0749-7423(2010)000016B008

There has recently been a surge of interest, or what we have elsewhere described as a "Zeitgeist" (Watt & Richardson, 2008a) in applying well-developed theories in motivation research, to the domain of teaching.

In the majority of Western countries, teaching as a career offers neither a high salary nor high social status, and yet, people continue to enrol in teacher education programs and to become teachers. At a time when other careers offer higher salaries, clearer pathways for career development, higher prestige and community respect, and more agreeable working conditions (see OECD, 2005; Ramsay, 2000), what is it that attracts people to teaching as a career? What motivates people to become teachers has been the subject of a considerable research endeavour with varied results. Renewed interest in this question has begun to provide more sophisticated, but by no means easy, answers. There is a need to better understand individuals' motivations for choosing teaching as a career, how these motivations are formed, how they influence career decision-making, and how they are implicitly and explicitly tested in particular social and cultural settings. We are beginning to see that teachers' initial motivations on entry to teacher education studies can have a profound impact on their level of career satisfaction, and plans to persist in the profession (Watt & Richardson, 2008b). We are also seeing that teachers' goals, sense of professional autonomy, and enthusiasm for teaching, impact their students' perceptions and behaviours (Butler, 2007; Butler & Shibaz, 2008; Kunter et al., 2008; Pelletier, Séquin-Lévesque, & Legault, 2002). Implications relate to effective career marketing and recruitment, and teacher education and curriculum development.

In this chapter, we examine why teachers choose the profession, why they persist or leave it, what affects their work satisfaction, and how these relate to student outcomes. We outline some of the challenges in researching teacher motivations, and introduce our continuing program of research, designed to address many of these issues; research concerning teachers' motivations for entering, undertaking, and persisting in the profession has hitherto not drawn upon the motivation literature in this intensive or systematic way. We conclude with implications for policy and practice, and a discussion of where teacher motivation research should progress in the next decade.

WHY DO TEACHERS ENTER THE PROFESSION?

Research into what motivates people to take on teaching as a career has resulted in a steady flow of studies and reports from many countries around

the world. A significant proportion of the research into teaching motivations over the last five decades has been conducted in the United States, which identified various forms, combinations, and rankings of motivations. A review of research conducted up until the early 1990s concluded that "altruistic, service-oriented goals and other intrinsic motivations are the source of the primary reasons entering teacher candidates report for why they chose teaching as a career" (Brookhart & Freeman, 1992, p. 46). Subsequently, studies conducted in France, Australia, Belgium (French Community), Canada (Québec), the Netherlands, the Slovak Republic, and the United Kingdom reported that the most frequently nominated reasons for choosing teaching are a desire to work with children and adolescents, the potential for intellectual fulfilment, and as a means by which to make a social contribution (OECD, 2005); the desire to work with children and adolescents has been identified as central in many other studies (e.g., Fox, 1961; Joseph & Green, 1986; Kyriacou & Coulthard, 2000; Lortie, 1975/2002; Tudhope, 1944; Valentine, 1934). On the other hand, studies from different sociocultural contexts such as Brunei (Yong, 1995), Zimbabwe (Chivore, 1988), Cameroon (Abangma, 1981), the Caribbean (Brown, 1992), and Jamaica (Bastick, 1999) have found "extrinsic motives" such as salary, job security, and career status, to be more important. Different sociocultural contexts, therefore, shape teaching motivations and need to be considered.

The heterogeneous nature of the teaching workforce suggests that teachers will have different kinds of motivational profiles, which will result in varying responses to local school cultures. Motivation researchers have access to robust theoretical models and increasingly sophisticated tools for analysis that should encourage them to examine longitudinally what happens to different types of individuals with particular motivational profiles. For instance, we might expect to find that the most altruistic, highly motivated individuals do not necessarily fare the best in all school contexts, because they may be prone to high levels of responsibility, commitment, and overwork, and destined for career burnout (Kieschke & Schaarschmidt, 2008). We might equally expect that some individuals who enter into a teaching career with profiles characterised by highly pragmatic, extrinsic motivations may do very well in the profession without succumbing psychologically to the rigours of teaching, simply because they do not take on responsibility for more than they can manage. In our research we have identified different profiles of beginning teachers even at the outset of their teaching careers (Watt & Richardson, 2008b). It remains an open question as to which motivational profiles will produce the most psychologically robust teachers, and those who can be retained as effective teachers.

The question of what motivates teaching career choice needs to be tempered by the recognition that individuals do not always have "free choice" of their ideal career, and that they may be constrained by internal and external resources. The assumption that people are free to choose their career presupposes access to a suite of alternatives and the individual freedom to choose from among them. Such an assumption in relation to occupational choice has been regarded as rare, naïve, or even misguided (Özbilgin, Küskü, & Erdoğmuş, 2005), too easily ignoring the impact of labour market rigidities of supply and demand, persistent structural and institutionalised forms of discrimination and segregation, and cumulative influence of prior education and experience.

MOVEMENT INTO (AND OUT OF) THE TEACHING PROFESSION

Teacher shortages followed by surpluses is a recurring pattern in many countries, including Australia, the United States, the United Kingdom, and a number of European countries (OECD, 2005). After World War II there were serious teacher shortages in many countries. The 1980s and early 1990s saw the arrival of a period of relative over-supply, which was followed by increased staffing problems in the current decade, for particular geographic regions and disciplinary specialisms. For instance, schools in regional, remote, and some inner urban areas have difficulty attracting and retaining teachers, and staffing shortfalls are most acute for the sciences, mathematics, foreign languages, and information and communication technologies.

Studies from the United Kingdom indicate that 40% of those who enter teaching are no longer there after five years (Kyriacou & Kunc, 2007; Purcell, Wilton, Davies, & Elias, 2005); in the United States, up to 40% of new teachers in some school districts resign during their first two years (Brookover et al., 1978; Weiss, 1999), and one in five leaves within the first three years (Henke, Chen, & Geis, 2000; Johnson & Birkeland, 2003). Teachers who were recruited 30 years ago are now retiring, further impacting on shortages. While there is some variation across the 25 member countries of the Organisation for Economic Co-operation and Development (OECD), a substantial proportion of the teaching workforce in each of those countries is over the age of 50 years (OECD, 2005). In 2001, the Australian Bureau of Statistics, Census of Population and Housing, revealed that 42.7% of employed teachers were older than 45 years, with one-third aged between 45

and 54 years. These teachers are rapidly approaching retirement. Similarly, in the United States, the average retirement age of public elementary and secondary teachers is 59 years (OECD, 2004b), and a significant proportion of teachers is about to reach retirement age.

In addition to general patterns of shortages, there have been significant changes in the particular proportions of males entering teaching. Over the last four decades, their number has steadily declined in the United States, the United Kingdom, Europe, and Australia, with more dramatic declines in primary/elementary education than secondary schooling (OECD, 2005). Even in secondary education, men have tended to concentrate in male-stereotypic domains, such as science, mathematics, and technology, which will further exacerbate shortages in those domains when these teachers, who are already older, retire in the near future. A complex situation arises because fewer women are pursuing studies and careers in scientific and mathematical fields (see Watt & Eccles, 2008); yet the majority of teachers are female, which will compound teacher shortages in those domains.

Salaries, employment conditions, the demands of teaching, and the social status of teachers (DEST, 2003; Liu, Kardos, Kauffman, Preske, & Johnson, 2000; Ramsay, 2000) have all been nominated as factors contributing to early career attrition. By contrast, teachers in Taiwan enjoy the rewards of a generous compensation package which includes low-interest housing loans, free health and life insurance, paid maternity leave, a government-funded pension, and subsidised education for their children (Wang, 2004). They are also accorded community respect and high social status (Fwu & Wang, 2002). As a result, there is no shortage of well-qualified individuals wanting to be science teachers in Taiwan. Not all of the rewards of teaching are accounted for in strictly material terms, however. The availability of part-time and casual work, together with defined periods of leave during school vacation times, provides a high degree of career flexibility sought perhaps mainly by women seeking to spend time with their families. This would appear to be the case in a country like Germany, where of the almost 50% of primary school teachers who are employed on a part-time basis, 96% are female (Halász, Santiago, Ekholm, Matthews, & McKenzie, 2004).

Although initial motivations for choosing teaching as a career might remain quite stable over time, they may be quite different from motivations for remaining in teaching after two decades of service as a classroom teacher. As we have already noted, in most Western countries teaching does not offer a high salary or the compensation of high social status. The buying power of a teacher's salary, comparisons with salaries of graduates who have similar

qualifications, and the potential for salary increases and career development over time are all of importance in attracting new people into the profession and in retaining experienced teachers. There is evidence that what can seem like a competitive salary at the beginning of a career can later be considered quite inadequate, when teachers have family responsibilities as a parent (see Kersaint, Lewis, Potter, & Meisels, 2007) or for aged parents and relatives.

The attractiveness of teaching as a career choice is reactive to shifts in perceived public esteem resulting from negative representations of teachers and their work in the mass media, changes in political ideology and governance, and the availability of other jobs in the labour market. There are a number of challenges that may impinge on the decision processes of those considering teaching as a career. The prestige and public image of teachers and teaching has declined, which has been accompanied by a decline in young people's interest in the career, and although initial salaries are competitive with some other professions, teacher salaries relative to per capita gross domestic product have also declined. In many countries in the OECD, salaries rapidly plateau after about 10 years, particularly if one has remained as a classroom teacher and not moved to a leadership position (OECD, 2005). If teachers are poorly paid, have low community prestige, and are subject to disagreeable working conditions, it is likely that fewer people will be attracted to teaching initially, and if they are recruited, will not necessarily persist in the job.

