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Why choose teaching? An international review of empirical studies exploring student teachers' career motivations and levels of commitment to teaching

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Why do individuals all over the world choose to become school teachers? What motivates them to become educators of young people and how committed are they to this cause when they enter their teacher education courses? Considering that teacher motivation and commitment have been identified as crucial factors for the future success of education and schools (Huberman, 1993; Manning & Patterson, 2005; Rikard, 1999), these are important questions for policy makers and societies to address. This paper provides a systematic and conceptual review of empirical research studies exploring student teachers' career motivations and commitment in twenty-three countries from five continents. A variety of motivating factors are explored, their relative importance in student teachers' career decisions is discussed, and differences between various subgroups and cultural contexts are highlighted. Attention is drawn to methodological limitations as well as recent developments in this important area of research.

Keywords: international review, career motivations, commitment to teaching, (student) teacher career choice literature, cross-cultural studies, methodological challenges

1. Introduction

> *What the teacher is, is more important than what s/he teaches (Karl Menninger).*

Teacher policy is high on national agendas because *Teachers Matter* (Day, Sammons, Stobart, Kington & Gu, 2007; Organisation for Economic Co-operation and Development (OECD), 2005). They matter not just because they influence the academic achievement of their pupils (Hattie, 2003), which may be regarded to have an important long-term effect on a

society's economic competitiveness in a globalised market. They also matter because they have a very significant impact upon their pupils' social and emotional growth and their preparedness to live, work and contribute to their local communities and wider society. From the perspective of a social justice agenda, teachers are furthermore expected to be social activists who are committed to diminishing educational disadvantage as well as broader inequities of society (Gay, 1990; Sleeter, 1996; Villegas & Lucas, 2001).

While academic proficiency, subject matter knowledge and 'technical' teaching skills are important factors contributing to teacher effectiveness, quality education cannot be achieved without teachers who are motivated, enthusiastic and truly committed to their students' education and to the teaching profession (Collinson, Killeavy & Stephenson, 1999, Manning & Patterson, 2005, Rikard, 1999). When Hattie identifies the teacher as the greatest source of variance that can make a difference on students' learning he emphasises that it is "what teachers know, do, and care about which is very powerful in this learning equation (2003, 2). A number of recent teacher effectiveness studies have identified personal qualities of teachers, particularly as regards the quality of their relationships with their students, as a key variable distinguishing more effective teachers from their less effective counterparts (Stronge, Ward, Tucker & Hindman, 2008; Stronge, Ward & Grant, 2011).

The motivations and attitudes that pre-service teachers bring with them upon entering their teacher education programmes have now been widely recognized as substantially influential in the subsequent development of students and, eventually, when they become teachers (Aksu, Demir, Daloglu, Yildirim & Kiraz, 2010; Goodson, 2003; Minor, Onwuegbuzie, Witcher & James , 2002; Wideen, Mayer-Smith & Moon,, 1998; Richardson & Watt, 2006). The old view of the teacher as an instrument in the production of school achievement – a person that needs to be trained and equipped with the "knowledge base" of the profession – has been replaced with a much more holistic view of the teacher as an

intelligent agent in educating children whose practice 'remains forever rooted in personality and experience' (Kagan, 1992, p.163; Goodson, 1994). More recent research exploring teachers' professional identities continues to highlight the impact of biographical factors such as teachers' own schooling experiences, their *motivations for entering teacher education programmes*, their initial teacher education experiences and contexts of professional practice among the main influences upon the "construction, deconstruction and reconstruction" of teachers' professional identities, "and thus the kinds of teachers they become and their effectiveness" (Flores & Day, 2006).

Work motivation theorists have suggested that salient motivations trigger, sustain and concentrate behaviour (Locke & Latham, 2004; Steers, Mowday & Shapiro, 2004). They are, thus, closely linked to and impacting on individuals' work commitment (retention, concentration). More specifically, work motivations have been defined as a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behaviour and to determine its form, direction, intensity, and duration" (Pinder, 1998, p.11). Paying attention to the sociological and cultural factors impacting on individual's career choice, Hodkinson and Sparkes (1997) highlight the influence of social networks and cultural traditions, educational and labour market situations as well as opportunity structures – all of which form an individual's horizon for action - limiting individual's career decisions.

Applied to teaching and teacher education, student teacher motivations offer an insight into the factors that attract individuals to teaching which, in turn, may influence how long they may remain in their initial preparatory courses and the profession, and the nature and extent of their engagement with (or concentration on) their course and their teaching roles and responsibilities. Findings from studies exploring student teachers' career choice motivations can, therefore, inform teacher recruitment and retention policies as well as the planning of effective teacher education programmes and wider education policy. Comparison

between motivating factors (and their relative strength) observed in different countries can, furthermore, contribute to a better understanding of the impact of cultural, economic and possible other factors on student teachers' career motivations.

Teacher shortage has been identified by UNESCO as a global problem affecting countries all over the world. According to the UNESCO Institute for Statistics (2013), 1.6 million teaching posts will need to be created to achieve universal primary education by 2015 and this number will rise further to 3.3 million by 2030. At lower secondary level, the corresponding numbers are 3.5 million in 2015 and 5.1 million by 2030. Attracting, recruiting and retaining sufficient numbers of motivated and committed student teachers is, in this context, a clear global policy issue.

This paper reviews empirical research studies exploring student teachers' career motivations and commitment in twenty-three countries from five continents. It provides an overview and discussion of the findings from this body of research and the methodologies used in the different studies and contexts. While a detailed description of the education contexts, cultural features and labour market conditions for all twenty-three countries included in this review is beyond the scope of this study, it is hoped that the salient cross-cultural similarities and differences it describes together with the critical discussion offered in relation to the challenges and complexities inherent in cross-cultural motivation research will make a worthwhile contribution to this important field of research. Some of the differences that will be shown will focus our attention on global, other on more localised, country-specific contextual impact factors that education experts and policy makers should consider in the context of teacher recruitment, selection, motivations, preparation, induction and retention.

2. Methodology

The following central research question guided the conceptual and systematic review of the literature on student teacher motivations: What can empirical studies tell us as regards the career motivations of individuals (in different countries and socio-cultural contexts) choosing to enter the teaching profession? Sub-questions included: What (similar and different) motivational themes have emerged in different countries and economic, cultural and social contexts? What are the implications of findings from this body of research for policy and practice? What research methodologies/instruments have been used to explore student teachers' career motivations and commitment?

The review aimed to consider all relevant scientific sources reporting on empirical studies (published in the English language) that could be identified. It began with an examination of electronic databases (ERIC, Google Scholar, JSTOR, Dissertation Abstracts International) and existing reviews (Brookhart & Freeman, 1992; OECD, 2005, Zumwalt & Craig, 2008). The databases were searched using the following terms in a variety of combinations: "student teachers", "trainee teachers", "teacher candidates", "teacher education students", "characteristics", "background", "motivations", "career choice", "perceptions", "reasons", "why teach", "commitment". In addition, the bibliographies of all relevant articles as well as entire academic journals whose research focus encompassed the general topic of teacher education and development were searched.

