

M Level primary mathematics CPD: an identity crisis?

Gemma Richardson

Faculty of Education and Health, University of Greenwich

Abstract

One key outcome of a recent seminal review of primary mathematics was a renewed emphasis on the Continuing Professional Development (CPD) for teachers of primary mathematics (Williams, 2008). The National Centre for Excellence in the Teaching of Mathematics (NCETM) endorses its importance (Hoyles, 2012), and the current Government emphasises the importance of teacher quality (DfE, 2010). However, a prerequisite for the success of the drive to broaden participation in primary mathematics CPD, is the willingness and commitment of individual teachers to enrol on relevant programmes.

This study explores barriers and incentives early career primary teachers experience regarding Masters-level primary mathematics CPD relating to their personal and professional identity. Its focus is the teachers' analyses of their experiences using data that was collected through questionnaires and followed-up by in-depth individual interviews. Findings indicate that teachers' academic identities impact on the uptake of Masters-level primary mathematics CPD and, that their personal identities as working family members can be influential. Implications for practice in both primary schools and higher education institutions (HEIs) providing initial teacher education are discussed.

Key words: primary mathematics; continuing professional development; teacher identity; professional identity; Masters-level

Introduction

This paper presents the findings of a small scale empirical study focusing on early career primary teachers (ECTs) and the relationship between issues of identity and engagement with Masters level primary mathematics Continuing Professional Development (M-level PM CPD).

The paper begins by setting out the context within which this research was carried out before offering a brief review of some of the relevant literature in the field, focusing on personal and professional identities and the impact of primary mathematics M-level CPD. A description of the methodology employed precedes a description of findings, discussion and recommendations for how HEI providers of primary Initial Teacher Education (ITE) and primary schools may work to encourage more ECTs to engage with M-level PM CPD.

This research is set in the national context of the last decade which has seen the development of a significant consensus that high quality mathematics CPD should be a matter of priority for primary teachers (ACME, 2002; Williams, 2008). Whilst a newly qualified teacher's (NQT) induction year is often seen as a pertinent opportunity for a hiatus from further study (Stronach, 2010), with CPD centring on statutory induction (DfE, 2012a), the subsequent early years of a teacher's career are a prime period to enrich professional learning.

CPD is particularly crucial for ECTs as it can sustain a motivational sense of progression (Bubb and Earley, 2007; OFSTED, 2010) and develop critical skills necessary for expertise to develop (Lovett and Cameron, 2011). The Labour government's (1997-2010) support of this, was exemplified by their targeting of ECTs in the drive to raise standards by developing a Masters-led profession (DCSF, 2008). To some extent, the current Coalition Government has sustained the acknowledgment that the standard of teachers is critical, as they hold the belief that 'no education system can be better than the quality of its teachers' (DfE, 2010:8). However, political decisions affecting funding have meant the provision and parameters of M-level CPD for primary teachers, including mathematics-specific training, have been unstable.

Between 2009 and 2012 two strategic initiatives, the Masters in Teaching and Learning (MTL) and the MaST (Mathematics Specialist Teacher) programme, were introduced on a fully funded basis, only to suffer severe, financial cuts leading to their demise (TDA, 2010). The closure of new applications to the Postgraduate Professional Development (PPD) fund (TDA, 2011), also altered the landscape. In the face of such political adversity, the importance of robust professional and personal identities which facilitate the engagement of ECTs with M-level PM CPD may be heightened.

For the teaching profession as a whole, augmenting the level of expertise of practising teachers could be considered a particularly current issue. As more primary ITE is devolved to schools due to the increase in School Direct places (DfE, 2012b), and the broad remit of Teaching Schools includes a responsibility to support the professional development of colleagues across schools (DfE, 2010), good standards are a necessity.

Literature Review

This review of literature focuses on primary ECTs' identities and the potential relationship with uptake of M-level PM CPD. It culminates by considering the impact of M-level primary mathematics CPD.

Identity is simply 'an explicit account of what some people are like' (Wortham, 2006:6), which can be dependent upon contextual and social interactions (Lawler, 2008). Identity can relate to the way that one views or defines oneself (Olson, 2010), which may not be consistent with the social identity assigned by others (Woods and Jeffrey, 2004). Identity can be potentially categorised through 'hierarchical binaries' (Youdell, 2011:39) such as white or black and man or woman, however, Youdell (2011) warns that consideration should be accorded to the ways in which multiple categories of identity impact on each other. The inter-relation of principal categories of identity evident within the literature (teacher identity, gender and class) demonstrate this and it would be misleading to present them as separate entities.