INFLUENCES ON TEACHERS' WORK SATISFACTION

Over the last two decades, governments in many developed countries have embraced the notion that national economic development, change, and success are dependent on a well-educated, highly literate, and numerate workforce. Rapid social and technological change and resultant changes in the nature of work have encouraged governments to take a greater interest in all aspects of schooling, and to especially focus on reforming and improving the quality of the teaching workforce. Teacher motivation and the context in which teachers work have been increasingly impacted by policy decisions developed and implemented through bureaucracies that audit, assess, and measure teaching practices. Teachers are positioned in these discourses as central to a country's economic growth and national

development. For instance, a recent report from the OECD (2005, p. 18) involving 25 countries observed:

> Schooling provides the foundations for learning throughout life, and for individual and national development. As the most significant resource in schools, teachers are central to school improvement efforts. Improving the efficiency and equity of schooling depends, in large measure, on ensuring that competent people want to work as teachers, that their teaching is of high quality, and that all students have access to high-quality teaching.

At the same time, there is an abiding yet competing belief that education and social welfare are investment "black holes" that are expensive and not effective (Hargreaves, 1994). From this perspective, these are investment activities from which the state should progressively withdraw, to allow space for the entry of private capital and enterprise.

We cannot ignore the incursion of government policies designed to manage and control the nature and structure of teachers' work. There has been mounting pressure at the level of the state to regulate the nature and quality of teachers' work through teacher certification and re-certification, placing high accountability demands on teachers and schools to be audited across various dimensions, particularly student learning outcomes, and improved quality of teaching and learning. These regimes of reform have not always resulted in the anticipated improved outcomes. A good example of the unanticipated negative impact of this type of reform agenda occurred in the United States over the last decade. Although ostensibly designed to ensure that all teachers would be "highly qualified" by 2006, the Federal legislation under the 2001 *No Child Left Behind Act* arguably worsened the educational experiences of the very children it was supposed to assist, further cementing the position of those already advantaged socially, economically, and educationally (see Glass, 2008). There is mounting evidence that these policy reforms have impacted significantly on how teachers carry out their work, and undermined the resolve and work satisfaction of many (in the case of the United States see Hursh, 2005; McNeil, 1985, 1988, 2000; Nichols, Glass, & Berliner, 2006; Rex & Nelson, 2004).

Coincident with the desire on the part of governments around the globe to improve the quality of teachers and teaching, there is the increasing complexity of what teachers are expected to do and know, and greater diversity of the school students they teach (OECD, 2005). It seems inevitable that researchers who are interested in teachers, teacher education, and teaching will need to keep alive the notion that teaching as work has, over the last couple of decades, become increasingly more difficult, demanding, and subject to greater scrutiny and external controls. The multidimensional

character of the teacher's role, and the increasingly complex skills set a teacher is expected to bring, embraces social, behavioural, civic, economic, and technological dimensions (OECD, 2005). Within the multicultural context of a country like Australia, particularly in the larger cities, the teacher's role is likely to require engagement with young people, families, and communities holding values and beliefs that are very different from those held by many teachers, who are culturally different, with diverse expectations, aspirations, and ambitions.

Unsurprisingly, the context in which teachers work impacts their satisfaction or brings them grief, influences their commitment, and whether they are willing to persist in the profession. Multiple dimensions of the school context such as supervisory support, time pressure, relations with parents, and autonomy, interact to impact teachers' job satisfaction and job burnout (Skaalvik & Skaalvik, 2009). A "supportive work environment" has been found to be highly important in teachers' decisions whether to stay or move to another school (Johnson, Kardos, Kauffman, Liu, & Donaldson, 2004). In some school contexts, the relationships forged between teachers, the principal, and students, help militate against the effects of accountability measures that potentially threaten levels of job satisfaction (see Noll, 2007). Teachers are more satisfied and less fatigued if they feel supported by parents and the school administration, if student behaviour and the school atmosphere are pleasant, and if they perceive a degree of autonomy in carrying out their work (see Müller, Alliata, & Benninghoff, 2009, p. 581). In contrast, there is an increase in the physical and psychological costs to teachers, if they experience difficulties in building relationships with students and their parents; are subject to numerous pedagogical, organisational, and technological reforms; experience increased administrative tasks at the expense of teaching; and perceive a loss to the profession's positive image (Müller et al., 2009, p. 581).

As the nature of teachers' work has changed, there is an increasing disjuncture between why people choose to teach and the nature of the work they are required to perform. People who choose teaching because they are motivated by working with people, and especially young people, will presumably experience lower levels of work engagement and satisfaction if their daily work involves them less and less in relational encounters with youth. Measures which increase teacher accountability, and provide comparative data for students' achievement on standardised tests, have brought significant changes to teachers' work. While we know that working with children and adolescents is a consistently strongly endorsed reason for wanting to be a teacher (see Lortie, 1975/2002; Richardson & Watt, 2006; Watt & Richardson, 2008b), teachers are now required to perform tasks that reduce opportunities for teacher–student interactions. Researchers may well want to examine more carefully how the impact of policies designed to "improve" the quality of education potentially serve to undermine the motivations of those who most wanted to teach when they entered into teacher education (see Beck, 2009 for a discussion of the restructuring of teacher professionalism in England).

STUDENT OUTCOMES

Teachers who are more motivated provide greater autonomy support to their students (Pelletier et. al., 2002). Just as "students could become less self-determined when exposed to controlling teachers ... when teachers are pressured by the school's administration or by colleagues to behave in a specific manner, they also indicate that they are less self-determined toward their work" (Pelletier, 2002, p. 193). In turn, teachers who are less self-determined towards their teaching are more controlling with their students, which impacts negatively on students' intrinsic motivation and sense of autonomy (Reeve, Bolt, & Cai, 1999). Policies designed to improve teacher practice and teacher quality may, through the processes of operationalisation and implementation, promote more controlling teachers, and students who are less autonomous and motivated.

Important new research has begun to show a link between teachers' achievement goals, patterns of communication and behaviour in the classroom, and students' resultant learning and achievement outcomes (Butler, 2007; Butler & Shibaz, 2008). Based on self- and student reports, other researchers have found that teachers who are more enthusiastic about teaching demonstrate higher quality instructional behaviour, in the form of learning situations that are challenging yet supportive for students (Kunter et al., 2008). These lines of inquiry should be vigorously pursued by motivation researchers.

As a result of an extensive review of the literature seeking to arrive at the profile of highly competent teachers, Hattie (2003) concluded that these are teachers who can:

> identify essential representations of their subject, based on how they organize and use their content knowledge; guide learning through classroom interactions by creating optimal classroom environments; monitor student learning and provide feedback; promote effective outcomes through the manner in which they treat students, and their passion for teaching and learning; and influence student outcomes by engaging students, providing challenging tasks and goals, and enhancing "deep" learning or understanding. (Cited in OECD, 2005, p. 101)

This is indeed a formidable skill set that nonetheless does not take into account other skills and abilities such as effective communication with

parents, collaboration with colleagues, developed skills with new information and communication technologies, and working in teams, that are often identified by teacher accreditation and registration authorities.

CHALLENGES IN RESEARCHING TEACHER MOTIVATION

For research to effectively tap the underlying psychological processes concerning motivations for choosing to become a teacher, there is a need for robust measures, founded upon explicit theoretical frameworks, to encompass a comprehensive set of motivations. Previous research has lacked consistency, and, at times, provided little agreement about what exactly constitutes "intrinsic," "altruistic," and "extrinsic" motivations. As a result of definitional imprecision in the operationalisation of constructs and terms, producing unclear and overlapping categorisations, it has not been possible to compare findings from different studies, or across sociocultural contexts. Validation information on survey instruments used in studies has frequently not been reported, and the survey instruments not provided. In reporting of results there has been an over-reliance on raw frequency counts drawn from opportune samples, and rankings of identified themes rather than more sophisticated and robust methods of analysis, and research has tended to be empirically rather than theoretically driven, lacking a comprehensive and integrative framework.

Career development by definition encompasses events and processes that predate and extend beyond initial career choice (Lent, 2001, p. 218). The scarcity of theory-driven and programmatic research in this area impedes the development of a coherent knowledge base to inform interventions. The volume of work that has been produced needs to be matched by sensitivity to "theoretically grounded, methodologically tight, and programmatically sustained" work (Lent, 2001, p. 215), which moves beyond the notion that teaching is a "calling" and takes seriously the range of relevant motivations in relation to the highly demanding, complex nature of the job.