To identify relevant empirical studies exploring student teachers' motivations, the list of studies generated by the above described searches of online databases, journals and relevant bibliographies was reduced to those studies that (a) focused specifically on student teachers preparing to teach in the primary and secondary education sector, and (b) provided data about motivations that were not subject specific (studies exploring student teachers' motivations to teach specific subjects were excluded even though interest in and commitment

to teach one's subject was explored as a motivation factor). Furthermore, due to the disproportionately large number of US studies focusing on student teacher cohorts at one single institution, the researcher decided to use Brookhart and Freeman's (1992) meta-analysis of 40 US studies conducted between 1960 and 1990 as a data summary for those 30 years. US research data was then extended with findings presented in a more recent discussion paper focusing on "the next generation of [US] teachers" (S.M. Johnson & Kardos, 2008) and all the empirical US studies retrieved for the years after 1990 (King, 1993; Serow & Forrest, 1994; Su, 1997). For all other contexts, all publications (peer-reviewed journal articles and book chapters) that were located were included in the systematic analysis.

In all, 41 studies focusing on student teachers' career motivations in twenty-three countries across the globe (see table 1 for list of countries and corresponding studies) served as empirical data sources for this systematic review. The great majority of these studies explore general primary and/or secondary student teacher populations. Two studies focus specifically on minority teaching candidates (King, 1993; Su, 1997) and two further studies on candidates who switched to teaching after working in other fields (career switchers) (Priyadharshini & Robinson-Pant, 2003; Richardson & Watt, 2005). An overview of all empirical sources used for this review, specifying publication types and titles, sample sizes and research design/instruments, is presented in table 4.

Analyses of empirical sources included "within-study analysis" as well as "between-study analysis" (Onwuegbuzie, Collins, Leech, Dellinger & Jiao, 2010). The former involved analyses and the production of summaries of the different components of each study (including literature review section, study context, conceptual/theoretical framework, methodologies used, sample sizes, results and discussion sections). Between-study analysis aimed to synthesise and contrast methodologies used and findings reported and discussed in the studies under review. Themes and common as well as contrasting findings have been

recorded in detail during the analysis stage following the method of constant comparison. A selection of article summaries as well as coding procedures, interpretations and conclusions was discussed with and checked by one other researcher who supported the development of this project. A summary of the findings reported in the empirical studies reviewed in this paper is presented in table 2, which illustrates the overarching motivational themes that emerged from the meta-analysis together with the country contexts within which the different motivational themes were reported.

This study is limited in scope as it only included and analysed empirical studies published in the English language.

3. Findings

3.1. Student teachers' reasons for choosing a teaching career – A synthesis and discussion of empirical findings from studies conducted in twenty-three countries

The largest body of empirical studies exploring teacher motivations originates from the United States. A review of the studies conducted there between 1960 to 1990 (Brookhart & Freeman, 1992) suggests that: altruistic, service-oriented goals and other intrinsic sources of motivations are the primary reasons entering teacher candidates report for why they chose careers in teaching (p. 46). In the same context, Lortie's study (1975/2002) reported that the most important attractors to teaching given by practicing teachers were the "desire to work with young people" which he labelled "the interpersonal theme" and the "opportunity for rendering important service" categorised as "the service theme" (pp. 27-28). The importance of intrinsic and altruistic factors as influences on students' choice of teaching as a career has been confirmed in a number of studies exploring student teacher cohorts in Australia, the UK, the Republic of Ireland, Northern Ireland, the Caribbean, Slovenia, China and Malaysia (see table 2).

Most studies investigating student teachers' reasons for entering teacher education summarise a variety of different factors under three main sources of motivations influencing their respondents' decision: *intrinsic, altruistic* and *extrinsic* reasons.

Intrinsic motivations cover factors such as enjoyment of teaching, job satisfaction, creativity and an interest in teaching subject(s). Those factors which address the characteristics of the teaching job itself have been identified as most influential on students' choices of teaching as a career in numerous studies originating in the US, Australia, Northern Ireland, the Republic of Ireland, Norway, Canada, the Caribbean, Slovenia, China, the UK, Malaysia and Hong Kong (see tables 1 and 2). Keeping in touch with one's favourite subject was already suggested as one of the most powerful reasons to choose teaching by Valentine in 1934. In a more recent UK study, 88 per cent of the trainees identified 'subject' as a major factor in their decision to follow a Postgraduate Certificate in Education (PGCE) course (Younger et al. 2004). However, as Younger and colleagues point out, this apparently homogeneous response carries with it different constructions of subject and teaching with some respondents explaining that the opportunity to continue working within the subject area (the perceived intrinsic value of the subject itself) drew them to teaching, while others, in addition to their love for the subject, appreciated the opportunity to share their own enthusiasm for the subject with others (Younger, Brindley, Pedder & Hagger, 2004, p. 248). Enjoyment of the subject they will teach was also the most frequent reason for choosing a teaching career given by Slovenian English teachers (Kyriacou & Kobori, 1998). In a recent Irish study exploring second-level student teachers' career motivations, the intrinsic factor "love of subject" achieved the third highest mean value (Clarke, 2009).

Individuals entering teaching for ***altruistic reasons*** see teaching as a socially worthwhile and important job; they want to contribute to society and work with/help children and adolescents. Valentine (1934) and Tudhope (1944) already found in their early UK

studies that a "fondness for children" was one of the most important reasons for students to enter teaching. In the Caribbean context, Brown's study (1992) suggests that a "love of and wanting to help children" is the second most important reason given by student teachers for entering teaching. Richardson and Watt (2006) measured the strength of a number of different altruistic-type motivating factors, which they categorise as "social utility values." Accordingly, Australian teacher candidates testified a strong desire to "shape the future of children/adolescents", to "enhance social equity", "to make a social contribution", and "to work with children and adolescents." In the Irish context, a strong orientation towards caring was also confirmed among primary and second-level student teachers (Drudy, Woods & O'Flynn, 2005, p. 92, Heinz, 2013a) and two altruistic-type survey items – an "interest in working with young people" and "making a worthwhile contribution to society" – received the second and fifth highest mean values (on a list of 11 factors) in Clarke's study describing second-level student teachers' career motivations (2009).

Valentine's and Tudhope's findings showed that the altruistic motivation describing a fondness for and desire to work with children was significantly more important for women than men (Valentine, 1934), and that infant and junior teacher candidates ranked it higher than senior teacher candidates (Tudhope, 1944). Data from the two recent Irish studies exploring primary and second-level student teacher candidates' motivations support Valentine's proposed gender difference as regards the strength of female and male orientations to altruistic values of teaching (Drudy et al., 2005; 90; Clarke, 2009, 184). Later US studies as well as one study conducted in Northern Ireland comparing motivations of teacher candidates preparing for teaching careers at different school levels confirmed that elementary teaching candidates were more child-centred in their motivations than their secondary counterparts (Brookhart & Freeman, 1992; Moran, Kilpatrick, Abbott, Dallat & McClune., 2001).