- **Teacher Identity**

Teacher identity evolves as a result of being a school employee (Hoveid and Hoveid, 2008) and Mockler (2011) believes that the formation and status of such professional teacher identities are critical to enable a true understanding of teachers' CPD needs.

During the 1970s and 1980s, the majority of teachers had an integrated and consistent identity based on two major sets of values – humanism and vocationalism (Woods and Jeffrey, 2004). Humanism is concerned with ‘holism, person-centeredness, and warm and caring relationships’ (ibid, p.223) whilst vocationalism summarises teachers who feel a strong emotional dedication to their work which underpins their total commitment to teaching. Perhaps it is teachers who have such identities that feel judged by colleagues for taking time out of the classroom to study and feel others question their commitment to their class, deeming their actions self-indulgent (Leaton Gray, 2005; Soulsby and Swain, 2003). Perhaps the struggle to overcome feelings of guilt and betrayal that would result from the pressures of M-level study mean that instead, they choose to focus their full attention, time and energy on their school. Alternatively, such feelings could be the embodiment of an internal clash between two elements of a teacher’s professional identity - their individuality and their status as an ‘agent of an education institution’ (Hoveid and Hoveid, 2008:125).

The modern era of performative primary schools and such defining features as league tables, performance related pay and advanced skills status, have resulted in a shift in teacher identity (Troman, 2008). New demands require teachers to evolve a far more complex, assigned social identity and to adapt their substantial selves, defined as an enduring identity by Woods and Jeffrey (2004), on a regular basis (Troman, 2008). Mockler (2011) and Millar Marsh (2002) agree, stating that throughout a career, a teacher’s professional identity is formed and re-formed due to the dynamic chemistry between personal, professional and political influences. Generally though, whilst more experienced teachers have strong self-identities based on humanism and vocationalism, ECTs differ as their commitments have adjusted whilst maintaining their humanistic values. For example, they stress the importance of time compatibility for family-friendly work and child care (Troman, 2008). This more modern teacher identity links to cultural issues such as work-life balance, whilst also encompassing issues of gender and career planning which have a possible impact on the uptake of M-level PM CPD for ECTs.

- **Gender**

Ball’s (2004) analysis is that feminists involved with the sociology of education focus on the reproduction of demarcations between masculine and feminine, as well as gender stereotyping within schools. Long (2000) believes that a person’s perception of whether they fit into a typically male or female role is their gender identity, which is more influential as a behaviour determinant than any biological difference between the sexes.

The question of gender is an important one when analysing the UK primary teaching profession because towards the end of the 20th century, teaching had a reputation as a woman’s job and thus tended to provide employment for women (Steedman, 1986). In 2005, nearly 90% of the nursery and primary workforce in England was female (McNamara et al., 2008) demonstrating a continuation of this trend. It is significant too, if Long’s (2000) research is borne out as he believes major gender inequalities within society impact both career success and financial rewards.

There is some evidence to suggest that male and female teachers may have quite different self-identities. Men seem to view themselves as committed professionals with leadership positions firmly on their horizon. For example, McNamara et al.’s (2008) report revealed men

were most likely to reply 'become a headteacher' in response to questions about their future career plans, whilst women aged between 20 and 35 years were significantly more likely to leave teaching than their corresponding male colleagues. Furthermore, they revealed 20% of male primary teachers with 5-9 years of service are on the Leadership Scale, which is more than double the 8.5% of female primary teachers. This may reflect female teachers' identities which seem more likely to focus on, and flex in response to, external factors; for example, for most female teachers, childbirth is the critical career event (Troman, 2008).

These factors could affect the number of ECTs, particularly females, participating in M-level PM CPD as one key inhibitor of award-bearing in service training (INSET) is a lack of career incentive (Soulsby and Swain, 2003). Conversely, evidence shows that career development is a motivating factor for participants on PPD programmes (Dean, 1991; CUREE and the University of Wolverhampton, 2011; Soulsby and Swain, 2003). It is suggested a promotion can often trigger M-level study as a new post and context invites teachers to question existing assumptions and refine their practice in a manner congruent with expectations of M-level work (Arthur et al., 2006). However, if teachers do not envisage a long term career in teaching involving promotion, they may question the value of completing an MA. So if female teachers are more likely to be in this category, it could potentially follow that they are less likely to engage in M-level study.