A challenge for motivation researchers is to examine how teachers' motivations vary across contexts and across the professional life span, as well as how motivations are framed, shaped, and constrained by experiences during teacher education. A recent cross-sectional study in the United Kingdom (Day et al., 2006) identified six phases of teachers' professional lives, which provide a useful heuristic. During phase one (zero to three years of experience) teacher motivation and commitment were buoyed by receiving

the support of school and departmental leaders, whereas experiences of poor pupil behaviour resulted in lowered levels of motivation. In phase two (four to seven years), the most important demotivating factor was the management of heavy workloads. Teachers who had been teaching for 8–15 years (phase three), who had an eye to career progression and were in positions of responsibility, reported this as a positive impact on their motivation. By phase four (16–23 years) a combination of career advancement and good student results positively impacted motivation, but these were offset by negative factors such as lack of support in school, feelings of career stagnation, poor pupil behaviour, additional school responsibilities, management of heavy workloads, demands outside of school, and a struggle to achieve work–life balance. After 24–30 years of teaching (phase 5), bad pupil behaviour and perceived lack of support in the school were the most important reasons for loss of motivation and commitment. In the final phase (phase six, 31 years or more) teachers were responsive to evidence of student progress and sustained by positive teacher–pupil relations, but were increasingly affected by personal health issues and experienced negative reactions to changing government policies and poor pupil behaviour.

It is an open question, and one worthy of the attention of motivational researchers, whether these phases can be replicated across other samples using longitudinal data. Supporting evidence is provided by the results of another study of secondary teacher education students in England who were surveyed at the beginning and end of their PGC year, a sample of whom was followed up during their first two years of teaching. There were four major factors that influenced levels of commitment to teaching: "school management (particularly the degree to which senior staff in the school were seen to be supportive); time pressures (specifically a feeling that there was not time enough to do the work demanded to an acceptable standard); pupil behavior (and in particular the degree the teacher was able to experience and enjoy pupils' successes as against a feeling that pupils were badly behaved and disaffected); and having a happy private life (prominently, a concern about the extent to which workload encroached unacceptably into much of the time for their private life)" (Kyriacou & Kunc, 2007, p. 1253). These factors point to the link between teachers' work and their lives more generally, an observation made by earlier researchers (e.g., Lortie, 1975/2002).

In summary, teachers' motivations have implications for their continuing career development. They relate to how teachers approach the complexities, challenges, disappointments, and rewards of teaching; and affect professional plans, well-being, and behaviours and, consequently, student outcomes. Research is sorely needed which studies the same teachers longitudinally

from the outset of their careers, to examine the processes by which their motivations impact a range of important outcomes, such as work satisfaction, persistence in the profession, psychological well-being, and student engagement and learning. We also need to examine whether and how teacher motivations develop over the long term. Such work needs to be strongly theoretically grounded, to collect data using robust measures, and to consider developmental trajectories for different types of teachers, from a range of school contexts.

A PROGRAM OF RESEARCH STUDYING TEACHER MOTIVATIONS

An integrated theoretical approach to the study of teacher motivations is offered by our "FIT-Choice" (Factors Influencing Teaching Choice; www.fitchoice.org) continuing program of research, which has been guided by expectancy-value theory (Eccles et al., 1983; Eccles, 2005), to focus on motivations for the choice of becoming a teacher (e.g., Richardson & Watt, 2006; Watt & Richardson, 2007, 2008b), and by possible selves theory, to explore teachers' future occupational envisioning, and intentions to persist within the profession. The FIT-Choice Scale was developed to assess the primary motivations of teachers to teach, and has been demonstrated to be psychometrically sound, thereby yielding reliable findings (Watt & Richardson, 2007). The FIT-Choice model taps both the "altruistic"-type motivations that have been emphasised in the teacher education literature (e.g., Book & Freeman, 1986; Brown, 1992; Lortie, 1975/2002; Moran, Kilpatrick, Abbott, Dallatt, & McClune, 2001; Serow & Forrest, 1994) and more personally utilitarian motivations, intrinsic motivations, and ability-related beliefs. Our framework also taps individuals' perceptions about the demand and reward aspects of the teaching profession, and contains a measure of career satisfaction and commitment. We have provided a review elsewhere (Watt & Richardson, 2007) of how our FIT-Choice factors, summarised in Fig. 1, map onto expectancy-value theory, social cognitive career theory (SCCT; see Lent, Lopez, & Bieschke, 1993), and key findings within the existing teacher education literature.

It was neither obvious nor trivial to speculate about the kinds of expectancies and values we should expect to be most salient, whether results would reflect or challenge prevailing stereotypes regarding motives for choosing teaching, and by extension the kind of people who enter the profession. Current stereotypes include the choice of teaching as a

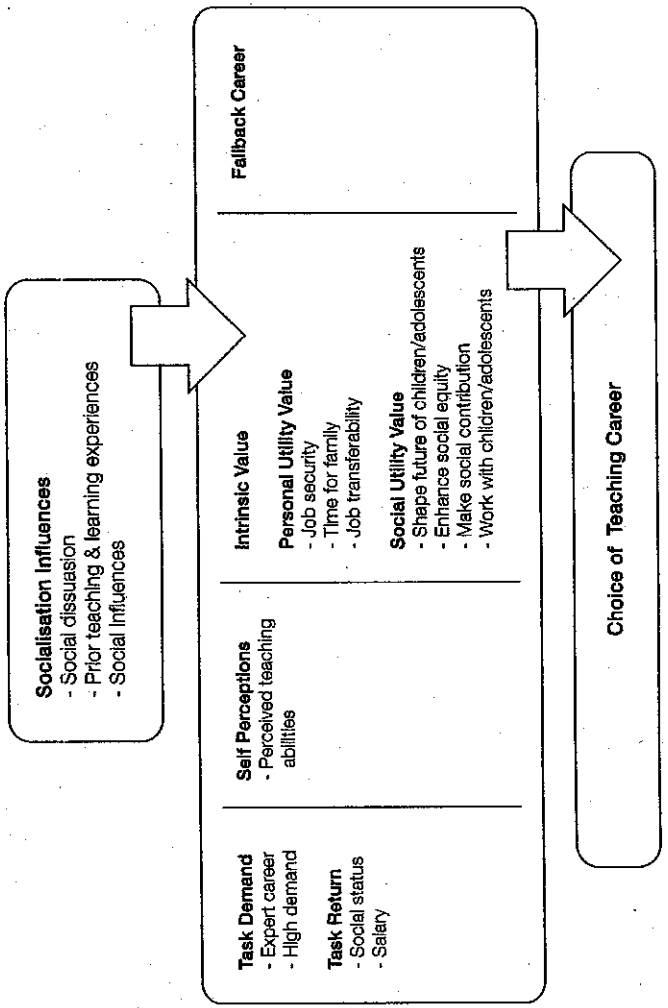

Fig. 1. FIT-Choice Theoretical Model.

family-flexible career, for highly altruistic motivations, and as a "fallback" career. Our initial research with a large sample of 1,653 Australian teacher education students (Richardson & Watt, 2006) showed that the highest rated teaching motivations on entry to teacher education included intrinsic value and perceived teaching abilities – the major predictors of choices within the expectancy-value framework which framed our theoretical model – as well as positive prior teaching and learning experiences, and "altruistic-type" social utility values (i.e., shape the future of children/adolescents, enhance social equity, make social contribution, and work with children/adolescents; Richardson & Watt, 2006), which have predominated prior research. Other measured motivations that were less influential included social influences, personal utility values (i.e., job security, time for family, and job transferability), and choosing teaching as a "fallback" career (Fig. 2).

Beginning teachers' motivations demonstrated significant correlations with their planned persistence (see Watt & Richardson, 2007). Ability beliefs, intrinsic value, social utility values, and positive prior teaching and learning motivations all correlated positively with later planned persistence. Unsurprisingly, choosing teaching as a fallback career correlated negatively. We had not, however, anticipated that personal utility values (job security, transferability, and time for family) would be inversely related to planned persistence. Such findings resonate with earlier untested claims that these motivations are somehow "unworthy" (e.g., Yong, 1995). Individuals who chose a career in teaching on the basis of job security or job transferability were later both less likely to plan to persist and less likely to be satisfied with their career choice; those who chose teaching because it provided time for family were also less likely to be satisfied with their career choice. This pattern was similar for planned effort, professional development, leadership aspirations, and career choice satisfaction (see Watt & Richardson, 2007). Consequently, motivations for teaching indeed relate to subsequent professional engagement and career development aspirations – showing positive relationships, except for personal utility values, and the choice of teaching as a fallback career.

Are there Different Types of Beginning Teachers?

It would seem a reasonable expectation that prospective teachers would have different career trajectories in mind from the very outset. We have developed an empirical typology among qualifying teachers based on their exit levels of professional engagement and career development aspirations

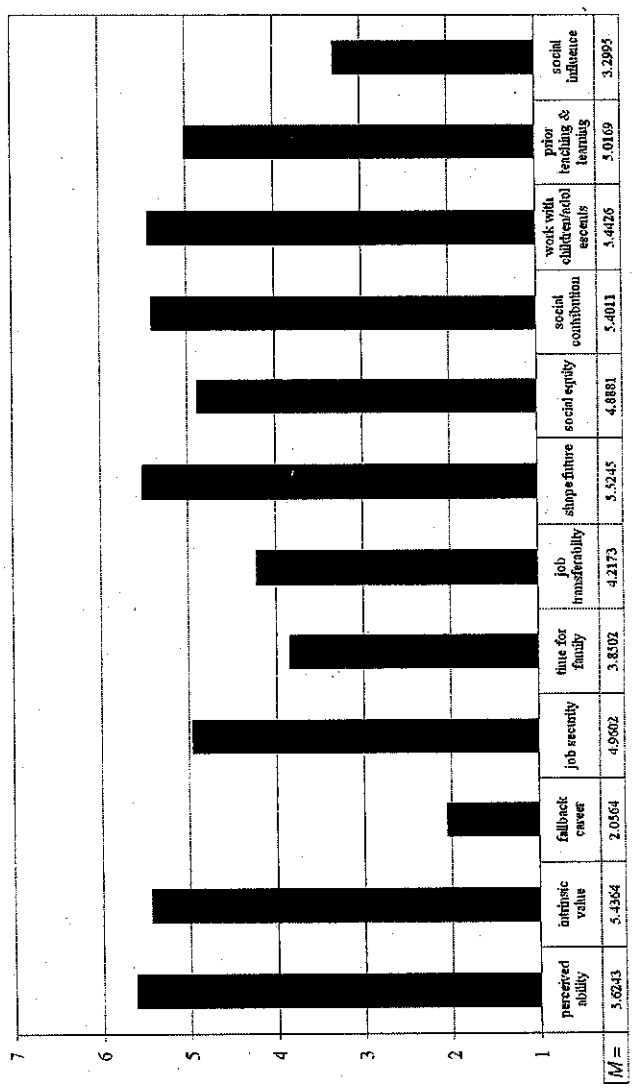

Fig. 2. FIT-Choice Motivation Factor Mean Scores for the Choice of a Teaching Career (Based on Full Australian Sample, $N = 1,653$).

