Enacting professional identity

An exploration of teacher educators' entanglement

with educational technologies in FE

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This thesis results entirely from my own work and has not been offered previously for

any other degree or diploma.

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Abstract

This study focuses on the technology practices of teacher educators in further education (FE) colleges as a site for the negotiation of professional identity. As the culture of performativity and accountability has grown across the English education system, FE has become progressively standardised, centrally mandated and regulated. This has led to debates about teacher professional autonomy and the underlying values of an education system ostensibly oriented towards neoliberalist consumer markets. Policymakers present both the professionalisation of the FE workforce and the effective use of technology as crucial to achieving educational objectives. However, amid substantial interventions into FE teacher education and practice, decisions about educational technology use are seemingly entrusted to teaching professionals.

Drawing on the analytical resources of sociocultural and sociomaterial theory, this qualitative case study of three teacher education teams explores how teacher educators negotiate professional identity within the figured worlds of FE. Although underrepresented in research, the literature indicates that this group has an important role in achieving government objectives for improved learner outcomes. This study's findings suggest that teacher educators identify with the key discourses of their context and professional role to different degrees, and seek to reconcile competing versions of professionalism. Teacher educator work is replete with technology and the appearance of professional choice in many technology practices is illusory. This is found to affect perceptions of technology as integral to teacher educator expertise and the extent to which technology is used in the politically desired ways.

Adding to the growing body of research on teacher educator professionalism and higher education (HE) in FE contexts, this thesis foregrounds the influence of the FE

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culture and conditions of employment on the (re)formation of teacher educator professional identity and demonstrates the potential of technology practices as an access point for further identity research.

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List of abbreviations

AP	Advanced Practitioner
BECTA	British Educational Communications and Technology Agency
BIS	Department for Business, Innovation and Skills
CertEd	Certificate in Education
CIF	Common Inspection Framework
CPD	continued professional development
CTLLS	Certificate in Teaching in the Lifelong Learning Sector
DTLLS	Diploma in Teaching in the Lifelong Learning Sector
FE	further education
FELTAG	Further Education Learning Technology Action Group
FENTO	Further Education National Training Organisation
HE	higher education
HE in FE	higher education in further education
HEI	higher education institution
ICT	information and communication technology
IfL	Institute for Learning
ILT	information and learning technology
ITE	initial teacher education
IWB	interactive whiteboard
LLS	lifelong learning sector
LLUK	Lifelong Learning UK
LSS	learning and skills sector
MEd	Master of Education degree
Ofsted	Office for Standards in Education, Children's Services and Skills
PCE	post-compulsory education
PCET	post-compulsory education and training
PGCE	Postgraduate Certificate in Education
PTLLS	(Award in) Preparing to Teach in the Lifelong Learning Sector
QCF	Qualifications and Credit Framework
QTLS	Qualified Teacher Learning and Skills
VLE	virtual learning environment

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Chapter 1 Introduction

1.1 Introduction and overview of the thesis

This thesis seeks to analyse the extent to which teacher educators in further education (FE) colleges enact their professional identity through negotiating educational technology practices.

Understanding how identities are enacted in the English FE and skills sector has become more important as the sector has continued to draw considerable attention from policy and research since the start of the twenty-first century. After years of 'benign neglect' (Lucas, 2004), the sector has been found by successive governments to be crucial for the economic health of the nation. Achieving better learner outcomes, which are closely associated with social participation and national economic success, lies at the heart of current education policy (BIS, 2010; Leitch, 2006). Consequently, the credibility and expertise of the sector's teachers have repeatedly come under scrutiny, with at least three policy attempts to improve and standardise the quality of teachers and teaching across the sector since 2001. With their links to teacher quality and student outcomes (Darling-Hammond, 2000; Davey, 2010; Musset, 2010), initial teacher education (ITE) programmes have been identified as central to this process. Despite their key role in achieving policy aims and the resulting frequent restructuring of post-compulsory ITE in recent years, teacher educators are underrepresented in research and policy (Murray & Male, 2005; Noel, 2006). Those teacher educators who work solely within the FE college system are even less visible, although the programmes on which they work often bear the brunt of policy reform. Attempts to improve teacher education are therefore failing to take into account the people

delivering the programmes, and sector policies are consequently based on flawed assumptions and incomplete information. The nature of English FE is such that it presents unique historically rooted challenges for teaching professionals, but little attention has been given to the role of teacher educators in the (re)production of discourses and practices of post-compulsory teaching. Instead, much of the existing research into teacher educator identity and expertise focuses on ex-school teachers teaching intending school teachers in university settings. As this thesis will illustrate, more attention should be paid to the diversity of contexts for education and the differences between them.

The FE sector provides formal vocational, academic and work-based education consisting of a large range of courses and qualifications delivered to a student body that is extremely diverse in age, ability level and prior experience. Institutions simultaneously provide basic skills courses, vocational training and academic qualifications ranging from pre-entry to degree-level learning (Orr & Simmons, 2010). The sector's teachers are therefore also necessarily diverse and enter their teaching role via disparate routes in comparison to mainstream school teachers. Consequently, post-compulsory education and training (PCET) teacher educators potentially have a different professional background to school teacher educators and work with a much more diverse student body. Additionally, teacher education forms part of the higher level learning that takes place in FE colleges, and which is understood to be located uncomfortably between the academic traditions of universities and the industrial origins and student-centred nature of FE (Boyd, Allan, & Reale, 2010; Turner, McKenzie, & Stone, 2009).

How teacher educator professional identities are enacted in this unique setting influences the training of qualifying teachers. Today, one of the most demanding aspects of teaching is the need to continually adapt to changing technologies and the practices that surround them. Technology is painted as an essential component of high-quality learning provision, linked to increased learner engagement and achievement, and necessary for full participation in society (BERR & DCMS, 2009; BIS, 2009). Huge investment in the technology infrastructure of education institutions over the past two decades has embedded technology in the everyday practices of formalised learning. Yet, while FE has been increasingly subject to regulation and performance review, technology practices are not subject to the same intense scrutiny as many others. Although there are definite expectations of technology use in education, for example stipulations in the form of professional standards (see ETF, 2014b), the manner and extent of their application is quite flexible. Technology practices therefore have the potential to be a revealing source of information about how professional identities are lived in education.

There are indications that student teachers are not emerging from ITE with the expertise required to teach in technology-mediated learning environments (Burnett, 2011; Haydn & Barton, 2007) and therefore that the policy aims are not being achieved. The role of the teacher educator in this is currently unclear. While reported to hold positive perceptions of the value of technology for education (Drent & Meelissen, 2008), teacher educators are not considered to be confident with technology (Ananiadou & Rizza, 2010) despite its ubiquity in education and society. Their relationship with technology is evidently complex. A better understanding of how they negotiate technology practices and incorporate them into their professional

knowledge base could contribute to teacher education quality and, ultimately, the politically sought-after learner outcomes.

This study therefore aims to examine how identity is enacted during the work of FE teacher educators by investigating the entanglement of perceptions, actions and contexts framing their educational technology practices. In doing so, it highlights an important occupational group whose interests are currently obscured by an uneven research literature favouring university-based educators. This will help support the reconceptualisation of teacher educators as distinct from other teachers and direct attention towards how differences between educational contexts might manifest in their work. This has implications for the ability of FE-based teacher education to adequately provide for the extensive contexts of the further education and skills sector, but it is also relevant to the wider field of teacher education now that there is a move to place more school teacher education inside schools and away from universities.

Understanding teacher educators' lived practices contributes to a deeper understanding of how identities are formed, reformed and transformed through professional work, both from within and outside the individual. Identity is understood to be something that is experienced and enacted through discourse and social practice (Gee, 2014; Holland, Lachicotte, Skinner, & Cain, 1998). Drawing on the theoretical constructs and analytical resources of both sociocultural and sociomaterial ontologies, the study examines the 'performed relations' (Orlikowski, 2007) of FE configured in the technology practices of teacher educator work.

1.2 Structure of the thesis

The first three chapters of the thesis set out the context for the research. The remainder of this chapter explains how the study has developed from my own background as a teacher/teacher educator in the field of adult literacy, before going on to describe how teacher educator work is situated within a highly politicised FE sector in England. Chapter 2 then considers the existing research on teacher educators and their professional identity. It begins by drawing together the sparse literature of PCET teacher educators and then supplements this with research into broader populations of teachers/teacher educators to conclude that FE teacher educators are an underresearched occupational group working under contested professional conditions. Chapter 3 presents educational technology as a site for exploring teacher educator identity by setting out its role in teacher education within the current policy context. It concludes with an outline of the conceptual and theoretical framework within which this study is situated and a statement of the research questions.

Chapter 4 introduces the methodological assumptions underpinning the qualitative case study design of the research. It details how the research questions were operationalised into a series of data collection tools, before outlining how the participant sample was selected and considering the ethical implications of conducting the study. The first part of Chapter 5 describes the lessons learned from a pilot study trialling the research methods and instruments, stating how these influenced the main data collection phase. The second part of the chapter explains the data analysis procedures, showing how the theoretical framework guided my interpretations, before then identifying the stages of a thematic analysis of the data. Finally, the chapter demonstrates how the raw data was transformed into my presentation of the findings.

Chapters 6–8 present the findings of the research. Chapter 6 explores the discourses of identity present in teacher educators' descriptions of themselves, their work and their expertise. It describes a typology of teacher educators compiled from the data, which is then applied to the findings discussed in Chapters 7 and 8 to explore the technology practices of FE ITE. Portraying teacher educators as oriented to the *product*, *process* or *stakeholders* of learning, these chapters consider how they enact and experience their professional identity through technology practices in this setting.

Lastly, Chapter 9 presents a further meta-analysis of the findings from the previous three chapters. Drawing together the different discourses of identity, technology and context identified so far, this chapter discusses how some kinds of technology practice have come to be prioritised in FE and what implications this has for the lived identities of teacher educators. It concludes that the context of FE exerts pressures on professional identity that are felt to be more or less problematic according to the inherent identification of teacher educators with its discourses and practices. The chapter closes with some considerations for future policy, practice and research based on the conclusions of this study.

1.3 Personal context

This research has emerged from a personal entanglement with post-compulsory education and technology practices over a number of years. Before beginning my doctorate, I taught adult literacy, numeracy and IT programmes in a variety of postcompulsory settings. My first post involved teaching vulnerable adults computer skills to help find education or employment opportunities. Even in those early days before social networking and personalised technologies became the norm, I found a marked disconnection between the qualifications available for those starting to use computers and the technology practices of paid employment. I would later begin to consider the extent to which policy rhetoric and conceptualisations of learning constrict everyday teaching practices as I worked towards my master's dissertation, in which I examined how closely the needs of learners are met by formal qualifications.

Ten years on from that first teaching post, I became involved in setting up a new postcompulsory ITE programme. Engaging with new teachers cemented my growing suspicion that standards-based performativity frameworks can strangle creativity in teaching. The new programme was an addition to my existing teaching responsibilities, and funding and staffing cuts that coincided with this new venture resulted in a significant increase in my workload. Before long, I began to experience strain on my self-assurance as a competent professional, with progressively less time available in which to achieve more. My day-to-day reality as a teacher and teacher educator in the post-compulsory sector therefore became entwined with my professional subject knowledge and experience of wider contexts and concerns.

As an adult literacy specialist, I had developed an interest in digital literacies and their place in adult learners' lives, but began to realise that I had little understanding of technology pedagogy when I became a teacher educator. I found that limited research had been conducted about educational technologies in ITE, and that even less addressed post-compulsory settings specifically. My initial proposal for doctoral study was thus based on ITE technology pedagogy. On joining a teacher educator network, I presented this intention – and was astonished by the vehemence with which other members vented their frustration with the topic. It was difficult to reconcile this emotional reaction with their simultaneous assertion that technologies are nothing but

'neutral tools'. The scope of the research therefore developed in response to the recognition that educational technology was a potential site for exploring professional concerns in FE.

1.4 The FE context

1.4.1 Defining the FE sector

Finding a label for the area of the education system pertinent to this thesis was encumbered by the abundance of terms used to describe post-school education. The term 'further education' (FE), is often used to denote an extensive 'postcompulsory education and training' (PCE, or PCET) sector, also known as the 'lifelong learning sector' (LLS) or 'learning and skills sector' (LSS), which consists of a wide range of educational contexts. Most recently, the coalition government has contributed the 'further education and skills' system. Although this sector is predominantly made up of FE colleges (Orr & Simmons, 2010), it also encompasses a variety of work-based learning providers, sixth-form colleges, private sector training companies, prisons, and adult and community learning organisations.¹ Complicating matters further, even 'post-compulsory' is not an accurate term, since some of the education falling under its umbrella is compulsory in some circumstances. For example, the 14–19 provision that takes place in FE colleges runs alongside schools and is affected by the current requirement for young people in England to remain in

¹ In this thesis, universities are considered a separate category of higher education institutions (HEIs) that are distinct from other areas of PCE, and subject to a different set of policies and historical influences.

education or training until their 18th birthday (gov.uk, n.d.). At its simplest, the sector can be considered to comprise most formalised learning provision that does not occur in schools or universities (Kennedy, 1997).

For a long time considered the neglected 'Cinderella' of the education system, since the New Labour government took office in 1997 and continuing throughout the term of coalition government that began in 2010, the post-compulsory sector has been subject to strict state regulation in the form of standards and inspection frameworks. Serving more than 4 million learners (Orr & Simmons, 2010), the contexts within the sector are host to a variety of different funding and reform efforts that, together with their distinctive cultural historical influences, inhibit the reasonable treatment of the sector as one entity. The devolution of aspects of government across the home nations additionally intensifies the complexity of the sector. It has also been suggested that many of the reforms that have affected the sector since the turn of the century have been aimed at FE rather than all contexts of the wider sector (Lea, 2010). This thesis is concerned with one area in particular: the term 'further education', or 'FE', in this study denotes specifically the part of this wider sector that is concerned with *the education provision that takes place within or is organised by an FE college in England*.

1.4.2 The political context of FE

Although FE institutions provide academic, professional and vocational qualifications varying from pre-entry to degree level (Orr & Simmons, 2010), the focus of FE in Britain, as in much of the rest of the world, has traditionally been vocational, employment-related skills. Consequently, it is sometimes known as 'vocational

education and training'. To this day, FE remains closely associated with training and upskilling employees for the labour market.

When FE colleges were removed from local authority control in 1992, they became answerable directly to central government. The relationship between FE and the labour market explains the attention the sector has received after years of 'benign neglect' (Lucas, 2004) from national policymakers who seek to promote a skills agenda deemed necessary if Britain is to compete in a global economy. Skills have, for some time, been concomitant with a 'global race' in which the education system requires reform, having so far failed to address adequately the present 'conundrum of unemployment and skills shortages' (DfE & BIS, 2013, p. 4). This skills discourse is found throughout current education policy, where it has come to define a dominant conceptualisation of teaching and learning in which skills are the measurable outcomes of teaching and learning activities. Successive policies, infused with discourses of social justice and responsibility, demand continuous improvement and a striving for excellence from education institutions and teachers that will somewhat unproblematically result in individual and national economic benefit (see, for example, DfEE, 2000; DfES, 2006; BIS, 2010; DfE & BIS, 2013).

Reform of the failed system is instituted from above by means of a number of policy levers, such as funding, inspection, targets and initiatives (Finlay, Spours, Steer, Coffield, Gregson, & Hodgson, 2007), which guide the operation of education institutions. As each new change is introduced, colleges are obliged to meet increasingly stretching demands as though they were, as Coffield and Edward (2009, p. 373) assert, 'a ratchet screwdriver with no reverse movement allowed; only constant forward progression is acceptable'. Despite several policy documents

acknowledging the many examples of 'excellence' in FE, these statements of achievement are then qualified by highlighting the remaining inadequacies of colleges that must be dealt with firmly, with one government calling for 'a more robust framework of intervention and support to tackle poor quality' (DfES, 2006, p. 18) and the next agreeing that '[w]eak performance needs to be identified quickly and corrected robustly' (DfE & BIS, 2013, p. 10). Such attitudes reflect a wider trend towards globalisation, consumer markets and neoliberalism as the backdrop to education policy and a general belief amongst policymakers that 'the use of market mechanisms is the most effective way to raise standards and reduce costs' (Fisher, Simmons, & Thompson, 2015, p. 8).

Measuring performance in education is crucial to the political agenda, and the skills discourse is entwined with the instruments put in place to achieve this. For example, graded lesson observations contribute significantly to quality assurance procedures in education and have become an important means of collecting evidence of quality in classrooms (O'Leary, 2012), despite some asserting that such lessons are not representative of ordinary daily teaching practices (for example Thompson & Wolstencroft, 2014). Although lesson observations can serve a developmental purpose for teachers by promoting reflective practice by means of 'the freeing of the teacher from the immediacy of teaching' (Cockburn, 2005, p. 384), and are usually viewed as such in ITE programmes, they have become associated in wider teaching with performance management requirements, 'associated with audit trails, performance indicators, appraisal and the other paraphernalia of the accountability movement' (ibid., p. 374). Both Cockburn (2005) and O'Leary (2012) stress an uneasy relationship between the observer and observed in such interactions, noting that lesson observations challenge teachers' professional autonomy and raise questions about the

power and credibility of those casting judgement. Crossland (2009) adds that the two kinds of observation are underpinned by competing notions of professionalism: one results in a 'dialogue between professionals' that focuses on developing professional judgement (a creative-interpretive model); the other acts as a sample of the quality of provision in which the teacher is only one part of the delivery process (a technicalrational model). Again, these differences highlight the power differential in the observation process: 'FE lecturers know, however, that to vary from the model will result in a poor grade for the observation' (ibid., p. 101).

Such performance measurement practices have become embedded in FE institutions, and remain a means by which the complexities of teaching and learning can be grasped and manipulated according to the agenda of those in charge:

Performativity is a technology, a culture and a mode of regulation that employs judgements, comparisons and displays as means of incentive, control, attrition and change – based on rewards and sanctions (both material and symbolic). The performances (of individual subjects or organizations) serve as measures of productivity or output, or displays of 'quality', or 'moments' of promotion or inspection. As such they stand for, encapsulate or represent the worth, quality or value of an individual or organization within a field of judgement. The issue of who controls the field of judgement is crucial.

(Ball, 2003, p. 216)

Alongside these performance management frameworks and skills strategy documents, policies committed to reforming the FE workforce have also appeared, indicating that a primary means of attaining the desired continuous improvement and producing a

highly skilled labour workforce is considered to involve the (previously unachieved) professionalisation of the sector's teachers.

1.4.3 The professionalisation of FE

The professional situation of FE teachers has come under deeper scrutiny as state intervention in the sector has increased (Lucas, 2013). Efforts to 'professionalise' the FE workforce over the last two decades have sought to standardise and raise the quality of initial and continued teacher education. The Further Education National Training Organisation (FENTO), an employer-led body then newly created, published national standards for FE teachers in 1999, which formed the basis of the mandatory teacher qualification system that came into being in 2001. Shortly after, the Office for Standards in Education, Children's Services and Skills (Ofsted, 2003) concluded that this system did not provide a 'satisfactory foundation of professional development' for FE teachers, leading to the creation of a new sector skills council, Lifelong Learning UK (LLUK), which replaced FENTO in 2005. It subsequently published new professional standards for teacher education, and revised statutory regulations for ITE qualifications and professional development in 2007. The new regulations included compulsory membership of the Institute for Learning (IfL), the sector's professional body, and the requirement to undertake a minimum number of hours' annual continued professional development (CPD). The 2007 regulations remained in place until Lord Lingfield's review of professionalism in FE recommended removing the mandatory requirement for teachers to achieve an approved teaching qualification. Arguing that the sector had become 'infantilised and encumbered' (BIS, 2012, p. 1) by excessive intervention from the state, the interim report advocated entrusting judgement of appropriate qualification to employer discretion. This reignited debate

about the professional status of FE teachers and a concern about leaving the issue of professionalism in the hands of employers (NIACE, 2012). A survey of more than 5,000 IfL members showed that over 80 per cent believed national teaching qualifications to be central to their recognition as professionals (IfL, 2012, p. 6). There is therefore some disparity between perceptions of professionalism among post-compulsory sector teaching 'insiders' and those external, but influential, to the profession.

When this study began, the 2007 workforce regulations were still in place, and teachers in FE were required to work towards a teaching qualification relevant to their job role and to achieve Qualified Teacher Learning and Skills (QTLS) status: the 'licence to practise' that was to give FE teachers parity with school teachers. The sector's complicated history and composition have led to significant differences between teachers in FE and teachers in schools, such as gualification requirements and pay scales. There has also traditionally been a difference between the professional status of school teachers or higher education (HE) lecturers and those teaching in FE. It is likely that this has its roots in the paths followed into teaching: school and HE teachers typically have a strong academic background – something frequently associated with notions of professionalism (Freidson, 1999) – whereas FE lecturers have customarily had previous and successful careers building experience in other occupational fields. Following the tradition of apprenticeship learning in trades and crafts, it is this kind of expertise that has given FE teachers the credibility to teach in the past. The gap separating FE teachers from the more established notion of professionalism in schools and universities has steadily been closing in recent years, as more and more teachers gain qualifications at all levels, and the purview of FE has continued to expand beyond vocational training. Recognition for the moves towards

professionalisation in FE by those within it is overlooked in policy; instead, there has been an explicit effort to 'reform' the sector and its workforce. Such terminology gives the impression of remedial action – an impression that is far removed from the semi-autonomous position of the Higher Education Academy described by Lucas and Nasta (2010). The nature of the professionalism that policymakers seek, the starting point of teacher professionalism in the sector and what achievement of such professionalism would look like are unclear. Kennedy and Doherty (2012), for example, suggest that the language of one government-commissioned report implies that acting in a professional manner really means complying with policy. They propose that although professionalism is presented as a solution to education's problems, it 'has more to do with the desire to influence teachers and teacher education than it does to engage with a particular ideological understanding or practical enactment of professionalism' (ibid., p. 843). However, Menter, Hulme, Elliot and Lewin's (2010a) literature review identifies four prominent models of teacher professionalism underlying policy and research literature: the effective teacher, the *reflective* teacher, the *enquiring* teacher and the *transformative* teacher. Although the dominant conceptualisation of 'teacher' could be said to be as 'effective teacher', which is most closely in alignment with the performativity agenda, the other models of teacher have also achieved traction in the professionalism debate and are discussed further in Chapter 2 in relation to FE teacher educator identity.

1.4.4 Defining teacher education in FE

The fundamental premise of initial teacher education in the United Kingdom is that student teachers will learn the essential knowledge and skills required to practise as a teacher by undertaking formal training, and will demonstrate their understanding by applying these principles in practice. *Teacher educators* are generally understood to be those teaching professionals who deliver such training. Key components of this role typically include leading classroom-based sessions, evaluating student teachers' written assignments and assessing their practical teaching performance as required by the awarding institution. As such, the teacher educator role is similar to that of other kinds of professional educator, for example those responsible for ensuring that trainee social workers, nurses, lawyers and doctors develop the knowledge, attitudes and practical skills required to adequately perform the agreed roles and responsibilities of their respective professions. In each case, these 'educators' are themselves qualified and experienced members of the profession into which their students are attempting to gain entry. Teacher educators also share much in common with other groups concerned with staff development, such as the academic developers in HE institutions who design and facilitate professional development activities for academics and researchers in line with a university's strategic goals. As a generic term, however, 'teacher educator' most frequently indicates someone who delivers an initial teaching qualification programme for prospective school or college teachers.

In England, ITE is primarily provided by universities and FE colleges, and student teachers train specifically for primary school, secondary school or post-compulsory contexts. In the post-compulsory sector, ITE differs substantially from that in preparation for school teaching. Although in-service programmes exist and there is currently a drive towards relocating ITE into schools (Browne & Reid, 2012; Childs, 2013), school teachers have traditionally trained pre-service in a university setting (Lucas & Nasta, 2010). They are required to hold a good bachelor's degree, and they prepare to teach a particular subject and age-phase. Teachers in FE, however, predominantly study part-time while simultaneously employed in a teaching role (Orr

& Simmons, 2010), often in the same college delivering their course, and enter their teaching career with a potentially much wider range of prior qualifications and/or experience. The proportion of student teachers undertaking PCET ITE qualifications is significant, for example it has been asserted that during 2007–10 there were more teachers engaged in post-compulsory sector ITE than in primary and secondary ITE combined (Crawley, 2012). Although it is unclear how many PCET student teachers overall achieve their qualifications in an FE college rather than a university, Nasta (2007, p. 12) states that 'it is within FE colleges that over 90% of FE teachers receive their initial teacher training'.

There are currently two main routes to qualification for FE teachers:

- the Certificate in Education (CertEd) or Postgraduate Certificate in Education (PGCE), accredited by HEIs (QCF levels 5–7); or
- the Award in Preparing to Teach in the Lifelong Learning Sector (PTLLS), the Certificate, or the Diploma in Teaching in the Lifelong Learning Sector (CTLLS and DTLLS, respectively), accredited by national awarding bodies (QCF levels 3–7).²

Lea (2010) states that about half of the PCET ITE provision is delivered by non-HEI national awarding bodies such as City & Guilds and Edexcel, although Crawley (2012) states that the majority is validated, developed and coordinated by HEIs.

² During the lifespan of this study, the 2007 workforce regulations were revoked and QTLS requirements removed. The PTLLS/CTLLS/DTLLS qualifications were replaced with a revised suite of Award, Certificate and Diploma in Education and Training. At the time of interview, participants were preparing for the introduction of the new qualifications.

With the exception of language, literacy and numeracy specialisms, PCET ITE tends not to be subject-based. Student teachers work, or are preparing to work, in the wide range of contexts detailed above, so it is impractical to organise post-compulsory ITE according to subject and age phase. Since many student teachers are already paid teachers in their workplaces, there are issues of dual identities that do not normally affect those in other sectors (Orr & Simmons, 2010). In essence, for these 'trainees', the qualification only officialises their ability to perform a role they are already in. Programmes for PCET ITE are included in the HE that takes place in FE colleges. Although college-based HE is not new, it has not been a widely researched area (Tummons, Orr & Atkins, 2013). However, recent studies indicate that this 'HE in FE' is positioned uneasily between the academic traditions of universities and the industrial origins and student-centred orientations of FE institutions (Boyd et al., 2010; Harwood & Harwood, 2004; Turner et al., 2009). As many as one in ten HE students in the United Kingdom study through 'college HE' (Fisher et al., 2015, p. 12) - approximately 175,000 students across almost 300 colleges (Association of Colleges, n.d.) – but it has been suggested that despite 'the main intention of the government to bring HE and FE closer together ... these lecturers see themselves as being different to those surrounding them' (Feather, 2011, p. 25). Managers in FE, however, may not distinguish between FE and HE lecturers in terms of salary and conditions of contract (Harwood & Harwood, 2004; Turner et al., 2009). This is especially likely where teacher education programmes are accredited by nonuniversity awarding bodies and have no relationship with a partner university. Studies reveal a tension for teaching staff between their obligations to their university partners and their obligations to their employing college. For example, FE staff are often contracted for a higher number of teaching contact hours than their HE counterparts,

with colleges making no allowances for additional time to prepare for HE teaching or to 'feel on top of their subject and thus teach with confidence at HE level' (Harwood & Harwood, 2004, p. 157). It must be noted that FE teachers do not typically hold the same higher levels of academic qualification in their subject as HE lecturers.

A key difference between HE and FE can be described as a difference in the perceived 'contestability of knowledge' (Lea & Simmons, 2012). In HE, knowledge is treated as contestable, and exploration, questioning and debate are welcomed. In fact, research might be considered a 'core purpose' of HE (Feather, 2011, p. 21), whereas in FE – and especially in the lower level qualifications delivered in FE – knowledge is considered to be stable and validated externally. The inspection and observation criteria consequently applied to HE courses are sometimes considered more suited to FE (Turner et al., 2009). Of course, the current culture of performativity may also be found in university settings, but Lea and Simmons (2012) contend that this has not subsumed those aspects of the culture deemed 'HEness'. They do, however, question whether the college environment allows teachers 'to take students beyond the fixed and into the realms of the contingent' (ibid., p. 184). Clow and Harkin (2009) give an example of how college libraries may not provide sufficient access to required course reading. Harwood and Harwood (2004), along with Turner and colleagues (2009), conclude that these sorts of contractual and cultural issues inhibit the formation of an HE learning environment.