The "service theme" (Lortie, 1975/2002, p. 28) has long been associated with teaching and is based on traditional 19th century perceptions of 'teaching as a special mission' of moral worth. Nevertheless, Lortie argued that the service appeal of teaching is not universal and is more likely to apply to people who approve of the prevailing education system than to those who are critical of it (Lortie 1975/2002, p, 29). While, as he suggests, 'one might, of course, enter teaching to change it' his study showed that 'it is difficult to find members of the occupation who so describe their entry' (Lortie 1975/2002, p. 29).

The findings of two US studies focusing specifically on minority teacher candidates address the critical and/or transformative type of altruistic motivations, which Lortie found to be absent in mainstream teachers' responses. Accordingly, in King's (1993) and Su's (1997) studies of 41 and 56 minority teacher education students, teacher candidates from five different minority groups perceived their "belief that teaching contributes to the betterment of society" as one of the most important attractors to the career. In her detailed analysis of the motivations of Asian American, African American and Hispanic student teachers Su concludes that:

> Although all the prospective teachers entered teaching for traditional altruistic reasons, the minority candidates were also motivated by the awareness of the inequalities in the existing educational and social establishments. Therefore, many minority candidates have clear and strong visions for social justice and for their own roles as change agents in the school and society. (p. 325)

Coming back to the three main sources of motivations identified in most studies investigating the influences on student teachers' career decisions, the third category – *extrinsic reasons* – describes aspects of the job which are not inherent in the work itself, such as the status of the profession, levels of pay, holidays as well as job security, transferability and flexibility. In his sociological study of the school teacher, Lortie (1975/2002) identified 'material benefits' and 'time compatibility' as the two main extrinsic attractors to teaching.

Most of the already discussed international studies show that student teachers preparing for primary as well as second-level teaching attached least importance to the perceived extrinsic values of their future jobs. Interestingly, Lortie (1975/2002) argues that teachers may underplay the role of material rewards as a result of normative pressures, which require teachers to emphasise more their dedication and service role (p. 30).

Several studies examining the phenomenon of the career switcher into teaching have found that, while the extrinsic attractors of financial rewards and career prestige are not a high priority for late-entry teacher candidates, the special working schedules of teachers and the security of employment associated with teaching played an important role in the decisions of many respondents (Priyadharshini & Robinson-Pant, 2003, Richardson & Watt, 2005, Thornton, Bricheno & Reid, 2002, Watt & Richardson, 2008b). As reported by Richardson and Watt (2005), women and men participating in their Australian study wanted to find careers that allowed time to have a quality family life with reasonable hours and many were prepared to trade off higher salaries for security of income (Richardson & Watt, 2005). In the UK context, Priyadharshini and Robinson-Pant (2003) found that the need felt by many career switchers for greater stability and security represented an important practical consideration which stood beside more intrinsic attractors like late entrants' changing perspectives on life, which had often increased their appreciation of the teaching job, and their general dissatisfaction with the nature of their previous employment.

In contrast to the findings from numerous European, North American and Australian studies, research conducted in very different socio-cultural contexts such as in China (Su et al., 2001); Turkey (Kilinç, Watt & Richardson, 2012), Brunei (Yong, 1995), Zimbabwe (Chivore, 1988), Malaysia (Yaakub, 1990), Jamaica (Bastick, 2000) and Malawi (Mtika & Gates, 2011) has found that extrinsic values such as teacher salaries, financial assistance during teacher education studies, career status, job security or anticipated opportunities to

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move from teaching into other more desirable professions are regarded as important or even most influential reasons for choosing a teaching career. In Chivore's (1988) Zimbabwean study of 255 non-graduate secondary student teachers, the highest-ranked factor in determining the attractiveness of the secondary teaching profession was that salaries of secondary teachers were attractive relative to those in the public and private sector (Chivore, 1988). Overall, Chivore (1988) reports that, out of the 15 factors rated as relatively important in this study, seven referred to financial remuneration or salaries. In the Malaysian context, Yaakub (1990) found that 88 per cent of his 210 respondents agreed and/or strongly agreed that teaching will provide them with a secure job while 70 per cent agreed that it is easy to get employment after teacher training. Similarly, a large scale and cross-institutional Jamaican study confirmed that extrinsic-type motivations were considered more important than altruistic and intrinsic career motivations by student teachers (Bastick, 2000).

In Brunei Darussalam, a study describing the main reasons given by 133 student teachers in relation to their career choices (Yong, 1995) shows that their motives were first extrinsic, second intrinsic and, third, altruistic. The most prominent reason categorised under extrinsic motivations was 'no other choice.' Accordingly almost 15 per cent of trainees entered teaching as a last resort after failing to enter another profession or generally failing to pursuit education at higher level.

In their large-scale Chinese study incorporating the views of student teachers from 23 teacher training institutions, Su, Hawkins, Huang & Zhao (2001) found that Chinese teacher candidates rated intrinsic factors much lower and extrinsic factors much higher than their counterparts in the US. Despite the fact that students in both countries rated intrinsic factors overall higher than extrinsic factors, the discrepancy in the strength of agreement with different intrinsic and extrinsic values of the profession indicated, according to the researchers, a significant difference in entry perspectives between Chinese and American

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teacher candidates with many Chinese students showing much less enthusiasm for teaching than their American counterparts. Data from both countries showed that while most of the American student teachers entered their teacher training 'on their own free will and choice', about half of the Chinese student teachers entered teacher training reluctantly, many because of the lack of financial support from their families or from other areas of study, some as a result of pressure from their parents, and others because their test scores were not high enough for admission into other fields of study. "I did not choose the profession, the profession chose me" was, according to the researchers, a popular saying among their respondents (Su et al., 2001, pp. 621-22). Another structured qualitative study comparing student teachers' motivations in Canada and Oman (Klassen, Al-Dhafri, Hannock & Betts, 2011), reported similar findings with Omani participants endorsing fallback career as a motive for choosing to become a teacher at a higher level than Canadian participants. From the Turkish context, where teacher education programmes have generally low admission requirements, Akar (2012) reported that one quarter of the 974 pre-service teachers participating in his study would have chosen a different career if their university entrance exam scores had been higher and that only 16.1% of his participants had ranked teaching as their first preference in their entrance examinations.

Similarly an in-depth qualitative Malawian study (Mtika and Gates, 2011) found that only 3 out of 14 secondary student teacher participants mentioned intrinsic reasons when talking about their higher education course choice. The researchers explain that discourses of poor salaries and its negative effect on the professional status of teaching were common among trainee teachers and teachers in Malawi and that some trainee teachers had an intention to use their teaching qualification as a 'springboard' to get somewhere else in their career pursuits. The latter extrinsic motivational factor, which emerged from this qualitative

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study, is particularly interesting as it has not been explored explicitly in any other study so far.