(measured by the PECDA Scale; Watt & Richardson, 2008b). Three clusters were statistically and theoretically supported for all four factors; the first, "highly engaged persisters" (45%), gave the highest ratings. We named this group the "highly engaged persisters." The majority (84%) declared that they wanted to spend their whole career in teaching. Their open-ended comments foregrounded highly salient reasons, most frequently related to a passion for and enjoyment of teaching, which they saw as satisfying, varied, and interesting. A related theme was that teaching was a "dream ambition," a vocation, or calling. Their enthusiasm for the intrinsic rewards of teaching was captured by such comments as: "Intrinsic satisfaction," "I love teaching students," "Because it is interesting and has varied tasks," "It's my calling," "I am passionate about teaching and know I can be beneficial to students," and "We contribute to something worthwhile." This cluster also included people who had chosen teaching because it both offered a satisfying career and supported their aspirations for family life including care of their own children. Teaching allowed them the means by which to meet their career goals without sacrificing their quality family life, for example: "It is a career that is satisfying, fulfilling and suits family situation" and "Fits in with family as well as career goals." There were also those who were sure that on making a career switch in favour of teaching they had finally found an occupation that fitted comfortably with their goals and ambitions. They were well aware that the financial rewards from teaching are not very great; it remains to be determined whether the less tangible rewards will be sufficient to compensate for this.

The "highly engaged switchers" cluster (27%) responses were similar to the first cluster, except on persistence, where this group scored significantly lower. These individuals were more likely to indicate they had career plans other than spending their whole career in teaching. Many were already contemplating another career path as they completed their teacher education program, which they may have been contemplating prior to their entry, and were able to clearly articulate their reason for not wanting to stay in teaching. Their timeframes ranged from "now" to 15 years. This cluster drew together people who knew they needed new challenges over the course of their career and therefore sought to be involved in a diversity of occupations. They are perhaps best described as "restless spirits," who need new challenges and a variety of experiences. A further theme was the identification of a "five-year plan" for their career development, by which time they hoped to have positioned themselves to exit from teaching. It is not surprising that people who in the longer term were seeking careers in the entertainment industry and as visual artists (painters, photographers, and

designers) were also looking to secure a reliable income stream, while attempting to establish themselves in those careers. For others, simply keeping their options open was more important than foreclosing on teaching as a career for life. For this group, teaching would equip them with the skills and experiences that could be applied in other domains and contexts outside of school classrooms, as a "stepping stone" into other professions. While many indicated a desire to continue working with children and adolescents, this would not be in classroom contexts. It is noteworthy that a substantial number in this group did not undertake a teacher education program intending to remain in teaching for their whole career. On the contrary, their intention had always been to not persist in teaching. While they planned to be as effortful and engaged and to do as good a job as those who wanted their whole career to be in teaching (Cluster 1), they then planned to move on to another career.

The third cluster, "lower engaged desisters" (28%), exhibited significantly lower scores on all four factors. Although their mean scores on planned effort and professional development aspirations were quite high, they were significantly lower than those for the other two clusters, and their mean scores for planned persistence and leadership aspirations were low relative to both the scale and the other clusters. This cluster was the least likely to persist in teaching, and offered many reasons as to why. The sources of their disaffection were varied and stemmed in a minority of cases from unpleasant experiences at university and "bad practicum experiences." Others reported teaching had proved too demanding – it was "too much work" and schools provided "too little administrative support." As a result of these types of observations, they felt they would "not have enough energy when older," would become "jaded," and quickly suffer from career burnout. Comments such as "children don't value education" and "it does not suit my needs – the preparation and class management issues" point to experiences during the course of their teacher education program that took on a negative valence in relation to their tenure in teaching.

While the first themed set of comments from this cluster was concerned with the demands of the career, a second theme focused on the paucity of career prospects and rewards. A number of individuals made the observation that they would receive more "pay & respect" and better "career progression" by working in other fields such as IT, business management, and consulting. The comments "it takes too long to get a full time job!" and "teaching is not very stable" seem to point to the frustrations graduates experience in shuffling between a range of schools, making a sometimes very insecure living undertaking substitute and relief teaching

work, before they can secure full-time employment. Given that members of this cluster generally had higher qualifications and a range of previous occupations, they may be attracted away from teaching and into other careers where their teaching qualification adds to their marketable skills set. For some, teaching was not their "first option." Careers as research scientists and in the academy, together with further education and eventual careers in psychology and sports psychology, were more attractive. As with Cluster 2, this cluster consisted of people who looked upon teaching as a "stepping stone" into other careers. Although they may have enjoyed "children and teaching," they observed that they needed change and variety in their life and did not want "to be stuck" in a career that from their perspective lacked "flexibility."

Teaching Motivations for Differing Teacher Subtypes

The three different types of beginning teachers exhibited different patterns of initial motivations for having chosen teaching as a career. As anticipated, the "highly engaged persisters" scored significantly highest on intrinsic and social utility values (shape future of children/adolescents, enhance social equity, make social contribution, and work with children/adolescents), whereas "lower engaged desisters" scored significantly lowest. "Highly engaged switchers" scored in between for intrinsic value and some social utility value factors (shape future of children/adolescents and work with children/adolescents), and similarly high to the highly engaged persisters for the others (enhance social equity and make social contribution). Highly engaged persisters were the least motivated to teach by the negative "fallback" career factor, but more highly motivated to teach on the basis of their perceived teaching abilities, than either of the other clusters. Highly engaged persisters and switchers were equally more motivated by having experienced positive teaching and learning experiences than were the lower engaged desisters. There were no significant cluster differences on any of the personal utility values (job security, time for family, and job transferability).

The motivations that related most strongly to high initial career satisfaction included the altruistic-type motivations most frequently emphasised in the teacher education literature, the intrinsic value individuals attached to teaching, and self-evaluations of their teaching-related skills (Watt & Richardson, 2007) – on all of which the highly engaged persisters scored highest and lower engaged desisters lowest. At the point of graduation from teacher education, "highly engaged persisters" had

increased in their satisfaction with the choice of teaching as a career; "highly engaged switchers" exhibited no change in satisfaction through the course of their teacher education, and "lower engaged desisters" became less satisfied with their choice of a teaching career through their degree. Given the robust size of that cluster it is important to question why they became disaffected through their teacher education experiences, and what will happen once they enter the profession, if indeed they do. The seemingly positive profile for highly engaged persisters requires longitudinal data to ascertain whether their positive motivations are able to be realised in their school contexts, and what the consequences are if not. The trajectories for highly engaged switchers, who also scored high on several of the positive motivations, are of interest, particularly whether their professional engagement and aspirations may increase as a consequence of their workplace experiences.

Do Motivations Change for Teacher Subtypes in their First Five Years?

Establishing that there are differing types of beginning teachers, whose initial motivations for the choice of teaching as a career differ, begs the question – what happens to their motivations when "the rubber hits the road?" It was thus important to determine whether, and the extent to which, teacher motivations changed over time, and whether the changes varied by teacher subtypes. In a five-year follow-up (Watt & Richardson, 2010), we sought to address three questions related to changes in teacher motivation: To what extent do teaching motivations change over the critical first five years of teaching? Do motivations change differentially for teacher subtypes? Are changes associated with changing career choice satisfaction, and planned persistence in the teaching profession? The first five years have been identified as a critical period, within which large attrition occurs. We found that, in general, teaching motivations were predominantly stable from teacher education until five years later. Where changes occurred, they varied by teacher subtypes. There were no significant changes for the highly engaged persisters, highly engaged switchers decreased on the motivations of job security and to make a social contribution, and lower engaged desisters increased on the motivations of job flexibility and the desire to enhance social equity. Initial elevated planned persistence for highly engaged persisters markedly declined to the same level as for the other clusters (Fig. 3(a)). Similarly, for career choice satisfaction, highly engaged persisters' high scores declined to the same level as for the other clusters (Fig. 3(b)).