Although it is difficult to accurately define 'HEness', there are some core differences between the two educational contexts that complicate enacting one kind of learning ethos within the other kind of setting. Lea and Simmons (2012) summarise these differences as fundamentally distinct attitudes towards institutional autonomy, individual autonomy and the contestability of knowledge within HE and FE organisations. These elements, and their effects on the teachers and their working environment, are discussed further in Chapter 2, section 2.3.

1.5 Chapter summary

This chapter has introduced the context of the research. It has highlighted the problematic composition of the PCET sector, isolating the particular area of the broader sector that concerns this thesis as FE and defining the term 'further education', as used within this study, as the education provision that takes place within, or which is organised by, an FE college in England.

Further education has been described as characterised by its diversity of learners, subject areas, and level and type of qualifications offered, and as situated within a wider political context. The dominance of a skills discourse that reflects a perceived close relationship between FE and the labour market has been highlighted, along with how this relationship has resulted in political scrutiny of the sector. Further education now operates within a performativity culture obsessed with notions of measuring quality and improvement. Related to the preoccupation with quality measurement is the ongoing debate about the professionalism and professionalisation of the sector's teachers and what makes effective teaching and learning.

Initial teacher education in FE has been located within this contested arena, as will be explored more fully in Chapter 6. Differing from other forms of teacher education, FE ITE is made up of broadly generic programmes catering to a diverse student body learning to teach in diverse educational contexts. Many student teachers are simultaneously employed in paid teaching roles, often in the same institution where

they are undertaking their qualification. It is HE provision delivered within an FE organisation and culture that inhibits the development of a culture of 'HEness', and which is characterised by a managerialist and performative approach to leadership and accountability. The activities of FE, including teacher education, are therefore tightly restricted by national policies and permissions. The manifestation of FE values and norms in the everyday material environment is illustrated in Chapter 6, which, by drawing on the findings of this study, presents a description of the FE college as a framing context for teacher educators.

The following chapter explores what is currently known about FE teacher educators as an occupational group in a review of the extant literature.

Chapter 2 Teacher educators: A review of the literature

2.1 Introduction

The previous chapter illustrated that, over the past two decades, further education (FE) has become more visible in political circles and has consequently experienced an unprecedented level of intervention from policymakers that affects the day-to-day experience of working as a teacher in FE (Lucas, Nasta, & Rogers, 2012; Orr & Simmons, 2010). These policy interventions have led to increased attention from researchers to two main areas that are relevant to this study: post-compulsory teacher education, and the professional situation of FE teachers. As this chapter will show, however, despite the contested nature of professionalism in the sector, FE teacher educators' contributions to initial teacher education (ITE) remain severely underresearched, resulting in the potential for policy decisions to overlook some significant issues.

The research discussed below is primarily taken from studies that explicitly focus on the teacher educator population in the United Kingdom. Supporting literature is drawn from international studies, along with bodies of work on post-compulsory education and training (PCET) ITE, the FE context and FE teacher professionalism. The literature was located systematically through a series of searches of university library catalogues and academic databases, such as Academic Search Complete, JSTOR, British Education Index and Web of Science, along with Google Scholar. Following Hart (1998), the review aimed to: situate my topic in its historical and current context; identify key studies, key sources and authors; and establish what has already been done in order to identify a space for my own study.

Beginning with the broad research areas of the FE sector, teacher educators and professional identity, I devised a list of possible search terms to identify what is already known about teacher educator identity in FE. Given the significant variation in terms used to describe these concepts, refining and combining search commands was time-consuming and produced a large number of unsatisfactory results. Few of the resulting finds focused directly on teacher educators; instead the literature tended to favour student teachers in investigations of professional identity and experience, with a significant proportion expressly concerned with school teachers rather than those working in the PCET sector. Several relevant articles supported my growing suspicion that teacher educators are an under-researched population, and so I felt it prudent to adjust the search strategy. The 'snowball' approach (Ridley, 2008) that commonly occurs as research becomes more focused played a significant role in my literature review. Taking some promising articles as a starting point, I checked the contents for additional possible search terms, and then reviewed the reference lists for authors and publishers, until I had created a list of potential sources more directly relevant to my research focus. These new sources were then reviewed, and their reference lists checked for further authors and publishers in turn. This enabled me to identify journals and key researchers publishing in areas relevant to my research problem. I checked past issues of these journals, with particular attention to special issues. I explored frequently cited authors, locating further information sources in university research centres and special interest groups. Any new search term found in the literature was then run back through the university library and web search engines. This strategy enabled me to compile an extensive collection of books and articles relevant in some way to FE teacher educators and their professional identity. As the focus of the research question was refined, additional literature was identified for

review. This chapter therefore also draws on contributions from tangential, but more comprehensive, bodies of literature, such as on FE teacher identity, to explore the professional situation of teacher educators in the FE sector. Research pertaining to educational technology in teacher education is discussed in the following chapter.

2.2 Building an understanding of teacher educators in the FE sector

2.2.1 Defining 'teacher educator'

Teacher educators are considered to be an 'ill-defined' (Menter et al., 2010b, p. 124), 'under-researched professional community' (Crawley, 2012, p. 336) and a 'poorly understood occupational group' (Davison, Murray, & John, 2005, p. 113). Perhaps owing to the limited amount of research into teacher educators, defining the term 'teacher educator' proves problematic. John (2002) identifies a number of definitions that have emerged from the literature that emphasise, to a greater or lesser extent, the knowledge bases and different roles played by teacher educators. These include Ducharme's 'scholar' and 'researcher', Jackson's 'professional disciplinists' and 'pedagogists', Finkelstein's 'technicians', and the more humorous 'beasts of burden, facilitators and academicians' of Ducharme and Agne (all cited in John, 2002, p. 324). John himself adopts Lanier and Little's (1985, cited in John, 2002, p. 325) description of teacher educators as deliverers of 'subject methods courses and professional studies inputs', and supervisors of the 'practicum' element of teacher education. This definition locates teacher educators in a powerful position, implying a relationship of student teacher as novice and teacher educator as experienced and knowledgeable master, in a traditional power balance between professional and initiate.

Definitions of teacher educator more specific to the post-compulsory sector contain no such implication. It is not unusual for PCET teacher educators to be conceptualised (if not necessarily explicitly defined) as 'any teaching professional supporting the learning and development of trainees on any of the currently recognised Initial Teacher Education (ITE) awards in Post Compulsory Education' (Crawley, 2013, p. 337). Given the likelihood of teacher educators in PCET working in more than one role (Clow & Harkin, 2009; Crawley, 2013; Noel, 2006), this both recognises the potential for peripheral engagement with ITE and at the same time restricts the concept of the teacher educator's work to the qualification structure of initial teaching awards. However, evidence from this study demonstrates that teacher education is considered to expand beyond this qualification framework (see Chapter 6). The language of this definition hints at some perceived differences between compulsory and post-compulsory sector teacher educators. Instead of attention to the academic nature of the teaching 'discipline' and a related scholarly identity, PCET involves more types of teacher educator who 'support' broader kinds of learning. They are referred to as 'professionals', reflecting the tensions surrounding professionalism in the sector. The 'trainees' take centre stage in this definition, perhaps in response to the student-centred values of PCET.

Although from outside the PCET sector and, arguably, placing the emphasis back on the teacher educator as knowledgeable 'master', the definition of 'teacher educators' that is taken up in this thesis is as: ... teachers of teachers, engaged in the induction and professional learning of future teachers through pre-service courses and/or the further development of serving teachers through in-service courses.

(Murray, Swennen, & Shagrir, 2009, p. 29)

This definition represents recognition of the multiple facets of the generic teacher educator role: as a teacher, but of a new kind of student, and potentially involved in professional learning for different sorts of teachers, who may be at any stage of their teaching careers. I believe that such a definition also draws attention away from the 'delivery' aspect of the teacher educator role and places more emphasis on the purposes underpinning that role: the induction and development of members of a profession. However, I acknowledge that initial teaching qualifications often do dominate the focus of teacher educator work and policy, and so consider that, because it is in common usage, the term 'initial teacher education' (ITE) remains sufficient for the purposes of this thesis.

2.2.2 Starting from what is known about teacher educators

In the United Kingdom, education research is predominantly conducted within higher education institutions (HEIs). In their review of teacher education research, Menter and colleagues (2010b) estimate that there are some 5,000 staff working as academics in education faculties across the UK, making education the largest subject area after business and management. The majority of these staff, however, 'are employed first and foremost as teacher educators, that is, the bulk of their working time is spent in the preparation, management, teaching and assessment of programmes of pre-service and in-service teacher education' (ibid., p. 122). It is therefore not spent conducting research. Historically, teacher education and teacher educators have experienced low

status in the academy – a notion that is often explained as having its origin in tensions between the academic orientation and career path of university staff and the practitioner background of teacher educators (Davison et al., 2005; Menter et al., 2010b; Murray, 2005). A key difference between the two groups is the emphasis placed on carrying out research as part of their role. As Menter and colleagues (2010b, p. 124) state, much of the research that exists on teacher education is conducted by its practitioners, and consequently is small-scale and practice-based, resulting in 'a relatively under-developed area, without a strong theoretical or methodological tradition'. The study of teacher educators themselves forms an even smaller part of this tradition.

Within this meagre research setting, studies that shed light specifically on the postcompulsory teacher educator population and their professional concerns is sparse (Exley, 2010; Noel, 2006; Thurston, 2010). Study of FE college-based teacher educators tends to be enveloped in research on the wider PCET context, for example including those teacher educators delivering PCET programmes in universities. Given the diverse nature of post-compulsory ITE and the close ties between the awarding HEIs and the non-awarding FE colleges, which often operate in consortia, studies combining more than one context are understandable. Unfortunately, as indicated in the previous chapter, viewing the post-compulsory sector as a whole requires that some important contextual concerns of working in a college might be obscured, played down, or even overlooked. However, the paucity of research attending to FE teacher educators does not mean that indications of identity and professional issues specific to them cannot be found in such research.

A small number of publications that examine post-compulsory teacher educators, as opposed to student teachers or ITE programmes more generally, were located during the literature search. These, as Menter and colleagues (2010b) suggest, are primarily small-scale qualitative studies. However, two larger scale mixed methods research studies investigating post-compulsory teacher educators were located, which, because of the unusually large size of their participant sample, purport potentially to reflect other populations in the sector. Between them, they introduce the main issues of concern to FE teacher educators that have been explored to some extent by other researchers and which are discussed further in section 2.3. These have been taken as the starting point of this review and a short summary of their key findings is presented below.

2.2.3 'The secret life of teacher educators: Becoming a teacher educator in the learning and skills sector' (Noel, 2006)

The first study, Penny Noel's (2006) widely cited landmark survey of 128 teacher educators across 29 learning providers, provided the most comprehensive demographic profile of the post-compulsory teacher educator profession to date. Aiming to 'encourage debate about the experience, qualifications, knowledge, skills and qualities necessary to fulfil the role of the teacher educators in the sector', the article examines diversity within the teacher education population and the impact of 'a failure to employ formal and transparent recruitment and selection procedures' (ibid., p. 151). The research studied a consortium consisting of more than 30 ITE providers in north-west England – mainly FE colleges – signifying 'the largest network of inservice teacher education providers for the post-compulsory sector in England' (ibid., p. 153), which at the time involved more than 2,000 student teachers. The data for the study consisted of: demographic consortium network data for 128 teacher educators; interviews with eight teacher educators; and 78 survey responses to a subsequent questionnaire (a 60 per cent response rate).

Asserting that the sector workforce is 'predominantly female, white and ageing', Noel (2006, p. 152) concluded that teacher educators are 'more female, more white and older' than the sector as a whole. They were also found to be more highly qualified than the sector workforce and to come from a small range of subject backgrounds that is not representative of their trainees' specialisms. Noel (ibid., p. 152) suggests that 'current pressures in further education' lead to 'inappropriate recruitment and selection procedures contributing to workforce imbalance'. Employing a teacher education workforce more illustrative of their trainees and their students is considered important because of the general expectation that, as stated by Murray and Male (2005, p. 126), 'English teacher educators will be effective teachers and facilitators of learning for intending teachers, taking responsibility for induction into the profession' – expectations that Noel considers hold equally for teacher educators in the learning and skills sector.

Consortium teacher educators were found predominantly to work full-time, becoming teacher educators through a variety of routes: some as a result of 'a reasonable reputation as a teacher' (Noel, 2006, p. 161), and others for reasons that they felt had little to do with their own qualities. Four-fifths of centre managers were found to be female, but 'this does not mean that they are necessarily classified as managers within their own organisations' (ibid., p. 159). There were strong indications of prevalent informal recruitment procedures. Some 90 per cent of participants had worked in post-compulsory education for more than 11 years and the relationship between 'dual roles'

– that is, other roles occupied alongside teacher educator – was examined, showing participants' preference for their 'key identity' as teacher educator and a tendency to move 'towards a more extensive involvement' (ibid., p. 161) in teacher educator work.

2.2.4 '"Endless patience and a strong belief in what makes a good teacher": Teacher educators in post-compulsory education in England and their professional situation' (Crawley, 2013)

Crawley's (2013) article presents key findings from his doctoral research into the professional situation of teacher educators in the lifelong learning sector (LLS). As the second large-scale investigation into this population, he presents his work as an update to Noel's (2006) study. Crawley's (2013) research combined workshop sessions with 250 practitioners and 161 responses from an online survey of teacher educators, although contact was also made with trainee teachers and prospective teacher educators. In all, 140 organisations were represented. Crawley calculates that the study reached approximately 29 per cent of his estimated total of 1,500 teacher educators active in post-compulsory education and that the survey responses represent 11 per cent of that total. He therefore claims the study to be the 'largest online survey of this particular group to date' (ibid., p. 336). Significantly, the survey results include representation from non-HEI and non-FE college providers.

Crawley's demographic profile of teacher educators largely corresponds with Noel's (2006, p. 154) claim that the workforce is 'largely female, white and middle aged', although Crawley (2013, p. 339) asserts this could be updated to 'largely female, white and moving past middle age'. He also records a higher proportion of female respondents (77 per cent, as opposed to 66 per cent).

Like Noel (2006), Crawley (2013) found that teacher educators in the sector perform more than one role, although he disagrees with her conclusion that they move towards more extensive involvement in ITE. Crawley states that this work rarely constitutes above 50 per cent of respondents' time, concluding that balancing it with other roles remains problematic. He notes aspects of PCET teacher education that are not found across the wider teacher education spectrum:

... (1) the degree to which trainees are studying part time whilst already in employment (i.e., in service) for their teaching qualification; and (2) the degree to which teacher educators are teaching on short courses, sometimes as short as one semester or as little as 6 credits (PTLLS). Parttime in-service is by far the most significant mode of operation of this phase of teacher education.

(Crawley, 2013, p. 340)

Where Noel (2006) focused on diversity in teacher education in the sector, Crawley (2013, p. 344) aimed to elucidate the professional situation of its inhabitants, described as 'triple professionals' of subject specialist, teacher educator and teacher. His research generated a set of 15 'essential characteristics of a good teacher educator' that participants felt they embodied. Of these, the most prominent characteristics were:

- 'passionate about teaching and learning';
- 'flexibility, adaptability, availability';
- 'gaining the professional respect of other teachers'; and
- 'the ability to model good practice in teaching knowingly'.

Areas that participants felt they needed to develop more included:

- 'the "even more" quality (demonstrating a wide range of professional confidence as a good teacher, but "even more" so)'; and
- 'being innovative and charismatic' (ibid., p. 341–2).

Crawley also highlighted three themes recurring in the data that offer insight into the values of PCET teacher educators:

- they use language indicative of student-centred, responsive, facilitative approaches to teaching and learning;
- they attempt to model best practice; and
- they make frequent reference to the diversity and breadth of the sector, and how this affects their role.

Crawley uses the extensive nature of these themes to conclude that teacher educators in the sector demonstrate what he has previously called a 'more expansive professionalism' (Crawley, 2012, p. 2), while working in an environment described as 'at times hostile':

Post-compulsory education teacher educators perceive themselves as professionals who are mainly confident in the essential characteristics they possess and their subject knowledge ... They have a powerful desire to enhance the learning, teaching and community values of their trainees and a readiness to contribute to activities, which they feel will improve their situation and that of their trainees ... If there are defining characteristics of PCE teacher educators, they could be argued to be the 'diversity and breadth of practice' they engage with in terms of trainees and the sector overall and the degree to which this demands an 'even-more' quality or requires them to be 'triple professionals'.

(Crawley, 2013, p. 345)

2.2.5 Summary: What do these studies tell us about teacher educators in FE?

Together, these two articles contribute information about who teacher educators in the sector are, what they do, how they develop and, to a lesser extent, the kind of identity negotiation that is occurring in this setting.

Teacher educators in PCET are not diverse in terms of ethnicity, age and gender, but as a group they are more highly qualified than other teachers in the sector. They have extensive experience of working in the sector, with the vast majority having taught for more than ten years. There are a significant number of teacher educators working in this sector, and they are deeply committed to their students and their role. They come from relatively few subject areas that do not accurately reflect the specialisms of their student teachers.

The role of teacher educator is a desirable one, with many identifying it as their 'home' role (Noel, 2006). Some teacher educators also remain teachers of their specialist subject, resulting in the tensions inherent to performing a dual role. Many also engage in management activities and some in research for a significant proportion of their time. A large percentage of centre managers are female.

The work of PCET teacher educators is deeply influenced by the nature of their sector. Unlike other teacher educators, they primarily teach in-service teachers who often also work in the same college. Modelling 'best practice' is perceived to include preparing student teachers for the breadth and diversity of the sector. There is no formalised career path for teacher educators and consequently many enter the role with no preparation for its demands. They commonly feel that their reputation as a 'good teacher' contributed to their selection for the post. Development during the role is frequently accessed through university partnerships or through support from fellow teacher educators.

The two studies indicate that PCET teacher educator work is a contested space. Teacher educators consider themselves to be professionals with a set of characteristics that describe their value as an occupational group. This value, however, is not immediately apparent in the institutional processes surrounding their work and their appointment to the role. The lack of formal recruitment procedures, coupled with their organisations' weak perception of their management roles, implies that the work of teacher educators is not prioritised in post-compulsory education in a way that reflects the commitment to teacher education and professionalisation of the workforce mandated by current policies. Teacher educators in the sector do, however, remain deeply committed to their work, their students and their own professional development, despite a diverse and potentially restrictive context.

2.3 Contributions from the wider field

The studies cited so far involved participants from across the post-compulsory sector: in the first designated the 'lifelong learning sector' (LLS), and in the second, 'postcompulsory education' (PCE), although in an earlier article based on the same research, Crawley (2012) too had used the designation LLS. Both articles acknowledge that some participants worked in university contexts, but the differences between contexts are not explicitly articulated and therefore go unexplored. As stated at the beginning of this chapter, there are very few empirical studies that attend to the concerns of FE teacher educators. The two studies outlined, however, demonstrate the areas that have been considered to some extent by other studies and thus provide a framework in which to explore the contributions of research from further afield to understanding FE-based teacher educators.

2.3.1 Becoming a teacher educator

Leaving the post-compulsory sector largely unaddressed, the most high-profile authors attempting to theorise teacher educator identity have focused on those who work in universities delivering ITE for schools. As stated in Chapter 1, HEIs and schools in the United Kingdom operate under a different set of cultural conditions from FE colleges. Consequently, many of the issues of importance for teacher educators based in universities are not directly relevant to the population under study in this thesis. However, this body of research does highlight some similarities and differences between the two groups.

The matters found to be important for university teacher educators in the UK, as in many other countries in Europe and beyond (see, for example, Davey, 2010; Goodwin & Kosnik, 2013; Swennen, Volman, & van Essen, 2008), concern the transition from school teacher to teacher educator, and the subsequent physical and emotional relocation of their professional selves into a university setting. A primary goal of the research focusing on this transition is the development of better induction procedures to facilitate the process (Boyd, 2010; Boyd, Harris, & Murray, 2011; McKeon & Harrison, 2010; Murray, 2005).

The point of tension during transition is the need to reform a professional identity from school teacher to university academic. Of particular note are the differences in

professional pathways between teachers and other university scholars, for example their academic history, level of qualifications and research experience. School teaching is positioned as a practical activity with low status in the hierarchies of academia. Teacher educators do not typically begin their university lecturer career as established and credentialed researchers in the UK, although this is not common to all countries, an exception being Finland (Hokka, Etelapelto, & Rasku-Puttonen, 2012); instead, credibility for the role is derived from the teacher educators' up-to-date knowledge and experience of the schools sector (Boyd, 2010), where they were identified as 'good teachers'. They are established 'practitioners', (re)producers of the discourses and practices of schooling (Davison et al., 2005), and this is a core part of their professional identity, resulting in Murray and Male (2005) designating them 'semi-academics'. They are also conceptualised as 'second-order practitioners' in the same vein as nurse and social worker educators (Davison et al., 2005; Ellis, Blake, McNicholl, & McNally, 2011; Murray, 2007). But they are considered unique in that they simultaneously teach about teaching and model teaching, for, as Korthagen, Loughran, and Lunenberg (2005, p. 111) state: 'During their teaching, doctors do not serve as role models for the actual practice of the profession, i.e., they do not treat their students.' There is some 'role ambiguity' (Boyd, 2010, p. 157) between these dual identities. This duality is also highlighted in the PCET literature, but points to further complexity attached to the role for this sector. Where ex-school teachers may maintain their first-order identity when they have ceased to practise it, Noel (2006), Crawley (2013), and Boyd and colleagues (2011) point out that PCET teacher educators often continue practising in their original 'teacher' role and so the dual identities are not only inhabited, but also practised concurrently. As introduced in Chapter 1, the idea of a dual professionalism is common in FE, where vocational

teachers have a professional background in occupational fields prior to becoming a teacher (IfL, 2009), and student teachers are simultaneously student and colleague (Orr & Simmons, 2010). The presence of these other dualities in their working environment may add an additional layer to the identity of teacher educators in the sector. Exley (2010) expands the duality of the teacher educator role itself further to include four distinct parts: *curricular subject specialist, teacher, educationalist* and *researcher*. This illustrates the additional layers of even a basic description of the role. She acknowledges that there may not, however, be the same pressure on HE staff based in FE colleges to produce a research output as there is those based in universities.

Davison and colleagues (2005) and Menter and colleagues (2010b) both highlight the importance of the Research Assessment Exercise and the requirement for university lecturers to meet its criteria, thus offering an explanation for the academic role of university lecturers dominating the research literature. However, even though not all teacher educators are required to be academics in a university, there is a sense of *becoming* attached to conceptualisations of teacher educators in both the HE and PCET literature. As already noted, several authors tackle the issue of induction into the profession. The time period for the transition into the new identity is specified at around three years (Boyd et al., 2011), since new professional identities have been judged to take between two and three years to establish (Murray & Male, 2005). This helps build a sense of the transitional nature of moving from teacher to teacher educator, and highlights the differences between first- and second-order practice. Although this may contribute to better induction procedures, the purpose underpinning the work on induction seems primarily intended to help school teachers to adapt to their new environment and its expectations, rather than to develop as teacher

educators. Institutional concerns outweigh the purpose of teacher education itself. In FE colleges, teacher educators often remain in the same institution when entering the role (Boyd, Allan, & Reale, 2010) and may continue teaching their original subjects. They therefore do not leave the original role – an important component of the university teacher educator journey. The 'becoming' descriptor implies that once the transition from teacher to teacher educator is successfully navigated, the journey is complete. This is problematic from the points of view both of continuing to teach other areas of the curriculum and of working in the current climate of continual improvement and reform (Coffield & Edward, 2009).

Another implication in research concerned with 'becoming' is that what it means to be a teacher educator is fixed and stable and can be recognised through a set of characteristics. Emphasis is therefore on helping new teacher educators become a known quantity. Smith (2005), for example, presents a summary of the ways in which teacher educator expertise differs from that of teachers. The 15 'essential characteristics of a good teacher educator' presented by Crawley (2013, p. 341), although not dissimilar to Smith's conclusions, are perhaps an attempt to define those characteristics from within the PCET profession and thereby counteract the imposed external 'standards' of current policy. It is noteworthy, then, that the characteristics are presented almost in 'standards' form, and so reproduce the dominant discourses of excellence and itemisable knowledge and skill. However, although many of these characteristics are arguably representative of other teachers, the list offers insight into some of the beliefs and values of a group who feel they hold professional authority, and is an illustration of the nature of second-order practice.

Although FE teacher educators may 'become' teacher educators in an 'accidental' fashion (Simmons & Thompson, 2007) and may identify with this as their home role more over time (Noel, 2006), in many ways they continue working within the same set of cultural expectations and do not need to establish credibility for acceptance within their institution. They have an advantage that novice teacher educators in a new environment do not: 'cultural capital in their knowledge of the informal workings and micro-politics of the school' (Hodkinson & Hodkinson, 2004, pp. 178–9). There is little indication in the literature of how this journey might be experienced by those who come from outside FE to take up an FE teacher educator post. But by staying in (or entering) FE, their journey to, and destination in, becoming teacher educator is different from that of university lecturers, highlighted by a body of work that examines the location of HE programmes in FE settings (HE in FE).

2.3.2 Teacher education as HE in FE

Chapter 1 outlined how teacher education forms part of the higher level learning that has expanded into FE colleges, asserting that this HE provision occupies an awkward position between the academic traditions of universities and the industrial origins and student-centred nature of FE institutions (Boyd et al., 2010; Turner, McKenzie, & Stone, 2009). As a field of study, the peculiarities of HE in FE settings have received little attention, but even less consideration has been given to teacher education within this unique location.

In FE, teaching practice is prioritised, and those teaching on HE programmes (QCF level 4 and above) have not necessarily followed the academic career path traditionally associated with university lecturers. In their study of HE in an FE setting, Harwood and Harwood (2004, p. 157) report that two-thirds of participants teaching

higher levels of HE held neither a doctorate nor master's qualification, even though 'it is usual to expect a qualification one level above that being taught'. Spencer (2008, p. 4) states that, in the United Kingdom, a master's-level qualification 'appears to be the norm' as a requirement for teacher educator posts, although in many countries a doctorate is assumed (see, for example, Hokka et al., 2012; Smith, 2005; Snoek, Swennen, & van der Klink, 2011). Noel (2006) reports that over half of the participants in her study held master's degrees and that some had doctorates. She does not, however, explain how many of these work in FE colleges, which subject disciplines this involved, or the number of her sample teaching ITE at postgraduate level without having achieved a higher level qualification of their own. In a later study, Noel (2009) stated that 80 per cent of the sample of 39 teacher educators held a higher degree and that, for almost half of these, it was in the subject of education. It is possible that teacher educators are more highly qualified than other HE in FE lecturers, but it is unclear to what extent these qualifications are achieved prior to entry into the teacher educator role.

Turner and colleagues (2009, p. 358) found that half of the participants in their study considered their entry into HE teaching as having 'evolved as part of their natural career development, as they had been successful in teaching a variety of FE level courses and the next step was into HE'. Once inside the role of HE in FE lecturer, however, an academic identity based on what has been termed the 'holy trinity' of research, teaching and scholarly activity (Feather, 2010, p. 192) is not readily apparent. Three-quarters of Turner and colleagues' (2009) sample taught a combination of FE and HE, many with programme management, marketing and recruitment responsibilities in addition to teaching commitments.

Feather (2011) suggests that although HE in FE lecturers have a very positive perception of HE learning cultures, their experience in their own colleges is more negatively perceived. For teacher educators, the situation may be further complicated: working on an HE course in an FE setting (as well as potentially on FE programmes), they are teaching at HE level to students who themselves could teach at FE or HE level and who may have no prior experience of HE. The student demographic for HE in FE courses across disciplines is known to differ from that of students who study in universities, for example colleges have a large number of mature or part-time learners studying on a flexible timescale. Some 'non-traditional' students (Parry, Callender, Scott, & Temple, 2012; Turner et al., 2009) sometimes found in FE may experience a wide range of social issues, such as lack of confidence, distraction and disruptive behaviour, which challenge their teachers (Edward, Coffield, Steer, & Gregson, 2007; Jephcote, Salisbury, & Rees, 2008). For teacher educators, this diversity may raise additional issues, for example navigating the assessment demands of teaching qualifications with student teachers who have no background in academic writing (Lucas & Nasta, 2010).

Burkill, Dyer, and Stone (2008) note how lecturing practices in HE and FE may differ according to the needs of the student body, stating that they found that participants tended to distance themselves from teaching methods traditionally associated with HE. Teacher educators have been described as employing the 'elaborated pedagogies' of modelling and reflective practice in university ITE work, which are seen as 'part of a long tradition of high quality ITE teaching' (Murray, 2007, p. 276) and are considered more appropriate than the customary large-scale lectures in universities. This implies an orientation towards the practice of teaching, rooted in first-order teacher identities and continued in teacher education through emphasis on the

practicum requirement of qualifications. But it raises questions about how teacher educators might embed 'HEness' and develop criticality in students when they are simultaneously attempting to model good practice for the student teachers' destinations in FE or other PCET settings that require different pedagogies and approaches to knowledge.