In contrast to the comparatively low levels of commitment to teaching observed in China, Brunei Darussalam, Oman and Malawi where a considerable number of students appear to consider teaching as a 'backup job' until they can find something else to do, studies originating in the US (Book, Freeman & Brousseau, 1985; Brookhart & Freeman, 1992), Australia (Richardson & Watt, 2005; Watt & Richardson, 2007) and Ireland (Heinz, 2013a) clearly indicate that teaching is, in those countries, not viewed as a fallback career. On the contrary, participants' responses in those studies testified that teacher education students had considered their career choice more carefully than students in many other fields (Book et al. 1985), indicating that, rather than being a 'second-choice', teaching 'may well be becoming a career of choice for those who pursue it' (Watt &Richardson, 2007).

Besides the intrinsic, altruistic and extrinsic sources of motivation discussed so far (which have dominated the literature on teachers' career choices) a number of additional influential factors have been studied by some researchers. These include: student teachers' ***teaching-ability related beliefs***, their ***prior teaching and learning experiences***, the potential ***influences of family members and others,*** and ***the impact of socio-cultural factors***.

Firstly, studies originating from the US (Brookhart & Freeman 1992, Lortie, 1975/2002), UK (Younger et al., 2004), Australia (Richardson & Watt, 2006; Watt & Richardson, 2007), Slovenia (Kyriacou & Kobori, 1998), Ireland (Heinz, 2013a) and Malaysia (Yaakub, 1990) suggest that student teachers generally have high levels of confidence in their teaching abilities which are mostly related to their subject knowledge and/or character traits they regard as suited to the teaching profession. A qualitative UK study exploring the career motivations of 36 beginning secondary teacher trainees found that the vast majority of interviewees (over 80 per cent) were able to identify qualities they associated

with inspirational teachers in themselves (Younger et al., 2004). Among the most commonly cited teacher qualities were their enthusiasm, strong interpersonal skills, energy, and ability to generate confidence in pupils. The researchers suggest that 'in mapping their own personal qualities against those of good teachers, trainees had achieved an identification of themselves with teaching which made it feel almost inevitable that they would become teachers' (Younger et al., 2004, p. 250). In Watt and Richardson's Australian study (2008b), and Heinz's Irish study (2011, 2013a), participants' teaching ability-related beliefs proved to be one of the most influential factors on their career choice.

Secondly, a number of US (Fox, 1961; Lortie, 1975/2002), Australian (Richardson & Watt, 2006; Watt & Richardson, 2007) and European (Thornton et al., 2002 (UK); Younger et al. 2004 (UK); Watt, Richardson, Klusman, Kunter, Beyer, Trautwein & Baumert, 2012 (Germany and Norway); Heinz, 2011, 2013a (Ireland)) studies identified student teachers' *prior teaching and learning experiences* as a positive influence on their decisions to become teachers. In his early study of practicing school teachers, Lortie (1975/2002) argued that it is hardly surprising that out of the millions of young people moving through schools some develop lasting affiliations with the institution and become so attached that they loath to leave (29). Younger et al. (2004) reported that about one third of their respondents explained that their motivations to teach stemmed from their own positive schooling experiences. Their UK and Heinz's Irish (2011, 2013a) studies are furthermore the only two studies so far to identify student teachers' previous experience as teachers as an influential source of career motivation. The UK study reported that for as much as 40 per cent of their respondents, experiences of teaching children (either as a volunteer worker overseas or through work experiences gained at university) or adults (as TEFL teachers or in industry) had influenced them strongly when they decided to become teachers (Younger et al., 2004).

Thirdly, several studies from different countries have investigated the influences of family members and/or others on teacher candidates' decisions to become teachers. Family members have been found to have had an important influence on student teachers' career choice in Ireland (Drudy, et al., 2005), the UK (Tudhope, 1944; Valentine, 1934), the US (Book & Freeman, 1986; Fox, 1961; King, 1993), China (Su et al., 2001) and Brunei Darussalam (Yong, 1995). In the Irish sample of primary student teachers (Drudy et al., 2005), 24.5 per cent of respondents had mothers and 13.3 per cent had fathers who were teachers and a total of 61.7 per cent of them had a close relative who was a teacher. The researchers suggest that 'clearly, having a parent, sibling, or close relative in the profession favourably predisposes these young people towards the profession' (Drudy et al., 2005, 78). In contrast, the influence of others has been found to play a minor role in teacher candidates' decision-making processes. Valentine suggested already in 1934 that the persuasion from teachers was one of the smallest influences on students in the UK, coming only 14th in rank with both men and women. In Yaakub's Malaysian study (1990), less than one fourth of respondents agreed that they were influenced by others. Richardson and Watt's (2006) Australian study showed that, far from being influenced by others in a positive way, teacher education entrants experienced relatively strong social dissuasion from teaching as a career.

One recent cross-cultural, qualitative study which compared the career motivations of final-year Canadian and Omani pre-service teachers (Klassen et al., 2011) highlights the strong impact of socio-cultural influences on the motivations of the latter. Reasons given by participating student teachers from Oman in their qualitative survey responses testified the strong influence of culturally-specific religious and gender roles ("teaching is the profession of the prophets", "teaching is the best job for women"). These findings are of particular interest if we consider that religious and/or gender specific items do not currently feature in

the most widely used teacher motivation scales (Factors Influencing Teaching Choice (FIT-Choice) Scales – refer to next section for more details).

Most of the studies reviewed for this paper discuss the relevance and/or implications of their findings and/or student teachers' career motivation research more generally. The most common implication cited in the literature suggests that a better understanding of individuals who choose teaching as a career in different contexts can enhance the effectiveness of recruitment and retention efforts as individual's actual and most relevant motivations can be targeted rather than a narrow subset of traditionally assumed motivations such as helping children and making a social difference (see for example Klassen et al., 2011; König & Rothland, 2012, Watt et al., 2012). Authors generally describe student teachers' career motivations and perspectives as complex (Heinz, 2011,2013a, Mtika & Gates, 2011, Watt et al., 2012, Wong, Tang & Cheng, 2014) and recognise that highly normative debates often surrounding (student) teacher's job motivations need to be extended by pragmatic views on motivations and/or ordinary needs which future teachers actually have (and which are widely acceptable in society with regard to other professions) (König & Rothland, 2012). While some researchers have suggested that screening of teacher candidates to identify suitably motivated individuals with higher initial commitments may enhance retention rates and thus help to avoid resource wastage (Mtika & Gates, 2011) others suggest that individuals whose initial motivations might be considered unsuitable (fallback career) can develop intrinsic and/or altruistic motivations, particularly if they are supported and guided by enthusiastic and committed mentors (König & Rothland, 2012; Wong et al. 2014).