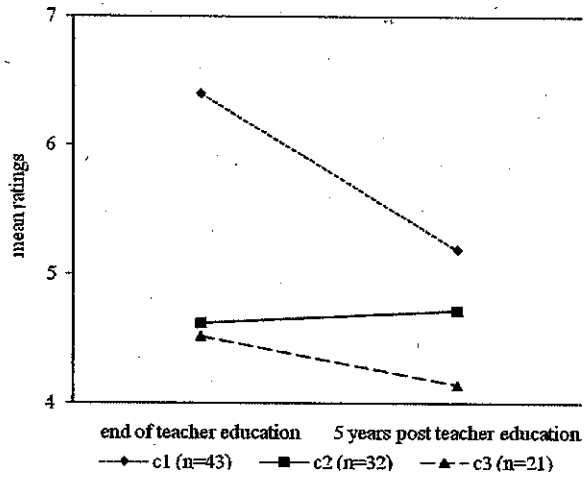

Fig. 3(a). Changes in Planned Persistence for Each Teacher Type (c1: Highly Engaged Persisters; c2: Highly Engaged Switchers; c3: Lower Engaged Desisters).

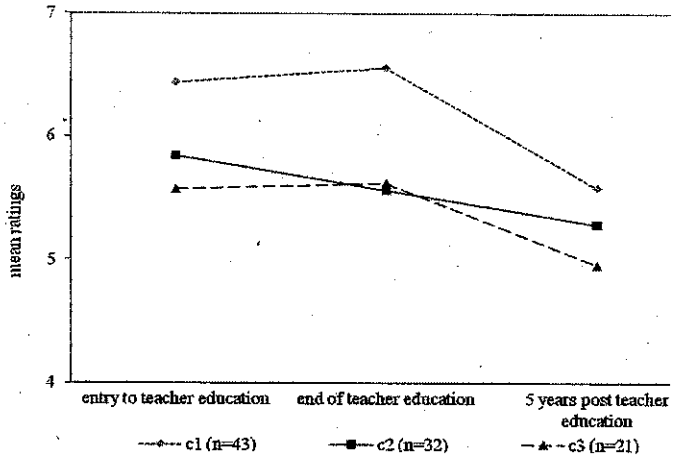

Fig. 3(b). Changes in Career Choice Satisfaction for Each Teacher Type (c1: Highly Engaged Persisters; c2: Highly Engaged Switchers; c3: Lower Engaged Desisters).

Interestingly, stable motivations for the "highly engaged persisters" were associated with *declining* career choice satisfaction and planned persistence; conversely, changing motivations for the other two clusters related to stable satisfaction and persistence scores. This raises questions concerning the "fit" and also the realism of motivations and aspirations in response to the multiple demands of being a teacher – which may come as a shock for those entering into teaching with naïve understanding of its role complexity, associated emotional and time demands, or teaching in contexts which are mismatched to their motivations and aspirations.

Teacher Identity and Possible Selves

In a recent article, Alexander (2008, p. 484) observed that certain types of people are "drawn to the teaching profession" from which they "experience varying levels of success and varying degrees of personal fulfillment or satisfaction." Further, she described teaching as challenging, with the sources of those challenges being both "external and internal." While we acknowledge that *external* challenges are influential in early career teacher attrition, there are additional *internal* challenges, such as those represented by hoped-for teacher selves which, if not realisable, may produce lower levels of career satisfaction, professional commitment, and the decision to leave the profession.

"Possible selves" refer to how individuals think about the selves they most want to become, and those they fear becoming. They represent individuals' "cognitive manifestations of enduring goals, aspirations, motives, fears, threats" (Markus & Nurius, 1987, p. 158). According to the original definition, possible selves operate as incentives, which guide behaviour by exercising a moderating effect on the self. They are focused on the personalised meaning of future states and actions, and not on more universal beliefs about hopes and fears (Markus & Nurius, 1987). Feared selves take on a motivational force when balanced by hoped-for selves to provide the individual with incentives for behaviour (Markus & Ruvolo, 1989). This implies that the motivation conferred by possible selves is cumulative – their combined effect is greater than that of either hoped-for or feared selves alone.

Possible selves theory has been fruitfully applied in a variety of domains including adolescent motivation, counselling, adult life span development, adult education, and vocational counselling. Researchers and practitioners in vocational counselling have been attracted to the theory in that it addresses aspects of how people make decisions about the person they want

to be in the context of work. Those who choose teaching as a career bring to their decision-making an array of positive and negative role models experienced during their years of schooling through exposure to many different teachers, from which they fashion an intuitive knowledge of a teacher's working life. The type of teacher they hope to be, and the teacher they fear being, is likely to also be constructed from their prior experiences of teaching and learning with particular teachers, the distillation of positive and negative teaching and learning experiences over the course of their own schooling, and their experiences in staffrooms, classrooms, and schools during teacher education and on commencing teaching. We would expect these possible teacher selves to be dynamic, sensitive to context, and related to career satisfaction and persistence. Becoming a teacher involves identity work that is challenging as well as potentially disruptive to other aspects of a person's life, to the point where, in some cases, professional satisfaction and persistence may be tested.

We were especially interested in the tensions that may emerge during the first few years in the profession, when beginning teachers find themselves within particular school and community environments that may be congruent or incongruent with their own orientations. The future-focused orientation of possible selves theory led us to expect that hoped-for and feared teacher selves are likely to be developed and clarified as a result of the experiences and challenges of working within particular school contexts with teacher colleagues who are a source of both positive and negative models, and in school environments where they are presaged into being the teacher they do not want to be, resulting in self-schema dissonance and distress.

In a follow-up of teachers from our full FIT-Choice sample, we sought to explore the mechanism and processes by which participants' hoped-for and feared teacher selves impact a range of teaching-related outcomes (Richardson & Watt, 2008, 2009). We found that beginning teachers had a developed sense of both the type of teacher they most hoped to be and the type they most feared becoming; identified demographic, school contextual, and internal sources of those selves; and consequent relationships with several behavioural and affective teaching-related outcomes. Overall, actual teaching selves were rated more congruent with hoped-for than feared selves, which were themselves not directly opposites. Congruence did not depend on gender, primary/secondary teaching, undergraduate/graduate-entry teacher qualification, or school socioeconomic status.

Feared self-enactment related to perceived school and skills/abilities-related barriers to goals, and remote school location. In contrast, hoped-for self-enactment related only to skills/abilities-related barriers. Seemingly,

internal resources are deployed in the attainment of the hoped-for self, while more disparate influences affect feared self-enactment, associated with internal and also situational factors. This helps us to locate "levers for change" – it is likely to be easier to change the situation, than to change the person.

Hoped-for self-enactment correlated significantly and positively with a range of measured affective indicators (satisfaction, liking, demand, and stressfulness) and behavioural indicators (current goal achievement, and planned persistence and effort), but negatively with perceived demand and stressfulness. The opposite pattern of relationships occurred for feared self-enactment. In general, relationships were stronger for hoped-for than feared self-enactment and with satisfaction and liking outcomes. The pattern of correlations for discrepancy scores between hoped-for and feared self-enactment was similar to that for hoped-for self-congruence, but, importantly, appeared stronger than those for the independent effects of hoped-for and feared selves, indicating their joint salience and importance.

Beginning teachers indeed hold both hoped-for and feared possible teacher selves. Their negative moderate correlation indicates that teachers can be like both, or unlike both (Fig. 4). Feared and hoped-for enactments each matter, because they individually relate to a range of important affective and behavioural outcomes. Further, possible selves operate in concert, in terms of the discrepancy between the feared and hoped-for. An individual who regards herself as highly like her hoped-for teacher self and highly unlike her feared teacher self will have more positive outcomes than another person who regards himself as highly like both his hoped-for and feared teacher selves. Hoped-for, feared, and current teacher selves thus constitute a dynamic, complex system that operates to exert motivational force in relation to a range of affective and behavioural teaching outcomes. Possible selves theory provides a new perspective on self-focused future-orientated motivations which impact teachers' perceived goal achievement, perceived demand and stressfulness, satisfaction and liking, and planned effort and persistence.

IMPLICATIONS FOR POLICY AND PRACTICE

It is important for teacher education to recognise that "one size does not fit all" and that carefully tailored programs may be necessary to match motivational profiles with school contexts. If sufficient numbers of well-qualified, effective teachers are to stay in the profession, it may well be that

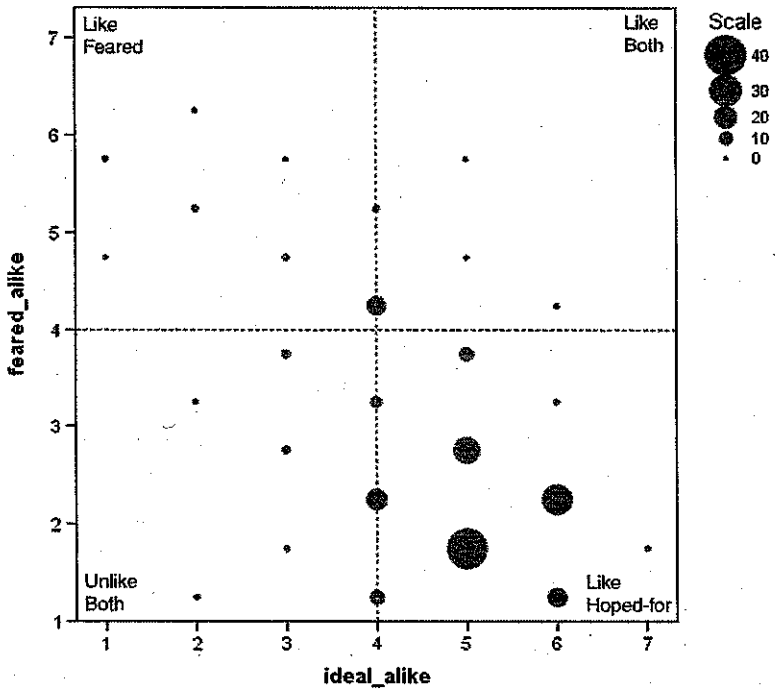

Fig. 4. Relationships between Attainment of Hoped-for vs. Feared Teacher Selves (rho = −.41).

different career pathways and structures need to be identified and developed. However, simply regulating teacher professional development and legislating hours of professional "renewal" necessary for reaccreditation does not necessarily promote teacher professional development, encourage higher teacher quality, or address the issues of teacher well-being. The very complexity of teaching, the psychological demands on those engaged in it, and its stressfulness (Stoeber & Rennert, 2008) require that greater attention be paid to the curriculum of teacher education programs, which have traditionally focused on curriculum and pedagogy. It is our contention that too little is provided in teacher education programs to prepare beginning teachers for dealing with the stressors in undertaking the relational work central to their occupation.