Navigating a professional role as teacher educator frequently involves negotiating the customs and responsibilities of FE whilst working to the expectations of HE institutions. There is some indication that teacher educators display a preference for the HEI-validated qualifications (for example Simmons & Walker, 2013), but not all PCET ITE qualifications are validated by an HEI. Those around which the 2007 reforms are oriented, for example, are accredited by national awarding bodies. It is unclear what kind of ethos and academic identity teacher educators delivering those programmes might be expected, or wish, to create. There is not enough attention paid to the duality, or, as Crawley (2013, p. 345) suggests, the 'triple professional', or the four sub-identities declared by Exley (2010) of teacher educators in a potentially 'higher' aspect of further education.

2.3.3 Teacher educators 'translating standards'

In a system organised around knowledge codified in lists of 'standards' (Tedder & Lawy, 2009) and rife with discourses of excellence (Coffield & Edward, 2009; Tedder & Lawy, 2009), FE teachers are purported to have experienced a reduction in control over the curriculum (Avis, Fisher, & Ollin, 2015; Simmons & Thompson, 2007). How these standards are 'unravelled into the pedagogy of teachers' (Nasta, 2007, p. 15) is a contested area. Nasta (2007), for example, shows how standards are 'translated' – that is, recontextualised and interpreted – through teacher educator work, giving the

teacher educator some measure of practitioner agency, whereas Boyd and colleagues (2010) consider standards to be an 'imposition'. Tedder and Lawy (2009, p. 417) conclude that standards actually cause teacher educators to change their practices:

Rather than engaging in a professional discussion with trainees in a way that recognises the problematic character of teacher practices ... they are required to ensure that the trainees write action plans to set targets that can become evidence of the achievement of LLUK standards.

Asserting that what is considered 'best practice' in the sector has the formalised standards at its core, the authors go on to argue that:

... externally defined standards were rather less important to our trainees than the standards that can be conveyed between colleagues in the same community of practice ... they were nonetheless concerned to understand what it means to achieve excellence in teaching.

(Ibid., p. 424)

This adds weight to Maxwell's (2010) belief that, because of their failure to adequately take account of the workplace context of their learning, standards do not contribute to the development of teacher knowledge. Where, in the past, ITE has placed emphasis on the development of teachers as professionals, the qualifications are now focused on their learners' needs (Exley, 2010). Standards are the means by which this change is orchestrated; they are routinely used to assess competence (Lawy & Tedder, 2012) and form the basis of conceptualisations about what is considered a 'good teacher' within the culture of FE. The standards are embedded in the assessment of student work, performance measurement practices and the accountability frameworks (Lawy & Tedder, 2009), causing tensions for teaching practitioners. Boyd and colleagues (2010, p. 9), for example, draw attention to the mismatch 'between the learner-centred focus that review bodies such as Ofsted [Office for Standards in Education, Children's Services and Skills] require and the funding model that emphasises successful completion of awards within specific time periods'. Hallet (2010, p. 446) reports that working within the constraints of the standards has resulted in teacher educators 'feeling under pressure to teach in ways that conflict with their personal ideologies'. Orientation towards standards is related to the distinction drawn between developmental and judgemental observation practices in teacher education (see, for example, Clow & Harkin, 2009; Crossland, 2009) and FE teaching more widely (O'Leary, 2012), where quality assurance needs and teacher development needs compete for priority (see Chapter 1, section 1.4). The standards are also present in the practice of assigning mentors to student teachers, and this too challenges teachers when what can be a supportive and valued relationship between two colleagues is 'intruded' upon by the directives of official policy without due attention to the complex and problematic nature of subject and pedagogy (Tedder & Lawy, 2009).

Similarly, standards, best practice and notions of 'good teacher' are embedded in recruitment to ITE programmes (Boyd et al., 2010). As introduced in the previous section, questions have been raised about the match between ITE candidates and their academic ability, but the achievement of a teaching qualification is often a condition of employment for FE teachers as a performance indicator for the institution. Teacher educators may therefore have little control over who is recruited to their programmes. As Boyd and colleagues (2010) conclude, the external influences of review bodies

such as Ofsted, which govern the quality assurance arena, are in some ways reinforced by college management. Paradoxically, such quality assurance processes are related to assumptions in policy that the sector suffers from inadequate teaching practices, yet it is arguably the very measures put in place to address this that inhibit teachers' abilities to achieve results.

2.3.4 Informal learning and collegial support

The ideal of a 'good teacher' and 'best practice' is found throughout teacher education. It influences who is recruited to the teacher educator post, for example Clow and Harkin (2009) commenting on how their participants had a range of relevant experience and qualifications, such as Subject Learning Coach, Advanced Practitioner (AP) and 'e-champion'. They suggest, however, that a reputation for being 'good' results in a significant lack of support to help the teacher educator live up to his or her assumed ability to take on 'a fundamental shift in subject specialism' (ibid., p. 12) and responsibility for running programmes of which he or she has no experience. Exley (2010, p. 29) agrees that the assumptions inherent in employing 'good' FE teachers as teacher educators are flawed:

Crucially, it assumes that they will be able to impart this skill to others within the organisation, and be able to translate and support the transmission of their practical expertise to others, who will then be able to make use of it, going through that change in practice with the minimum of difficulty. And finally, it implies that Teacher Educators can only appropriately be derived from staff of this description.

This provides some explanation for Noel's (2006) finding that many teacher educators are not formally recruited into their post, and it hints at a potential lack of understanding among senior levels of management about what is involved in the role. The assumption that new teacher educators can jump straight in to the demands of the role is common across sectors and countries. Goodwin and Kosnik (2013, p. 334) in the United States, for example, comment that 'one becomes a teacher educator as soon as one does teacher education', and this is supported by Korthagen and colleagues (2005, p. 110), who assert that many are 'thrown in at the deep end ... without any formal preparation' in European Union member states. Teacher educator learning is thus positioned as workplace learning. There may be a relationship between this positioning and the relatively low number of higher level qualifications held by teacher educators in FE (see section 2.3.2).

But it is difficult to ascertain what new teacher educators need to be prepared for. Although, as already discussed, there is a growing body of research into induction and identity reformation of new teacher educators, there is little information available about the everyday activities of teacher educators within their institutions (Ellis et al., 2011). Much teacher educator professional development appears to be based on informal networks of support. Ellis and colleagues (2011) found that 'relationship maintenance' with partner schools and individual student teachers could be a defining characteristic of teacher educator work in universities, but the term could equally be used to describe how teacher educators learn and develop.

The conditions underlying this apparent need for teacher educators to maintain relationships as a crucial aspect of their professional development are seen as both institutionally bound and exacerbated by teacher educators' own passive approach to their development. Clow and Harkin (2009) consider that colleges rely too heavily on informal support between colleagues, and the research on teacher educator induction procedures emphasises the lack of formalised development processes (for example Boyd, 2010; Murray, 2005; Murray & Male, 2005; Swennen et al., 2008). On the other hand, teacher educators, it is claimed, are correspondingly too reliant on development opportunities embedded within their institutions (Boyd, 2010) and 'lack personal vision for how the role might be developed' (Harrison & McKeon, 2008, p. 164), although Harrison and McKeon (2008) go on to state that participants 'exploit' opportunities for joint working with colleagues, which suggests a less passive approach. Noel (2009) states that teacher educators keep themselves updated about new ways in which to understand learning. Hankey and Samuels (2009) also provide an account of the self-reliance of one teacher educator, who describes her career as one of 'seizing opportunity'. The kind of self-study that they examined for their research is an example of a much wider movement of experienced teacher educators who research their own professional development journey (for example Loughran, 2007; Zeichner, 2005).

'Informal learning' is a well-known concept in workplace learning theories (Eraut, 2000; Hodkinson & Hodkinson, 2004; Wenger, 1998) and informal networks of support are considered extremely valuable by teacher educators. Harrison and McKeon (2008) consider the 'learning conversations' that take place in staffrooms and other informal situations to play a significant part in professional learning. In Clow and Harkin's (2009) study, three of the five types of support most valued by new PCET teacher educators involved working collaboratively with colleagues: the joint moderation of assignments, shared teaching resources and regular team meetings. In FE, where student teachers are often also practising teachers and therefore expected

to carry out the full range of teaching responsibilities while they are undertaking ITE, this kind of work-based learning is likely to be even more pronounced. Teacher educators delivering these kinds of programmes are subsequently faced with an additional layer of complexity in the knowledge required to facilitate student teachers' concurrent learning and teaching practices. Pathways to outside help are built into the structure of some forms of PCET teacher education. Boyd and colleagues (2010) and Harwood and Harwood (2004) both comment on the value attached by FE lecturers to their university partnerships as providing access to staff development opportunities, indicating that there is a perceived difference in the need for professional development between the university partner and the home institution.

There is no clear consensus in the literature about how and what teacher educators learn at different stages of their career. There is a heavy emphasis on newly appointed teacher educators, but their development is described as both movement from peripheral to full participation in the teacher educator community of practice (Davison et al., 2005; McKeon & Harrison, 2010) and as requiring immediate full participation in teacher educator practices: 'The institutional rhetoric around support for new staff is contradicted by the staffing resource pressures which mean that in practice the new lecturers are very quickly immersed in work, especially teaching and supporting students' (Boyd, 2010, p. 161).

Teaching practice is prioritised throughout English teacher education and this tendency is reflected in the conditions detailed above, which seemingly leave teacher educators to learn how to perform their role without the explicit assistance of their institution. This expectation is not shared by teacher educators themselves, who perceive distinct differences between their identity as teacher and the other

simultaneously enacted sub-identities of a teacher educator, which include becoming an educationalist and second-order practitioner (Exley, 2010; Murray, 2007; Swennen, Jones, & Volman, 2010). The assumption of FE institutions that the role of teacher educator is unproblematic in nature means that professional development for each of these sub-identities may be neglected.

2.3.5 Teacher educators: A professional identity

Section 2.2.5 of this chapter concluded, from Noel (2006) and Crawley's (2013) studies, that post-compulsory teacher education is a contested space, and that there is variance between teacher educators' perceptions of themselves as a professional group and their value as implied by institutional processes. The issues that contribute to this unsettled situation have been demonstrated throughout the teacher educator literature. The work of the FE teacher educator, in particular, has been shown to be complex. The central questions of what a teacher educator *is* and what teacher educators *do* remain insufficiently explored in both HE and FE settings, but several points have been raised in this chapter that suggest that navigating the role is a difficult undertaking and that working at the junction of sometimes conflicting influences requires a negotiation of identity.

Throughout this body of research and further afield in educational research, identity is conceptualised as something that can be reduced to a set of characteristics. Teacher educators are presented as working towards becoming something that is largely undefined and uncontested. Notions of teacher professionalism itself are polarised, for example 'occupational vs organisational' (Bathmaker & Avis, 2013), 'democratic vs managerial' (Sachs, 2001) and 'expansive vs restrictive' (Avis & Bathmaker, 2006; Crawley, 2012). Professional identity can therefore be considered to be formed within

sites of struggle between parties with competing interests (Ball, 2003; Freidson, 1999, 2001; Whitty, 2008). This kind of approach to understanding identity prioritises the individual and lends itself to aligning the different constituents of a social practice with one side or its perceived opposition, for example 'teachers vs management'. The overall implication is that teachers are active participants in a conflict to achieve power and control. For example, teacher response to the dominance of the managerialist and performative culture of education is sometimes described as 'principled infidelity' (Hoyle & Wallace, 2007), or as creative and strategic compliance (Gleeson, Davis, & Wheeler, 2009; Lawy & Tedder, 2012; Shain & Gleeson, 1999). What this perspective fails to adequately achieve is some recognition that different parties are ultimately working together within a wider context where complex identity negotiations are lived out through educational practices.

Identities in FE are frequently depicted as problematic. Bathmaker and Avis (2005, 2013), Colley, James, and Diment (2007), Edward and colleagues (2007), James and Diment (2003), and Jephcote and Salisbury (2009) share the conclusion that the FE workplace is rife with contextual factors that disadvantage teachers. This contrasts with Crawley's (2012) call for teacher educators to demonstrate an expansive professionalism (which may be coloured by his own position as a university-based educator), and also with studies that describe the aim of HE-based teacher educators to become part of the university culture (for example Boyd, 2010; Murray, 2005). These approaches, although recognising the limitations of teacher educators' available actions, are predicated on a belief that teachers hold professional power in a way that the FE context denies. Teacher educator identity is often described as something that is 'constructed', implying that identity is formed within an individual and that individuals have the freedom to form their own identities as professionals, but the

complexity of the location of teacher educators in FE would suggest that there are multiple contextual factors that inform, shape and even restrict the kinds of identities that are available to teacher educators.

Noel (2006), Crawley (2013), and Clow and Harkin (2009) all note the high proportion of women in the PCET teacher educator profession. It is sometimes argued that the gendered nature of the teacher educator profession, and teaching more generally, contributes to the addition of non-teaching responsibilities to teaching contracts. The 'feminized division of labour' in teaching and other public service settings, and the potential disruption to the career paths of women resulting from raising families, are entrenched in the distribution of power in academic institutions (Murray & Maguire, 2007). In Bourdieu's terms, the 'field' of academic life is shaped by culturally and historically situated social structures that have resulted in it becoming a largely male domain (Acker & Dillabough, 2007). Acker and Dillabough (2007, p. 301) go on to claim that 'women's work in teacher education has always incorporated social expectations for endlessness that women's work everywhere has at its core'. This offers some insight into Noel's (2006) observation that although 80 per cent of the centre managers in her study were female, they were not regarded as management by their institutions. Because of the gendered nature and relatively low status of teacher education work in academic hierarchies, female teacher educators' management activities are perceived as simply part of their job. It is also suggested that the feminisation of the post-compulsory sector in part results from the increased state intervention that has impacted negatively on women. For example, women are more likely to take part-time or casual employment (Simmons & Thompson, 2007), as has also been shown in HE settings (Murray & Maguire, 2007), where teachers may see pastoral roles as part of their identity within a 'caring profession' (Murray, 2006).

How these aspects of their work contribute to an overall sense of professional identity for teacher educators in FE is unclear.

Consistent in these accounts is the portrayal of FE as a problematic site for teacher educators' professional work, based in the standards-oriented drive for excellence presented in Chapter 1 (Coffield & Edward, 2009) and the effects of this on everyday practice. But the contribution of teacher educators to achieving the twin policy objectives of professionalising the PCET workforce and achieving excellence is not reflected in the quantity of published research or the institutional selection, recruitment and development processes for ITE staff. Political influence at once governs and is absent from the day-to-day experience of working as a teacher educator in FE:

... teacher educators working in FE College contexts struggle to maintain their professional values and identity because of powerful accountability agendas ... The position of the teacher educators, and their role as a team within their workplace, appears to be contested and uncertain especially with regard to the quality assurance agenda. This workplace context appears to constrain the teacher educators' ambition, through their use of a 'layered' pedagogy, to develop student teachers as critical thinkers who are well prepared to contribute to development of their profession and to the enhancement of the FE learning experience for students.

(Boyd et al., 2010, p. 1)

Boyd and colleagues (2010, p. 7) also offer some 'key principles of teacher training practice' in FE colleges: 'sharing practice; collaborative learning; developing independent learners; critical thinking and reflection; developing self awareness; not lecturing; and "modelling" '. Within this set of practices is further indication of an expansive professionalism, hinting at the existence of a working environment that enables such practice, despite assertions that teacher educators are 'managing tensions between human resource and quality assurance roles' (Boyd et al., 2010, p. 11). It seems that the post-compulsory sector holds a number of contradictions for teacher educators that require further exploration if they are to be understood and resolved.

2.4 Conclusions and next steps

The literature illuminating the professional situation of FE teacher educators is sparse and incomplete. Conceptualisations of the role and the people who perform it are generalised, assembled by combining distinctly different groups of people and treating them as one. For example, almost all of the research directly relating to teacher educators in FE also includes those who work in universities within its sample population. As stated earlier, viewing the two groups as one means giving insufficient attention to the contextual influence of FE, which has been shown to exert significant pressure on the practices of its teachers. There is also the possibility of the position of the researcher as a teacher educator in a university, where the contextual issues differ. For example, conceiving of FE teacher education work in terms of inducting new teachers into the discourses and practices of teaching (McKeon & Harrison, 2010; Murray & Male, 2005) does not satisfactorily reflect the reality of working with existing teachers. There is a need for additional terminology or frameworks to describe what occurs in the FE setting.

There is little consideration in the literature of the differences in role among teacher educators from the same setting. Although there are acknowledgements that teacher educators hold different responsibilities within their posts, such as management and marketing activities, there is the underlying assumption that all teacher educators perform a similar role. In school teacher education, this could be the case, but there are potential differences between a college-based teacher educator delivering a twoyear university-accredited Postgraduate Certificate in Education (PGCE) and one delivering a short City & Guilds Preparing to Teach in the Lifelong Learning Sector (PTLLS) course. Little attention is given to peripheral teacher education activity in FE, for example contributions to ITE programmes from APs and mentors. There is, at present, significant variety in FE ITE programmes that has been largely unaddressed. Noel (2006) and Crawley (2013) provide insights into the post-compulsory teacher demographic that are important in establishing a profile of a poorly understood occupational group. Although offering limited potential for understanding teacher educators' practices, or likely responses to policy change and the challenges of working in FE, these large-scale studies provide an important foundation for further research. The narrative, storied approach of the self-study literature (for example Appleby, 2009; Loughran, 2007; Zeichner, 2005) has provided a very detailed look at individuals' experiences, but the resulting findings are difficult to collate in a way that illuminates the working situation of the profession as a whole. An approach is needed that attempts to capture the complexity of the surrounding context in researching teacher educator practice.

Researching identity is problematic. Much of the research discussed in this chapter is concerned with how teacher educators become what they are needed to be, but very

little examines what happens once they achieve this and continue to carve out a professional space. As will be discussed later on in the thesis, there are many aspects of identity, and it is not easy to simply ask people about how their identity is experienced and formed. New ways in which to reveal the development and enactment of professional identity in complex and contradictory environments need to be explored:

Many teacher educators have been placed in an invidious position, aware that they are engaging with and even complicit in sanctioning activities and practices that represent an affront to their professional values and identities. For these individuals, the shift towards targeted skills training, action planning and skills mapping has been achieved at the expense of analytic and critical skills development amongst the next generation of lecturers. This begs an important question. Is the role of a teacher educator primarily to assist those on teacher education programmes to become literate and numerate, or is it to enable lecturers to become autonomous and develop a professional identity shared across disciplinary boundaries and communities?

(Lawy & Tedder, 2009, p. 59)

2.5 Chapter summary

This chapter has shown that the teacher educator professional group remains 'illdefined' (Menter et al., 2010b) and 'poorly understood' (Davison et al., 2005). Insights into the particular group of teacher educators working in FE college contexts are few and this is in part because of the prevalence of research that considers them within a wider post-compulsory teacher educator body. Unfortunately, this results in a tendency to neglect the considerable differences between FE and HE contexts that provide the boundaries within which teacher educators operate. The research literature does provide clues about the kinds of issues that might be significant in understanding FE teacher educators and their professional identities, but, as yet, the influence exerted on teacher educators by the distinctive features of FE are largely uncharted.

The next chapter sets out the rationale for choosing to examine teacher educators' engagement with educational technologies as a site for exploring the distinctive features of their context and how these influence professional identity in FE.

Chapter 3 Educational technology as a site for researching identity

3.1 Introduction

The previous chapter described how teacher educators in further education (FE) remain an under-researched population despite their deeply politicised context. This chapter now presents educational technology practices as an area with rich potential for exploring the lived identities of teacher educators in this setting. The first part of the chapter situates educational technology within the current policy context and establishes its significance to teacher education. The chapter then sets out the conceptual and theoretical frameworks that have informed the design and analysis of this study, before stating the research questions that have emerged from these and from the review of the literature discussed in the last chapter.

3.2 Educational technologies and teacher education

The term 'educational technology' is used to describe what is often treated in policy and research literature as a singular and unproblematic concept, but is in actual fact constituted by an extensive range of devices, software and activities, and the social practices of which they form a part. As such, it is difficult to define precisely what might be denoted by this term because it is likely to hold multiple meanings for any one person. For the purposes of this thesis, I have therefore used the broad definition of *any digital technology or technology practice that is employed for an educational purpose*. Within the scope of this project, this definition implies use within formal education contexts, although recognition is given to technologies used for learning away from these contexts.

3.2.1 The policy context: Technology as a force for positive change

If there is anything to be learnt from the past 30 years of educational technology, it is that technology use in schools is an intense site of conflict and a focus for the struggles of wider educational politics.

(Selwyn, 2011b, p. 406)

The inclusion of technology in education takes place against a wider political agenda for change. Technology has historically been viewed as a means to sustain and improve quality of life (Selwyn, 2011a), and, in its capacity as a symbol of a better future, is under continual research and development. Today, digital technologies are ubiquitous and heavily relied upon in many areas of modern life. Whereas many technologies once constituted a lifestyle choice, they are now so embedded in Western culture that concerns have been raised about how those with underdeveloped technology practices will participate fully in society (BERR & DCMS, 2009; BIS, 2009; DCLG, 2008). In education, the arrival of the New Labour government in 1997 heralded the beginning of massive publicly funded investment in the technology infrastructure of learning institutions based on the assumption that technology is therefore vital to educational interests.

During the time since then, there has been an enormous expansion of Internet activity and the development of affordable 'smart' technology personal devices. The resulting changes in social practices have led to assertions that the needs of learners have therefore also changed. Some have argued that today's learners are fundamentally

different from their forebears (for example Laurillard, 2011; Prensky, 2001; Rosen, 2010), and that education is increasingly and unacceptably distant from social uses of technology for work, leisure and learning outside of formal education (Attwell & Hughes, 2010; Wheeler, 2015). This has led to extensive 'parasitic' (Traxler, 2008, p. 6) attempts to exploit the social practices associated with technologies such as Facebook, mobile phones, or gaming for formal learning purposes, although the supposition that this is appropriate is often questioned (Bennett, Maton, & Kervin, 2008; Burnett, 2011).

The last two decades, however, have also seen the increasing dominance in education of the skills-based, accountability discourses, with close links to social and economic success for individuals and the nation (see Chapter 1). Policy is thus oriented towards a culture of performativity in which the development of appropriate competencies – entwined with social and economic participation, and often having technology at their core (Hill, 2011; Trilling & Fadel, 2009) – is perceived as key to competitiveness in a global knowledge economy. As a result, technology has been identified as a means by which other policy goals can be achieved and, as Selwyn (2014, p. 1) states, 'digital technologies of all shapes and sizes are now woven deeply into the everyday fabric of education'. Technology is presented as crucial to education, and as the means that will transform an outdated and poorly performing system into one that succeeds in meeting the skills demands of the modern era. As with the FE workforce reform efforts discussed in Chapter 1, section 1.4, technological developments in FE have taken place against this larger backdrop of political intervention in the wider education system and a drive for 'improvement' in teaching and learning practices that will correct the failings of the past.

The potential impact of technology

Much has been made of the potential of technology to achieve these aims and to transform education. Policy language frequently positions technology as a powerful, deterministic and independent force that actively causes a change in society. The British Educational Communications and Technology Agency (BECTA, 2008, p. 7), for example, states: 'We welcome the challenge ... of ensuring that every learner is supported by the power of technology to transform their learning and achievement.' Phrases such as 'seismic impact of technological advance' (Blunkett, 2000) and 'exploiting the full capability of the technology'(DfES, 2005, p. 26) were common in education policy documents during the first decade of the twenty-first century, often implying that technology has the inherent capacity to solve educational problems and to revolutionise learning if teaching staff embrace it (Kritt & Winnegar, 2007). Selwyn (2014, p. 11) calls this the state of 'hope deferred'. Despite a change in government in 2010 and the subsequent notable absence of technology in coalition education policy for a number of years, there has been a recent resurgence of this kind of deterministic language concerned with harnessing the impact, innovation and transformation potential of technology. In January 2013, Minister of State for Skills and Enterprise Matthew Hancock set up the Further Education Learning Technology Action Group (FELTAG) to make recommendations on ensuring effective use of technology in FE:

FELTAG's recommendations draw on the exciting opportunities offered by digital technology to enhance the learning experience of millions of people in Further Education and Skills in England. The passion and drive behind this work reflects the notion that enormous strides can be made in

the effectiveness and impact of learning when digital technology is harnessed and used creatively by learners, teachers and assessors.

(FELTAG, 2013, p. 7)

In the Foreword to the government response to the FELTAG Recommendations, Hancock states:

Technology has the potential to engage more learners, improve the learning experience, enhance the effectiveness and efficiency of providers and continue to meet the ever-changing needs of employers and the community. But it is clear from the FELTAG research and report that there are a number of obstacles which impede the ability of providers to take full advantage of these technologies. Our task is to remove them. Technology is set to transform education over the next decade as much as it has transformed the rest of our lives over the past decade.

(BIS, 2014, p. 3)

These passages suggest a continued focus on social justice, on the need to exploit technology for learning and on the increased productivity of learning providers. The message that technology holds the power to improve education remains the same. The dominance of this kind of language has, however, been questioned. For example, Pannabecker (1991) suggests alternative metaphors that highlight complexity and human agency in the relationship between technology and society, and Oliver (2011) asserts that if learning is understood to be socially constructed, then technology use must be understood to be socially grounded, and therefore it is inappropriate to attribute a causal power to it. However, reference to technology as an autonomous and powerful force is frequently made not only by policymakers, but also by researchers and practitioners.

There is evidence of widespread deterministic assumptions about technology in the research literature (Oliver, 2011), in which an apparent relationship between desirable changes to education and technological development in wider society is somewhat uncritically accepted (Selwyn, 2014). Comparisons between the 'industrial era' and the 'information society' show that teaching is considered to be becoming less didactic, and that learning is becoming more active, collaborative and creative (Voogt, 2008). New technologies are seen to support learning that is constructivist and socially situated (Attwell & Hughes, 2010; Laurillard, 2011; Lim, Chai, & Churchill, 2011), reflecting the informal learning mediated by technology outside formal education. It is asserted that social participation itself is an affordance of technology, and that it 'can lead to greater productivity and prosperity, personal fulfillment [*sic*], and a stronger community and a fairer society' (BECTA, 2008, p. 4). Technology is therefore seen to have far-reaching democratising capabilities and to be closely tied to the core values of today's education system.

Barriers to impact

Perhaps as a consequence of accepting technology as natural and welcome in education, there has been much investigation into the barriers to integrating technology and teaching. In its literature review, BECTA (2004) found multiple barriers to be identified in the research literature, including: teacher factors, such as personal confidence, lack of awareness about technology's advantages, gender preferences and resistance to change; and institutional factors, such as poor organisation of equipment, inadequate training and technical support, and a lack of

time available to teachers to develop materials. A later review by Bingimlas (2009, p. 235) concurred, summarising the major barriers as 'lack of confidence, lack of competence, and lack of access to resources'.

Most teachers recognise that technology has a role in modern education (Selwyn, 2011a), and many of the original barriers to its adoption, such as cost and usability, are believed to have been overcome (Clarke, 2013). After several years of investment in technological infrastructures based on the premise that a good school is a technologically equipped school (Cuban, 2001), much technology has been made available to teachers and learners, and the use of interactive whiteboards, virtual learning environments (VLEs) and Internet-enabled technologies is now widespread (Livingstone, 2012). Yet there remains a gap between the amount of technology in institutions and the frequency of its use for instructional purposes (Kopcha, 2012). The anticipated major changes to education have yet to take place (Selwyn, 2011a; Voogt, 2008): while institutional technology infrastructures may have changed, teaching styles and the organisation of learning arguably have not (Baran, Correia, & Thompson, 2011; Drent & Meelissen, 2008); access to reliable resources and adequate technical support continues to be challenging (Hammond, Reynolds, & Ingram, 2011); and staff may not be provided with sufficient time to learn about and prepare resources (Haydn & Barton, 2007; Laurillard, 2009).