Many studies suggest that exploring and addressing discrepancies between student teachers' intrinsic and altruistic career motivations and their actual experiences during their ITE programmes as well as later working conditions may help to improve teacher retention. Where teaching motivations cannot be realised it is likely that professional satisfaction and

fulfilment will deteriorate and that teachers will experience burnout or leave the profession (Heinz, 2011; Lin, Shi, Wang, Zhang & Hui, 2012; Manuel & Hughes, 2006; Priyadharshini & Robinson-Pant, 2003; Watt & Richardson, 2012). Even robust altruistic visions formed at the ITE stage of teacher development are, according to Manuel and Hughes (2006), "susceptible to being whittled away under the weight of unreasonable and unmanageable workloads" placed on beginning teachers [in Australia] in school cultures 'that marginalise rather than embrace new teachers' voices' and fail to provide sustained professional support (p. 26). The same authors (Manuel & Hughes, 2006) furthermore argue that in light of (student) teachers' strong motivation and desire to engage with and teach their subject specialism the significant minority of teachers who are teaching 'out of their specialisation/field' are likely to experience career dissatisfaction and disillusionment that may prompt them to question their decision to teach.

Researchers suggest that teacher educators need to consider their students' motivations in order to create meaningful opportunities for them to develop and create professional identities and to sustain their commitment and enthusiasm (Flores & Niklasson, 2014; Heinz, 2013a; Manuel & Hughes, 2006; Watt et al., 2012). Programmes need to be structured carefully so that instructional demands are graduated and possibly tailored to individual circumstances. Furthermore all involved in initial teacher education should address more explicitly and productively the tensions between student teachers' aspirations and the realities they face in their day-to-day teaching in order to support student teachers to develop a healthy balance between their intrinsic and altruistic motivations and the pragmatic demands of the teaching profession (Heinz, 2013a; Priyadharshini & Robinson-Pant, 2003).

Further policy-related implications mentioned in the student teacher motivation literature include the need for structured support and collaboration at the start of newly qualified teachers' careers (Lin et al., 2012) as well as the importance of a positive/improved

status and improved working conditions for the teaching profession (Flores & Niklasson, 2014; Lin et al., 2012; Manuel & Hughes, 2006; Mtika & Gates, 2011; Su, 1997).

3.2. Research methodologies – overview and discussion of limitations, developments and challenges

While the studies discussed so far have enlightened our understanding of student teachers' reasons for choosing careers in teaching, a number of conceptual and methodological shortcomings can be observed in this body of literature. They will now be discussed alongside recent developments and on-going challenges for teacher motivation research. First, we shall, however, ask the question of what research methodologies and instruments have been used in this area of research (and in what proportion), what sample sizes are the results of the here reviewed studies based on and in how far do they represent single or multiple institutions and/or countries? Tables 3 and 4 provide the necessary data to answer these questions. Table 3 illustrates the predominance of quantitative questionnaire studies, particularly in the early US research context (with 38 out of 44 US studies conducted between 1960 and 1990 using a predominantly quantitative approach). As regards the more recent studies reviewed here (1988-2014), we notice a more balanced distribution between predominantly quantitative questionnaire designs (21 studies with sample sizes between 95 and 18,226) and qualitative or mixed methods studies (17 studies with sample sizes between 14 and 2,000). Probably the most significant development as regards empirical student teachers' career motivations research in the last decade has been the design of the Factors Influencing Teaching Choice (FIT-Choice) Scales by Watt and Richardson (2007, 2008) which have, to date, been used in ten studies internationally (development and use of these scales will be discussed further at a later stage in this section).

One of the limitations visible in the provided overview relates to the studies' research populations/sites, with most of the early studies originating in the US (41 out of 44 reviewed

by Brookhart & Freeman, 1992) limited to a single institutional context and more than 40 per cent of these furthermore completed at one of two universities. As discussed by Brookhart & Freeman (1992), it is obvious from these statistics, that certain student populations are overrepresented which poses difficulties regarding the generalizability of findings. Many of the more recent cross-institutional studies conducted more recently in Turkey (Aksu et al. 2010), the UK (See, 2004; Reid & Caudwell, 1997; Thornton et al., 2002), the Republic of Ireland (Clarke, 2009; Heinz, 2013a, 2013b, 2013c; Drudy et al., 2005), Northern Ireland (Moran et al., 2001), Australia (Richardson & Watt, 2006; Watt & Richardson, 2008b) and China (Su et al., 2001) offer a more complete picture of the profiles and motivations of the student populations entering teacher education in these countries.

A further conceptual limitation revealed during the review of research designs relates to the treatment of teacher candidates as one homogeneous group in the majority of studies (see table 4). Accordingly, most studies pay little or no attention to subgroup differences based on different teaching levels (primary vs. second-level teacher candidates), teacher candidates' socio-demographic/biographical backgrounds and/or the stage at which student teachers are in their initial teacher education (ITE) programme (i.e. pre-entry, beginning of ITE course or any time during teacher preparation) (Brookhart & Freeman, 1992; Brown, 1992; Chivore, 1988; Reid & Caudwell, 1997; Kyriacou & Kobori, 1998). Where comparisons of the motivations of sub-populations have been included in discussions of findings they have mostly been restricted to the descriptions of gender differences, showing that female candidates often report more child-centred motivations to teach. With many countries experiencing shortages of teachers in specific subject areas (for example in Science, Mathematics and Foreign Languages in Ireland (Heinz, 2008, 2011) more analyses of the (similar or different) motivational profiles of individuals applying for and entering teacher

education programmes by subject areas could inform policy initiatives focusing on subject-specific teacher recruitment and retention.

Similarly, teacher career motivation research could make an important contribution to policy initiatives aimed at diversifying teaching bodies which, in many Western countries, have been reported to remain homogenously white, predominantly female and of the majority social and ethnic groupings in contrast to increasingly diverse student populations (Heinz, 2011 & 2013c; Heinz & Keane, 2014a, 2014b; Keane & Heinz, under review; Moran, et al., 2001; Zumwalt & Craig, 2008). In order to attract more individuals from currently under-represented groups to teacher education we need to know more about the career motivations of *potential* and *actual* initial teacher education applicants from different socio-demographic backgrounds. A multi-dimensional, mixed-methods national study (Diversity in Initial Teacher Education – 'DITE') is currently exploring the motivational profiles of applicants and entrants to initial teacher education programmes in Ireland. In their 'DITE' study, Heinz and Keane (2014a, 2014b) use the FIT-Choice scales in combination with qualitative survey items as well as interviews to investigate similarities and differences in the backgrounds and career motivations of successful and unsuccessful ITE applicants from different socio-demographic backgrounds (see: http://www.nuigalway.ie/education/research/dite/dite.html).