Other issues may also impact on female teachers' identities and have a negative influence on participation in M-level CPD. As a range of research confirms, there is a persistent, traditional sexual division of labour in the home whereby women shoulder the majority of domestic work (Oakley, 2002; Crompton, 2006; Gallie and Russell, 2009). Female teachers recognising their already demanding responsibilities outside of their workplace, entirely unrelated to CPD programmes, contributes towards the limited popularity of award-bearing INSET (Hancock, 2001; Cole, 1999; CUREE and the University of Wolverhampton, 2011; Soulsby and Swain, 2003). Indeed, the literature converges to some extent on the viewpoint that the balancing act of professional and personal commitments is an undisputed barrier to higher levels of CPD for teachers (Seaborne, 2010; McNamara et al., 2002; Arthur et al., 2006; Leaton Gray, 2005).

A self-identity built on confidence in one's own academic ability can be an important incentive; pre-existing M-level credits could be a factor of this, which again may favour male teachers. McNamara et al.'s (2008) snapshot showed that 72% of female NQTs, as opposed to 86% of male NQTs, entered teaching via a postgraduate route rather than an undergraduate ITE programme. It was therefore more likely for male NQTs to already have some M-level credits as a result of the Bologna Agreement (The European Higher Education Area, 1999) which necessitates the option of working at M-level for all postgraduate programmes.

- **CPD impact**

There has long been held a belief that high quality CPD is essential to maintain high standards of teaching (Burghes, 2008; OECD, 2009; Wiersma and Jurs, 2009). For primary mathematics specifically, teaching quality is a 'significant and moderate to strong indicator' (Sammons et al., 2008: iii) of children's progress. Whilst Ofsted (2012) suggest progress has been made in primary mathematics teaching, significant areas for development are also

identified. As Director of the NCETM, Professor Hoyles' (2012) statement that the NCETM looks forward to helping embed OFSTED's targets in the professional development of all mathematics teachers, reinforces the importance of CPD. The M-level element could also prove significant as Jackson and Eady (2010) believe 'the successful translation of the vision of an M-level teaching profession could promise a powerful and ultimately positive transformation of the education system in England' (2010:9).

Overall, a significant amount of research suggests that personal and professional identities of ECTs impact on enrolment in M-level CPD. However, to date, the focus has primarily concerned non-subject-specific CPD and that the narrower area of primary mathematics M-level CPD remains relatively untouched.

Research Design and Initial Analysis

The research was carried out during the summer term of 2012, largely within the south-east London area. The following research questions were addressed:

- What features of ECTs' identities encourage engagement with M-level primary mathematics study?
- What features of ECTs' identities present a barrier to engaging with M-level primary mathematics study?

This research was guided by a constructivist ontological position and an interpretivist epistemological stance. It involved ten participants who were working as class teachers in both private and state primary schools, within their second, third or fourth year of employment. It proved challenging to recruit participants as teachers have very busy lives and to some extent therefore, the participants were selected by convenience sampling. However, there was an element of purposive sampling too, as the cohort comprised of PGCE and BA(QTS) graduates who all completed ITE in an HEI. Angus, Iris and Lee were engaged with MaST, whilst the other seven had not yet begun any M-level CPD.

The research was concerned with exploring the participants' accounts of personal experiences (Scott and Morrison, 2006; Cohen et al., 2011). The small number of participants facilitated detailed exploration of the issues (Hennick et al., 2011) and the qualitative methodology aimed to achieve an in-depth understanding of the participants (Gage, 2007; Bryman, 2008; Cohen et al., 2011). Flick (2004) asserts that in principle, qualitative research relies on multiple methods which Denzin and Lincoln perceive to be an aspiration to 'secure an in-depth understanding of the phenomenon in question' (2008:7). This is fitting as Cohen et al. (2011) highlight the qualitative researcher's aim of gaining a good understanding of the participants, without necessarily generalising their findings. Hennick et al., (2011) support this as they state that 'qualitative methods are typically used for providing an in-depth understanding of the research issues that embrace the perspectives of the study population and the context in which they live'(2011:10).