Technological 'solutions' imposed from above inadequately attend to the needs of teachers or learners (see ten Brummelhuis & Kuiper, 2008). This is seen to be both related to the performance and accountability-driven nature of education (Voogt, 2008), whereby learning remains predominantly conceived as individual, detached and the result of teaching (Adams, 2011; Wenger, White, & Smith, 2009), and caused

by the assumptions underpinning technology and its use (Cuban, Kirkpatrick, & Peck, 2001; Volman, 2005). Gleaning educational benefit from technology depends on critical consideration of its application in particular circumstances. Simply using a technology does not automatically result in progressive pedagogy (Oliver, 2010). Livingstone (2012, p. 9) offers an explanation for the apparent slowness of teachers to change traditional approaches to teaching despite recognising a role for technology in education, suggesting:

... first, that convincing evidence of improved learning outcomes remains surprisingly elusive, and second, the unresolved debate over whether ICT should be conceived of as supporting delivery of a traditional or a radically different vision of pedagogy based on soft skills and new digital literacies.

Collins and Halverson (2009, p. 3, emphasis original) offer a framework for understanding the key points of this debate, arguing that 'the success of universal schooling has led us to identify *learning* with *schooling*'. They present a continuum from 'technology enthusiasts' to 'technology sceptics' that is organised around the established system of schooling and the perceived desire to revolutionise or transform learning. At one end of the continuum, there is the belief that the world is changing and that schooling should respond to this. Technology supports desired changes in the organisation of learning and distribution of knowledge in an education system that 'produces many more failures than successes' (ibid., p. 29). At the other end, there is recognition that institutions do not, and cannot, change easily. Technology will therefore 'never be central to schooling, just as earlier technologies, such as television, were never adopted in schools in the ways enthusiasts envisioned' (ibid., p. 31). The authors position this conflict as inherent to any attempt to embrace the enhancing

qualities of technology within an education system locked into patterns of values and behaviour.

Good teachers teach with technology: Ideology, identity and professional practice

Teachers, their institutional leaders and policymakers are often labelled as inhabiting divided polar extremes such as those described above regarding the value of technology for education. However, the extent to which technology is demonstrated to improve *learning* is contested, despite this assumption being a key component of the official policy discourse. It is assumed that technology increases learner motivation, particularly for young people, although it could equally be a barrier to participation for those without IT proficiency and may hinder the learning process when the teacher is not an expert user. It is seen as a means by which to expand learning opportunities or create new kinds of learning in traditional contexts and to enable key conditions for learning (see Hinostroza, Labbe, Lopez, & Post, 2008). However, technology also merely enhances existing practices, for example the typing of (previously handwritten) essays or improving the visual quality of handouts – enhancement often metaphorically labelled 'old wine in new bottles' (Wheeler, 2015). It is therefore difficult to assess whether learning is actually *improved* through technology use. Technology has to be integrated into some kind of learning practice (Lai, 2008) and learning is too complex to easily isolate technology's role. Technology use, even in an educational environment, can be unrelated to student learning and exercised, for example, only as a means of classroom control (Hammond et al., 2011). Its uses may be limited by its design (Scrimshaw, 1997), and influenced by the political and ideological assumptions entangled with its design and its use in context. The very concept of *improving* learning is underpinned by an ideological understanding of

desirable learning, and effective use of technology will be determined by whether or not it is congruent with the nature of what is considered desirable. In the current climate, good teaching and technology are linked.

For a long time, many teachers were seen as resistant to integrating technology within education (Cuban, 2001; Somekh & Davis, 1997). Teachers are now generally understood to feel positive towards technology (Haydn & Barton, 2007; Mahmud & Ismail, 2010) and resistance theories have given way to examination of the factors that contribute to teachers' technology practices. Teacher beliefs are an important factor in technology integration (BECTA, 2004; Kim, Kim, Lee, Spector, & DeMeester, 2013; Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010) and beliefs are difficult to change. The literature indicates that teachers' sense of self is paramount to their interactions with learners (for example Jephcote & Salisbury, 2009; Watson, 2001). Being open to educational technology is not enough. Teachers, like learners, have varying degrees of technological proficiency, but that is only part of the challenge that they face. Once equipment is made available, teachers need to develop the necessary ability to operate it, but they also have to understand technology pedagogy (Laurillard, 2009; Twining, 2004; Wheeler, 2015) and make informed decisions to use technology in different contexts for different purposes. This includes the decision *not* to use technology when it does not complement the outcome that they are aiming to achieve (Selwyn, 2011a). In this age of standards, performativity and accountability, there is a concern that policy views any use of technology as synonymous with good teaching (Adams, 2011), and there is significant pressure on teachers to act in accordance with the corresponding inspection assessment criteria. This can cause conflict with professional judgement, inhibit the development of teachers' professional knowledge and negatively affect learning when an expert teacher is not an expert educational

technology practitioner. This likely inhibits the kind of creative, innovative use that the policies seek from teachers (Voogt, 2008).

Teachers' professional role is sometimes understood to change in connection with educational technologies. Volman (2005), for example, describes the teacher as no longer a 'conveyor of knowledge', but now a 'supervisor of learning', encompassing the roles of instructor, coach, trainer, adviser and assessor. She refers to this idea of multiple roles as both involving the deskilling of teachers and requiring their upskilling, although Selwyn (2011a) points out that the social contexts framing teaching have always attached additional roles to teachers. For example, in addition to 'source of information' and 'supporter of learning', teachers take on a disciplinary role, 'enforcing hierarchies of knowledge and expertise, regimes of assessment and ranking, and routines of physical and temporal confinement' (ibid., p. 128). Adapting to changes in role is a normal part of teaching. Since contemporary society is experiencing a series of rapid technological changes, it does not seem unreasonable that teachers will adapt to the situations that arise as a result. Teachers are widely expected to engage in lifelong learning (for example DfES, 2004) as a tenet of professionalism. This typically includes development in three areas: teaching and learning, subject specialism, and policy and local context (IfL, 2009). Developing knowledge of technology practices has potential relevance to all three.

Lucas and Nasta (2010) see the standards-driven FE college environment as a significant barrier to teacher development, but others consider teachers to hold responsibility for their own learning (for example Baran et al., 2011; Cornu, 2011). Either way, professional development opportunities for teachers have not yet led to a seamless integration of technology and education (Abuhmaid, 2011; Daly, Pachler, &

Pelletier, 2010; Laurillard, 2011). Although formal training is considered to positively influence digital literacy (Mahmud & Ismail, 2010), many continuing professional development (CPD) programmes are short, one-off workshops that have little long-lasting effect on teachers' practice (Abuhmaid, 2011; Lawless & Pellegrino, 2007; Shank, 2008). Questions remain about what teachers need to learn if they are to make sense of educational technology and support learners' technology skills. There is a need to distinguish between teachers' ability to operate technologies and their ability to use them in pedagogically sound ways. Some suggest examining the relationship between technology, pedagogy and subject content (Bower, Hedberg, & Kuswara, 2010; Koehler & Mishra, 2009; So & Kim, 2009; Tondeur, Roblin, van Braak, Fisser, & Voogt, 2013); others require teachers to work towards transforming education (for example Owen, 2004; Twining, 2004). Whichever aim is preferred, it is now commonly agreed that teachers need to develop an understanding of how technology can support learning.

3.2.2 Technology and teacher education

Technology is therefore a significant issue for teacher education. Because teacher educators play a key role in the development of students teachers' pedagogical understanding of technology (Ananiadou & Rizza, 2010; Haydn, 2010), they too need to develop expertise in this area. This pedagogical capability has been represented in extensive lists of standards for both FE student teachers (see LLUK, 2005) and beginning school teachers (see TDA, ITTE, & BECTA, 2009), following a somewhat unrealistic and unnecessary 'coverage model' of technological competence (Haydn, 2014). Until recently, pre-service school teachers sat skills tests in English, maths, and information and communication technology (ICT). Similarly, ICT was added to the

minimum core subject specification for post-16 teacher education programmes in 2007. Since then, although in other areas of education competence has remained codified in lists of standards, there has been a move away from this practice for technology and the aims once explicitly specified in the e-learning standards have become embedded in the wider expectations of teacher expertise. This is perhaps reflective of the increasing ubiquity and normalisation of technology in modern life. In school teacher education, there is a close link between technology use and subject pedagogy (Hammond et al., 2011; Haydn & Barton, 2007), and a recognition of the different ways that technology might contribute to different contexts of learning. Technology pedagogies might therefore be effectively modelled in subject-based sessions or by experienced subject mentors during teaching practice. In FE and other post-compulsory education and training (PCET) contexts, however, where teacher education programmes are frequently and necessarily generic, and student teachers are often already employed as teachers (see Chapter 1), the link between initial teacher education (ITE) and technology is more tenuous. Both the New Overarching Professional Standards for Teachers, Tutors and Trainers in the Lifelong Learning Sector (LLUK, 2011) and the more recent Professional Standards for Teachers and Trainers in Education and Training: England (ETF, 2014a) demand that teachers in the sector understand, use and promote technologies in their teaching practices, but are tight-lipped about what this should consist of. In response to FELTAG's (2013, p. 5) recommendation that '[b]enchmarks should be established for initial teacher education/training and teachers' continuing professional development so that their ability to understand and optimise the use of learning technology can be enhanced and refreshed regularly', the government indicated that the new professional standards already reflect education technology policy (BIS, 2014). Within these standards,

developing an understanding of how technology might be used is linked to wider professional responsibility:

Good teachers and trainers also review, on an ongoing basis, their knowledge, assumptions and values against up-to-date professional developments in the world in which they work ... Crucially, they are not afraid to admit developmental needs in any area of their teaching and learning practice, including maths, English and technology knowledge and skills.

(ETF, 2014a, p. 7)

There is no specific guidance on what is expected of teachers or, by extension, of teacher educators in current policy beyond 'finding ways to use technology to underpin learning wherever it can add value or extend the learning context; using learning technology to improve learners' chances of reaching their potential' (ibid., p. 16) and to be:

... constantly aware of the ways technology can be used to help your learners learn and keeping abreast of changes in learning technology; considering and improving your own skills in learning technology and working to keep these up-to-date to promote appropriate benefits and support learners.

(Ibid., p. 18)

This suggests a significant expectation of technology use and places the burden of responsibility for developing the necessary expertise onto teachers, while remaining vague about how technology might add value, extend learning contexts and help

learners to learn. As Simpson, Payne, Munro, and Hughes (1999, p. 248) foresaw, teacher educators are:

... expected to concentrate their attention on teaching the use of ICT as a sophisticated and empowering tool to be used by all learners and to be understood and used in expert and specialist ways by the teachers ... However, if this is to happen, TEI [teacher education institution] tutors must be more than routine, basic ICT users; they must be specialist educators who can make students secure in the range of pedagogical uses soon to be required of beginning teachers.

The move away from explicit competence lists implies that teacher educators have indeed become these specialist educators with a sophisticated understanding of the role of technology in learning. There have been suggestions, however, that although student teachers are receptive to, and expect, the use of technology in learning and teaching (Ananiadou & Rizza, 2010; Hammond et al., 2011), during their ITE programmes they do not develop the competencies needed for practice in the current and future technology-rich environments of education (Burnett, 2011; Hammond et al., 2011; Haydn, 2008; Haydn & Barton, 2007).

As described previously in Chapter 2, there is little research into the teacher educator population of FE and, by extension, little is known about their technology practices. Teacher educators are understood to be positive towards educational technologies, yet the level of their technology use is nonetheless reported to be low (Drent & Meelissen, 2008; Simpson et al., 1999). Diverse explanations have been proposed, for example Chapter 1, section 1.3, explained how a discussion in the early stages of this project showed me that PCET teacher educators popularly consider educational technology to be a neutral learning tool, possessing no revolutionary or transformative properties. As with teachers, teacher educator beliefs are likely to affect their technological behaviour (Hammond, 2011). Simpson and colleagues (1999) found that using technology had failed to ease the burdens of work for teacher educators or to improve their students' work as anticipated. Teacher educators frequently report a lack of time for updating technology knowledge and integrating it into teaching practices (Ananiadou & Rizza, 2010). As mentioned earlier, it is also sometimes argued that while technologies may have changed, approaches to teaching and learning have not (for example Drent & Meelissen, 2008). Drawn from the older segment of the teacher population (Crawley, 2013; Noel, 2006), teacher educators may have less experience of technology in classrooms, in contrast with their otherwise authoritative knowledge:

Typically, they have responded to the new technology ... not by any radical incorporation of its use in their teaching, but merely peripherally by recruiting it to support their long established routines and to add polish to those necessary enabling procedures of their work as presenting materials to students, administration and communication with colleagues.

(Simpson et al., 1999, p. 258)

Student teachers report that teacher educators are not confident with technology (Ananiadou & Rizza, 2010) despite its ubiquity in education and society. Age and perceptions of professional authority, then, may be factors in engaging with technology practices for teacher educators. It is commonly believed that there are issues of gender attached to technology use in teaching, since most teachers and teacher educators are understood to be women (Murray & Maguire, 2007; Noel, 2006; Simmons, 2008), as discussed in Chapter 2, section 2.3.5, and technology and

academic life are frequently perceived as culturally 'male' domains (Acker & Dillabough, 2007; Bravo, Gilbert, & Kearney, 2003; Sanders, 2005).

A key aspect of teacher educator work is modelling practice (Boyd, Harris, & Murray, 2011; Crawley, 2013; Lunenberg, Korthagen, & Swennen, 2007); it follows, then, that confidence and technical competence with a range of technologies are important for teacher educators if they are to model technology practices. However, a much deeper understanding of technology pedagogies is also required:

[W]e need ... to go well beyond ... raising with our trainees (and their students) the need to consider a wider range of criteria when selecting websites ... we need to explicitly teach our trainees a range of information problem-solving procedures ... We also need to engage them in a series of inquiry-led activities ... It is then the modelling of the inquiry process that is key and our role, as teacher educators, is to use this as an opportunity to raise explicitly with trainees the value of collaborative working, the use of prompts, the role of the teacher and what facilitation beyond procedural guidance ... really means. In addition, we would also give them concrete experience into the problems and possibilities of using these information problem-solving procedures themselves and then ultimately with their own students.

(Childs, Sorensen, & Twidle, 2011, pp. 157-8)

Pedagogy is value-laden. There are a number of new pedagogies being developed in relation to educational technologies, for example heutagogy, paragogy, rhizomatic learning and connectivism (Wheeler, 2015). These theories, between them, emphasise the non-linear nature of learning with technologies, the co-constructing of knowledge

through collaborative peer-to-peer networks and the responsibility of students to learn how to learn. Attention has already been drawn to the limited understanding and difficult relationship that FE teacher educators have with learning theory (Harkin, 2005; Noel, 2011). They are reported to teach only a small number of canonical theorists to their student teachers, based on those theories that they understand best. Heavy workloads mean that time to engage in updating this kind of subject knowledge is scarce, but as Selwyn (2014, p. 11) states, 'notions such as "technology-enhanced learning", "learning technology" and "e-learning" are largely sets of value preferences – that is, social imaginaries and ideological formations that present common (and often persuasive) understandings of how things "should be" and "will be" '. Values attached to educational technologies will therefore likely influence the level of learning that teacher educators are prepared to undertake to develop the 'explicit, elaborate and expert view of learning' hoped for in teacher educators (Noel, 2011, n.p.).

Teacher educators' relationship with technology is evidently complex and needs to be better understood in order to improve teacher education quality and, ultimately, the politically sought-after learner outcomes. Capacity to develop student teachers' technology practices depends both on teacher educators' understanding of technology's role in learning and on their ability to use technologies for educational purposes. This necessarily involves a learning process.

Given training and access to specialised equipment, the extent to which individuals will strive to acquire and develop fluency in new, complex and demanding skills will be influenced by factors such as the following:

- the extent to which they value the new skills and see them as relevant and useful with respect to their needs and duties as professionals; and
- the extent to which the skills are practised and used in their ongoing professional commitments.

(Simpson et al., 1999, p. 250)

However, in a study of student teachers' development of technology expertise, Hammond and colleagues (2009, p. 71) found that 'it is not the student teacher and it is not the environment, it is the interaction of the two' that holds significance. The same is likely to hold true for teacher educators as they develop their own expertise. The FE sector has been shown to be a complex and challenging context for teacher educator work and development (see Chapters 1 and 2). Examining the technology practices of teacher educators in this setting will help us to build a deeper understanding of how technologies are entwined with the professional practices and identity negotiations of teachers in FE.

3.2.3 Conclusions

Teacher educator professional identity and educational technology policy are linked in the FE context. Consistent with the wider education system, as the culture of performance and accountability has grown, education practices in FE have become progressively standardised, centrally mandated and regulated. This has resulted in debates about professional autonomy and the underlying values of an education system ostensibly oriented towards neoliberalist consumer markets. Centralised policy positions technology as crucial for education, and demands its extensive involvement in learning, teaching, assessment and development practices. Policy is, however, unusually vague about the manner and constitution of this involvement compared to

other curricular or assessment interventions, either entrusting or assigning responsibility for its effective use to teaching professionals. Teacher educators must therefore engage in a continual learning process in order to achieve, and subsequently maintain, the expertise required to support teacher development in this area. Educational technology, as a concept, is contested and deeply ideological, but it may not be recognised as such by teaching practitioners because the ubiquity of technology in modern life affords it some invisibility as a site of contest. Technology practices therefore offer a somewhat unique arena for examining professional practices in an otherwise tightly controlled setting. Because of the simultaneous restriction and freedom entwined with their educational properties, technology practices hold the potential to illuminate attitudes and behaviours among teacher educators that might not be as discernible in other areas of their practice in which they hold less autonomy.

3.3 Forming a conceptual and theoretical framework for the study of technologies and identity

Chapter 2 described how existing research into teacher educator identity does not address some important aspects of the FE context because of the focus on teacher education based in higher education institutions (HEIs). This has resulted in gaps in knowledge about FE teacher educator identity. The first part of this chapter has presented educational technology as a potentially rich site for exploring those features of the context that are likely to affect how identity is negotiated differently by teacher educators working in FE colleges. The chapter now turns to the concepts and theories that offer insight into the research problem, and which have helped frame the subsequent data collection and analysis.

3.3.1 Developing expertise: Enacting identity in context

This chapter has detailed how incorporating educational technologies into existing teaching practices or creating new teaching practices with technologies constitutes a learning process for teacher educators. The literature designates the learning undertaken by education professionals 'professional development' (for example Evans, 2011; Lawless & Pellegrino, 2007; OECD, 2010), which is typically understood to mean the purposeful development of knowledge or skill with the intention of informing teaching practice. The term has different connotations, however. For example, Evans (2011, p. 865) explains how, at the macro level, professional development might signify a change in teachers' practice in order to better meet policy objectives, whereas at the micro level, it can mean an 'individual's recognition of something as a "better way" of "doing" things (applying a broad interpretation of "doing" to include mental as well as physical activity)'. Evans defines professional development as 'a tri-partite entity that incorporates behavioural, attitudinal and intellectual components' (ibid., p. 865). A macro-level understanding of the term positions teachers as work-based apprentices, learning externally sanctioned knowledge and practice of teaching, thus neglecting the role of teachers' agency in their own professional development. Evans' definition acknowledges that knowledge (theory about teaching) and skill (the craft of teaching) do not adequately describe the practice of being a teacher. Recognising something as 'better' involves making a judgement, and in this thesis it is that ability to exercise professional discretion that is deemed to constitute a key component of expertise.

Hammerness and colleagues (2005) assert that that a feature of teachers becoming 'adaptive experts' is their ability to balance the *innovation dimension* (a willingness to

tackle new challenges) and *efficiency dimension* (the ability to elegantly solve problems) of their profession. Traditionally, expertise is understood to be based on specialised knowledge and to be the foundation of what is meant by 'professional', rather than 'skilled' or 'craft' (Freidson, 1999). But although developing teaching expertise is often viewed as a staged process of becoming an 'expert teacher' (Berliner, 1994; Sternberg & Horvath, 1995), here it is understood as 'an approach toward one's career' (Tiberius, Smith, & Waisman, 1998, p. 131). The learning inherent in teacher educators' educational technology practices, as described earlier in the chapter, is therefore conceptualised in this thesis as an ongoing process of developing expertise.

Expertise is closely linked to professional identity. Chapters 1 and 2 have described professionalism in the FE sector as a site of struggle and conflict between an occupational group and externally imposed freedoms and limitations. Professional identity is routinely conceptualised at group level, for example Chapter 2 discussed the dual or triple professionalism and sub-identities collectively experienced by teacher educators. Professions also consist of individuals, however, and therefore an important aspect of understanding the notion of professionalism is exploring what it means to the members to be part of that group. Professional identity is formed within social practice, and as such is simultaneously a reflection of self-image and recognition within a social context (Beijaard, Meijer, & Verloop, 2004). For the purposes of this thesis, professional identity is conceptualised as Holland, Lachicotte, Skinner, & Cain's (1998, p. 270) 'dense interconnections between the intimate and public venues of social practice' within the confines of the professional context of being a teacher educator in FE.

Holland and colleagues (1998) theorise that people practise identities in 'figured worlds' – that is, frames of meaning within which what we say and do position us in relation to others. This positionality is 'inextricably linked to power, status and rank' (ibid., p. 271). Interaction with the world takes place within a person's 'space of authoring' (ibid., p. 272), where the discourses and practices available to that person are negotiated within the social field. In developing into someone new and, to a certain extent, breaking away from socially accepted traditions, new worlds are made. In terms of professional development, this implies the possibility of expanding frames of reference to encompass new ideas and practices. Possibilities and reality do not always unite: as Giddens (1991) points out, professional identity is part of a broader sense of self, and a person's sense of self is both fragile and resilient. Change presents difficulties. Identity is therefore not simply a set of characteristics, but an ongoing and complicated process of developing behaviours, beliefs and attitudes (McGregor, Hooker, Wise, & Devlin, 2010). Evans (2011, p. 851) suggests that "enacted" professionalism may be quite different from "demanded" professionalism, and shaping professionalism involves a complex and indecipherable process that is better understood by examining the process whereby individuals develop professionally'.

3.3.2 A social theory of technology

This study therefore emerged from a broadly sociocultural theoretical perspective on identity, learning and development from which learning is understood to be socially and culturally situated: 'the result of a dynamic interaction between individuals, other people, and cultural artifacts' (Whipp, Eckman, & van den Kieboom, 2005, p. 37). However, I felt that the sociocultural conceptualisation of technology as a mediating tool in goal-oriented activity, as in cultural historical activity theory, was insufficient

for the purposes of this research. Although sociocultural theory recognises technology as a cultural artefact, it does not attend to the complexities of its presence in education, as described in section 3.2. Technology is not fixed and stable. Even if devices and software can be perceived as such, they are surrounded by instability in terms of practices, cost, availability, and the possibilities for and expectations of their use. As I have already asserted, educational technology is an ideological concept, but this is obscured by its treatment in policy as a singular and unproblematic entity. Technology can act as a tool that mediates action in pursuit of a goal, as implied in policy, but there might be significant variation in the choice of tool available, the ability to operate the tool, the level of understanding about the contribution that tool can make to achieving the object of the activity and a certain nebulousness about what constitutes the object of that activity. This thesis therefore also draws on the contributions of a different, and perhaps even opposing, theoretical stance – that of socio*material* theory – to help explore how these complexities are present in educational technologies and how identity is enacted in practice.

Increasingly applied in the study of technology in organisations, sociomateriality denotes theoretical approaches that 'de-centre the human being' (Fenwick, Nerland, & Jensen, 2012, p. 7), considering the relationship between technology and humans to be neither one of discrete entities nor mutually dependent ensembles. Examining educational technology practices through a sociomaterial lens differs from sociocultural theorisations of social behaviour in education in terms of one key ontological variation. A sociocultural model such as cultural historical activity theory would perceive humans and technologies to be separate, but interdependent, entities, and technology in that instance is regarded as a tool that humans use to mediate their actions. In this sense, the focus is on how the *use* of that tool acts on reality

(Kallinikos, Leonardi, & Nardi, 2012) and the model therefore prioritises the human actor. A sociomaterial perspective, on the other hand, conceptualises humans and technologies as inseparable in this way: each one is a constituent part of what is meaningful about the other, and therefore they cannot be meaningfully separated. As Orlikowski & Scott (2008, pp. 455–6) put it, 'entities (whether humans or technologies) have no inherent properties, but acquire form, attributes, and capabilities through their interpenetration'. In other words, people and technologies exist in relation to each other, and as such are understood to be intertwined and entangled in a recursive relationship (Orlikowski, 2007; Orlikowski & Scott, 2008).

As an emerging field of inquiry, there are aspects of sociomaterial theory that are problematic, for example there is some debate about what constitutes materiality (for example Leonardi, 2012) and to what extent human and material do in fact interpenetrate. The point of a sociomaterial perspective, however, is not to focus on the material object, but to:

... contest the notion that things ... exist separately and prior to the lines of relations that must be constructed among them, and to examine the dynamic process of materialization – including material and discursive practices – through which things emerge and act in what are indeterminate entanglements of local everyday practice.

(Fenwick, 2010, p. 108)

This study is concerned with practices in which human and technological actors are entangled in an educational environment, rather than the materiality of the technology itself. The aim is to explore technology as a means through which the figured worlds of teacher educators might be (re)framed and (re)ordered. The two theoretical orientations can thus be combined to provide a framework for this.

Previous studies of educational technologies have shown a tendency to take for granted the separateness of technology, seeking to identify its impact on education and its actors (see section 3.2). Technology is plentiful in educational establishments and understanding the consequences of its positioning in education is important. However, conceptualising technology as something that impacts the social world, whether in a causal and unidirectional, or even mutually dependent, relationship, implies that there are fixed and stable characteristics inherent in the technology that both travel with the technology into the spaces of its use and transcend them. Such a conceptualisation does not adequately take into account how social meaning is enacted through identity discourses, which simultaneously (re)produce the context in which they are employed. In this thesis, therefore, technologies are not treated as independent 'pre-formed substances', as they often are in education policy and research, but rather as 'performed relations' (Orlikowski, 2007, p. 1438). As Edwards and Daniels (2012) point out, identities that mediate professionals' engagement with knowledge and clients are formed within practices. By exploring what relations are performed through the recursive entanglement of human and material actors present in educational technology practices in FE, I hope to build a sense of how teacher educators negotiate their professional selves.

3.3.3 The analytical framework

One sociomaterial concept useful for analysing identity and technology practices is that of *configuration*. Suchman (2012, p. 48) presents configuration as a conceptual framework within which 'the heterogeneous relations that technologies fold together' can be identified. Figuration, she suggests, can be defined as 'action that holds the material and the semiotic together in ways that become naturalized over time' (ibid., p. 49). It is this process by which human and non-human actors, and the boundaries between them, are assigned significance. Configuration as an analytical tool, therefore, is a way of retrieving what might be taken for granted, or even hidden, within the technology practices that occur in an institutional environment made up of multiple players with multiple, and possibly conflicting, logics guiding their actions. In order to analyse the technology practices and their constituent configurations of identity, I have turned to James Gee's orientation to discourse analysis. Like many other discourse analysts, Gee (1999) defines the use of language to enact activities and identities as 'discourse'. However, he argues that activities and identities are enacted not only through language, but also through a variety of means that, together, enable an individual to be recognised as enacting a 'kind of person' (Gee, 2000). This assemblage of language and non-language components of identity enactment he terms 'Discourse' with a capitalised initial letter to distinguish it from other definitions of the word. It is this latter concept and definition of the term that contributes to the design and analysis of this study.

Achieving recognition as a 'kind of person' involves not only speaking in a certain way, but also using objects and dressing, acting, feeling and believing in ways characteristic of that identity. This study is concerned with ascertaining how these dynamics contribute to identity negotiation within FE teacher educator contexts. To assist with this, Gee (2011) proposes a number of tools of inquiry, one of which complements the conceptualisation of professional identity informing this thesis: the 'figured worlds' tool. Gee (2011, p. 170) defines 'figured worlds' as 'a picture of a

simplified world that captures what is taken to be typical or normal'. Holland and colleagues (1998, p. 51) explain that figured worlds:

... take shape within and grant shape to the coproduction of activities, discourses, performances and artifacts. A figured world is peopled by the figures, characters, and types who carry out its tasks and who also have styles of interacting within, distinguishable perspectives on, and orientations toward it.

Who and what is recognised as belonging and conforming to such a world, what meaning is ascribed to their behaviour and what is considered valuable are contained within this socially constructed domain, which is enacted and reproduced by its participants. In other words, participants speak or act in a certain way because of the context in which they are recognised, but in doing so they also create and maintain that context as recognisable. The tool is also useful for highlighting differences of opinion between participants in a shared context. Where these worlds are fragmented and not clearly defined, as in FE, differences of opinion are likely and may reveal something of the power relations in that site.