In recent times in Australia we have seen the development of the *Teach for Australia* program, a program of teacher training founded on *Teach for America*. This program selects talented and motivated graduates, provides a six-week period of intensive training, and then appoints these "new" teachers to hard-to-staff schools. It seems extremely optimistic that these graduates will fare any better than similarly trained Teach for America graduates in the United States, or that they will produce better achievement scores and outcomes with children and adolescents (see Darling-Hammond, Holtzman, Gatlin, & Heilig, 2005). It is also of concern that they are likely to have few resources with which to sustain themselves psychologically, emotionally, and physically in dealing with the stressors which teachers experience as part of their job, which can have debilitating health consequences for those who are insufficiently prepared.

If anything, we need to reflect not only on the success of the Finnish schooling system in producing consistently stellar results in comparative international surveys such as the Programme for International Student Assessment (PISA), but also on their model of teacher education which adopts a research-based approach and aims to develop teachers who are skilled in using research in their ongoing teaching and decision-making. In Finland, the teaching profession is held in high regard, attracts students with high levels of academic achievement, and requires teachers to graduate with a Master's degree (Tryggvason, 2009). A longitudinal study of teacher education candidates in Finland has shown how their teaching and learning goals change over the course of a four-year program (Malmberg, 2008). Shorter programs of teacher preparation such as Teach for America/Australia may quickly address a teacher shortage, but policy-makers and employing authorities need to be careful they are not creating intractable longer term welfare and health problems among those who are most motivated to try teaching as a career with little more than a smattering of pedagogical and curriculum advice.

Researchers need to address the psychological supports that beginning teachers need to sustain their "fitness to practice." In a substantial study conducted in Germany among different kinds of professionals (teachers, police, firefighters, aged-care workers, nurses, entrepreneurs, social workers, childcare professionals, and penitentiary workers), researchers identified four coping behaviour types: "healthy ambitious," "unambitious," "excessively ambitious," and "resigned." Their findings led them to recommend that teachers need to be given more autonomy in their work to allow for self-determined professional goals, excessive demands from overwhelming educational tasks that are completed alone need to be minimised, and teachers need

clearer separation of life at school and leisure time; school tasks often undertaken in the evening and on weekends allow little opportunity for emotional distancing, recovery, and regeneration. They also expressed concern about the consequences of regimentation and external interference in teaching. In relation to the preparation of teachers, they emphasised the need for teacher education to equip beginning teachers with effective coping strategies for everyday occupational problems, and the capability to effectively self-manage stressful situations (Kieschke & Schaarschmidt, 2008). In the education and training of clinical psychologists, considerable attention is devoted to these issues; it may well be that teachers require similar training in strategies to support and protect themselves psychologically and emotionally, if the pattern of burnout and early career attrition is to be broken. While mentoring programs for beginning teachers have been introduced in many countries around the globe, their levels of success in supporting and sustaining new teachers have been patchy as a result of inappropriate mentor matches, and low levels of appropriate mentor and mentee interaction and support (see Kardos & Johnson, 2010; Wang & Odell, 2002).

Our particular program of research addresses several core issues: Why choose the career of being a teacher? Why do people stay in the job, burnout, or leave? How do motivations intersect with sociocultural factors to impact teachers' professional development and personal well-being? What types of profiles are evident in teachers' career trajectories? This design requires following the same individuals over a period of time, to tease out the shorter and longer term consequences of choosing teaching as a career, and how different types of preservice teachers fare in particular school and community settings over time. This interest in teacher motivations is timely; they predict to teacher supply and development, with implications for current teacher shortages, mentoring, and support. Why people choose teaching, why they stay in the profession or not, and their professional identity development all are critical issues in the current climate of teacher shortages and concern regarding teacher quality, with implications for policy-makers, employers, and teacher educators.

TEACHER MOTIVATION RESEARCH – WHERE TO NEXT?

Those interested in teacher motivation are not beginning with a blank slate. Theoretical lenses from the motivation literature (e.g., expectancy-value theory, achievement goal theory, self-determination theory, and possible selves theory) equip us to develop fresh insights into teachers' motivations for choosing to enter the teaching profession, their professional engagement and career development aspirations, future occupational envisioning, and influences on student motivation and learning. The range of robust motivation theories, developed research methodologies, and increasingly sophisticated modes of analysis invite us to research new questions we were not previously able to adequately address, as well as enduring questions concerning teacher motivation: What motivates people to choose teaching as a career? What happens to their initial motivations after they enter into the profession? Why do some people leave teaching within a few short years? What keeps teachers engaged and enthusiastic about their work? What leads to teacher exhaustion and burnout?

These questions demand large-scale, long-term, longitudinal data, collected in multiple waves, multiple data sources, consideration of different types of teachers, the consequences of teacher motivations, and serious attention to the environments within which teachers work. In these endeavours, it will be important for teacher motivation research to dialogue with the extant teacher education literature, and other relevant domains of educational and developmental psychology. In this section, we elaborate on the six main directions we perceive for future directions in teacher motivation research.

Large-scale, Multiwave, Long-term, Longitudinal Datasets

Only longitudinal research can examine the mediating processes between background characteristics, motivations, and outcomes. It is only with longitudinal data that it is possible to test the impact of earlier influences, how processes unfold over time, and produce outcomes of interest. We need studies which recruit participants at the outset of their teacher education, and follow them through their professional life. Large-scale studies permit the kinds of analyses that are now available to researchers as a result of advances in statistical methods. Single timepoint or small-scale studies do not allow us to address questions concerned with career trajectories, and the relationship between career motivations, aspirations, and outcomes, or "fit" with workplace environments.

If we are to identify the antecedents of teacher burnout and attrition, and examine questions of cause and effect, we need longitudinal designs which contain multiple occasions of measurement, to be able to detect the nuances of development. Designs are needed of the scope conducted by Wilhelm, Dewhurst-Savellis, and Parker (2000), who studied 156 teachers

over 25 years, to disentangle the personal and contextual factors contributing to their stress and career attrition.

Multiple Data Sources

Self-report surveys provide a useful approach to collecting data about individuals' perceptions, but are less useful as a tool to collect data on objective outcomes. There has been something of an over-reliance on self-report surveys in the motivation literature, and multiple data sources and informants are required for research to engage with the full complexity of the antecedents, development, and outcomes of teacher motivations. Self-report qualitative interviews, framed within a larger study design, could illuminate processes and individual particularities, for theoretically important types of teachers, structured observations (e.g., Pianta et al., 2005) could objectively measure the motivational elements of teachers' instruction and consequent levels of student motivation, and student surveys could offer complementary perspectives to teachers' own views of classroom motivational climate.

Different Types of Teachers

Teachers represent a large and heterogeneous workforce. Given the scale and heterogeneity, we might expect that some individuals are better suited than others to the rigours and stressors of teaching. Continued attention to different types of teachers, such as those having different motivational profiles identified in the FIT-Choice study (Watt & Richardson, 2008b), and those with different profiles of coping behaviour (Kieschke & Schaarschmidt, 2008), will allow us to focus on substantively interesting subgroups, whose functioning may not be adequately represented by the average. It remains to be seen whether and how distinct types of teachers adapt differentially to their professional contexts and show varying patterns of development, and different psychological and behavioural outcomes.

Consequences of Teacher Motivations

Teacher motivations are likely to produce a range of consequences for their students, and for teachers themselves. To date, we know that teachers' achievement goals (Butler & Shibaz, 2008) and enthusiasm for teaching

(Kunter et al., 2008) affect their quality of instruction. In the FIT-Choice study, we are engaged in studying the relationships between teacher motivations, psychological health, professional well-being, career intentions, and burnout symptoms. These are all likely consequences associated with teachers' initial and developing motivations through their careers. The reciprocal causation between teacher motivations and correlates such as these will need to be explored, to reflect the dynamic nature of motivation and learning within classrooms (Turner & Patrick, 2004). It is also likely that the kinds of consequences of teachers' motivations should differ, for teachers who hold different motivational profiles.