Each of the ten participants completed a questionnaire which asked them to identify from a list, and subsequently rank, any influencing factors on their engagement with M-level primary mathematics CPD. Despite being a finite list of options, there was confidence that the

options were sufficiently comprehensive as they were borne out of the existing literature. To further allay any risk of limiting answers to a pre-determined range, the inclusion of an 'other' option on the questionnaire enabled participants to add more information if necessary. The initial questionnaires were carefully scrutinised to inform selection of the most appropriate interview schedule for each participant's individual interview. The interviews lasted approximately thirty five minutes and due to the semi-structured guidance, the interviewer was able to react to participants' answers and non-verbal communication.

Wellington's view that that 'interviews reach the parts that other methods cannot reach' (2006:71) indicates that they are a valuable research tool. However, Kvale and Brinkmann (2009) support a dual approach of questionnaires and interviews as they believe that 'actively following up subjects' answers, seeking to clarify and extend statements' (2009:7) achieves the ultimate aim of qualitative research of an in-depth understanding of the participants' viewpoints. Flick (2011) posits another advantage; having made the participants aware of the researcher's areas of interest via the questionnaire, the participants may be able to give some thought to their answers before attending the interview which could result in a more detailed discussion.

The short interviews were recorded, transcribed and reviewed by participants for accuracy. Subsequent coding enabled 'key issues to be 'clustered' and initial steps taken towards drawing conclusions' (Bell, 2010:222). As a result of this process, emergent themes regarding barriers to M-level PM CPD enrolment include individuals' personal identities and commitments and short-term teacher identity. Lack of identity as an academic or a progressive, confident employee also proved to be barriers.. Revealing some overlap, two principal themes emerged from the data regarding incentives. These were having a either a strong identity as an able academic or as a confident teacher worthy of career progression.

The research was carried out in alignment with The British Educational Research Association's (BERA) (2011) guidelines. The participants provided their informed consent, data was stored securely and pseudonyms have been used throughout to protect anonymity.

Findings and Discussion

• Barriers

The data collected reflects the literature which believes teachers in 2012 have strong concerns about work-life balance as opposed to having identities based on humanism and vocationalism (Troman, 2008). Identities which prioritised responsibilities outside of school were evident as barriers, as several participants expressed genuine doubt as to whether M-level CPD would be able to fit alongside other commitments:

"It's really just that I want to have time to spend with my family. Sometimes it's bad enough working at the weekends, let alone taking on something extra." – Lily

Evidence from the interviews also supports research suggesting a lack of a fixed identity among teachers (Mockler, 2011, Millar Marsh, 2002):

"I question whether I'm going to stay in this career now because it's taking over my life entirely and I don't want that for myself. Some part of me feels like I want to come out of it altogether and go into a different type of career." – Hatty

Other factors of ECTs' identities concern confidence. For example, Lily does not see herself as a strong candidate for M-level study:

'Although I only got a 2:2, I actually enjoy studying and I enjoy finding out about the theory behind the practice. But then I do worry as well about the academic side of it, I think 'ooh, would I be able to cope with that?'

Despite having a background in research, Hatty similarly suffers from a lack of confidence. However, hers is rooted in the fact that she is an ECT and has only worked at the school for two years, which she feels to be an insignificant amount of time when considering an approach to her management team for support for M-level CPD:

'It's kind of a weird thing to ask, feels a bit uncomfortable. I think, am I a candidate for this? And I feel quite new, I mean I know it's my second year, but I still feel quite new and I think 'am I at that stage yet, should I be doing that?'

Such a lack of confidence has been cited in previous research (Arthur et al., 2006), however, research by McNamara et al. (2008) which indicates these factors may be more pertinent to female teachers was not corroborated as there were imperceptible differences between female and male participants.

Overall, it can be concluded that the empirical data from this study concerning barriers is in alignment with the existing literature, although gender identity did not emerge as significantly as previously suggested.

• Incentives

Many of the participants were mature entrants to the profession with previous careers and relevant experiences underpinning their teaching practices. Hatty, for example, had paid experience of research work which meant that she had the confidence to approach M-level PM CPD. Coral too saw herself as a confident, determined teacher who would be willing to prioritise her time to work towards an MA:

'If I had the programme information I would make the time for it, I would have it as a priority.' – Coral

Iris too saw herself as capable although her incentive was slightly more specific:

"I found quite early on that maths was something that most other people struggled with and I thought well, if I've got a skill here then I should exploit it because if people who are good at teaching maths are quite rare then this is a niche I can get into."