Together, these analytical resources and theoretical perspectives offer a framework within which we can examine how identities are configured and enacted in education.

3.4 The research questions

It is evident, then, that within the social practices of teaching and learning are entangled multiple actors, human and non-human, cultural and historical. If context is important to understanding notions of identity, and FE is a unique context for professionals to work in, the question becomes: what aspects of this are evident in the practices surrounding educational technologies in this environment, and how are these negotiated by teacher educators?

This thesis therefore attempts to answer the question:

To what extent is FE teacher educators' professional identity enacted through negotiating the development of expertise in educational technology practices?

In order to answer this question, I aimed first to explore the role of technology in the professional practices of teacher educators, and then to focus more closely on how they develop expertise in technology practices. However, the review of literature pertaining to teacher educator identity in Chapter 2 determined that there was a need to establish a baseline understanding of FE teacher educators before I could examine how their identity was enacted in practice. In that chapter, I discussed how much of the existing research into FE teacher educators comprises studies of wider PCET contexts. I therefore introduced an additional question (and sub-questions) specifically examining FE teacher educator identity to act as a starting point for exploration of my overarching research question.

- 1. How do discourses of teacher educator identity align in FE ITE institutions?
 - a. How are teacher educators, their work and their expertise positioned by the context of FE?
 - b. In what ways do teacher educators in this context describe themselves, their work and their expertise?
 - c. How do these versions align with one another and with alternative depictions of teacher educator identity?

The findings from this investigation then inform exploration of the following further questions and sub-questions.

- 2. What role do educational technologies play in teacher educators' professional practices?
 - a. How is technology implicated in teacher educator practices in FE colleges?
 - b. What are teacher educators' perceptions of the role, benefits and drawbacks of these technologies in their work?
 - c. What do these perceptions of technology reveal about the pedagogical values and beliefs of teacher educators?
- 3. How, and to what degree, do teacher educators develop expertise in educational technologies?
 - a. What kinds of educational technology expertise are considered necessary in this context?
 - b. What forms does teacher educator learning about technology take?
 - c. In what ways is teacher educator professional identity enacted through these learning practices?

3.5 Chapter summary

The first part of this chapter introduced educational technology as a potentially rich site for exploring how teacher educators negotiate professional identity in FE. Presented as a force for positive educational change in policy, the use of technology has become closely linked to teacher quality and embedded in notions of professional standards. Teacher educators are therefore expected to develop the appropriate expertise in educational technologies to foster effective teaching practices in their student teachers. The second part of the chapter then outlined the conceptualisations of identity, expertise and technology that are fundamental to the design of this research, situating the study within a theoretical framework that draws on the concepts and analytical resources of both sociocultural and sociomaterial perspectives. Lastly, the chapter stated the research questions informed by the context and literature reviewed in the first three chapters, as framed in light of this conceptual and theoretical stance.

Chapter 4 will now discuss the operationalisation of these questions in the research design, before Chapter 5 then reviews the pilot study and how it informed the main data collection phase and subsequent data analysis.

Chapter 4 The methodology and research design

4.1 Introduction

The research question aimed to explore how teacher educators' perceptions of professional identity are entangled with the need to engage with educational technology practices. Since knowledge and practices are understood to be situated and embedded within local culture (Denzin & Lincoln, 1998; Wenger, 1998), achieving this aim required a detailed examination of the key factors that contribute to experience within its natural context. The study was therefore conducted using a qualitative methodology, located within an interpretivist paradigm of social science research, which accepts interpretations of reality as multiple, subjective and bounded by history and culture.

This chapter considers the ontological and epistemological assumptions of the research, explaining the foundations of the research design and reflecting on my position as researcher. It then discusses the reliability and validity of the research, and details the data collection methods employed. Finally, the chapter explains the sampling choices made and attends to the ethical concerns of the research design.

4.2 Methodological assumptions

All experience is, by its nature, subjective, as realities are experienced through the lens of perspective. Thomas Nagel's (1974) essay 'What it is like to be a bat?' suggests that if we are to more fully comprehend the world, we must try to occupy perspectives other than our own. The more unlike the object of interest we are, the more difficult this is to achieve. The interpretive turn of social science research of

recent decades reflects a desire to view social reality from a multiplicity of perspectives and angles. Since human beings are 'self-interpreting animals' (Taylor, 1985), this willingness to appreciate another's point of view enables us to create an understanding of social reality using as data the meanings that we ourselves ascribe to our experience in our authoritative position as participants in the social world. Interpretivist qualitative research often thus seeks to give voice to the emic perspective – that is, how the world is understood by those experiencing a phenomenon in its natural setting and what meaning they assign it.

Taking this as a foundation, my aim as qualitative researcher in this thesis is to interpret and describe meaning according to its context and using participants' frames of reference (Hennink, Hutter, & Bailey, 2011). Such research may not easily generate theoretical or causal statements that can be generalised across wider populations. Acknowledging that the social world is too complex to be fully captured in quantitative or finite terms, I offer instead 'thick' descriptions (Tracy, 2010) to illuminate the many factors that shape experience, its construction and its significance in its local setting, since 'judgement about "meaningfulness" cannot technically be made in the abstract by another person' (Moon, 2006, p. 15). Based on the works of Ryle, Geertz, Denzin, Holloway and Schwandt, Joseph Ponterotto (2006, p. 543) offers the following definition:

Thick description accurately describes observed social actions and assigns purpose and intentionality to these actions, by way of the researcher's understanding and clear description of the context under which the social actions took place. Thick description captures the thoughts and feelings of participants as well as the often complex web of relationships among them.

Thick description leads to thick interpretation, which in turn leads to thick meaning of the research findings for the researchers and participants themselves, and for the report's intended readership. Thick meaning of findings leads readers to a sense of versimilitude [*sic*], wherein they can cognitively and emotively 'place' themselves within the research context.

Thick description thus provides a means of both representing the insider viewpoint of social phenomena and offering the outsider access and insight into unfamiliar experience. This approach enables me as researcher to highlight particular factors of interest within complex contexts, while acknowledging that the number of potential variables defining them is so high, and the relationships between them so convoluted, as to render them otherwise resistant to exploration.

Researchers of all types, with working paradigms underpinned by a variety of ontological and epistemological philosophies, reconstruct the world by transforming reality into descriptive vignettes, whether that be through quantifying personal characteristics in a questionnaire, transcribing an audio recording of an interview, or creating any other material representation of social phenomena. In all cases, the complexity of the world is reduced to a manageable size. The intention of qualitative research is to explicate particular phenomena of interest within the 'routine and problematic moments and meanings in individuals' lives' (Denzin & Lincoln, 2003, p. 5), and researchers frequently combine several interpretive practices in order to achieve this. The methods best suited to gathering information about moments and meanings vary according to situation, context and research aims. The possibilities for the extent of research and the methods employed are bounded by institutional settings. Any research carried out is therefore likely to be a compromise between an ideal research design and the practicalities associated with working within that setting. The resulting findings can therefore represent only a piece of a much larger and more complex picture, but can greatly illuminate that piece with a view to better understanding the whole.

4.3 Reflexive considerations

In reconstructing the social world through research, the boundaries and delineation of the factors that constitute any phenomenon are subjective, contestable and ultimately decided by the researcher. The 'objective' stance alleged by some researchers within positivist traditions is understood to be impossible in this kind of qualitative research. The researcher is perceived as present and influential throughout the research project, identifying the research question as important, designing the method of inquiry and unravelling the meaning of data collected. In the written report of the findings, the researcher's ideas are presented and discussed, consequently helping readers to construct an understanding of the phenomenon examined. As Stake (1998, p. 95) says, these are ideas 'laced with favour and doubt'. It is therefore crucial that qualitative researchers clearly explain their decision-making processes and consider the significance of their own presence within the research.

My preconceptions, values and life experience are at once a strength and potential limitation of my research. As a teacher within post-compulsory education and training (PCET) and a novice teacher educator studying a comparable social group, my beliefs shape what I see and how I evaluate its significance. For example, my experience in teacher education, although limited, positioned me as a fellow 'insider', allowing me to engage with the participants as colleagues and contributing to an environment in which we took part in the project together, rather than one where my research was conducted upon the participants. This was reflected in more than one participant asking me to contribute to an initial teacher education (ITE) class³ – evidence that the research was seen as a reciprocal process. At the same time, my own experiences of teaching in similar contexts gave rise to an initial concern that I may identify too strongly with any issues of discord that participants might present. Each of these identities needed to be addressed in different ways. Below, I give examples of how such issues featured in my research.

Although I had no personal experience of the case study sites selected for this project, I have worked in similar organisations and have lived in the area for a number of years. During this time, I have interacted personally and professionally with staff and/or students from each site, including, in a small number of cases, some who eventually participated in this study. Knowledge of the context under investigation can be a great asset to research. Practitioner research, for example, has demonstrated the value of expert knowledge of contexts and familiarity with participants (Hamilton, Ivanic, & Barton, 1992). Social relationships and a personal understanding of context can enable researchers to get closer to the data and its possible meanings, and may contribute to participants' willingness to share their stories. In one case study site, the participate in the coffee-making ritual of washing mugs and sniffing milk to check that it was usable. Pertinent discussions began spontaneously during these times. I feel that these participants trusted me to understand the relevance of what they said: 'And

³ At the request of course leaders, I gave three short talks to student teachers about conducting educational research as part of their professional development programme.

relevance is a matter deeply tied to context, point of view and culture. One knows what counts for a given group of people at a given time and place as "relevant" by having been privy to certain "conversations" those people have heretofore had' (Gee, 1999, p. 34). My knowledge of post-compulsory ITE meant that participants could behave normally and that I did not have to ask them to explain every utterance. However, there was some risk that participants might position me as a fellow teacher or researcher who would automatically share or reject their beliefs. This could influence the answers that they gave, for example if they were to assume that they understood what I would want to hear. I had to decide how much of my background to share in order to maintain transparency about my research motives and increase the likelihood of being granted access, while avoiding conveying the impression that I already understood their experience and contexts. Consequently, I summarised my professional background in the recruitment letter to prospective teams, but resolved to examine my data for evidence of shared assumptions during analysis and to carefully consider how much of my own opinion I should share with participants during our time together. Having developed an open and relaxed dialogic interview style (Knight & Saunders, 1999), I recorded instances in which I thought this may have occurred in my reflexive journal (see Appendix 1).

A disadvantage of my experience in the sector is that, at the outset of this research, I held deep-seated convictions about professional life in PCET education. Dissatisfaction with some of these aspects contributed substantially to my decision to suspend my teaching career and return to full-time study. This meant that, in designing and carrying out the research, I had to pay special attention to ensuring that I did not inadvertently create conditions that favoured particular outcomes. Throughout the study, this has been a key component of my decision-making process, managed by keeping a reflexive journal and explicitly considering judgements as they formed. After the pilot study led me to increase the level of involvement from nonteacher educator participants, I determined that this would also serve as an additional guard against this tendency. As well as providing background and contextual information on the institution, senior managers and learning technologists were subsequently asked to take a more prominent role and to explain their perspectives. This strategy gave me access to perspectives on college life that had previously been absent from my experience, and I have been pleased to find that several preconceptions I held have been tested. I believe that my research is stronger for having considered and addressed these issues.

In addition to my reflexive journal, I have interwoven reflexive analysis with my interpretations of the data, continually questioning the potential bias. I have thus considered my personal values, assumptions and behaviour, as well as how aspects of the context I shared with participants might hold different meanings for us. For example, I noticed that my requests to observe lessons were often met with reluctance by participants. I initially assumed that this resulted from a general disinclination to be watched and filmed. After one markedly acute recoil, however, I realised that the term 'observe' has connotations of performance measurement for teachers. As a teacher who did not enjoy being observed, I was surprised that I had not previously considered this. As researcher, the term merely connoted a data collection method, and while there are implications to employing this method, these are different issues from those experienced by teachers working in an accountability culture. I later talked to the participant in question about my use of the term, and although she assured me that *any* occasion on which she feels on display would make her baulk, she agreed that

if I had phrased it differently, the request might not have seemed so immediately threatening.

These episodes illustrate the simultaneous nature of my identities as teacher, teacher educator and researcher, and how it is imperative to continually assess how one perspective may inadvertently take precedence. Ultimately, I believe that my professional history has positively contributed to the study and that my integrity as a researcher has enabled me to properly assess the limitations it may bring. In presenting my findings, I have adopted a 'show, not tell' approach (Tracy, 2010), aimed at providing sufficient detail that readers will be able to draw their own conclusions from the data alongside my own interpretations. In this way, I have reflected on both personal and interpersonal reflexive issues in order to appreciate and declare their impact on both the data collection process and my interpretation of the findings.

4.4 Research design

4.4.1 Case study research

Two considerations primarily determined the strategy of inquiry best suited to this research.

• I aimed to conduct an in-depth study of teacher educator professional identity by examining teacher educators' engagement with technology practices in a specific context. This locus of interest is by nature complex, specific and bounded. The literature review highlighted the paucity of relevant research and indicated that achieving insight into this professional group required a multifaceted approach. Given that the post-compulsory sector is made up of numerous distinct contexts and organisation types, there was a practical need to identify and focus on one subsection of these to make the project a manageable size.
 However, as is argued throughout this thesis, practices are inextricably bound to the context in which they occur and examining the contextual conditions of teacher educators would be paramount.

Together, these two stipulations suggested that the most appropriate framework for this endeavour was case study research.

The case study is a commonly used approach in educational research, and the social sciences more generally, to understanding complex social phenomena (Yin, 2009), because it subjects the complexities of a particular case to thorough and intensive analysis (Bryman, 2008). Case study research is able 'to reveal a local and historically specific cultural or "bounded" system' (Alasuutari, 1996, p. 372). Darke, Shanks, and Broadbent (1998, p. 274) assert that it is a widely used method in the study of information systems, and they consider it 'well suited to understanding the interactions between information technology (IT)-related innovations and organizational contexts'. Furthermore, it is frequently represented in studies of post-compulsory education, since, in this sector, 'small scale case study work is one of few types of research that is viable, with the limited resources available' (Hodkinson & Hodkinson, 2001, p. 2). This last factor was also significant for me as a lone researcher, operating within a small, fixed budget.

Specifically, this project can be defined as a collective instrumental case study (Stake, 1998), the purpose of which is to afford insight into the issue of professional identity for an under-researched population of teacher educators. The case study design is able

to achieve this through examining the contextually located ordinary practices of individual cases, which illuminate local concerns and can have wider-reaching relevance, since 'people find in case reports certain insights into the human condition, even while they are well aware of the atypicality of the case' (Stake, 1998, p. 96). In other words, what can be learned from a specific case depends on the ways its audience recognises its features as both similar and distinct from the contexts and parameters of interpretation.

Sometimes used as an argument against case study research, the problem of generalisability across wider populations is considered in this thesis to be the orienting strength of the case study method. Qualitative research acknowledges that the complexities of the social world cause every social interaction in each cultural and historical context to be unique. Consequently, there is no likelihood of finding cases that typify the complete population of teacher educators in further education (FE). The point of case study research, though, is to highlight the particular phenomenon in context and to augment what can be learned from this by generating theoretical explanations for its intricacies, rather than concern with generalising possibilities (Bryman, 2008). In order to attain greater insight into these intricacies, I studied teacher educators in more than one site. This allowed me to make comparisons between contexts and to identify common concerns, thus building a more thorough understanding of this phenomenon within its particular contextual conditions (Yin, 2009). However, comparing the cases was never intended to be a principal reason for adopting a case study approach. As Stake (1998, p. 91) argues: 'Damage occurs when the commitment to generalize or create theory runs so strong that the researcher's attention is drawn away from features important for understanding the case itself."

This thesis intends that the close examination of a small number of cases will also generate discussion of wider applicability.

4.4.2 Operationalising the research questions

Answering the research questions required investigating participants' beliefs, attitudes and experiences, along with factors that might influence their practice. This involved examining the context and conditions of teacher educator work, conceptualisations of technology and professional identity present in this context, and individual and institutional approaches to learning and development. Appendix 2 demonstrates how the empirical literature critiqued in Chapters 2 and 3 helped organise a process of deconstructing the broad topic areas of my research questions, based on propositions about what would allow me to answer each question (Yin, 2009). For example, to obtain a thorough understanding of teacher educators' perceptions of the role, benefits and drawbacks of educational technologies in their practices, I needed data on their definitions of educational technology, its perceived purpose in specific settings and its effect on perceptions of job role and identity, and their understanding of broader contextual issues that might influence such perceptions. I then needed to compare these with evidence from their practice and from governing publications to theorise about how these different facets of this social world are interconnected.

4.4.3 The data collection methods

I started from the assumption that pertinent data could be found in the participants' own words, the observed environment and relevant documentation. The data collection was therefore structured around methods designed to capture different aspects of this social environment: survey, interview, observation and collection of documentary evidence. Table 4.1 (see over) illustrates how these connect.

Data gathered through these methods was supplemented with field notes detailing general observations of the environment and participants at work, and conversations held with participants in addition to formal interviews and observations. Data was also obtained from informal follow-up interviews and discussions held with participants via a number of media (face-to-face, telephone, email) to clarify issues arising from initial data and to allow participants the opportunity to engage in member reflections. Using multiple sources of evidence is a common and, in some respects, necessary element of conducting case study research, because methods offer both advantages and disadvantages for gathering data that permits sufficiently in-depth analysis (Yin, 2009). This approach enhanced this research project in several ways.

1. The thesis agrees that professional work involves expert knowledge and practice. The definitions of expertise outlined in Chapter 3, section 3.3, assert that there is an element of familiarity with actions and behaviour required by work that, through repetition, results in a kind of automation that allows practitioners to deal with problems intuitively and with little discernible effort (for example Berliner, 1994; Ericsson, 2000; Tiberius, Smith, & Waisman, 1998). This implies that teacher educators' practices involved tacit knowledge and, consequently, that participants may have difficulty articulating the nature of their experience. Increasing the number of data sources enhanced the likelihood of being able to identify expert practices and provided participants with different opportunities to engage with the metadata of their professional identity.

Method	Detail	Areas explored
Interview	Individual	Perceptions of professional identity, and
	Face-to-face at college	understanding of educational technologies and
	(approx. 1 hr)	associated learning practices
	Group discussion	Community perceptions of FE ITE,
	Face-to-face at college	roles/responsibilities, place of technology in
	(approx. 1 hr)	education and policy, and need for technology-related
		learning in role
Survey	In own time	Job role, qualifications and training, current use of
	(approx.15 mins)	technology, its advantages/disadvantages and
		contribution to professional practice
Observation	During usual timetable	Educational technology practice, presentation of
	(as permitted)	professional identity issues to student teachers and
		tacit knowledge
Documentation	Various sources	Policies, institutional procedures, course
		documentation and other documentation indicative of
		context

Table 4.1 Data collection methods

- 2. Triangulating data is important for the persuasiveness of conclusions drawn from case studies, because 'converging lines of inquiry' (Yin, 2009, p. 115) lend authority to research findings. The social world is of such complexity that looking at it in a singular way is unlikely to lead to convincing findings.
- 3. Although a broad aim of the research was to give voice to teacher educators, it was assumed that Argyris and Schon's (1974) understanding of 'espoused' vs 'in-use' theories was likely to apply: how teacher educators believe they act and how they act in practice may differ. Gathering data from multiple sources may provide insight that teacher educators are unable to articulate themselves.
- 4. Given the dearth of relevant literature discussed in Chapters 2 and 3, I wanted to allow for exploration of issues not considered prior to data collection. A

variety of methods increases the possibility of locating unexpected, yet pertinent, data.

4.4.4 Issues of reliability, validity and credibility

Over the past century, qualitative research has undergone many permutations, each presenting a new challenge to conceptualisations of research and how the world can be known and represented. During this time, qualitative research has been defined from within a broadly positivist paradigm, which suggests that reality is singular, objective and can be known. Current thinking among qualitative researchers moves that a more appropriate means of approaching the study of social reality is to conceptualise it as the multiple perspectives of people's experiences. In other words, each person experiences reality as something different and therefore there is no one truth that can be sought. This is the basis on which researchers in an increasing number of cases reject the positivist evaluation criteria often applied to qualitative studies as irrelevant and as conspiring to produce a form of knowledge 'that silences too many voices' (Denzin & Lincoln, 2003, p. 15). The purpose and design of research from the two paradigms is simply different, and, as Hennink and colleagues (2011, p. 12) state, 'you cannot impose the constructs of one paradigm onto another paradigm'.

It is important, however, for all researchers to strive to produce high-quality research. Lincoln and Guba (2000, p. 178) frame the problem of central concern thus:

Are these findings sufficiently authentic (isomorphic to some reality, trustworthy, related to the way others construct their social worlds) that I may trust myself in acting on their implications? More to the point, would

I feel sufficiently secure about these findings to construct social policy or legislation based on them?

There are several different means of assessing the quality of qualitative research, and in place of positivist terms such as 'reliability', 'validity' and 'generalisability', these tend towards notions of 'trustworthiness', 'authenticity', 'credibility' and 'dependability'. Many of these terms act as equivalent constructs to traditional positivist criteria (Cohen, Manion, & Morrison, 2011). In an attempt to firmly situate this research in qualitative traditions, I have evaluated my research against Tracy's (2010) eight 'big tent' criteria, which purport to be relevant to all qualitative research. Of these, three criteria refer directly to issues otherwise known as reliability, validity and credibility, as follows.

'Rich rigor'

[A] researcher with a head full of theories, and a case full of abundant data, is best prepared to see nuance and complexity. A richly rigorous qualitative scholar is also better equipped to make smart choices about samples and contexts that are appropriate or well poised to study specific issues.

(Tracy, 2010, p. 841)

Qualitative social research is characterised by the combination of an abundance of appropriate theories and richness of data so as to adequately represent the multifaceted nature of social phenomena. This is achieved in this study by spending as much time in the case sites as was appropriate given their busy nature, collecting sufficient data to answer the research questions and recruiting an appropriate sample to adequately represent the context. Rigour is achieved through attention to data collection and analysis procedures. These are recorded and reflected on in this and the following chapter.

'Sincerity'

Sincerity means that the research is marked by honesty and transparency about the researcher's biases, goals, and foibles as well as about how these played a role in the methods, joys, and mistakes of the research.

(Tracy, 2010, p. 841)

I have attended to this by keeping an honest and transparent audit trail of all procedures and decision-making processes throughout the project. I have paid particular attention to reflexive issues, keeping a research journal in which I consider how my own values and biases might be present in my treatment of the issues, and by interweaving these considerations into my data analysis.

'Credibility'

Interpretive research studies and their findings should be plausible: 'In short, credible reports are those that readers feel trustworthy enough to act on and make decisions in line with' (Tracy, 2010, pp. 842–3). This thesis aims to provide such thick description and detail that the audience is invited to draw its own conclusions about the veracity of the findings. Triangulation is achieved by using several data collection methods that approach the research from different angles, and by making interview transcriptions and summaries available to participants for comment. I also spent time in the colleges and interviewed other relevant staff for contextual information to build a deeper understanding of the case environments. This adds an element of ecological

validity to the research, because I captured participants working in their natural setting (Bryman, 2008) and developed an understanding of what constitutes assumed, implicit and tacit knowledge in this context.

I accept that the researcher reconstructs the social phenomena under investigation through his or her decision making, and carrying out and telling of the story (Denzin & Lincoln, 2003; Stake, 1998). The account presented in this thesis is not intended to be considered a truth, but rather one representation of a social experience.

4.5 Data collection tools

After conducting the pilot study, I devised the following sequence of data collection.

- 1. Group discussion
- 2. Survey
- 3. Individual interviews
- 4. Observations

I reasoned that taking part in a discussion prior to individual interview would help put participants at ease and would have brought topics of interest to the forefront of their minds. I thought that they would be more likely to complete the questionnaire once we had built a rapport and that information from this could then be used as an icebreaker during interview. I considered that participants would be more comfortable agreeing to a lesson observation at the end of this process. However, participants' schedules and workloads meant that, in practice, it was more pragmatic to interview them whenever they were available. In one site, gathering even two members of the team for a discussion proved difficult. The resulting meeting was almost abandoned when one participant was unexpectedly detained and then declared, on arrival, that she only had 10 minutes to spare. In the event, she stayed for 30 minutes – and I felt unable to use the voice recorder at the risk of prompting her to leave. I consider that this event itself has significance for my study, and so although their discussion took a slightly different format from those of the others, it has been included.

4.5.1 Individual in-depth interview

I conducted semi-structured interviews with each participant, with an average length of 1 hour and 10 minutes. These were held in quiet spaces at the participants' workplaces during normal working hours, with the exception of one, which was conducted online using WebEx software. All interviews were recorded with a digital voice recorder and transcribed. I also recorded written field notes during and after each interview. Issues identified in one interview then informed the next. Shorter follow-up interviews were also held with five teacher educators. Two of these were digitally recorded, with the others documented in written notes because they were conducted in an impromptu fashion after lesson observations, beginning as conversations and naturally becoming interviews. These lasted approximately 40 minutes.

Interviewing is likely to be the most widely used method of collecting qualitative data (Fontana & Frey, 2003; King & Horrocks, 2010) and is considered an essential source of information for case studies (Yin, 2009). Hennink and colleagues (2011) describe the purpose of in-depth interviewing as capturing individual voices, subjectivity and context. I considered the method appropriate for this study on the basis of its potential for generating thick descriptions of the working context of teacher educators and negotiations of practice within it. Social practice is recontextualised in language (van Leeuwen, 2008), and it can therefore illuminate the practices, conventions and culture

surrounding its use (Cameron, 2001). In other words, how people talk about themselves and their work can be a powerful representation of social practice and context. In contrast with the group discussions, the objective of which was to understand a community perspective, the individual interviews concentrated on issues of a more personal and potentially sensitive nature. Such topics require a more involved encounter between researcher and participant, and so I developed a dialogic approach (Knight & Saunders, 1999), whereby interviewer and interviewee coconstructed the reality of the interview (Denzin & Lincoln, 2003), and consequently the knowledge that was produced during this interaction. At the end of interviews, it was not unusual for participants to remark on how they welcomed the opportunity to reflect on these matters. In several cases, they even stated that they had previously not realised the extent to which the aspects discussed were important for their role. The interview provided a space in which participants could address professional tensions. Interview guides for teacher educator interviews, learning technologists and senior managers are included as Appendices 3 and 4.

4.5.2 Group discussions

I chaired a group discussion with the teacher education teams at each site to gain an overall sense of the community perspective on the research topics. Each discussion lasted approximately 1 hour, and two of these were digitally recorded and transcribed. The circumstances of the third, described earlier, necessitated documenting it with brief notes during the discussion and then with a detailed account written immediately after the event.

During the design phase, it became clear that, in order to fully answer my research questions, I would need to develop a method of gathering data from the group perspective. This posed some difficulties, given that the minimum size of focus groups is often stipulated at around six participants (Hennink et al., 2011; Liamputtong, 2011) and that it was likely that gathering this number of participants in any one place would prove problematic, given the small size of teacher education departments in FE. However, Morgan (1997) asserts that such stipulations are 'rules of thumb'. Focus groups often consist of at least six members, but decisions about size must be made according to the circumstances of each project: 'Small groups thus work best when the participants are likely to be both interested in the topic and respectful of each other' (Morgan, 1997, p. 42). The reasons for this specified minimum are that smaller groups may not generate sufficient discussion and that one of the strengths of the method is accessing a range of different perspectives. Based on my own experience of discussing professional issues with similar people, I was confident that small numbers would still result in discussion and exploration of issues. This was supported by early conversations with team leaders, who assured me that team members would voice their opinions freely. It was possible that fewer perspectives might be represented than in larger groups, but this was believed to be counteracted by the expectation that these groups would consist of entire teams. In the end, only one entire team was represented, with the other two being affected by timetabling and staffing problems. This meant that the actual number of participants involved in any one discussion was two or three. For this reason, although founded upon traditional focus group principals, the term 'focus group' is not quite descriptive of the method used in this study, which has instead been labelled a 'group discussion'. I believe that this emphasises the interaction between colleagues and the collaborative nature of the discourse.

Group interviews can generate a large amount of data in a short space of time. Hennink and colleagues (2011, p. 138) suggest that they are suitable for:

- 'exploring new topics about which little is known';
- 'gaining a range of views' on one occasion;
- 'understanding typical behaviour'; and
- 'understanding group processes'.