A third conceptual weakness of research in the field of student teacher motivations is its mostly atheoretical nature which has caused a lack of concurrence in the definitions of different influential factors and overlapping categorisations. Especially, intrinsic and altruistic sources of motivations have been poorly defined and often mixed up or collapsed in one category. As a result, the OECD study *Teachers Matter* (2005) reports as one of its 'strong conclusions' that 'teachers are highly motivated by intrinsic benefits of teaching – working with children and young people, helping them to develop, and making a contribution to society' (p. 68).

Furthermore, most studies appear to assume that the influential factors on individuals' career decisions remain largely within their sole control even though various theorists have long emphasised the importance of 'opportunity structures' (Roberts, 1968) or 'happenstance' (Miller, 1983) as people react to and are influenced by labour market and serendipitous opportunities. Differences observed in studies from different cultural contexts and the high percentage of student teachers confirming the importance of their prior learning and teaching experiences on their career motivations (Younger et al., 2004; Watt & Richardson, 2007) should encourage researchers exploring student teacher motivations to go beyond models of planned decision making and to pay more attention to social, cultural and opportunity factors that may limit or enhance individual's career decisions. Interestingly, this argument in favour of considering wider opportunity structures when exploring (student) teacher motivations has more recently also been conceptualised in Guarino et al.'s teacher supply and demand framework focusing on individuals' 'choice of teaching *over*[i] other available occupations' (Guarino, Santibanez & Daley 2006, p. 175). The emphasis here lies on the "opportunity costs" of teaching which are related to the opportunities an individual who chooses teaching will loose as regards experiencing the rewards, in terms of overall compensation and including intrinsic and extrinsic rewards, of other available occupations (Guarino et al., 2006, p. 175). Perhaps future teacher motivation research can explore possibilities to extend current conceptual frameworks of (student) teacher motivations to include more explicit reference to a wider context of opportunity structures which may restrict individuals' freedom of choice, on the one hand, while, at the same time, also demanding a conscious choice of teaching over other professions/activities.

In addition to the conceptual weaknesses discussed so far, many of the survey research studies of teacher candidates' motivations have failed to address the issues of instrument validity and reliability. Even where the survey instruments were included or had

previously been published, evidence of instrument quality was often lacking. Furthermore, the often used technique of measuring motivational variables with survey items asking respondents to rank or choose all suggested factors that apply (Brookhart & Freeman, 1992) makes interpretations of the relative importance of different factors difficult. On the one hand, one might argue that the ranking of up to 21 items (Chivore, 1988) will most certainly render imprecise results due to the very nature of the difficult task of ranking such a large number of possible personal motivations. On the other hand, analyses of results obtained from choose all and/or ranking-order tasks pose statistical difficulties since students who mark higher numbers of motives weaken the relative score of their most influential motives.

It is important to highlight at this point that the so far described methodological limitations relating to inconsistent conceptualisations/factor categorisations and insufficient rigour in instrument design and validation observed in many of the earlier studies render a cross-cultural comparison of findings from these studies extremely difficult if not, in fact, speculative. In addition, studies exploring student teachers' career motivations in different countries have been published within a relatively large time period (Zimbabwean study (Chivore) in 1988, Portuguese/Swedish study (Flores & Niklasson) in 2014) and for many countries we are relying on data collected from one year cohort only. As a result, the cross-cultural analysis that will be attempted in the next section will only highlight some of the differences that appear to be most salient. There is clearly much room for advancing the field of teacher career motivation research and future projects should aim to engage in much more nuanced analyses of trends within as well as similarities/differences between countries and cultural contexts.

The earlier mentioned large-scale Australian project, the FIT-Choice project (see www.fitchoice.org) has more recently addressed some of the theoretical and methodological shortcomings of previous empirical research studies investigating student teachers' career

choices (Watt & Richardson, 2007). Researchers working on the project have systematically applied findings from the wider career-choice literature as well as from previous studies on teachers' and student teachers' career choice motivations, and combined them with contemporary motivational models to develop 'a comprehensive and coherent model to guide systematic investigation into the question of why people choose a teaching career' (Richardson & Watt, 2006, p. 31). Watt and Richardson have discussed in detail how the developed FIT-Choice factors map onto expectancy-value theory, social cognitive career theory and to key findings within the existing teacher education literature (Watt & Richardson, 2007, 2008). Their FIT-Choice survey tool and scales have been rigorously tested for construct validity and reliability across two independent, large-scale, and representative samples in Australia and have been found to 'provide a psychometrically and theoretically strong framework to guide future research into the choice of teaching as a career' (Watt and Richardson, 2007, p. 196).

The FIT-Choice project has grown immensely over the last decade and the FIT choice framework and survey tool have been widely used in countries including Australia (Richardson & Watt, 2006; Watt & Richardson, 2007, 2008), the United States (Lin et al., 2012), Norway (Watt et al., 2012), Germany (König & Rothland, 2012; Watt et al., 2012), China (Lin et al., 2012), Ireland (Heinz, 2011, 2013a), the Netherlands (Fokkens-Bruinsma & Canrinus, 2012), Turkey (Kılınç, Watt, & Richardson, 2012), Croatia (Jugović, Marušić, Ivanec, & Vidović, 2012) and Indonesia (Suryani, PhD thesis under examination, submitted 2014). In a recent collaborative international study, Watt et al. (2012) were able to assess and evaluate similar psychometric properties across Australian, US, German, and Norwegian samples and to establish strong factorial invariance for their resulting model. Many of the one-country studies using the FIT scales have, furthermore, reported good construct validity and reliability within the different contexts. The international application of one common

framework/survey tool will provide opportunities for more reliable cross-cultural comparisons of (student) teacher motivations and of salient cultural or other features and educational policy contexts that may be antecedents for different motivational profiles.

One of the limitations described in the first comparative FIT-choice study analysing data collected in Australia, the US, Germany and Norway (Watt et al., 2012) relates to the "opportune samples" (p. 804) which were involved. Considering that sample sizes and response rates differed greatly between contexts (see details in table 4) and that respondents in different countries were at various stages of their teacher education programmes the comparative findings garnered from this cross-cultural FIT-choice project have to be interpreted with caution. In particular, it is important to consider the impact that exposure of students to ITE programme elements and experiences may have on their motivations. If we, therefore, wish to ascertain the 'entering' motivations of teacher education candidates and, possibly at a later stage, changes in these motivational profiles throughout individuals' teaching careers, comparative studies are needed that collect, compare and interpret FIT-choice results for comparable samples of teacher education candidates before or at the very start and then at different stages throughout students' engagement with their ITE programmes.