For others, the M-level credits garnered throughout their ITE programme contributed towards an academically able and confident identity of themselves, which in turn encouraged M-level work.

“It was only two years after finishing my degree and getting a 2:1 that I started my PGCE so I thought that I could do the MA credits. They’re what really set me up for MaST.” – Angus

Such confidence, whether as a result of earlier academic success or relevant experience during prior employment, emerged as a real incentive which replicated findings from existing research (CUREE and University of Wolverhampton, 2011). Despite the ECTs seeing themselves as capable, the short time lapse between prior M-level credits and M-level CPD served as a further incentive for some. Essentially, some ECTs felt that the momentum of their ITE programme needed to be capitalised on and embarking on further credits in a timely fashion was critical, for example:

“I do feel if I’d have left it longer I would have felt more wary about starting the academic reading and writing again.” - Angus

Iris shares similar feelings although cites a personal acquaintance as her personal motivation:

“My NQT Head has just gone back to do her MA 20 years out of practice and she is really struggling. So I thought as I’m in the habit now.....”

For some, their identity as an academically able teacher means that the pure enjoyment of studying is a powerful incentive:

*“I’d thoroughly enjoyed the academic rigour of my degree and done well, coming out with a very good degree, in fact I graduated thinking, perhaps this is what I want to do instead of teaching. Do I want to go and teach at university? I would have **loved** to conduct further research and doing the MA for me was really deciding whether that was the way I really wanted to go in. So giving it up was **very difficult**.” – Ella*

Overall, these factors compound to create an identity for some ECTs as future leaders of education. Essentially, M-level CPD is viewed by some as a stepping stone to future promotion; this is in direct contrast to one of the barriers discussed previously, as some ECTs did not believe further qualifications aided career progression.

“I remember seeing somewhere that there was a MA on special needs and I like that, it’s where I want to go. I want to be a SENCo in the future so I thought that would be a good idea. I think it could be a stepping stone to promotion.” - Coral

For Lily, it was seen as a way to boost her confidence in preparation for a potential leadership role:

“I feel a bit nervous about the idea of having to step up in front of other teachers and I think having a MA might help me feel a bit more confident in myself. I’d feel like ‘I’ve got a MA and I know what I’m talking about, so you need to listen to me!’”

The idea of promotion was also an incentive for Hatty, although principally as she coveted the associated pay rise:

“I would like to be on a higher wage and to be more secure personally, in terms of housing for example, and I think an MA might help towards that.”

Similarly, Lily saw potential concrete outcomes as being a true incentive:

“If there was some kind of outcome from it, say a definite pay rise or higher position, that would be even better. It would give me something to work towards.”

This potential impact of higher qualification on promotional prospects, for a range of reasons from straightforward career aspirations to a need for financial reward, reflects existing research (Dean, 1991; CUREE and the University of Wolverhampton, 2011; Soulsby and Swain, 2003). However, McNamara et al.'s (2008) research showing that it is significantly less likely for career progression to be as integral to female teachers' identities as males, perhaps impacting on their willingness to embark upon challenging, time-consuming CPD, if they are not to reap the rewards of promotion throughout a lengthy career, was not reflected in the sample of ECTs. There was very little to differentiate between sexes in general. In fact, an opposing viewpoint was proposed by one ECT who viewed potential maternity leave as a good opportunity to begin M-level CPD due to the relief from school pressures.

Finally, personal identities as confident, established teachers mean that for some, the challenge of something new is enticing as Coral explains:

“I feel as if I'd be ready for it [doing an MA] now as in September it'll be my third year teaching Y1 and everything's already done. I feel like I know what I'm doing now and I feel comfortable.”

Ella's assured identity generates a slightly different agenda. She sees herself as a consummate professional who is subject to overpowering constraints:

“It's frustrating, and at times depressing, when policy is dictated by non-teaching professionals whilst we are teaching professionals who have been relieved of that responsibility.”

Ella is keen to continue to develop a thoughtful, insightful and independent identity as a teacher which she believes could be supported by an MA:

“I've always been aware of a slight mismatch between government directives and actually research-based ways of teaching. Personally, I've always believed more strongly in the things I learnt at university and the more research-based ways of teaching.”

This averment that M-level study develops independent identities and develops autonomous practice in the interests of good teaching, as opposed to blindly following (potentially ill-

conceived) Government initiatives and directives, and was therefore considered attractive, is new.