The method was particularly useful for my study because it facilitated my understanding of what was considered 'normal' in the participants' world. Because they work closely in teams, it was likely that they would share some attitudes and opinions about their work. A group setting enables this kind of information to be gathered more efficiently than one-to-one interviews and allows insight into how peers interact. Participants were able to challenge one another's statements, which led to deeper discussion and elaboration than might occur in a one-to-one interview. It is possible that their close acquaintance may have adversely affected the data produced, for example they may not have mentioned things considered implicit, or the discussion may have been affected by group dynamics that were not visible to me during the session. However, by spending as much time as possible with the participants in their ordinary environments, together with triangulating the data from multiple sources, I could take this into account in my analysis and follow-up questions with participants during the second interviews. Because of the small and close nature of the teams, I am confident that any such issues did not prevent the generation of useful and substantial data.

The discussion guide is included in Appendix 5.

4.5.3 Designing the interview and discussion guides

I formulated structured interview and discussion guides with questions detailed in full. This decision involved a compromise between the desire to collect relevant and comparable information and the need to give participants room to discuss the issues that were important to them, which, in some cases, I may not have considered beforehand (Morgan, 1997). Each guide contained several questions on each topic, with the intention of asking a first question and then letting the dialogue continue naturally. I could then be actively involved or relinquish control according to whether the discussion naturally produced relevant data. As I noted earlier, influencing what participants said was a concern for me, and so composing the questions in full rather than relying on topic headings was a way of making sure that I would avoid emotive or leading language. For the group discussions especially, the detailed structure of the guide helped to ensure that the same broad areas were covered in all sessions, even though comparing information across participants was not the purpose of the discussions. They also served as an access point for observing aspects of the working environment that would not be visible in interviews or questionnaires, such as tacit knowledge, shared understanding and assumptions within the group.

4.5.4 Survey

The participants were asked to complete a short questionnaire designed to collect demographic data and responses to background questions that related to individuals, rather than groups, but which were unlikely to require probing. These questions were of a more factual, descriptive nature than those asked during the interview, and served to reduce the time and number of questions needed to conduct the one-to-one meeting. Where questionnaires had been completed prior to interview, the responses were used to initiate the dialogue, putting participants at ease by recapping information that they had already considered.

Remaining in keeping with the qualitative research tradition, these questions did not seek to quantify or measure information, but were mostly open-ended questions designed to capture the participants' own words. Open questions are needed when the variety of possible answers is undetermined, and they are especially suited to examining complex issues (Cohen et al., 2011). Participants could choose to say as much about each topic as they wished. Open-ended questions make it more difficult to draw comparisons between responses, but Jansen (2010) points out that the qualitative survey method helps to highlight diversity within a population. The participants' responses to the questionnaire complement the community perspective emphasised in the group discussion method and the in-depth exploration of personal experiences from one-to-one interviews.

The questionnaire is included as Appendix 6.

4.5.5 Conversations, listening and observation

The ethnographic techniques of conversations, listening and observation allowed me to get a deeper sense of the context that I was researching, and of its discourses and practices. Ad hoc conversations with participants and comments heard in ordinary chatter, along with observations of the environment in which participants worked, were recorded in my field notes.

In addition, I observed five taught teacher education classes of an average length of 3 hours and 10 minutes. As a method, observation 'enables researchers to systematically observe and record people's behaviour, actions and interactions. The method also

allows researchers to obtain a detailed description of social settings or events in order to situate people's behaviour within their own socio-cultural context' (Hennink et al., 2011, p. 170). I aimed to observe as much of the environment as possible, but that was to be determined by individual sites and teacher educators. In the end, I observed and filmed one class in each college, and was asked in each of these to take part in the session either by participating in group activities or by delivering a short talk about conducting research. I also observed a second class in two of the sites, where I was asked not to participate and not to film. In these instances, as in the others, I wrote detailed notes during the observation and additional field notes immediately following the sessions.

Through classroom observation, I aimed to identify technology practices in this setting, to witness teacher educator professional identity enacted, to identify institutional and FE discourses, and to assess the dynamics of interaction between participants and their student teachers and colleagues. The method would permit me to triangulate data gathered through other methods and, at the same time, collect data that would not be possible through interview or survey. Observation involves access to real-time events, rather than data that has been interpreted and reshaped through the process of recollection and sharing. Talking to people about what they do is likely to recall. In Argyris and Schon's (1974) terms, it is a way to view in-action, rather than espoused, beliefs and practices. Following Gee (1999), this study views practices as discourses that consist of more than what people say, but also how they act, dress and in other ways perform membership of the social group in which they are operating (see Chapter 3, section 3.3). Observation enables detection of these elements.

From discussion with each participant, I identified a lesson in their scheme of work relevant to issues of teacher identity and professionalism. Although they were all aware that I was interested in technology practices, I emphasised my interest in identity in the hope that I would not encourage unusual technology practices during these sessions. The first lesson observation was helpful in refining how I conceptualised technology for this study. During this lesson, the teacher educator did not use technology himself, but encouraged the students to do so. Although there were computers and an interactive whiteboard in the classroom, these were untouched. Some students used iPads and most took photographs with their smartphones of the completed work at the end of the session. However, technology constituted a key feature of the session in an unexpected way, as illustrated by the following extract from my field notes written immediately following the session:

No-one batted an eyelid about being told to take pic of finished timeline as their record. I couldn't tell if it was everyone who did or just some. In the past it would have been someone's job to take the flip chart paper and type up the notes for everyone. So this replaces an activity/practice previously associated with group/collaborative work. But it worked seamlessly – some started at one end, some at other, some in middle and then all swapped. TE12 said he'd bring it back again next week, but they all already have their 'notes'. So even though he didn't use tech himself, still exploited it in his lesson – TE12 did ask [student] to turn phone off when it rang, but then allowed/promoted phones for educational use.

The tech story that stood out, in contrast, was the assistive tech being offered one student. Afterwards, TE12 said she had a support worker last year that worked really well, but couldn't have her again this year – didn't know why. Instead she had a lady that simply couldn't keep up with the speed that people speak. The teacher was not included in this decision. Whole episode was disruptive to the session and the class noticeably relaxed once student and support worker had left. So, to start with, there weren't enough plug

sockets/extension leads etc to be able to use the assistive tech where needed (in centre of horseshoe, on opposite wall from electric points) – room design an obstacle.

Support worker took only extension lead and trailed it across middle of floor – was a trip hazard and visual distraction. This caused problems with other students who were looking for plugs too. Support worker left to source another but didn't really announce it – think I may have been the only person who heard. So they carried on in same vein. She came back without one and estates team eventually delivered one during session. She leapt up, again disrupting, to exchange the one she had for the new one, which again snaked across the middle of the room. Therefore, context: room not appropriately kitted out for this kind of support. Support worker couldn't type fast enough for student to follow the conversation. They ended up talking to each other <u>while</u> the guy sat next to them was addressing the class. Again, disruptive – hard to listen to what someone's saying when person next to him also talking.

Support worker got up and said she was off to find something and would be back. Student left sitting alone. After a few mins she too left, saying to find support worker – disruptive. After a while TE12 apologised for losing his train of thought but he was 'being gestured at' from outside the door and was finding it distracting. In the end, student came back in with a note saying wasn't working and she would talk to college. TE12 then spent the break on his mobile [tech] talking to her, apologising and arranging what needed to happen – a proper support worker is the only way she can participate. Tech use here = problem solver.

So the system the college put in place to help her failed. Demonstrates common lack of communication between departments. TE12 said hadn't been involved but would make it clear what needed to happen. The context of the class, dynamics, planned work etc – he's the one with all that info and it's all pertinent to establishing what kind of support will enable her to participate. But no-one asked him. Professional context = disjointed teams, lack of respect? Or at least lack of appreciation for (ie understanding of) his expertise. Not recognised? So there are wider issues here than the tech itself.

Who decided this was appropriate support for her for this class?

- What information was used to make that decision?
- Did anyone see if it was practicable, eg plug socket?
- Who designed room layout with sockets away from students?
- Just ticking boxes?

Telling tableau in the very centre of the room once both student and support worker had left leaving behind 2 laptops on the table, closed, 2 cases on the floor and a cable trailing across the room.

(Field Notes 11/10/13)

This incident demonstrated to me how technologies constitute the 'performed relations' of which Orlikowski (2007) talks (see Chapter 3). It helped to shift my own perception of what I was looking for in the observations from how technology is used by people to how it forms part of social practice. This was a key moment in my development of the conceptual framework guiding the study and shows how qualitative research is not a simplistic linear process, but is circular or cyclical, consisting of 'interlinkages' between research design, data collection and analysis (Hennink et al., 2011). Subsequent observations were carried out with this framework in mind.

4.5.6 Documentation

I collected documentation pertaining to the participants' technology practices, professional development and professional role. These were sourced from participants and Internet searches, and consisted of:

- schemes of work and lesson plans for the ITE programmes and/or observed taught lessons;
- professional development records;

- institutional policies and procedures, such as IT policies, an observation matrix and a skills audit survey;
- promotional materials; and
- screenshots, for example of a virtual learning environment (VLE) platform.

One of my research aims was to understand the kinds of discourse that frame educational technology practices in this environment and their effects. Relevant documentation relating to teacher educators' work and interaction with educational technologies was judged to contain evidence that might corroborate or raise questions about perceptions of identity. Documentation is a useful source of evidence about discourse and practice, since it is 'non-reactive' (Bryman, 2008, p. 515), meaning that it was not produced in response to researcher probing; instead, documents have been written for a different audience, which removes the possibility that they are worded in response to the research. Of course, which documents are made available to the researcher may be restricted by gatekeepers, but I found that all my requests to see documents mentioned in interviews were granted. Although the types of documentation that may prove useful were identified prior to the data collection period, I had no way of knowing what would exist in each site, what I would be permitted to view and what would be referred to during interviews that would yield significant information ahead of time. The web-based searches were designed to locate the policies and other documents relating to technology, ITE programmes, teacher educator recruitment and staff development that are publicly available. Further documentation was gathered as my attention was drawn to its existence during interviews and observations, and via specific requests to view current institutional policies and procedures that were not generally available to the public. As Yin (2009)

points out, good case study investigators are adaptive and flexible, keeping a firm grasp of the issues under exploration and aiming to limit the bias of preconceived notions. This meant holding the research questions at the forefront of my mind while determining which documentary evidence may be able to support conclusions or generate new perspectives as I went along.

4.6 Sampling procedures

The participants were purposively drawn from practising teacher educators in FE colleges in the south-west of England and in this sense represent typical, or 'exemplifying', cases (Bryman, 2008). Post-compulsory ITE caters to student teachers qualifying to teach in a wide variety of contexts, but given the considerable scope of the sector and the restrictions of conducting the research alone within a limited time frame, it was necessary to concentrate on a manageable area. I restricted my search to FE colleges delivering the Preparing to Teach in the Lifelong Learning Sector (PTLLS), Certificate in Teaching in the Lifelong Learning Sector (CTLLS) and Diploma in Teaching in the Lifelong Learning Sector (DTLLS) qualifications, and the Postgraduate Certificate in Education (PGCE) or Certificate in Education (CertEd) in Lifelong Learning (see Chapter 1), because these are the sector standards. I discounted any providers based in higher education (HE) or other non-college PCET institutions, because of my research objectives to study FE as distinct from HE or broader PCET contexts.

I approached the team leaders of all FE college-based ITE teams within a radius of approximately 40 miles,⁴ estimating that I would need between two and five sites to obtain a sample of between 10 and 20 participants. The initial search yielded 12 institutions, and I contacted the head of the ITE team at each by telephone and then in a follow-up email to gauge interest in participation in the research and to ascertain the number of teacher educators at each location. Two of the colleges on this list were unable to participate owing to an organisational restructure. Three did not respond either to a follow-up email or telephone message. Two institutions were not able to participate, but individual members of staff showed an interest. The remaining five agreed to take the request to their superiors. Of these, four were approved, and the full teacher education used during this initial recruitment process is included as Appendices 7 and 8.

Selecting the right quantity of sites primarily depended on the number of teacher educators currently employed. I discovered quickly that my suspicion that teacher education teams are very small in many providers was justified. Significantly, at this point the available sampling choices changed. All members of the four teams agreed to take part; thus rather than having to select representative cases from a larger pool, I was in the fortunate position of being able to study the entire teacher education team at each institution. Originally, I had intended to recruit staff members who represented a range of likely characteristics based on what is known about teacher education staff, as discussed in Chapter 2. For example, in light of the prevalence of older, white, female teacher educators across the PCET education system (Crawley, 2013; Noel,

⁴ Estimated reasonable distance, given the restrictions of time and travel costs.

2006), I was keen to include any individuals who did not fit these descriptions. However, given the paucity of research on FE teacher educators, I thought it was important not to restrict participation to certain groups and to try to include representatives with diverse qualifications, years' experience and proportion of time spent on ITE programmes. Much of the existing literature about teacher educators is based on very specific groups, and the findings from this body of research are very limited in terms of understanding the breadth and range of experience, qualification and history of teacher education staff. Diversity is a substantial issue in the FE sector, and so it seemed reasonable to embrace that diversity and use this as an analytical focus rather than to try to derive a 'representative' sample. When it became feasible to study entire teams in each organisation, I instead opted to describe and analyse a broader picture of the sector in part constituted by my cases. Consequently, issues such as gender, age and years delivering courses were no longer criteria for selection (although they remain of significance for data analysis and interpretation). I decided, however, to use four different institutions in order to counterbalance any assumption that all teacher education teams in the sector would be equally as diverse (or lacking in diversity).

4.6.1 The sample

I therefore recruited four colleges offering different combinations of ITE. Three were based in one county and collectively deliver the majority of post-compulsory ITE in the area. The fourth, being significantly further away and in a different funding area, agreed to act as a pilot site (see Chapter 5). Some characteristics of the region could limit the applicability of my findings to other areas: salary levels, a comparatively small but predominantly white population and the large proportion of ITE delivered by FE colleges in the area, for example, are likely to affect who does the job of teacher educator, what their responsibilities are and the learner demographic. However, I believe this risk to have been offset by securing the participation of three of the area's largest ITE providers, the degree of similarity among which is such that my findings may illuminate shared professional issues, as well as provide a detailed case study of contextual factors.

Given how little is currently understood about FE teacher educators and their work, I was reluctant to make assumptions about who should be classified as such and asked team leaders to identify members of staff considered part of ITE. This meant, in one college, including a mentor and Advanced Practitioner (AP) in the sample, together with a colleague who had recently retired; in another, it meant including a senior manager. It also meant, in two sites, excluding one or two peripheral members of staff who contributed to the courses, but were not considered part of that team. It is therefore appropriate to say that the entire ITE team in each site participated in the study, based on the information provided by the teams themselves, as Table 4.2 (see over) illustrates. A more detailed profile of the individual participants is not provided here for reasons explained in Chapter 5, section 5.4.

4.7 Ethical considerations

Participants in the study were recruited on the basis of their professional role rather than because of any personal characteristics that might be considered sensitive or membership of a vulnerable group. The research aims were congruent with the professional duties of teacher educators, and the methods of data collection that I employed are not unusual in an education environment, so it was likely that

Site 1	Delivering PTLLS/CTLLS/DTLLS		
	ITE team:	Other sources:	
	Team leader/teacher educator	Senior manager in charge of ITE	
	$3 \times$ teacher educators	$2 \times e$ -learning technologists	
Site 2	Delivering PTLLS/CertEd/PGCE		
	ITE team:	Other sources:	
	Team leader/teacher educator	Senior manager in charge of ITE	
	$2 \times$ teacher educators	E-learning technologist	
	Mentor/AP	Student teacher	
Site 3	Delivering PTLLS/DTLLS/CertEd		
	ITE team:	Other sources:	
	Senior manager in charge of ITE	E-learning technologist	
	Team leader/teacher educator/AP		
	$2 \times$ teacher educators		

Table 4.2 The case study participants

participants would be familiar with their use. Participants had control over the quantity and depth of information that they shared. I provided written and verbal information about the research, and obtained written consent from all participants before they took part in the study. The documentation used for this is included as Appendices 9 and 10, and was approved by the university ethics committee prior to commencement of the data collection. Consent for recording was confirmed at the start of interviews, and participants were reminded that they could withdraw from the study if they wished and did not have to answer questions if they preferred.

I followed tutor recommendations regarding the suitability of classes for observation, and obtained verbal consent from the students to attend and film these sessions. The student teachers were not the population under study for this project, and all were made aware that my focus was on the teacher educator, but that it would be difficult to discuss teacher educator practice without reference to the student body. They consented to a peripheral presence in my written report and we agreed that I could contact them through their tutor to obtain explicit permission for anything more substantial.

All recordings and transcriptions were stored securely, and data was anonymised prior to analysis. The need to protect participants' anonymity and the procedures consequently followed are discussed in Chapter 5, section 5.4, below.

4.8 Chapter summary

This chapter has explored the ontological and epistemological assumptions underpinning the study, and locating it within the interpretive paradigm of social science research. I have presented my position as researcher as central to the research, and reflected on the implications of this for data collection and interpretation. I have explained how the research conforms to traditions of reliability and validity, and aligns with qualitative notions of trustworthiness and credibility. Finally, I have presented the sampling procedures employed and detailed the ethical considerations of the research design.

The next chapter reviews lessons learned from the pilot study, and goes on to explain approaches to data analysis and the presentation of findings.

Chapter 5 The data analysis procedures

5.1 Introduction

The previous chapter provided a detailed discussion of the research design of the main study. In this chapter, I describe the pilot study and preliminary analysis of data carried out prior to the main data collection phase, discussing the potential of the data to answer my research questions and how the lessons learned from this informed the research design. The second part of the chapter goes on to explain the systematic approach adopted in conducting a thematic analysis of the data subsequently collected during the main study. It highlights how the first research question seeking a baseline understanding of identity among teacher educators in the further education (FE) context (or FE teacher educator identity) was addressed and then folded into the analysis of the remaining questions.

5.2 The pilot study

The pilot study was run between March and May 2013, with the following aims.

- 1. Trial the data collection instruments.
- 2. Gain insight into how to behave and build rapport during the sessions.
- 3. Experience the FE college context from a researcher perspective and identify factors that might affect the data collection.
- 4. Gather some data and assess its potential to answer the research questions.

The pilot study participants were identified in two ways. One participant was found via my initial search and volunteered to take part, even though his college declined. The others I met at a local teacher educator forum, at which I introduced my study.

This personal contact and face-to-face discussion of my aims resulted in two more volunteers, one who managed a team and committed her whole team to taking part in a pilot study.

This provided a total of six participants: a sufficient number to generate data and test the research methods, including a group discussion. As in the main study, they were spread over three FE colleges, at which their jobs included delivery of a teacher education qualification. The main part of the pilot study was focused on the team of four based at one college, whom I spent a full day observing and with whom I carried out a group discussion and individual interviews. I visited the fifth participant at his college for an interview and feedback on the questionnaire, and interviewed the sixth participant via Skype.

5.2.1 Trialling the data collection instruments

The research methods were described in the previous chapter as semi-structured interview (individual and group), survey, observation (scheduled and general) and gathering of relevant documentation. The research instruments at this stage consisted of an interview schedule, a group interview schedule and a questionnaire.

I tried out both face-to-face and Skype call interview formats. The structured interview guides ensured that all intended topics were covered; working out the wording of questions beforehand allowed me to avoid the (unintended) implications that can arise from language used perhaps imprecisely or ambiguously in the moment. It quickly became obvious, however, that the participants had a lot to say. Rather than rigidly adhere to the questions as written, I therefore established that the best strategy was to get participants talking and then allow them to move naturally from topic to topic, with little guidance from me. Consequently, the interview guides from the main

study appear more structured than they proved in practice: they acted as a reference point for me, rather than as a map of the interview. For one interview, I reduced the guide to topic headings, but this did not work well – the questions were sometimes unclear and had to be rephrased – so I reverted to the original format and refined the questions after each interview. Before the main study, I also added new questions and removed some that were found to be less helpful once I had analysed the pilot data. Similarly, I adjusted the questionnaire after the answers indicated that some questions were not interpreted as intended. Judging by the depth of answers provided by the pilot participants, I realised that it would be more productive to limit the number of questions. Although the qualitative survey had methodological significance in terms of triangulation of data and gathering personal, rather than community, perspectives, its primary purpose was to reduce the interview time spent on factual and descriptive information. If participants were to misinterpret questions, I would then have to collect this information during interviews at the expense of discussion time. Time was the primary concern for all participants and I was usually limited to a single hour for interviews. Consequently, the questionnaire changed between the pilot and the main study in the following ways: fewer questions; fewer words in questions; clarification of misleading questions, and the application of emphasis to key words.

Given the team sizes, it was vital to test the group interview format. As anticipated, the level of discussion and variety of responses worked well despite indications from the literature that a larger number is preferable. The groups consisted of teams in which participants work closely together, and they appeared confident and at ease in a way that they may not have been with unfamiliar faces. I believe that the flow of conversation was also aided by the nature of the topics discussed and the extent to which these are considered to be important issues by teacher educators.

5.2.2 Gaining insight into how to behave and build rapport during the sessions

The pilot helped me to find a comfortable way of conducting myself as an interviewer. Delivering the 'ethics' information at the start of the interviews was initially quite awkward and set a very formal tone, so I developed a way of breaking the ice through ordinary conversation and then introducing the information as: 'Before we start ...' This set the tone for a more informal feel, which I think helped the participants to open up and share their experiences, thereby granting me interpersonal access (Schwartz-Shea & Yanow, 2012). In all of the interviews, there was a noticeable difference between the sorts of things that participants shared at different stages: at the beginning, they provided facts and talked formally; by the end, however, they were comfortably sharing their private opinions with me. It was difficult, at times, when they looked to me for confirmation that I 'agreed', but I think that I was able to demonstrate that I was listening without revealing too much of my own opinion. After the pilot was complete, my understanding of appropriate interview technique, and of the relationship between interviewer and interviewee, had changed. I had worried about the informal feel of the session and how, at times, it seemed more a conversation than an interview, but after further research into different types of qualitative interview, I reconsidered interview dynamics, and developed what I believe to be an effective and methodologically sound interview style for this group of participants (see Chapter 4).

I subsequently found the same approach to be valuable in group interviews. The pilot group initially talked directly to me, rather than to one another, and waited for me to

ask them questions. Consequently, for the first live discussion, which took place before individual interviews, I actively participated at the beginning – and then quietly withdrew once participants had begun talking among themselves. This was more productive, although was not required during the other two group discussions at sites, where I had already built a relationship with participants by means of other meetings and interviews. The pilot in this instance helped me to find an approach that would break the ice.

I had been concerned that meeting participants for the first time at their interview might be a barrier to gathering sufficiently in-depth data, and the pilot phase allowed me to find ways to make them quickly comfortable with me and my agenda. One of the most helpful things to come out of the pilot phase was self-confidence in my ability as a researcher in the field. It gave me an opportunity to try out different ways of introducing myself and summarising the project, until I felt comfortable. By the start of the main data collection phase, I was able to outline what participants should expect and cover the ethical points without detailed reference to my interview schedule. As a result, I removed this section from my schedule, so that the main questions fitted on a single page, allowing me to refer to them without having to turn the page and helping the process to run more smoothly.

5.2.3 Experiencing the FE college context from a researcher perspective

Viewing the case study sites from a researcher, rather than teacher, perspective allowed me to address several methodological issues prior to the main phase of the study. One related to the question of what counts as data. I realised that the location of the interviews might hold more significance than previously thought. Interviews need to be held in a safe space where the participants feel comfortable, which is free from interruption and which is quiet enough to allow a good-quality recording of the session (Hennink, Hutter, & Bailey, 2011). However, during the pilot interviews, all of the participants at one site made reference to the room we were in: their usual teaching room, which they had recently begun to share with other departments and which had thus become contentious for them. I realised that I would need to pay attention to the spaces chosen for the interviews in the main study as well and that this might provide further insight into working practices in those environments.

Another important consideration was that this was my first time researching away from my own workplace and, prior to the pilot, I did not know what to expect in the field. Although I had worked in FE, it had not been at a big college, so I was relatively unfamiliar with the large campuses of my case study sites. I visited the two pilot sites for the first time on the day of the interviews. Despite being given directions and finding campus maps online, I had not known how long it would take to get there, and where the parking area and reception were located. Lacking a strong sense of direction, I arrived feeling nervous and unsettled, and my attention was diverted from what I was there to achieve. For the main study, I took this into account and decided that my first visit to other sites should take place prior to collecting data, so I could familiarise myself with the campus. Accordingly, although I had made telephone contact with the team leaders during the initial recruitment stage, I also requested a meeting on-site to explain more about my research and what it would involve for them. I was then able to arrive at the college for interviews feeling much more confident that I knew where to go, and early enough that I had time to gather my thoughts and consider the aims of the visit. It also meant that I went in with some knowledge of the context, for example what to wear, the likely temperature and the acceptability of taking refreshments into the meeting or teaching rooms. Although I

did not know it at the time, this initial meeting with the team leaders would turn out to have additional value, because it was the only access I was given to the teacher educators' workstations without specific request. In all subsequent visits, I was met at reception and led to the room set aside for us, before being delivered back to reception after the interview.

Finally, the pilot gave me the opportunity to discuss the research design with someone from the community. The team leader at the main pilot site proved an invaluable consultant, providing feedback on the data collection instruments and the experience of being involved in the study, and information on matters such as what sort of participation I could anticipate, for example regarding member reflections. The participants indicated that they would welcome the transcripts and clarify any matters arising, but the team leader warned me that time pressures made it unlikely that they would actually do so. She pointed out as evidence that she had encouraged them to complete the questionnaires before my visit and that she had taken responsibility for returning them to me. In response to this, I changed my original intention to distribute full transcripts to participants; instead, I created shorter summaries of the interview content, together with verbatim extracts that seemed particularly important. Although the full transcript was made available on request, I thought that a shorter bullet pointed list might prove more accessible to participants in the context of competing priorities. Discovering that the team leader had urged her team to complete questionnaires also made me realise that participants might not complete them prior to interview as I had hoped, so I had to consider how important the order of engagement with the different forms of data was to the research design.

5.2.4 Gathering data and assessing its potential to answer the research questions

The final aim of the pilot study was for me to gather some data for preliminary analysis. At the time of the pilot, I had not fully established how to conduct the thematic analysis procedures that would be used on the main data and I was still undergoing training in analysis techniques. This aim of the pilot, however, was to ascertain whether the kind of information generated by the data collection methods and instruments would be rich enough to allow me to answer my research questions. This preliminary analysis served three purposes. First, it confirmed that the data I had collected from the teacher educators was sufficiently rich and varied. Secondly, it enabled me to compile short descriptive summaries of how each research question might be answered. I then compared these with the extant literature and reaffirmed the foundations of the research problem. This gave rise to identification of some additional questions that allowed me to refine the focus of lines of inquiry, resulting in a slight reformulation of the research questions. The results of this preliminary analysis are included in Appendix 11. Finally, I identified a weakness in the research design, which I remedied by recruiting two more senior managers and four learning technologists to the study, including at least one representative of each from every site. This would greatly strengthen the level of insight that I could achieve into the institutional context.

5.3 Data analysis procedures

This section details the systematic procedures used to prepare, analyse and interpret the data. Qualitative analysis is concerned with compiling data so as to allow interpretation of its significance, with a view to enabling others to have a deeper

understanding of the setting and how its processes might have relevance to other settings (Feldman, 1995). Denzin and Lincoln (2003, p. 37) refer to this as 'the art and politics of interpretation and evaluation'. The methods and justifications used to achieve this vary greatly between approaches (see, for example, Feldman, 1995; Ryan & Bernard, 2003; Silverman, 2000), but a common thread running through qualitative analyses is the identification and discussion of prominent themes. For this study, I too have employed a thematic approach to analysing the data, taking as a guide the framework provided by Braun and Clarke (2006), as described later in the chapter, and drawing on some of the analytical resources provided by discourse analysis and sociomaterial theory introduced in Chapter 3, section 3.3, and expanded below.

5.3.1 Data handling

The electronic data collected through interview and observation was transferred from the recording devices to a secure computer as soon as possible after collection. While in the field, I kept all recording equipment and documentation relating to individuals with me at all times, and notes jotted during this time were written using a system of identifiers known only to me.

Audio recordings were transcribed as soon as possible after interviews in order to capture mood and any thoughts that might be forgotten during later transcription. The interviews were transcribed verbatim and with punctuation, but without other paralinguistic features, except for some indications of tone and mood, such as laughter, which I considered important to the context in which they occurred. I used frequent time markers in the transcriptions that would enable me to easily return to the original recording once I had identified quotations to be used in the thesis text. I could then ensure that I had correctly recalled the spirit in which things were said. This

proved to be important later on when selecting extracts for inclusion in the text: the verbatim transcription of some quotations would likely be difficult for the reader to follow at times, and so these were tidied up, for example by removing 'um' and 'er' or words that had been unnecessarily repeated. I then checked the recording to ensure that the original meaning and flavour had not been changed.