Furthermore, in relation to methodological challenges, Klassen et al. (2011) highlight the risk that important cultural differences or similarities may be masked in purely quantitative approaches to cross-cultural teacher motivation research due to restricted definitions and/or unexamined assumptions about pre-service teachers' motivations leading to western-dominated understandings of motivation in non-western settings (Klassen, 2004; Sternberg, 2004). The researchers advocate mixed-methods or qualitative approaches to teacher motivation research, which allow for inquiry into culture-specific factors that might not have been considered in the creation of scales in any original setting. While the

FIT-choice survey includes one open-ended item asking participants to "briefly state their main reason(s) for choosing to become a teacher", it will be important to explore in how far this item helps researchers to discover influential cultural differences like those described by Klassen et al. (2011).

Finally, cross-cultural researchers in various fields including psychology (Grimm & Church, 1999), health (Ross & Mirowsky, 1984) and management (Riordan & Vandenberg, 1994) have emphasised the need for cross-cultural quantitative studies to examine possible associations between response styles[ii] and cultural orientation. T. Johnson, Kulesa, Cho & Shavitt (2005), drawing on evidence from 19 countries and 5 continents, explored the effects of Hofstede's (2001) four cultural orientations: power distance, masculinity, individualism and uncertainty avoidance, on two commonly recognised response biases: extreme response style (a tendency to select the end points of a scale) and acquiescent responding (a tendency to agree). Their study confirmed and extended findings from earlier research describing differences in extreme as well as acquiescent responding between a variety of national and ethnic groups. Specifically, T. Johnson et al's (2005) research results indicated that cultures with high masculinity and with high power distance were more likely to select extreme response options, which according to the researchers fulfil goals of "achieving clarity, precision and decisiveness", on a questionnaire. The authors conclude that "understanding how culture influences individual response behaviours remains a prerequisite for the sound practice of cross-cultural research" (T. Johnson et al., 2005, p. 275) as both extreme responding and acquiescence bias, when uncontrolled, have the "potential to introduce serious confounds that may threaten the validity of cross-cultural comparisons (Cheung & Rensvold, 2000)" (quoted in T. Johnson et al., 2005). Further research is needed, they argue, to examine the degree to which potential relationships between cultural orientations and response behaviours may be modified by question characteristics. In light of the rapidly

growing network of researchers employing Watt and Richardson's (2007) FIT-choice scales in different country and cultural contexts and the associated opportunities for cross-cultural comparisons, teacher career motivation research has the potential to make a valuable contribution to the further development of cross-cultural survey methodology.

4. Discussion of findings and conclusion

4.1. A careful cross-cultural analysis of student teacher motivations

While any conclusions as regards the impact of cultural and wider educational system and policy features on teacher candidates' career motivations have to be presented with care due to the methodological limitations and challenges outlined in this paper, it seems worthwhile to highlight some initial findings from the first cross-cultural studies and from this systematic review.

The FIT-choice project team has provided the most extensive cross-cultural comparative analyses so far. In their recent article comparing teacher candidate's motivations (as measured by the earlier described FIT-Choice scales) in Australia, the US, Germany and Norway, Watt et al. (2012, p. 804) emphasised their "highly interesting" finding that "motivations appeared more similar than different across the four samples" with 'intrinsic career value', 'perceived teaching ability', the 'desire to make a social contribution', to 'work with children/adolescents', and having had 'positive prior teaching and learning experiences' rated consistently highest by participants across the different country samples.

Some of the nuanced differences reported in this study were the higher ratings for job security as a motivator in the Australian study, the higher ratings for 'time for family' observed in the US sample, and the significantly lowest score achieved by all of the 'social utility factors'[iii] in the Norwegian sample when compared to the relevant scores observed in the Australian, German and US samples. The careful examination of education systems,

teaching and wider labour-market contexts allow the authors to suggest the following interesting explanations for the observed differences: Firstly, they argue that between country differences in the requirements for full teacher certification (including external examination requirements in Germany, the US and Norway but not Australia), the status of teachers as public officials/servant or not (in the case of Norway since 1989) and school closures at the time of data collection in the US may be possible factors that impacted on the differential ratings of 'job security' as a motivator. Secondly, they suggest that the higher importance of 'time for family' as an attractor to teaching observed in the US sample may be related to the greater flexibility for teachers relative to other professionals in the U.S. setting. Thirdly, the researchers had anticipated that Norwegian student teachers would feel less compelled to 'enhance social equity' as teachers because of Norway's egalitarian principles of unity and equality in school (Lyng & Blichfeldt, 2003, p. 69, quoted in Watt et al., 2012, p. 803).

In their conclusions, Watt et al. argue that "the fact that contextual country features did not produce greatly different patterns of motivations raises interesting questions such as whether there are "core" motivations shared by those who are attracted to a teaching career, or whether certain personality types are more likely to choose teaching." Future research, they argue, should involve larger and more representative samples to examine "prospective teachers from contexts which are more different still" (p. 804).

In the *APJTE* Special Issue prepared by Watt & Richardson the same year (2012), comparisons of FIT-Choice scale results obtained from Turkey, China, the US, Croatia and Germany facilitated discussion of further observed differences between cultural contexts. Differences were observed as regards participants' perception of teaching as a 'fallback career' (rated very low in German, US and Croatian settings and higher in the Chinese and Turkish contexts), as well as in relation to the measured 'intrinsic career values' and self-evaluated 'teaching ability' (highly important in all contexts except in Chinese and Turkish

settings). In their discussion of this second set of cross-culturally comparative data the authors extend their interpretational framework to include the possible impact of cultural orientations and/or values on reported career motivations. Accordingly they consider a possible tendency for career values to be less based on individuals' interests and abilities in a collectivistic culture such as China, or a developing nation such as Turkey where more basic needs such as job security may have primacy (Watt & Richardson, 2012, p. 193).

The differences observed in the attractors and levels of commitment to teaching in the body of research discussed in this paper may link with Watt et al.'s (2012) interpretation of their findings from Turkey, suggesting that career choice in teaching is potentially framed and shaped by opportunity structures as well as economic and labour market conditions which differ immensely between the different socio-cultural contexts of higher, middle and lower income countries and/or countries with higher or lower (inequality adjusted) human development indexes[iv]. While the importance of intrinsic and altruistic-type motivations has been evident in all studies originating from higher income countries with very high inequality-adjusted human development indexes, despite differences in their education systems and policies, extrinsic reasons like financial rewards and job security have been given a higher priority in many of the middle to lower income countries with lower (inequality adjusted[v]) human development indexes (IHDIs) were there tend to be less competing employment opportunities in private and commercial sectors and where teaching can offer people of lower class standing an opportunity for socio-economic advancement, enhanced social security and a better life (Human Development Indexes (HDIs) and Inequality-adjusted Human Development Indexes (IHDIs) for countries included in this review provided in table 1). Lortie's (1975/2002) observation that 'teaching is clearly white-collar, middle-class work, and as such offers upward mobility for people who grew up in blue-collar or lower class families' (p. 35) appears to hold true in the contexts of many

'developing countries', where 'those in teaching are often considered as having a good job' (Yong, 1995, p. 278). As argued by Bastick, the stronger emphasis on extrinsic career motivations observed among student teachers in 'developing countries' appears to reflect Maslow's (1970) fundamental motivation theory predicting that altruistic and self-realisation motives remain weak until basic needs are met (Bastick, 2000). In contexts such as North America and Australia it may be more possible to prioritise one's career choices as optimally fitting one's skills and interests, in contrast to economically 'developing countries' where issues such as equity and security are less able to be taken for granted and may need to be deliberately pursued (Kilinç et al., 2012).