To summarise, the results of this study are largely consistent with existing literature concerning incentives for ECTs to enrol on M-level PM CPD. However, the lack of impact of gender is a minor difference and the lure of MAs to hone independent, thoughtful teacher identities is original.

Conclusion

To summarise, findings from this small scale research project reinforce the existing literature which identifies the importance of ECTs' academic identity regarding uptake of M-level CPD. However, similarities between genders are in contrast to McNamara et al.'s (2008) study which allocates differences of real significance and believes female teachers' identities to be a greater barrier to M-level CPD. This study's empirical data suggests that the theory could evolve to subscribe less emphasis to gender difference in barriers to M-level PM CPD. The existing theory could further evolve to reflect this study's empirical evidence which identifies the appeal of MAs to hone independent, thoughtful teacher identities. Perhaps the root of this as an incentive is in the ever-increasing involvement of the authorities in day-to-day school practice and the rise of accountability within the performative primary school. With the draft mathematics curriculum for KS1 and 2 (DfE, 2012c) coming under fire from a range of professionals, including practising classroom teachers (Pollard and James, 2011, TES, 2012), as well as serious concerns within the English education community about the new Y1 phonics screening test (Rosen, 2012), to give examples from two core curriculum subjects, there appears to be a growing battle between the profession and its Government ministers. The inherent liberation from controlling mechanisms embodied by Free Schools and Academies, alongside the growth of autonomous leadership (DfE, 2012b; DfE, 2013), means the strength of this as an incentive may flourish and as such should be recognised within the theory.

Despite Bryman's (2008) caution that limits to generalization render the findings relevant to the sampled population only, tentative implications for practice can be suggested. Firstly, both schools and HEIs could take more account of teachers' identities as working family members. By considering more conveniently timetabled taught sessions, flexible submission dates and blended learning reducing the demands of contact time, HEIs could demonstrate their commitment to this cluster of teachers. Schools could contribute by ensuring a manageable workload is compatible with family life, although this is perhaps governed by political and financial strategies, as well as firmly entrenched working cultures. However, if schools are able to develop in this way, it may result in a beneficial side effect of people developing more long-term teacher identities with lengthier careers and a stronger disposition towards M-level CPD.

Secondly, developing teachers' academic identities with a view to being individuals confident and able to approach M-level work seems critical. HEIs could support this by perhaps integrating an academic review for graduands into standard exit procedures. Similarly, by focusing on academic successes within standard NQT induction and, subsequent performance management procedures, confidence may develop.

Overall, this small scale research has highlighted some tangible, achievable ways in which two settings could support efforts to encourage the future of the teaching profession to enrol on M-level primary mathematics CPD, ultimately contributing towards the goal of raising standards of primary mathematics.

References

- ACME (2002) *Continuing Professional Development for teachers of mathematics*. London: The Royal Society.
- Arthur, L., Marland, H., Pill, A. and Rea, T. (2006) Postgraduate Professional Development for teachers: motivational and inhibiting factors affecting the completion of awards, *Journal of In-service Education*, 32 (2), 201–219.
- Ball, S. Ed. (2004) *The RoutledgeFalmer Reader in Sociology of Education*. London: RoutledgeFalmer.
- Bell, J. (2010) *Doing Your Research Project*. Berkshire: Open University Press.
- British Educational Research Association (2011) *Ethical Guidelines for Educational Research*. London: BERA.
- Bryman, A. (2008) *Social Research Methods*. Oxford: Oxford University Press
- Bubb, S. and Earley, P. (2007) *Leading and Managing Continuing Professional Development: developing people, developing schools; 2nd edition*. London: Sage.
- Burghes, D. (2008) *International Comparative Study in Mathematics Teacher Training*, Berkshire: CfBT Education Trust.
- Cohen, L., Manion, L. and Morrison, K. (2011) *Research Methods in Education (7th Edition)*. Oxon: Routledge.
- Cole, M. (Ed) (1999) *Professional Issues for Teachers and Student Teachers*. London: David Fulton Publishers Ltd.
- Crompton, R. (2006) *Employment and the family: the reconfiguration of work and family life in contemporary societies*. Cambridge: Cambridge University Press.
- CUREE and University of Wolverhampton (2011) *Postgraduate Professional Development (PPD) Programme Quality Assurance (QA) Strand; Research Project*, Coventry, CUREE.
- DCSF (2008) *Being the best for our children: Releasing talent for teaching and learning*. London: DCSF.
- Denzin, N. K. and Lincoln Y. S. (2008) *The Sage Handbook of Qualitative Research*. London: Sage Publications Ltd.
- DfE (2010) *The Importance of Teaching; The Schools' White Paper*. Norwich: TSO.
- DfE (2012a) *Induction for newly qualified teachers (England) Statutory guidance for appropriate bodies, head teachers, school staff and governing bodies* [Online]. Available at: <http://www.education.gov.uk/schools/leadership/deployingstaff/b0066959/induction-newly-qualified-teachers/> (Accessed 24th June 2013).