I recorded thoughts in my research journal as I transcribed the interviews. These, along with the detailed field notes written immediately after the interviews and observations, were later transferred to the computer to assist with the subsequent analysis of data. These included points to be followed up, and general observations about what participants were saying and how this might be similar to or different from the responses of other participants. As I worked through the transcriptions and carried out the observations, these notes also contained emerging theories about what might be happening across the study. Combined with the research questions, these thoughts were the preliminary source of codes for the data analysis.

Once all transcriptions were complete, I summarised the main points of each and highlighted sections of the transcript that I thought were pertinent to the emerging lines of inquiry. Each participant then received summaries of his or her interviews and was asked to review them and advise me of anything I had misinterpreted or which they wanted to clarify. Although some participants did not respond, I received clarification and confirmation that I had accurately portrayed the words of several others.

Finally, the transcripts were 'cleaned' of any identifying features. Names of people and places were removed, and the space either left blank (*__*) or an identifier known only to me inserted (for example *TE1*, *C1*) where it was contextually important to

know who or what was being referenced. Once the data had been sufficiently anonymised, the documents were loaded into Atlas.ti software ready for coding and a 'family' system devised to help manage the different types of document and participant.

To ensure the rigour of my research methodology, I attempted to recruit participants to conduct further member checks on my analysis as it progressed. Although several participants expressed willingness to continue their engagement with the study, by the time the data collection period was complete, it felt inappropriate to continue to ask for their time. In fact, it became progressively more difficult to contact certain individuals and the response time to emails lengthened. One participant, however, showed a strong interest in becoming more involved in my study, and so, once all the data had been compiled for analysis and I had familiarised myself with it, I met with him and presented my early ideas about the context in which FE teacher educators work and what topics or themes were emerging at that stage. He confirmed that the context I described felt familiar to him and volunteered to act as a further sounding board for the development of theories as my analysis progressed. He had worked in FE initial teacher education (ITE) in the area for many years, and I felt confident that he could also offer knowledge of other members of the teacher educator community. In this way, I was able to ensure that my analysis represented the community and context under investigation fairly. Further discussion with this teacher educator is detailed in section 5.4 below.

5.3.2 Through the theoretical lens

Chapter 3 explained how this study is located within a conceptual and theoretical framework that combines aspects of sociocultural and sociomaterial theory. Chapter 3,

section 3.3, outlined James Gee's (2000, p. 99) approach to discourse analysis, which can be used to reveal a 'kind of person'. Defining 'figured worlds' as 'a picture of a simplified world that captures what is taken to be typical or normal' (Gee, 2011, p. 170), he sets out a number of questions to guide data analysis:

For any communication, ask what typical stories or figured worlds the words and phrases of the communication are assuming and inviting listeners to assume. What participants, activities, ways of interacting, forms of language, people, objects, environments, and institutions, as well as values, are in these figured worlds?'

(Gee, 2011, p. 171)

Gee (2014, p. 115) goes on to elaborate this further:

- a) What figured worlds are relevant here? What must I, as an analyst, assume people feel, value, and believe, consciously or not, in order to talk (write), act, and/or interact this way?
- b) Are there differences here between the figured worlds that are affecting espoused beliefs and those that are affecting actual actions and practices? What sorts of figured worlds, if any, are being used here to make value judgments about oneself or others?
- c) How consistent are the relevant figured worlds here? Are there competing or conflicting figured worlds at play? Whose interests are the figured worlds representing?
- d) What other figured worlds are related to the ones most active here?Are there 'master figured worlds' at work here?

- e) What sorts of texts, media, experiences, interactions, and/or institutions could have given rise to these figured worlds?
- f) How are the relevant figured worlds here helping to reproduce, transform, or create social, cultural, institutional, and/or political relationships? What Discourses and Conversations are these figured worlds helping to reproduce, transform, or create?

Together with the concept of figuration also outlined in Chapter 3, these tools enable me to present my understanding of how the 'figured worlds' inhabited by the FE teacher educator 'kind of person' are 'configured' in relation to technology, attending to 'the perpetuity of coming to be' (Suchman, 2012, p. 50) that characterises both the human and the material aspects of social behaviour.

The following sections explain the process by which raw data was transformed into this interpretation.

5.3.3 A thematic approach to analysis

Schutt (2012, p. 325) states that the following stages are common to most techniques of qualitative data analysis:

- 1. Documentation of the data and the process of data collection
- 2. Organization/categorization of the data into concepts
- 3. Connection of the data to show how one concept may influence another
- 4. Corroboration/legitimization, by evaluating alternative explanations, disconfirming evidence, and searching for negative cases
- 5. Representing the account (reporting the findings)

Where qualitative analysis methods differ, however, is in how the concepts of interest within the data are identified.

I understand qualitative data analysis to be much like the process of assembling a jigsaw puzzle of, for example, a jungle image from a box that contains more puzzles, comprising both other jungle and non-jungle images, when the pieces have all been jumbled up and mixed together. To compound matters, several of the pieces pertaining to jungle images are cut with edges of the same shape. During analysis, the researcher is trying to separate the pieces of data relevant to one picture, the overarching research question, from the other potential pictures, while making sure that all the relevant pieces are found and fit together to form a coherent image. The pieces have to fit together comfortably without being forced or leaving empty spaces. It is just one of the pictures contained in the box that could be assembled, but pieces identified from other jigsaws are set aside for another time. Completing a complex jigsaw puzzle requires developing a method of organising a large number of pieces into something more manageable in a series of stages, for example first identifying the pieces that go around the edge, and then searching for pieces of a certain colour or distinct pattern. This process can be understood as thematic analysis – a commonly used 'method for identifying, analysing, and reporting patterns (themes) within data' (Braun & Clarke, 2006, p. 6) across the social sciences. Although the term 'thematic analysis' is sometimes used to describe vague or unarticulated analytical processes, and at other times is considered to be more accurately described as a constitutive element of other more clearly defined approaches (Braun & Clarke, 2006; Bryman, 2008), I agree with Braun and Clarke's (2006) assertion that it should be considered a method in its own right. I, too, subscribe to Reicher and Taylor's (2005, p. 549) assertion that

methodological 'rigour lies in devising a systematic method whose assumptions are congruent with the way one conceptualises the subject matter'.

Braun and Clarke (2006, p. 16) describe thematic analysis as moving through six phases (although, in reality, the process is iterative rather than linear):

- 1. 'Familiarising yourself with your data';
- 2. 'Generating initial codes';
- 3. 'Searching for themes';
- 4. 'Reviewing themes';
- 5. 'Defining and naming themes'; and
- 6. 'Producing the report'.

Thematic analysis is researcher-driven, and the identification of themes from within the data is dependent on what the researcher deems relevant to the study as it progresses. I therefore kept a record of how the codes and themes were developed as the analysis progressed.

The significant volume of data that I gathered required sorting into more manageable amounts before I could begin to answer my research questions. Imagining my questions as 'edge pieces' that defined the boundaries of the image I was trying to recreate, I designed a system to manage the data corpus. The first step was to deductively devise top-level broad codes to represent the concepts important to each research question – initially, seven in total – and to assign all relevant data to one or more of these codes. Once the data had been sorted using Atlas.ti software, the next task was to break these broad codes down into smaller descriptive categories derived from reading the content of the data itself. Taking one of these categories at a time, I reviewed approximately 20 extracts of coded data and jotted down potential subcodes for that category. These code lists were then revised and merged, until all the different aspects of the category were accounted for in the extracts. The remaining data was then coded using these labels. In this way, I was able to organise the data into more manageable quantities and refine each level of coding, as illustrated for the first research question in Figure 5.1 (see over). This iterative method required repeated readings of the data, which both increased my familiarity with its content and enabled me to identify and reassign quotations that had been miscoded. All data collected from the teacher educators, senior managers and learning technologists was thus organised. At this point, the analytical strategy diverged to reflect how my research questions form two distinct parts to the study. Chapter 3, section 3.4, notes how the first question was added out of necessity as a result of the lack of available research into FE teacher educator identity (see Chapter 2). The first research question – How do discourses of teacher educator identity align in FE ITE institutions? – attempts to fill this gap, at least in part, and required addressing before I could attend to the remaining questions. I could not adequately analyse the rest of the data without a preliminary understanding of teacher educator identity in the FE context. The method and the initial findings are therefore presented below, before I move on to describe the next stage of data analysis. Discussion of the findings from the first research question is located in Chapter 6.

5.4 Developing a typology of teacher educators

Once all data relevant to each question was descriptively coded, I returned to the first research question and examined the data for clues about the identities that teacher educators assumed in this setting.

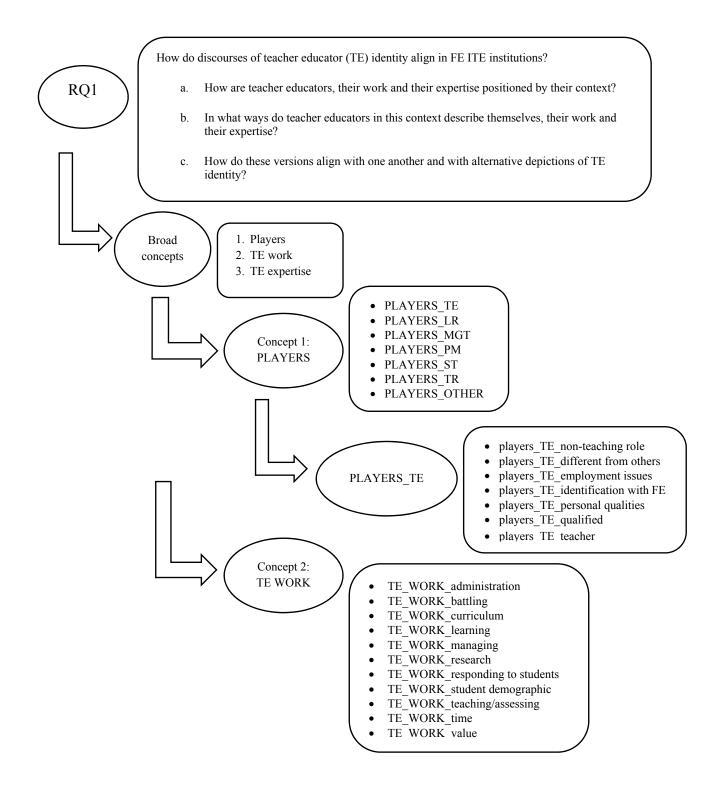


Figure 5.1 Stages of thematic analysis

From this, I distinguished five key identities:

- 'qualified and credible';
- 'teacher';
- 'different from others';
- 'part of FE'; and
- 'employee'.

The development of these themes is shown in Appendix 12. Using these identities as organising factors, I positioned all data representing teacher educator work and expertise around them to create a visual map, making it then possible to identify where the various aspects of these identities overlapped or influenced each other. Discourses about FE were discerned from descriptions of the institutional or sector-specific context provided by teacher educators, their senior managers and learning technologists from each college. These were then linked to the various facets of teacher educator identity, creating a visual portrayal of teacher educator identity in FE. The resulting map is shown in Appendix 13. This process formed the basis of my understanding of how teacher educator identity is enacted within the FE context and helped me to identify evidence of identity work in the data. An example is provided in Appendix 14. Technology practices are therefore understood against the backdrop of other multiple and complex factors influencing identity.

I had been wrestling with the problem of how to present a coherent image of individual teacher educators – the emic perspective – without threatening their anonymity. The small number of participants and the specialised niche in which they work means that their anonymity – a precondition of their candour – could easily be compromised by discussing individual cases. As noted in Chapter 1, section 1.4, the

teacher educators participating in this study operate within a conflicted sector and it was necessary to create conditions for data collection in which participants felt able to express themselves honestly without exposing themselves to repercussions from their employing institutions. At the same time, when securing involvement from the participating colleges I had assured members of senior management teams that I would not seek to cause their institutions any embarrassment. Given the conflicted nature of the sector and the disputes about the current terms and conditions of employment within it, I had to consider the possibility that the teacher educators might describe their institutions in negative terms. Simply concealing the individuals involved in the study would not be congruent with either the principals of openness and respect on which the research was founded or the intention of the study to offer FE teacher educators an opportunity to voice their lived experience and thus make explicit what is significant about this group. I therefore needed to find a way whereby I could respect the needs of both the teacher educators and their employers while achieving the research aims.

During the processes of conducting the interviews and becoming more familiar with the data, I began to notice that there were differences in attitude and approach between certain teacher educators, and that these differences appeared to extend to several areas of discussion. Two participants in particular often held opposing views about aspects of their work and expertise. Examining the opposing views held by the two participants and exploring to what extent these views were shared by others could address any potential threat to anonymity. A typology based on these factors would both disguise the identities of the individuals involved and retain something of their whole person. Thus the data that were necessarily deconstructed through the process of thematic analysis could be reassembled as a symbol of the individuals that they

represent. This extends the sociomaterial notion of 'de-centring' the human being (Fenwick et al., 2012), described in Chapter 3, section 3.2, by focusing not on individuals and their actions but rather the configuration of multiple actors (human and non-human), ways of interacting, forms of language, inherent values and more that reside within the teacher educator population, and therefore allowing me to give voice to these participants ethically. The typology can then move beyond a simple set of characteristics that describe the population under study, to become a heuristic to explore what the 'kind[s] of person' (Gee, 2000) that constitute the FE teacher educator population do in practice.

In order to form the typology of teacher educators, I created an outline based on the five key identities identified at the beginning of this section. This was then populated by returning to the data and identifying that which could be connected to each identity, expressed in contrasting terms by these two participants. It is important to note that the criteria used here are not polar extremes, but represent two distinctly differing views. By identifying the key differences between the two, I created a list of characteristics that could be associated with either 'Type 1' or 'Type 2' teacher educators. Figure 5.2 (see over) illustrates the juxtaposed examples of experience or views that led to the typology criteria.

Limited broadth of experience	Panga & donth of avariance
Limited breadth of experience Ermto start with I was just a technician at the college, for maybe a year or so. And then I went into the classroom and done some support work with the student and really enjoyed it, then moved up through trainee lecturer and then onto a lecturer and then after maybe five years of being a lecturer I applied for the advanced practitioner role so the last couple of years I've been doing that role as well, which has kind of improved my confidence and it helps me to support our younger members of staff and also our more experienced members of staff when they're not so comfortable using the technology. Management aspiration, intention to stay in FE	Range & depth of experience So I've not just only been a teacher in one particular place, I've done - it's allowed me, what I've done, to see education in many many different guises and I can see what's done well and I can see what's done not so well. And I think that's – when you're doing things like teacher education, it's very important that you do need some kind of experience and a good background in that, a varied background, to be able to understand those changes. There was a time when it was a much more liberal culture, it certainly had its flaws there's no doubting that, but there was a time when it was much more liberal in its outlook
	leave FE
Do you see yourself continuing to do that part of your job? Erm, for the foreseeable future. I really want to move up again, cos I've been doing this role for maybe just over 2 years but yeah I'd like to try and move into management as a next step along the way I don't know what the actual management contract looks like, but if I did go into management I think it would mean less teaching and obviously giving up the AP role. Why do you want to be in management? Why? I think it's just the next logical step in my progression and my career development really. I've gone from technician, gone all the way up through, I just think the next one is management and maybe into a director position at a later date. You never know, maybe vice principal one day It's just the next logical step. I'm quite lucky – although it sounds like quite a hectic job, there are three areas I can kind of look to go into management into. So I can look to go into quality, or I can look to go into computing or I can look to go into senior tutor or something like that. So there are quite a few avenues I can hopefully take. So you're planning to stay within FE?	And you've been here 10 years. Yeah. 2003 was when I started. What a waste of my – [laughs] [Programme manager: Deliver, manage and assess Cert-Ed level Teacher Training courses] [Intention to retire soon]
Yeah. Definitely within FE.	
Describes self to others as lecturer	Describes self to others as teacher
Lecturer in computing and part of the internal	College lecturer (usually would say teacher rather
training team (Advanced Practitioner)	than lecturer)

Audit system necessary	Audit system faulty, deep knowledge of teaching
	& learning

Well the ones I've mentored so far have been around grade 3s and one of them moved up to a grade 1 and one moved up to a grade 2 and so on, so yeah, we're not trying to – I don't think we're trying to judge people but it's the only way we can measure it. We can only measure improvement by grades improving. I don't know any other way that we could measure if we're successful or not in that role. So I think it's just - you have to measure it somehow, so the only way we could measure it by performing observations again.

Who's on the observation team?

It's all of the senior management team.

They're teachers?

Not all of them. I think some of them deliver at least one session a week. So it's all the senior management team. And then it's all of the curriculum area managers, the quality team and the APs. So the HE quality assurance manager and the FE one, and then the 5 APs as well plus all the curriculum area managers and all the senior leadership... We do observations every year. Every member of staff's observed. I think it's in preparation for any inspections that we have, but every year we are observed as part of your PDR as well. On your appraisal, so you can again measure it I guess. So whether you've improved or stayed the same. Declined. But yes, -- it's the reason we do every member of staff every year is observed.

Indeed, who don't [teach] and this is one of my own beefs, when we do teaching observations they're very developmental and I don't believe in grading at all. I really vehemently don't. Erm if somebody's not very good I'll point out where the deficiencies are and said ok this is what you need to concentrate on, develop these aspects of your practice, you do these bits very well but there are certain areas where you need to concentrate, erm I will do that. But the actual college, section leader management wants are graded, and they just follow a very tick-boxy approach. What they don't understand, because they don't teach, is the educational processes that are going on. They don't know that. And that's the whole point of why they're in a room there with students but because yes it's easy to say, yeah that's not being used, or something is missing and they're often quite shallow and banal things that they pick up on. Because they're not qualified to talk about educational process.

What makes somebody qualified? That's a good question. I think you need to be a practising teacher with some experience to do that. Cos once you're divorced from teaching you see it in quite a different way, and I think you need to be involved in it to know what's going on.

Do you need a teaching qualification? God yeah.... a proper teaching gualification, you know at CertEd level. Yeah. Undoubtedly. Otherwise you're dumbing down standards and it's dangerous. Quality goes down...Yeah, in a rather bizarre ironic way, yeah. Yeah. Because we're the people really that should be doing that. Because we understand what's going on in the classroom and they don't. They see it from a very different perspective... But I'm really interested in things like that. That's what sparks my enthusiasm, to think differently about learning and that is one of my passions. How people learn is incredibly complex and when I see it, for the sake of management put in very simplistic measureable terms it's just sort of - it's not learning at all. It's much more complex than that. It's a very complex activity, learning. If you think about yourself, the multiple ways you will learn things... I don't believe it's synonymous with guality and the measurement of guality, but they're obsessed with measurement and outcomes. FE just wants to measure but from a purely educational point of view it's not about education.

Relationship with senior managers supportive	Relationship with senior managers tense
I've had some support from the director of the FE curriculum as well, when I found it difficult being young and being in the AP role at a young	Do you feel the management value you as a teacher?
age it was hard to communicate with some members of staff, but I spoke to her about it and she gave me some advice and some guidance. I've also got the Quality Assurance Manager so she's really helpful at giving me guidance and helping me with maybe any difficult situations.	Ok, let's say no. But to be honest, I think an honest answer would be I don't know. I couldn't say really yes or no with any great certainty. I don't think I value them Most of the time you can push it to the background, erm but no it does rear its ugly head at times, yes.
	Do you think there is a clash between teachers and managers in the college?
	Oh yes, there's a huge difference. A huge, massive difference. I think I cover on the 2 nd year, well I do that module on the changes in post- compulsory education, the incorporation of colleges in 92 and this should ring bells now for school going into academies. We came out of local authority control. I wasn't with colleges, I think I was with community ed and that was the time it goes over to a more market-led business model. The very names of your managers now come from business. You know they're called senior management teams. They weren't called that at one time in colleges, they'd be senior lecturers or a head of department. But now they could be managers of Marks and Spencers for all the difference it makes, essentially. I think that's sad. And there's a huge discrepancy then between what they see and experience and what we do. A huge huge discrepancy. I did read somewhere do you think the principal should teach and I would say yeah. You should. If you're making decisions about the vast majority of your staff and you've got to know what they're going through and what's happening.

Figure 5.2 Transforming data into the typology

Each participating teacher educator demonstrated an affiliation with one view or the other, except for a small number of cases where there was insufficient data to be able to draw such a conclusion. These instances were omitted from the final calculation, but, as can be seen from Figure 5.3 (see over), did not affect the decision to categorise individuals as a type, because every participant showed a tendency towards one or the other.

	Total	1s	2s	Diff	Туре
Jim	24	9	15	6	2
lan	24	1	23	22	2
Wynne	22	21	1	20	1
Bob	22	21	1	20	1
Gail	24	14	10	4	1
Chris	23	1	22	21	2
Steph	24	2	22	20	2
Floyd	24	24	0	24	1
Gill	24	10	14	4	2
Wallis	23	6	17	11	2
Gloria	23	6	17	11	2

Figure 5.3 Distribution of teacher educators according to type

The resulting typology represented two theoretical kinds of FE teacher educator. Participants were assigned to a type according to the number of attributes that they displayed that were associated with 'Type 1' or 'Type 2'. If the score was higher than half of the total, they were deemed to be of that type. The result therefore demonstrates a tendency towards one type or another.

While the majority of participants derived more than two-thirds of their scores from characteristics of a single type and thus very clearly leaned towards Type 1 or Type 2, the results for three of the teacher educators showed a much more balanced distribution. These three appear in bold on Figure 5.3 ('Jim', 'Gail' and 'Gill'). What is noteworthy about these three individuals is that they are the teacher educator team managers in their respective institutions, which suggests that their dual role as teacher and manager has a bearing on their perceptions of their work and context. For the purposes of discussion, this group is treated separately as a third type (Type 3). The final designation of individual teacher educators into the three types was therefore worked out systematically and the results remained in keeping with my own

impressions of the participants as I had come to know them during the data collection period.

At this point, I returned to the teacher educator introduced earlier in the chapter (see section 5.3.1), who had volunteered to act as sounding board for my developing theories. I emailed him the typology, asking if he recognised himself or others within these descriptions, and we later discussed his thoughts during a telephone call. His immediate response was: 'Clearly, I'm a category [Type] 2!' Because this type had originated with him, this was an important validation of the capacity of the typology to represent real people. We discussed one aspect that he felt did not exactly fit with his own opinions or experience: how teacher educators view their student teachers. I had described the relationship as one of equals, based on the fact that student teachers are often also practising teachers and colleagues from the same institution. After our discussion, I amended this to state, of students, 'teacher educators therefore view them as colleagues whose experience can make a valuable contribution to the ITE programme'. Although the characteristics had emerged from his views, they had undergone some revision in order to create a 'type' of teacher educator as other participants were compared to them. He agreed that the result was now an accurate representation of a type with which he was familiar and that he was comfortable being described as. The labels finally chosen for two of the types of teacher educator also emerged from this conversation. The third was developed later.

This participant shared the typology with another teacher educator from his college – and, between them, they were able to categorise all four participants from that institution in the same way as I had. Of particular note was that the second reviewer had been the team leader at the time of data collection and had reduced his

management responsibilities since then. He stated that he would have described himself as Type 3 then, but would now position himself as Type 2. This added extra support to the notion of management responsibility exerting a particular kind of influence on how teacher educators perceive themselves in their role. After this discussion, I felt that the typology was sufficiently robust to be applied to my research questions. The final typology is presented in Chapter 6, along with biographical details of the participants assigned to each type.

I continued the thematic analysis and presentation of the data, but the process was now supplemented with the new framework of teacher educator identity. This required an addition to the analysis procedures whereby each emerging theme about teacher educator technology practices was deconstructed to analyse differences and similarities between teacher educator types. This was achieved by transferring the extracts of coded data into several spreadsheets to create a comprehensive matrix of typology and theme. By means of a series of repeated distillations of the data using MS Excel, and a notepad and pencil, I was then able to determine perceptions and attitudes common to members of each type, as well as to the participants as a whole. This process, depicted in Appendix 15, enabled me to decipher the practices that technologies help constitute, how the roles of technology are perceived in teacher educator work, and the manner and extent of learning associated with these practices. These could then be tied to broader perceptions of teacher educator practice and experience that extend beyond technologies.

5.5 Selecting data for presentation in the thesis

The data collection phase produced a large quantity of rich material and it was not possible to include all of it in the thesis. This meant making some hard choices about which quotations to use. Where I may have gathered five or six good examples of a point, it would not have been reasonable to include them all each time. The extracts of data presented in the thesis text are therefore those that I feel demonstrate a point particularly well and, where word count has allowed, I have provided a quotation from more than one participant to show that these are popularly held opinions and represent experiences common to the teacher educators involved. Assembling individual participants into the composite types has assisted me in being able to portray the full range of participant experience. Where a perception is not shared across the group, I have explicitly stated this. Consequently, I feel I have been able to fairly represent the data I collected.

5.6 Chapter summary

This chapter has consisted of two parts. The first part described the lessons learned from conducting a pilot study, and how these then shaped the design and execution of the main study. It explained how the data collection instruments were refined and how I developed a comfortable interview technique. It also discussed preliminary analysis of the data and its potential to lead to answers for the research questions.

The second part of the chapter explained how the raw data collected during the main study was disassembled and reconstructed into the analysis that is presented over the following chapters. Chapter 6 now offers a contribution to teacher education research by examining the location of teacher educator identity within the FE context.

Chapter 6 Isolating the discourses of teacher educator identity in FE institutions

6.1 Introduction

The difficulty of establishing from existing research how teacher educator identity is experienced and enacted specifically within further education (FE) colleges was described in Chapter 2. Attempting to explore the interplay of identity and technologies inherent in my research question necessitated first isolating a baseline understanding of teacher educators in that setting. This chapter therefore aims to achieve that.

The chapter begins with an illustration of the FE college as a shared context for teacher educators, thus highlighting the concept of an FE 'context' that supersedes individual institutions that is integral to this thesis. The description that follows is an attempt to provide a sense of how the three colleges involved in the study share pronounced similarities. It is derived from several sources: my visits to the colleges over several months; impressions of the setting drawn from conversations with participants; and data gathered from interviews, questionnaires and documentation.

The chapter then explores the first research question – *How do discourses of teacher educator identity align in FE initial teacher education (ITE) institutions?* – by addressing the sub-questions detailed in Chapter 3, section 3.4.

- a. How are teacher educators, their work and their expertise positioned by the context of FE?
- b. In what ways do teacher educators in this context describe themselves, their work and their expertise?

c. How do these versions align with one another and with alternative depictions of teacher educator identity?

6.2 The FE college as a common context

The teacher educators participating in this study work in large FE colleges that consist of one or more sites. They share a set of typical rules and procedures, for example all members of teaching staff are expected to dress appropriately in 'smart casual' clothing and to conduct themselves in a professional manner at all times.

Visitors are directed to the reception area, where they are asked to sign the visitors' log, before being announced to the relevant members of staff via internal telephone. Reception staff issue temporary identification badges and check that the visitor has parked in the appropriate assigned space and, in some cases, has paid the parking fee. Most campuses have insufficient parking for their needs and colleges employ parking attendants to ensure compliance with regulations. The visitor is then directed to a waiting area and discouraged from moving around the campus unaccompanied. The decor is smart and business-like, and the atmosphere at the main college campus is busy, with an underlying hubbub caused by a large number of people moving through the common areas. There are signposts to departments and facilities, and there is an almost constant sound of ringing telephones. There is a general sense of a vibrant, professional space filled with people of varying ages and roles. At minor campuses, the business-like atmosphere is even more pronounced, with fewer people passing through and much less noise.

This public space is dominated by the college brand. The college logo is visible on multiple surfaces – posters, identification badges, sweatshirts, headed notepaper and

more. The business of the college is recruiting and retaining students, and everything about the visual setting is geared towards presenting the most attractive learning package for them. Framed certificates herald awarding body accreditation, trophies celebrate achievement and student work is exhibited prominently. Nothing appears exclusively aimed at staff or visitors; waiting areas are squeezed in next to student service desks, while staffrooms are situated well away from the main entrance. It is a space for the students.