Teacher Motivations in Context

Thus far, there has been less attention to social/contextual support and barrier systems, and a greater concentration on psychological variables in research concerning teacher motivations. Despite an insistent policy need for reliable data in this vein, there is a dearth of longitudinal studies which collect rich contextual data alongside psychological data. Sensitive, sound, robust theories and measurements are additionally needed at the level of contextual effects, to determine how different workplace environments nurture or constrain teachers' motivations. Developments in hierarchical linear modelling allow us to examine individuals within their particular teaching contexts, to disentangle the impact of person characteristics and school context on teacher motivations, engagement, and emotions (e.g., Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008). In order to be able to tie the development of teacher motivations to critical contextual factors, we need comparative studies across cultural and country settings, which differ along salient dimensions such as salary, status, teacher education, and in-career mentoring. Such studies provide wonderful "natural experiments" to inform policy.

Promoting Dialogue across Fields

Motivation researchers need to acknowledge the observation that those outside their research community can, and do, find the literature fragmented and dense (Murphy & Alexander, 2000). It is important that teacher motivation research not develop in isolation or reside in a disciplinary cul de sac for two reasons. First, findings from this line of research need to be

accessible to audiences beyond motivation researchers. Second, there is a risk that the "discovery" of teacher motivation by educational psychologists could overlook the array of findings which exists in the teacher education literature, albeit from different disciplinary origins that do not necessarily resonate with the theoretical perspectives and research designs of the educational psychology community.

It will also be important for teacher motivation research to both draw upon, and inform, relevant domains of educational psychology. Related literatures we consider to be key include emotions, self-efficacy, coping, epistemological beliefs, personality, and unconscious motivations. With some notable exceptions (e.g., Pekrun, Elliot, & Maier, 2009; Pekrun, Goetz, Titz, & Perry, 2002; Schutz & DeCuir, 2002; Schutz & Pekrun, 2007), the dominant social-cognitive models of motivation have tended to develop to some extent in isolation from these literatures, although we believe they have much to offer one another. Teacher emotions have been studied by researchers from diverse fields (see Meyer & Turner, 2002; Sutton & Wheatley, 2003), and linked to teaching quality and student outcomes (Frenzel, Goetz, Stephens, & Jacob, 2009) – the same outcomes with which teacher motivation researchers are concerned.

CONCLUSION

Ultimately, our goal is to conduct "basic and use-inspired basic research that generates well-reasoned, empirically supported understandings that can become the scientific foundations for educational practice to improve motivation, learning, and teaching" (Pintrich, 2003, p. 683). The burgeoning research interest in teacher motivations has begun to develop theoretically grounded and psychometrically strong approaches to examining teaching motivations and their correlates over time. Continued attention to the issues we have raised to guide teacher motivation research over the next decade will advance its promising agenda.

NOTE

1. Both authors contributed equally to this work.

REFERENCES

Abangma, M. A. (1981). *A study of primary teachers' attitudes towards ruralisation of school curriculum in English speaking Cameroon*. Unpublished Ph.D. thesis, University of London, London.

Alexander, P. A. (2008). Charting the course for the teaching profession: The energizing and sustaining role of motivational forces. *Learning and Instruction, 18*, 483–491.

Bastick, T. (1999). A three factor model to resolve the controversies of why trainees are motivated to choose the teaching profession. Paper presented at the biennial cross campus conference in education, St. Augustine, Trinidad.

Beck, J. (2009). Appropriating professionalism: Restructuring the official knowledge base of England's 'modernised' teaching profession. *British Journal of Sociology of Education, 30*, 3–14.

Book, C. L., & Freeman, D. J. (1986). Differences in entry characteristics of elementary and secondary teacher candidates. *Journal of Teacher Education, 37*(2), 47–51.

Brookhart, S. M., & Freeman, D. J. (1992). Characteristics of entering teacher candidates. *Review of Educational Research, 62*, 37–60.

Brookover, W. B., Schweitzer, J. H., Schneider, J. M., Beady, C. H., Flood, P. K., & Wisenbaker, J. M. (1978). Elementary school social climate and school achievement. *American Educational Research Journal, 15*, 301–318.

Brown, M. M. (1992). Caribbean first-year teachers' reasons for choosing teaching as a career. *Journal of Education for Teaching, 18*(2), 185–195.

Butler, R. (2007). Teachers' achievement goal orientations and associations with teachers' help seeking: Examination of a novel approach to teacher motivation. *Journal of Educational Psychology, 99*, 241–252.

Butler, R., & Shibaz, L. (2008). Achievement goals for teaching as predictors of students' perceptions of instructional practices and students' help seeking and cheating. *Learning and Instruction, 18*, 453–467.

Chivore, B. S. R. (1988). Factors determining the attractiveness of the teaching profession in Zimbabwe. *International Review of Education, 34*(1), 59–78.

Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Heilig, J. V. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for America, and teacher effectiveness. *Education Policy Analysis Archives, 13*(42), 1–47.

Day, C., Stobart, G., Sammons, P., Kington, A., Gu, Q., Smee, R., & Mujtaba, T. (2006). *Variations in teachers' work, lives and effectiveness: Final report for the VITAE project*. Department of Education and Skills, London.

Department of Education, Science and Training [DEST]. (2003). *Australia's teachers: Australia's future. Advancing innovation, science, technology and mathematics*. Canberra: Committee for the Review of Teaching and Teacher Education, Department of Education, Science and Training.

Eccles, J. S. (2005). Studying gender and ethnic differences in participation in math, physical science, and information technology. *New Directions in Child and Adolescent Development, 110*(Winter), 7–14.

Eccles (Parsons), J., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., et al. (1983). Expectancies, values, and academic behaviors. In: J. T. Spence (Ed.), *Achievement and achievement motivation* (pp. 75–146). San Francisco, CA: W.H. Freeman.

Fox, R. B. (1961). Factors influencing the career choice of prospective teachers. *Journal of Teacher Education, 7*(4), 427–432.

Frenzel, A. C., Goetz, T., Stephens, E. J., & Jacob, B. (2009). Antecedents and effects of teachers' emotional experiences: An integrated perspective and empirical test. In: P. A. Schutz & M. Zembylas (Eds), *Advances in teacher emotion research* (pp. 129–151). Dordrecht: Springer.

Fwu, B. J., & Wang, H.-H. (2002). Social status of teachers in Taiwan. *Comparative Education, 38*(2), 211–224.

Glass, G. (2008). *Fertilizers, pills, and magnetic strips: The fate of public education in America.* Charlotte, NC: Information Age Press.

Halász, G., Santiago, P., Ekholm, M., Matthews, P., & McKenzie, P. (2004). *Attracting, developing and retaining effective teachers. Country note: Germany* (http://www.oecd.org/document/31/0,2340,en_2649_34521_1839647_1_1_1_1,00.html. Accessed January 25 2006). Paris: OECD.

Hargreaves, A. (1994). *Changing teachers, changing times.* New York: Teachers' College Press.

Hattie, J. (2003). Teachers make a difference. What is the research evidence? Paper presented at the Australian Council for Educational Research, Melbourne, Victoria.

Henke, R. R., Chen, X., & Geis, S. (2000). *Progress through the teacher pipeline: 1992–93 college graduates and elementary/secondary school teaching as of 1997.* Washington, DC: National Center for Educational Statistics.

Hursh, D. (2005). The growth of high-stakes testing in the USA: Accountability, markets and the decline in educational equality. *British Educational Research Journal, 31*, 605–622.

Johnson, S. M., & Birkeland, S. E. (2003). Pursuing a "sense of success": New teachers explain their career decisions. *American Educational Research Journal, 40*, 581–617.

Johnson, S. M., Kardos, S. M., Kauffman, D., Liu, E., & Donaldson, M. (2004, April). The support gap: New teachers' early experiences in high-income and low-income schools. Paper presented at the American Educational Research Association Annual Conference, San Diego, CA, April 12–16.

Joseph, P. B., & Green, N. (1986). Perspectives on reasons for becoming teachers. *Journal of Teacher Education, 37*(6), 28–33.

Kardos, S. M., & Johnson, S. M. (2010). New teachers' experiences of mentoring: The good, the bad, and the inequity. *Journal of Educational Change, 11*, 23–44.

Kersaint, G., Lewis, J., Potter, R., & Meisels, G. (2007). Why teachers leave: Factors that influence retention and resignation. *Teaching and Teacher Education, 23*(6), 775–794.

Kieschke, U., & Schaarschmidt, U. (2008). Professional commitment and health among teachers in Germany: A typological approach. *Learning and Instruction, 18*, 429–437.

Klusmann, U., Kunter, M., Trautwein, U., Lüdtke, O., & Baumert, J. (2008). Engagement and emotional exhaustion in teachers: Does the school context make a difference? *Applied Psychology: An International Review, 57*, 127–151.

Kunter, M., Tsai, Y.-M., Klusmann, U., Brunner, M., Krauss, S., & Baumert, J. (2008). Students' and mathematics teachers' perceptions of teacher enthusiasm and instruction. *Learning and Instruction, 18*, 468–482.

Kyriacou, C., & Coulthard, M. (2000). Undergraduates' views of teaching as a career choice. *Journal of Education for Teaching, 26*(2), 117–126.

Kyriacou, C., & Kunc, R. (2007). Beginning teachers' expectations of teaching. *Teaching and Teacher Education, 23*, 1246–1257.

Lent, R. W. (2001). Vocational psychology and career counseling: Inventing the future. *Journal of Vocational Behaviour, 59*, 213–225.

Lent, R. W., Lopez, F. G., & Bieschke, K. J. (1993). Predicting mathematics-related choice and success behaviors: Test of an expanded social cognitive model. *Journal of Vocational Behavior, 42*, 223–236.