DfE (2012b) *School Direct* [Online]. Available at: <http://www.education.gov.uk/get-into-teaching/teacher-training-options/school-based-training/school-direct> (Accessed 24th June 2013).

DfE (2012c) National curriculum in England: mathematics programmes of study [Online]. Available at: <https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study> (Accessed 24th October 2013).

DfE (2013) *What is an Academy?* [Online]. Available at: <http://www.education.gov.uk/schools/leadership/typesofschools/academies/b00205692/whatisanacademy> (Accessed 24th June 2013).

Dean, J. (1991) *Professional development in school*. Milton Keynes: Open University.

Flick, U. (2004) *A Companion to Qualitative Research*. London: Sage Publications Limited.

Flick, U. (2011) *Introducing Research Methodology; A Beginner's Guide to Doing a Research Project*. London: Sage Publications Limited.

Gage, N. (2007) The paradigm wars and their aftermath A 'historical' sketch of research on teaching since 1989 in: Hammersley, M. (Ed.) *Educational Research and Evidence-based Practice*. London: Sage.

Gallie, D. and Russell, H. (2009) Work-Family Conflict and Working Conditions in Western Europe, *Soc Indic Res*, Vol. 93, pp. 445–467.

Hancock, R. (2001) Why are class teachers reluctant to become researchers? in Soler, J., Craft, A. and Burgess, H. (Eds.) (2001) *Teacher Development; Exploring our own Practice*. London: Paul Chapman Publishing Ltd, Ch.9.

Hennick, M., Hutter, I. and Bailey, A. (2011) *Qualitative Research Methods*. London: Sage Publications Ltd.

Hoveid, H. and Hoveid, M. H. (2008) Teachers' Identity, Self and the Process of Learning, *Studies in Philosophy and Education*, 27 (2-3), pp.125-136.

Hoyles, C. (2012) *Made to measure: Ofsted's report on mathematics education 2008-2011* [Online]. Available at: <https://www.ncetm.org.uk/news/37929> (Accessed 24th June 2013).

Jackson, A. and Eady, S. (2010) *Teaching as a Masters profession; the need for continued debate* [Online]. Available at: http://www.beraconference.co.uk/2010/downloads/abstracts/pdf/BERA2010_0145.pdf (Accessed on 24th June 2013).

Kvale and Brinkmann (2009) *Learning the Craft of Qualitative Research Interviewing: Second Edition*. London: Sage Publications Ltd.

Lawler, S. (2008) *Identity*. Cambridge: Polity Press.

Leaton Gray, S. (2005) *An Enquiry into CPD for Teachers*. London: Esmée Fairbairn Foundation.

Long, M. (2000) *The Psychology of Education*. London: RoutledgeFalmer.

Lovett, S. and Cameron, M. (2011) Career pathways: does remaining close to the classroom matter for early career teachers? A study of practice in New Zealand and the USA, *Professional Development in Education*, 37(2), 213-224.

Mcnamara, O., Jaworski, B., Rowland, T., Hodgen, J. and Prestage, S. (2002), *Developing mathematics teaching and teachers. A research monograph*. [Online]. Available at: <http://maths-ed.org.uk/mathsteachdev/pdf/mathsdev.pdf> (Accessed on 24th June 2013).

McNamara, O., Howson, J., Gunter, H., Sprigade, A. and Onat-Stelma, Z. (2008) *Women Teachers' Careers*. Birmingham: NASWUT.

Millar Marsh, M. (2002) *The social fashioning of teacher identities*. New York: Peter Lang.

Mockler, N. (2011) Beyond 'what works': understanding teacher identity as a practical and political tool, *Teachers and Teaching: theory and practice*, 17 (5), pp.517–528.