The finding that motivation and commitment among student teachers in middle and lower income countries (with lower human development indexes) might be lower than in higher income countries (with high human development and low inequality indexes) is worrying if we consider that teacher impact on learning opportunities and quality of education can be even greater in under-resourced education systems of lower income countries where school-related factors have been found to be more important than non-school factors in determining differences in pupil achievement (Heyneman, 1987). Increased attention to and efforts to improving teacher recruitment and motivations in low-income countries have, therefore, to be considered as vital factors contributing to the enhancement of education as a 'catalyst for human development that can help to achieve all Millennium Development Goals' (United Nations Education, Scientific and Cultural Organisation (UNESCO), 2012).

4.2. Conclusion

More large-scale, cross-cultural longitudinal mixed-methods studies, using theoretically and empirically validated instruments and comparable samples, are needed to explore student

teacher backgrounds, motivations and commitment in higher as well as middle and lower-income countries to enhance our understanding of the impact of cultural features as well as of structural and economic conditions on individuals' career motivations and on student teachers' levels of commitment to teaching. Future studies can inform policy makers and teacher educators and contribute to the recruitment and retention of appropriately motivated teachers if they systematically explore the questions of whether and (if yes) how career choices and motivations of *potential* and *actual* teacher education applicants and entrants might be influenced by a variety of contextual as well as individual factors including:

- economic and human development and labour market opportunities/conditions;

- teachers' tasks, responsibilities and work environment/conditions (including for example student-teacher ratio, quality of school buildings and teaching materials);

- teachers' levels of pay, job security and opportunities for career progression compared to other comparable professions;

- relative status and esteem of the teaching profession;

- structures of education systems including access to third-level education;

- organisation and implementation of teacher education programmes;

- organisation of schools and teaching and learning approaches promoted in education policy/syllabi and implemented in schools;

- cultural, social and/or religious features;

- individuals' socio-demographic backgrounds, prior education and other related experiences and perceived professional opportunities.

While ascertaining cross-cultural differences in relation to some of these variables is relatively straight-forward (for example a comparison of levels of pay if we use OECD, world bank or other available data[vi]) many of these contextual factors are widely discussed

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yet extremely difficult to conceptualise and/or measure. They are also, of course, interlinked in a dynamic framework. Accordingly, changes in a country's economic development, for example from economic growth to recession with its consequential impact on labour market conditions, can change teachers' comparative level of pay and job security making both more attractive than might have been the case during an economic boom. Researchers exploring (student) teachers' career motivations and perceptions of the teaching profession, therefore, need to bring in-depth understanding of relevant cultural and educational contexts to their studies and provide detailed information about same in their analyses.

Considering that sufficient teacher supply, teacher enthusiasm and commitment are crucial ingredients in quality teaching and learning, comparative teacher career choice research has the potential to make a contribution to the enhancement of education and human development worldwide.

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Table 1: Overview of countries *(with economic and human development classifications/indexes)* and studies included in this review	
Country *WB: World Bank classification of economies 2013* *HDI: Human Development Index 2013* *IHDI: Inequality-adjusted Human Development Index 2013*	**Studies exploring student teachers' career motivations** Author(s) (Year of publication)
Australia *WB: High income, HDI: 0.933, IHDI: 0.860*	Manuel & Hughes (2006); Richardson & Watt (2005); Richardson & Watt, (2006); Watt & Richardson (2008b); Watt et al. (2012)
Brunei Darussalam *WB: High income, HDI: 0.852, IHDI: no data*	Yong (1995)
Canada *WB: High income, HDI: 0.902, IHDI: 0.833*	Klassen et al. (2011)
Caribbean *WB: no classification, HDI: 0.740, IHDI: 0.599*	Brown (1992)
China *WB: Upper middle income, HDI: 0.719, IHDI: no data*	Lin et al. (2012); Su et al. (2001)
Croatia *WB: High income, HDI: 0.812, IHDI: 0.721*	Jugovic et al. (2012)
Germany *WB: High income, HDI: 0.911, IHDI: 0.846*	König & Rothland (2012); Watt et al. (2012)
Hong Kong *WB: High income, HDI: 0.891, IHDI: no data*	Wong et al. (2014)
Ireland *WB: High income, HDI: 0.899, IHDI: 0.832*	Clarke (2009); Drudy et al. (2005); Heinz (2011, 2013a); Killeavy (1993)
Jamaica *WB: Upper middle income, HDI: 0.715, IHDI: 0.579*	Bastick (2000)
Malawi *WB: Low income, HDI: 0.484, IHDI: 0.282*	Mtika & Gates (2011)
Malaysia	Yaakub (1990)

WB: Upper middle income, HDI: 0.773, IHDI: no data	
Netherlands *WB: High income, HDI: 0.915, IHDI: 0.854*	Fokkens-Bruinsma & Canrinus (2012)
Northern Ireland *WB: High income (UK), HDI: 0.892 (UK), IHDI: 0.812 (UK)*	Moran et al. (2001)
Norway *WB: High income, HDI: 0.944, IHDI: 0.891*	Watt et al. (2012)
Oman *WB: High income, HDI: 0.783, IHDI: no data*	Klassen et al. (2011)
Portugal *WB: High income, HDI: 0.822, IHDI: 0.739*	Flores & Niklasson (2014)
Slovenia *WB: High income, HDI: 0.874, IHDI: 0.824*	Kyriacou & Kobori (1998); Krečič, M., & Grmek, M. (2005)
Sweden *WB: High income, HDI: 0.898, IHDI: 0.840*	Flores & Niklasson (2014)
Turkey *WB: Upper middle income, HDI: 0.759, IHDI: 0.639*	Akar (2012); Aksu et al. (2010); Kilinç et al. (2012)
UK *WB: High income, HDI: 0.892, IHDI: 0.812*	See, B. H. (2004); Priyadharshini & Robinson-Pant (2003); Reid & Caudwell (1997); Serow & Forrest (1994); Thornton et al. (2002); Tudhope (1944); Valentine (1934); Younger et al. (2004)
US *WB: High income, HDI: 0.914, IHDI: 0.755*	Brookhart & Freeman (1992) (meta review 44 US studies 1960-1990); S. M. Johnson & Kardos (2008) (review of US studies); King (1993); Lin et al. (2012); Su (1997); Watt et al. (2012)
Zimbabwe	Chivore (1988)

WB: Low income, HDI: 0.492, IHDI: 0.358	