Liu, E., Kardos, S. M., Kauffman, D., Preske, H. G., & Johnson, S. M. (2000). *Barely breaking even: Incentives, rewards, and the high costs of choosing to teach: Harvard Graduate School of Education.* http://www.gse.harvard.edu/~ngt/Barely%20Breaking%20Even%200700.PDF

Lortie, D. C. (1975/2002). *School-teacher: A sociological study.* Chicago: University of Chicago Press.

Malmberg, L.-E. (2008). Student teachers' achievement goal orientations during teacher studies: Antecedents, correlates and outcomes. *Learning and Instruction, 18*, 438–452.

Markus, H., & Nurius, P. (1987). Possible selves: The interface between motivation and the self-concept. In: K. Yardley & T. Honess (Eds), *Self and identity: Psychosocial perspectives* (pp. 157–172). New York: Wiley.

Markus, H., & Ruvolo, A. (1989). Possible selves: Personalized representations of goals. In: L. A. Pervin (Ed.), *Goal concepts in personality and social psychology* (pp. 211–241). Hillsdale, NJ: Lawrence Erlbaum.

McNeil, L. M. (1985). Teacher culture and the irony of school reform. In: P. G. Altbach, G. P. Kelly & L. Weis (Eds), *Excellence in education: Perspectives on policy and practice.* Buffalo, NY: Prometheus Books.

McNeil, L. M. (1988). Contradictions of control, part 1: Administrators and teachers, contradictions of control, part 2: Teachers, students, and curriculum, contradictions of control, part 3: Contradictions of reform. *Phi Delta Kappan, 69*(7), 333–485.

McNeil, L. M. (2000). *Contradictions of school reform: Education costs of standardized testing.* New York: Routledge.

Meyer, D. K., & Turner, J. C. (2002). Discovering emotion in classroom motivation research. *Educational Psychologist, 37*, 107–114.

Moran, A., Kilpatrick, R., Abbott, L., Dallat, J., & McClune, B. (2001). Training to teach: Motivating factors and implications for recruitment. *Evaluation and Research in Education, 15*, 17–32.

Müller, K., Alliata, R., & Benninghoff, F. (2009). Attracting and retaining teachers. *Educational Management Administration & Leadership, 37*(5), 574–599.

Murphy, P. K., & Alexander, P. A. (2000). A motivated exploration of motivation terminology. *Contemporary Educational Psychology, 25*, 3–53.

Nichols, S. L., Glass, G. V., & Berliner, D. C. (2006). High-stakes testing and student achievement: Does accountability pressure increase student learning? *Education Policy Analysis Archives, 14*(1), 1–175.

Noll, R. E. (2007). *Teacher job satisfaction in Kentucky: The impact of accountability, principals, and students.* Unpublished Ph.D. thesis, University of Cincinnati, Cincinnati.

OECD. (2004). *Attracting, developing and retaining effective teachers* (http://www.oecd.org/document/9/0,2340,en_2649_34521_11969545_1_1_1_1,00.html. Accessed March 25, 2005). Paris: Organisation for Economic Co-operation and Development.

Organisation for Economic Co-operation and Development (OECD). (2005). *Teachers matter: Attracting, developing and retaining effective teachers.* Paris: OECD Publishing.

Özbilgin, M., Küskü, F., & Erdoğmuş, N. (2005). Explaining influences on career 'choice': The case of MBA students in comparative perspective. *International Journal of Human Resource Management, 16*, 2000–2028.

Pekrun, R., Elliot, A. J., & Maier, M. A. (2009). Achievement goals and achievement emotions: Testing a model of their joint relations with academic performance. *Journal of Educational Psychology, 101*(1), 115–135.

Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002). Academic emotions in students' self-regulated learning and achievement: A program of qualitative and quantitative research. *Educational Psychologist, 37*(2), 91–105.

Pelletier, L. G., Séquin-Lévesque, C., & Legault, L. (2002). Pressure from above and pressure from below as determinants of teachers' motivation and teaching behaviors. *Journal of Educational Psychology, 94*, 186–196.

Pianta, R. C., Howes, C., Burchinal, M., Byrant, D., Clifford, R., Early, C., et al. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child–teacher interactions? *Applied Developmental Science, 9*(3), 144–159.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology, 95*(4), 667–686.

Purcell, K., Wilton, N., Davies, R., & Elias, P. (2005). *The class of '99 – A study of the early labour market experiences of recent graduates*. DfES Research Report no. 691. University of Warwick & University of the West of England, UK.

Ramsay, G. (2000). *Quality matters. Revitalising teaching: Critical times, critical choices. Report of the review of teacher education*. NSW Department of Education and Training, Sydney.

Reeve, J., Bolt, E., & Cai, Y. (1999). Autonomy-supportive teachers: How they teach and motivate students. *Journal of Educational Psychology, 9*, 537–548.

Rex, L. A., & Nelson, M. C. (2004). How teachers' professional identities position high-stakes test preparation in their classrooms. *Teachers College Record, 106*, 1288–1331.

Richardson, P. W., & Watt, H. M. G. (2006). Who chooses teaching and why? Profiling characteristics and motivations across three Australian universities. *Asia-Pacific Journal of Teacher Education, 34*, 27–56.

Richardson, P. W., & Watt, H. M. G. (2008, December). Possible selves of beginning teachers: The origins of occupational choice and professional satisfaction. Paper presented in keynote symposium 'How can psychological theory inform research in teacher education?' Australian Association for Research in Education annual conference papers, Brisbane, November 30–December 4.

Richardson, P. W., & Watt, H. M. G. (2009, April). Possible selves, occupational choice, and personal satisfaction among beginning teachers. Paper presented in symposium 'Motivation for teaching: Utilising diverse motivational theories'. The American Educational Research Association annual conference, San Diego, CA, April 13–17.

Schutz, P. A., & DeCuir, J. T. (2002). Inquiry on emotions in education. *Educational Psychologist, 37*(2), 125–134.

Schutz, P. A., & Pekrun, R. (Eds). (2007). *Emotions in education*. Boston: Academic Press/Elsevier.

Serow, R. C., & Forrest, K. D. (1994). Motives and circumstances: Occupational-change experiences of prospective late-entry teachers. *Teaching and Teacher Education, 10*, 555–563.

Skaalvik, E. M., & Skaalvik, S. (2009). Does school context matter? Relations with teacher burnout and job satisfaction. *Teaching and Teacher Education, 25*, 518–524.

Stoeber, J., & Rennert, D. (2008). Perfectionism in school teachers: Relations with stress appraisals, coping styles, and burnout. *Anxiety, Stress & Coping, 21*(1), 37–53.

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

Tryggvason, M.-T. (2009). Why is Finnish teacher education successful? Some goals Finnish teacher educators have for their teaching. *European Journal of Teacher Education, 32*(4), 369–382.

Tschannen-Moran, M., & Woolfolk Hoy, A. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education, 23*, 944–956.

Tudhope, W. B. (1944). Motives for the choice of the teaching profession by training college students. *British Journal of Educational Psychology, 14*, 129–141.

Turner, J. C., & Patrick, H. (2004). Motivational influences on student participation in classroom learning activities. *Teachers College Record, 106*, 1759–1785.

Valentine, C. W. (1934). An enquiry as to reasons for the choice of the teaching profession by university students. *British Journal of Educational Psychology, 4*, 237–259.

Wang, H.-H. (2004). Why teach science? Graduate science students' perceived motivations for choosing teaching as a career in Taiwan. *International Journal of Science Education, 26*(1), 113–128.

Wang, J., & Odell, S. J. (2002). Mentored learning to teach according to standards-based reform: A critical review. *Review of Educational Research, 72*, 481–546.

Watt, H. M. G., & Eccles, J. S. (Eds). (2008). *Gender and occupational outcomes: Longitudinal assessments of individual, social and cultural influences*. Washington, DC: American Psychological Association.

Watt, H. M. G., & Richardson, P. W. (2007). Motivational factors influencing teaching as a career choice: Development and validation of the FIT-Choice scale. *Journal of Experimental Education, 75*, 167–202.

Watt, H. M. G., & Richardson, P. W. (2008a). Guest editorial: Motivation for teaching. *Learning and Instruction, 18*, 405–407.

Watt, H. M. G., & Richardson, P. W. (2008b). Motivations, perceptions, and aspirations concerning teaching as a career for different types of beginning teachers. *Learning and Instruction, 18*, 408–428.

Watt, H. M. G., & Richardson, P. W. (2010, April). When the rubber hits the road: Changing motivations for teacher subtypes in the first 5 years of teaching. Paper presented at the AERA annual conference, Denver, CO, April 30–May 4.

Weiss, E. M. (1999). Perceived workplace conditions and first-year teachers' morale, career choice commitment, and planned retention: A secondary analysis. *Teaching and Teacher Education, 15*, 861–879.

Wilhelm, K., Dewhurst-Savellis, J., & Parker, G. (2000). Teacher stress? An analysis of why teachers leave and why they stay. *Teachers and Teaching: Theory and Practice, 6*(3), 291–304.

Woolfolk Hoy, A., & Burke-Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education, 21*, 343–356.

Yong, B. C. S. (1995). Teacher trainees' motives for entering into a teaching career in Brunei Darussalam. *Teaching and Teacher Education, 11*, 275–280.