Oakley, A. (2002) *Gender on planet earth*. Cambridge: Polity Press.

OECD (2009) The Professional Development of Teachers. [Online]. Available at: <http://www.oecd.org/dataoecd/31/51/43541636.pdf> (Accessed 18th May 2013).

Ofsted (2010) Good Professional Development in Schools. [Online]. Available at: <http://www.ofsted.gov.uk/resources/good-professional-development-schools> (Accessed 18th May 2013).

Ofsted (2012) Mathematics: Made to Measure. [Online]. Available at: <http://www.ofsted.gov.uk/resources/mathematics-made-measure> (Accessed 18th May 2013).

Olson, E T (2010) *Personal Identity*. [Online]. Available at: <http://plato.stanford.edu/archives/win2010/entries/identity-personal/> (Accessed 18th October 2013).

Pollard, A and James, M (2011) *Letter to Michael Gove* [Online]. Available at: <http://www.bera.ac.uk/system/files/AP%20%2526%20MJ%20Letter%20to%20MG%20101011%20%28redacted%29.pdf> (Accessed 18th May 2013).

Rosen, M (2012) *This summer's phonics test is not a reading test*. [Online]. Available at: <http://michaelrosenblog.blogspot.co.uk/2012/04/this-summertime-phonics-test-is-not.html> (Accessed 18th May 2013).

Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., Barreau, S. and Grabbe, Y. (2008) *The Influence of School and Teaching Quality on Children's Progress in Primary School*. London: DCSF.

Scott, D. and Morrison, M. (2006) *Key Ideas in Educational Research*. London: Continuum.

Seaborne, P. L. (2010) *A longitudinal review of the postgraduate professional development of teachers*. London: TDA.

Soulsby, D. and Swain, D. (2003) *Award-bearing INSET Scheme*. London: TTA.

Steedman, C. (1986) *Landscape for a good woman*. London: Virago.

Stronach, I. (2010) *Globalizing education, educating the local. How method made us mad*. London: Routledge.

TDA (2010) *MTL Funding Update* [Online]. Available at: <http://webarchive.nationalarchives.gov.uk/20110316231736/http://tda.gov.uk/teacher/masters-in-teaching-and-learning/funding-change.aspx> (Accessed 15 April 2013).

TDA (2011) *Funding Manual – Postgraduate Professional Development*, [Online]. Available at: https://www.education.gov.uk/publications/eOrderingDownload/ppd_funding_manual_2011_12.pdf (Accessed 12th May 2013).

The European Higher Education Area (1999) *The Bologna Declaration of 19 June 1999; Joint declaration of the European Ministers of Education* [Online]. Available at: http://www.ehea.info/Uploads/about/BOLOGNA_DECLARATION1.pdf (Accessed 15 April 2013).

TES (2012) *Indifferent and Opposed* [Online]. Available at: <http://www.tes.co.uk/article.aspx?storycode=6257840> (Accessed 15 April 2013).

Troman, G. (2008) Primary teacher identity, commitment and career in performative school cultures in *British Educational Research Journal*, Volume 34, Issue 5, pp. 619-633.

Wellington, J. (2006) *Educational Research; Contemporary issues and practical approaches*. London: Continuum.

Wiersma, W. and Jurs, S. G. (2009) *Research Methods in Education; An Introduction*. USA: Pearson.

Williams, P. (2008) *Independent Review of Mathematics Teaching in Early Years Settings and Primary Schools*. Nottingham: DCSF Publications.

Woods, P. and Jeffrey, B. (2004) The Reconstruction of Primary Teachers' Identities, Chapter 11 pp.221-239 in Ball, SJ (Ed) (2004) *The RoutledgeFalmer Reader in Sociology of Education*. Oxon: RoutledgeFalmer.

Wortham, S. (2006) *Learning Identity; The joint emergence of social identification and academic learning*. New York: Cambridge University Press

Youdell, D. (2011) *School Trouble; Identity, Power and Politics in Education*. Oxon: Routledge.

Author Biography

Gemma Richardson is a new researcher with an interest in professional development opportunities for new teachers. Gemma had a seven year career as a primary school teacher, teaching in primary schools in London and The Netherlands. She is currently a Senior Lecturer in Primary Education teaching on ITE programmes. She has an MA in Education from the University of Roehampton.