Language, in this setting, reflects the 'FEness' of the college. Teaching staff are called 'lecturers' rather than 'teachers', as they would be in schools, and customers are likewise mostly referred to as 'students' rather than 'learners', as they might be across other post-compulsory contexts. Terms such as 'employers', 'employability' and 'occupation' are heard frequently, indicating a preoccupation with the traditional industrial connotations of vocational education. The success of the college is entwined with conforming to a government agenda, and the organisation has to respond quickly to frequent policy changes and demonstrate that it is meeting perceived learner and labour market needs:

Every college, last year, had suddenly thrust upon them this idea you've got to deliver discrete maths and English GCSE to 16-18 year olds. Ok! And anybody who got less than a C on GCSEs has to do a GCSE. So then there was a backlash from the sector, which said you're bloody barking, cos that won't work ... So colleges were suddenly faced with a complete sea change in the way that ... we deliver education.

(Frank, senior manager)

Behaviour is controlled. There are policies and procedures governing social interaction, including disciplinary action for breaching the rules. Because the learner is of primary concern and a large proportion of the student body is young, many of the

procedures revolve around safeguarding. Everyone must wear the correct identification, for example, and staff must complete risk assessments for relevant learning activities.

It is normal in this world for the focus of education to be on outcomes, measurement and accountability. Institutions are increasingly under pressure to achieve more with less funding. It is vital to maintain control over anything that affects income, which is decreasing incompatibly with performance targets. As such, inputting data into recording systems is a frequent task for many staff, and failure to do so is noticed quickly. Teaching staff and managers are regularly called upon to account for, and defend, their achievement and retention rates, and the quality assurance processes in the college are considered integral to the success of the institution:

We have Dashboard, we call it Thrashboard, which is where you sit in front of your managers once a week and it's like a little car speedometer? Like, let's see what your retention was like and it goes all the way round. Let's see what your achievement was like ... So that's quite scary. So you sit there and you think 'Please go up, please go up, please go up!' [laughing]

(Gill)

I'm up before the Principal for my programmes ... Not every student deserves what we see as a first or a level 7. It has to be earned and that's a huge amount of hard work and dedication by the student. But if we're measured and we're represented as not giving as many high grades as other institutions or not passing as many on the PTLLS qualification as others, we'll be questioned.

(Gail)

Those who succeed against these criteria are celebrated.

I've got someone in my team who's an Advanced Practitioner and she's doing all sorts of interesting things to do with teaching and learning across the college. I think that's really good. There's not a hierarchical ... that you can't do anything unless you're a certain level. You know, it's a meritocracy in some ways, that those people who have particular skills are utilised ... I'm not sure if it happens across the board – obviously it's like any organisation – your face has got to fit. There are talented individuals in teams who are overlooked because they're seen as a bit too quirky, a bit too challenging. You know, will ask quite difficult questions And some of those people have become a bit bitter I would say ... So yeah, there's a bit of favouritism, but then that always happens – again, we're only humans aren't we?

(Gail)

Teacher education in FE takes place against this landscape. From the perspective of the managers included in this study, teacher educators are acknowledged as excellent teachers, who have a slightly different role from those of others, but are not treated as different. Even in institutions where higher education (HE) is separated geographically from FE, the teachers themselves are not considered to be different, although it is assumed that they will probably hold higher qualifications than staff delivering vocational or lower level programmes. All lecturers are considered to have extensive subject knowledge. The typical terms and conditions for all teachers in that institution, including those delivering HE, are likely to be the same. This is despite some recognition that HE works at a different pace from FE, with a shorter academic year. Teaching staff are both part-time and full-time, but in teacher education it is rare for any member of staff to be employed full-time solely on the ITE programme, with most engaged in other roles for the remainder of their working week. Teaching teams are small, with individuals carrying significant responsibility for their programme. Teacher education programmes run both during the day and in the evening. All are part-time programmes. A high proportion of student teachers undertaking these programmes do so alongside paid teaching work. Many are employed as teachers by

the same institution at which they are studying. The programmes range from short,

level 3 or 4 introductory courses, such as Preparing to Teach in the Lifelong Learning Sector (PTLLS), to two-year university-accredited Postgraduate Certificate in Education (PGCE) programmes containing components up to and including level 7. The estate management team organises classroom allocations. Teacher education classrooms are shared with other subject areas. The rooms have a generic design, and displayed notices request that tables are returned to their original layout after each lesson. The rooms contain a whiteboard and/or interactive whiteboard, rectangular tables to seat two, which can be rearranged, stackable chairs and pinboards mounted on the walls. These boards sport eclectic resources from other subjects: some deliberately displayed; others seemingly left behind after a previous class. Some rooms have between four and eight PCs in addition to the tutor console, but not all, as shown in Figure 6.1 below.

The walls are painted off-white and the windows covered with adjustable blinds. There is usually at least one policy notice relating, for example, to behaviour around

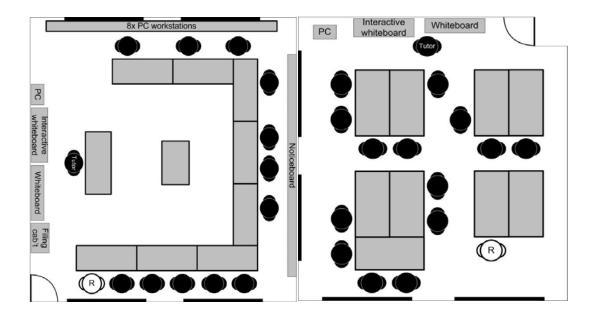


Figure 6.1 Room layouts from two lesson observations (11/10/13 and 10/02/14)

equipment, or to what to do if the fire alarm sounds. The carpets are unobtrusive colours, designed to be long-lasting and withstand heavy use. The overall impression of these classrooms is one of a functional, flexible and minimally occupied space. The rooms are slightly worn, but in reasonable repair and condition. All are situated deep within a maze of stairs and corridors.

Strip lights in 2 sets of 4. One over tutor desk, other towards back. Nothing on NBs except 2x A4. Leftover resources - there's a few more around the walls blu tacked straight to wall.

A generic classroom. Swivel chair sideways under IWB, [teacher educator] has cushioned chair. All other seats hard plastic (light grey). Mine is wobbly – seat coming away from frame. Pinkish maroon carpet, slightly lighter than the cushioned chairs.

Upstairs from café. Cappuccino cost £1.30. Got lost again on way through. Really is quite maze-like.

NBs are covered in painted(?) blue paper with grass green borders. Hand cut – uneven. [Diagram on original] Seems like something you'd find in primary school – incongruous with professional qual site.

Grey day outside. View from window industrial. Metal roofs on nearby buildings. Wheelie bins under metal external staircase on adjacent building.

(Field Notes 2/5/14)

Teacher educator workstations are located away from the classrooms in which they teach. All – even most team managers – work in large offices shared with colleagues from other teams. The impression of these rooms is one of organised chaos. The desks are piled high with files and folders, coffee cups and loose papers and telephones are hidden under piles. There are designated 'quiet' spaces for tutorials and other private sessions, but they are often empty. People are helping one another out and chatting, but working hard at the same time. The people who work in these shared spaces are busy and productive.

There are staff-only areas for making coffee and these are usually kept locked. There are hand-written signs requesting that colleagues wash their mugs and utensils, and dispose of expired milk, regularly. The side of the sink is populated with a mixture of unwashed and clean cups and spoons, and the fridges are well stocked with milk cartons in various states of decomposition. It is normal to sniff the milk before adding it to your mug. Staff bring in their own washing-up liquid and biscuits. Again, these are spaces for busy people. They are in acceptable condition, but not sparklingly clean. In some, the comfy chairs are worn and stained, and the paintwork is slightly shabby. But these are not workrooms: people do not stay in them long.

The FE college, as the working context described here, is characterised by people working busily. The public spaces of the college are very different from the 'behind-the-scenes' staff areas, which are utilitarian and cost-effective. The spaces are adequate for their purpose, but not extravagant.

6.3 How are teacher educators, their work and their expertise positioned by the context of FE?

The ways in which the participants in this study described their working environment suggest that the FE context positions teacher educators, their work and expertise in three overarching ways: through political governance, through business practices and through historical ties to vocational education.

6.3.1 Political governance

Two strands of government policy have exerted significant influence on FE teacher educator work in recent years. Efforts to reform the further education workforce, coupled with increasing pressures to account for public spending, have resulted in a tightly controlled framing context for teacher educators in FE. As described in Chapter 1, this has been a contested, uncomfortable and, at times, chaotic process (Colley, James, & Diment, 2007; Edward, Coffield, Steer, & Gregson, 2007; Lucas, Nasta, & Rogers, 2012).

Workforce reforms

As part of the FE workforce reforms, the nature and content of teaching qualifications in the sector have repeatedly changed since the turn of the century. Each permutation of the qualifications requires teacher educators to learn new course specifications, often resulting in programmes running concurrently during changeover periods:

Hopefully we're gonna run with PTLLS and CTLLS next year cos I can't turn it around by September. I'll just be dead. I just can't do it. So we're gonna run another year of PTLLS, CTTLS and DTLLS which will be fine ... so I'll run one level 3 pilot while I've got the old provision running alongside it.

(Gill)

It means that we've had four different programmes running essentially, cos we've had two versions of the PGCE, Year 1 and Year 2, and two versions of the City & Guilds DTLLS, the new spec and the old spec. So you're juggling four lots of different modules, criteria, feedback sheets ...

(Wallis)

Introducing new qualifications is time-consuming and increases teacher educators' workload in a way not explicitly recognised by policymakers. Staying up to date with the curriculum is the primary focus of professional development activities, and endlessly managing these changes restricts opportunities for teacher educators to develop in other ways.

The extent to which qualifications are mandatory also changes, and each variation brings with it difficulties for teacher educators, as has been noted in other research (see Chapter 2). Compulsory participation causes problems of attendance and commitment from unwilling staff. Some academically oriented qualifications are considered ill-suited to vocational staff with no background in academic writing. Even willing participants are sometimes called away to cover classes. Dealing with the effects of such things is, at times, a daily battle for teacher educators:

Very often people get put on our course and then they're taken off to do some teaching, so they don't come, and they miss loads of input, or their timetable changes, so where we have dropouts they tend to almost always be our staff ... so there were some very good people here who were shoved onto our course and resented the fact ... They didn't enjoy it and they saw it as getting in the way of everything else ... They were like a square peg in a round hole. Being forced out of their comfort zone. Struggled. And if you struggle and you're not motivated it's a deadly combination, isn't it?

(Jim)

Such policy exists to 'professionalise' the FE workforce – a term that defines teachers as professionally lacking. A professional workforce is linked to an improved national economic situation (see Chapter 1). Resistance to this from teachers who believe themselves occupationally expert is therefore to be expected. Insisting on academic qualifications designed for classroom-based group teaching for the entire PCET teaching staff is deemed inappropriate. The post-Lingfield (BIS, 2012) removal of the mandatory requirement to qualify is not perceived by this group of teacher educators to acknowledge the problems associated with the qualifications, but as a means of reducing costs and denying FE teachers parity with school teachers. But these teacher educators think that FE teachers should be qualified:

'Do you think it's a good idea, then, that they've moved the requirements?' 'No. Because there should be certain standards that people should attain to be teachers.'

(Jim)

Making training non-mandatory, well pre-2007 everybody trained and it wasn't mandatory ... so they'll train themselves ... cos in the current market, you know, even to get through the CIF [Common Inspection Framework] now you're gonna have to have a qualification.

(Gill)

Performativity and accountability

Chapter 1 described how pressures on public money, along with other political concerns, have led to the proliferation of performativity measures. Through college inspection frameworks, ITE programmes are judged on the quality of teaching and learning, and on their success in meeting retention and achievement targets. Teacher educators are observed teaching as part of college quality assurance processes, and they themselves also carry out observations of student teachers' lessons as required by awarding bodies. Consequently, they fulfil the dual roles of 'judged' and 'judge', and there is significant tension revealed by the perceived differences between developmental and judgemental approaches to observation:

When we do teaching observations they're very developmental and I don't believe in grading at all. I really vehemently don't. If somebody's not very good I'll point out where the deficiencies are and say ok ... develop these aspects of your practice, you do these bits very well but there are certain areas where you need to concentrate ... But the actual college, section leader management ones are graded, and they just follow a very tick-boxy approach. What they don't understand, because they don't teach, is the educational processes that are going on.

(lan)

This is further complicated by the dual status of some student teachers as college employees and trainees, who express frustration at being told different things by college observers and teacher educators:

One of my student teachers, she's been observed by the internal system as well as ... on the programme. And we have this conversation about her PowerPoint – I was trying to give her some pointers on how else she might use it in the situation that she had and she said, yes but I have one person coming in and telling me that I've got to do this and I have my next observer coming in and telling me I've got to do that and you know I get confused – what am I supposed to do, have I got too much, have I not got enough, am I going to use it for this am I going to use it for that ... And I thought this person is a good teacher, and yet she's being scrunched up and not being able to teach as she could teach with this inspiration because she's focused so much on what people are going to say she should be doing with this.

(Chris)

The teacher educators in this study find their expertise undermined by inspection frameworks, the purpose of which seems at odds with the needs of developing teachers. However, the teacher educators' jobs are also sustained by these same frameworks. As one senior manager stated, colleges will keep training their staff and retain ITE programmes because:

They've still got a requirement to get a Grade 2 or above at Ofsted. And if they think it's hard getting it with qualified teachers, I think they'll find it even harder with untrained unqualified teachers. So there is a means to an end. I think there's a realisation that teacher training is more than just a licence, it's a way of doing things.

(Derek, senior manager)

Conclusion

In defining 'teacher professionalism' as the attainment of a sometimes unsuitable qualification consisting of a standardised set of skills, policymakers co-opt teacher educators' collusion in (re)producing a narrow teaching and learning discourse for the FE sector. The policy emphasis on the measurable and quantifiable aspects of teaching and learning at once restricts the space of authoring available to teacher educators (see Holland, Lachicotte, Skinner, & Cain, 1998, in Chapter 3) and guarantees a place for them in the education system. Their role is further confused by the continued changes and stipulations of the qualifications, which act both to make them accountable contributors to policy goals and to undermine their professional expertise (Ball, 2003; Boyd, Allan, & Reale, 2010). Governing discourses are therefore politically laden, rather than driven by teaching and learning interests (Coffield, 2008).

6.3.2 The 'business' of learning

In heavily regulating funding and the workforce, policy initiatives contribute to the need for colleges to prioritise surviving as a business. As state funding for the sector continues to shrink, colleges respond by attempting to maximise their resources, while minimising expenditure:

Because I tell you, not every college in the county will be here in 5 years. There isn't the market. The number of 16 year olds, the demographics, they're dropping. You know, it might be us. One of the colleges, one of the big colleges, will go. Someone will go. Because there is not enough money. Not enough students.

(Frank, senior manager)

Standardising practice

The drive for efficiency includes standardising practices across the college. Initial teacher education programmes are required to prepare college staff for working in that particular organisational setting, despite the potentially diverse contexts of the student teachers on the programme:

As a big customer I was saying but it's not necessarily doing what I need for our staff. So yes they're meeting the criteria fantastically, they get their qualification, but they still don't know how to do something that we're expecting of our staff. So can we not get some synergy, so that in that year long programme, or whatever size the programme is, it's actually part of their induction processes into the college?

(Andrew, senior manager)

With the current deregulation of teacher qualifications, the emphasis on the college's needs as an employer has grown. Colleges must perform highly during inspection, and the primary role of teacher educators from a college perspective is therefore to deliver ITE qualifications that meet both the awarding body assessment criteria and the college needs. As such, the ITE programme forms part of a wider staff development programme that is concerned with unifying a college culture. All three senior managers in this study indicated a preference for recruiting to teacher educator posts from within the institution's staff body because 'someone from outside' (Andrew, senior manager) cannot deliver this component. The college and FE setting dominate these programmes. The fact that student teachers may teach in other contexts is a secondary consideration. The qualification is not about induction into the teaching profession; rather, it is about taking on the roles and values of the organisation, described by one teacher educator as 'becoming Collegised'.

Learning as commodity

This college culture is not only important for standardising practice and achieving good inspection results, but is also the cornerstone of the college brand. As public funding has decreased, learning has been relocated into a consumer market where colleges compete for their market share. Learners have thus become customers of the college business.

Not only do teacher educators juggle changing qualification specifications, ensure the continued financial viability of programmes and maintain achievement rates, but they also perform an additional customer service role:

It must be the type of people I've got this year, you know a couple of them are trying to work out how much it costs a week kind of thing ... it's £3000 a year and they get 30 sessions, they're working out how much they're paying an hour and then saying what else am I getting for my money and they don't seem to count things like a one-to-one tutorial or access to the library ...

(Wallis)

It is a lot of money. And it's made a huge difference to the attitude the students have ... And they are much more demanding really ... they were far more concerned about the fact because they'd paid ... It's put more pressure on the teacher educators because they aren't given any more contact time or tutorial time and we always had to fight really hard to get tutorial time. The principalship would argue that they're not getting any more money for running the programme, it's simply that it's coming from a different source ... but as far as the students are concerned you know this is quite different.

(Steph)

These teacher educators consider one-to-one contact with students an important aspect of their role, but they are increasingly required to 'sell' an outcome and retain customers in an environment that inhibits provision of the expected service.

Conclusion

Teacher educators' expected contribution to the survival of the business is therefore twofold: first, they must smoothly manage repeated curriculum change into which they have little input (Simmons & Thompson, 2007), delivering an appropriately qualified workforce according to the needs of the employing institution; and secondly, they must take on multiple roles (Crawley, 2013; Noel, 2006), including customer service responsibilities, for their programmes, without additional support or resources. Teacher educators and their professional mission are therefore positioned as subordinate to the needs of the business and its 'rhetorics of modernisation, competition, innovation and enterprise' (Lawy & Tedder, 2012, p. 313).

6.3.3 The vocational history of FE

The policy and business influences of FE described in the last section can be illustrated by the significance attached to qualifications. As was explained in Chapter 1, the sector has historically been linked to the labour market and, although its remit has expanded extensively, skills discourses remain dominant in FE.

Skills and qualifications

Skills-based qualifications play a crucial role in FE practices. Teacher educators indicated that qualifications provide evidence of meeting criteria for course admission, act as a means of filtering candidates for employment and differentiating staff against pay levels, and provide evidence of learning. The absence of formal qualifications that define teacher educators can therefore be considered problematic for colleges. While 'it would be taken as read they would need to have a suitable teaching qualification ... or be working towards one' (Derek, senior manager), there is no 'right qualification'

that sets teacher educators apart from other teachers, and this is possibly at the root of their positioning in colleges as 'just a lecturer' (Jim), with the same terms and conditions of employment.

When asked what they hoped for when recruiting teacher educators, senior managers listed the following:

- a relevant teaching qualification;
- evidence of continuing professional development (CPD);
- evidence of reflective practice;
- experience of different contexts;
- experience of teaching different levels;
- experience of course management;
- a track record as a proven teacher;
- a degree; and
- the ability to teach teachers

The first three of these criteria are relevant to any teaching post in FE: a teaching qualification and evidence of CPD are standardly demanded, although senior managers sometimes prefer the 'practical' City & Guilds 7407 or DTLLS qualifications over the more academic Certificate in Education (CertEd) or PGCE that the teacher educators in this study hold. Similarly, experience of teaching different ability levels in different contexts is desirable for FE teachers, given the broad range of qualifications and levels in many curriculum areas, and experience of course management is helpful for many teaching roles in FE. Therefore the majority of these criteria do not distinguish a teacher educator from other FE teachers. This conceptual merging of teacher educators and teachers is also suggested by senior managers'

apparent difficulty in separating their thoughts about teacher educators from those regarding other teaching staff during interviews.

The last three items on the list, however, represent an attempt to extricate elements that qualify a teacher to teach *teachers*. Each of these three items is problematic as a criterion for performing the teacher educator role, because each reveals the ideological and restrictive nature of the FE context.

A track record as a proven teacher refers to the ability to perform according to the criteria set out by the performativity frameworks used to measure teaching:

You know, got grade 1 observations and that kind of thing themselves.

(Derek, senior manager)

Teaching is viewed as acting in the manner approved by Ofsted and therefore required by the college quality assurance systems. The phrases 'good teacher' and 'excellent teacher' recur frequently throughout these interviews, but they are not defined or elaborated, suggesting that there are commonly accepted assumptions underlying the terms. The epitome of 'good' teaching is represented in the Advanced Practitioner (AP) post in each college. This small elite is recruited from within the existing staff body. The holders are highly esteemed and considered to be 'particularly talented' (Gail), and receive remission from other teaching commitments in order to carry out AP duties. There is additional remuneration attached to the post – an amount that is reported to be higher than programme lead. The aim of APs is to share 'good practice' of teaching across the college by offering support, guidance, role modelling and mentoring. They support senior management by performing graded lesson observations. There is little crossover between the teacher educator role and the AP role, with most APs playing no part in ITE delivery. However, at the time of this study

three of the teacher educators held, or had recently held, an AP post (one from each site).

A degree is required because teacher educators are likely to teach at least some higher education in their role. However, a higher level degree is not considered essential for teacher educators, despite ITE programmes running at levels 3–7 and university partners usually requiring that staff hold a qualification at least one level higher than they are teaching. Further education colleges do not have the luxury of demanding higher level qualifications:

I don't think that they would be able to recruit people in colleges and pay them at FE salaries.

(Steph)

Qualifications may be linked to higher salaries in other contexts, but salaries are not high in FE and colleges cannot compete with other sectors. Unsurprisingly perhaps, as a result, colleges place value on other indicators of expertise over higher level qualifications:

If they've got a PGCE we do accept that as a university accredited qualification for education. There is no real requirement for them to have an MEd [Master of Education degree] or something ... they need to be a good teacher, they need to be a role model but they also need to understand the subject matter, so they need to be able to relate to it rather than just the theory and have been through the training themselves.

(Derek, senior manager)

This emphasis on the importance of knowledge and experience over academic qualifications occurred repeatedly throughout the data. In fact, those teacher educators who hold a master's degree expressed surprise that it was insufficient to exempt them

from some CPD training. Senior staff determine whether candidates have the necessary subject knowledge rather than rely on qualification evidence:

We're finding now when we're having the ... degree validation meetings with the various awarding universities ... is that this comes up. That there are a number of HE staff that don't have the requisite postgrad qualifications to do what they're doing. Now, in almost every case they do have the subject knowledge, we're happy with that ... now there is certainly a sense I think, a resentment amongst some of them that somehow they need to have their subject expertise validated through getting something like a master's.

(Frank, senior manager)

When viewed from the historical vocational perspective, this makes sense, because occupational competence has traditionally qualified people to teach in FE. Higher level qualifications or HE experience are not considered necessary because ITE is considered a practical skills qualification for which an academic focus is a disadvantage to the teacher:

My personal view is that I don't think they empower teachers in the way they need to be empowered. I think they give them lots of useless fluff about education, which is lovely, and when you go and look at stuff from an interest perspective it's wonderful. It is interesting! But not if you've got to take that and put it in front of a group of people. If you're sitting in front of a group of level 1 students who don't want to be here and don't give a toss what your qualifications are, all that academic stuff is useless. The only thing that matters then for me is the strategies that you use to catch them and engage them, no matter what you're teaching.

(Frank, senior manager)

Finally, *the ability to teach teachers* is a requirement for ITE staff. Teachers are frequently presented in the data as 'difficult learners' by senior managers, learning technologists and teacher educators alike. They are portrayed as an 'unusual

population', 'who think they are at least as good as you' (Derek, senior manager), and as not wanting to undertake ITE or receive AP support. Proving capable of managing these difficult learners earns teacher educators respect from their managers, because not all good teachers will be successful teacher educators.

Conclusion

There is, then, disparity in the value attached to different qualifications in FE. Skillsbased vocational qualifications are useful indicators of learning, expertise and quality. Professionalism is partially conveyed by qualification, as in the workforce reforms of the 2000s, but more acceptably by experience and knowledge. Academic 'fluff', on the other hand, is perceived as a luxury overridden by the need to develop practical teaching skills – an issue evident in Boyd and colleagues' (2010) observation that achieving an ITE qualification is often a condition of employment for new lecturers even though it may be academically too demanding. Again, this positions teacher educators as performing a very specific role in (re)producing the privileged skillsbased discourses of FE.

6.3.4 Summary: The positioning of teacher educators

This section has demonstrated that the FE context can be seen as positioning teacher educator identity in three ways: through political governance, through the business status of the FE college and through the vocational history of the sector itself. From a policy perspective, FE teacher educators are tools in a mandatory professionalisation process linked to national economic prosperity. From the businessoriented perspective, the role of the teacher educator is to produce the outcomes required by the college to survive. From the perspective of FE as a historically vocational sector, teacher educators represent excellence in the demonstration of occupational competence.

The notion of qualification plays a significant role in FE teacher educators' identity, simultaneously acting as an organising principle of their daily work in the institution and the sector, and as authority to carry out their professional roles. Qualifications represent evidence of learning, measured in achievement rates and linked to funding. As the costs of learning are increasingly passed to the learner, qualifications have also become commodified and 'sold' to customers. Finally, teacher qualifications evidence learning quality in colleges. In a system where qualifications hold these meanings, not having such a qualification means that the teacher educator profession is not formalised. The absence of a defining qualification is thus the context in which FE teacher educators enact their professional identity.

In response to increasing political attention, FE institutions can therefore be described as having reorganised their priorities in a way that has confused the sector's traditional relationship with its teachers, learners and order of business. These competing definitions of professionalism, as have been previously theorised to exist in FE (see Chapters 1 and 2), and the varying significance of qualifications in this context result in teacher educators occupying an uncomfortable and contested professional space.

6.4 In what ways do teacher educators in this context describe

themselves, their work and their expertise?

This section of the chapter explores how teacher educators describe themselves, their work and their expertise within this contested space, discussing how the two

perspectives combine, before I compare the findings with the extant literature in the final section.

Teacher educators are shown to talk about themselves and their working practices in terms of five key identities, as:

- 'qualified and credible';
- 'teacher';
- 'different from others';
- 'part of FE'; and
- 'employee'.

6.4.1 As 'qualified and credible'

The absence of a qualification that defines their role is not problematic for the teacher educators in this study, who view themselves as *qualified and credible* in several ways, claiming professional values and practices, depth of knowledge and breadth of experience as qualification for their role:

I've got the qualifications, the experience, I do the job to the best of my ability ... (Jim)

Professional values

These teacher educators consider that they both hold professional values and conduct themselves in a professional manner. A core element of these values is a deep commitment to their students and belief in the importance of teacher education:

My own tutor during the CertEd said to me it wouldn't matter what you were teaching, because you're teaching the people and I think that's very true ... That

the topic is simply a vehicle ... It's like a gifting, a passing on of something. And I think that's what makes good teacher training.

(Chris)

Some days, when you have a really bad day when a course is being cut and you know you've got your manager onto you about your retention and achievement and suddenly the funding's not there for that course anymore and student complaints, and a member of staff sick and you've gotta teach an evening, you know when all of that compounds, sometimes you having your professional values of knowing why you do what you do and how well you're gonna do it, sometimes that's all you've got to fall back on. You know, you can deal with it, because if you just saw it as a job you wouldn't survive in it ... it's that slap on a smile when you open a door in a classroom, whatever else is happening, you know you've just gotta leave that somewhere. Which is really hard, isn't it, to do, but it's a really important fundamental thing for me, those professional values, that you've got to be professional if you can at all times.

(Gill)

There is a slight reluctance to claim the title of 'professional', however, and there are indications that teacher educators view it as linked to a status that they do not hold. Although they think that others regard them as professionals, this group of teacher educators have a tendency to separate themselves from other sets of professionals, such as doctors and lawyers. This appears to be based on their understanding of the term 'expert'. While they frequently refer to their 'expertise', they eschew the label 'expert':

A couple of weeks ago it was challenged that we're the experts ... and I had to categorically say there are no experts in this room ... you've got to have a certain amount of expertise in your own field but I think it's a mistake to think that our way is the right way.

(Gill)

You cannot be an expert on everything in education can you, cos you've only got experience from what you've done yourself, which can be quite broad, but you're never gonna be the expert in everything.

(Wallis)

The senior managers, on the other hand, freely referred to teaching staff as experts possessing a wealth of expertise. This suggests that these teacher educators and their managers attach different meanings to the term 'expert'. For the senior managers, expert status is defined by excellent teaching skills; for the teacher educators, it lies in knowledge and experience. But in FE ITE, the diverse contexts and student demographic inhibit mastering the subject:

You've gotta be very careful in teacher training that you don't get ideas above your station. There are lots of other people who are much better than me at many of the things that I do. Because you're a bit of a jack of all trades in teacher training, you've gotta know about all these things ... so I'm not God's gift to teacher training, but I think I can put it across to people so they at least feel stimulated to go away and learn it properly...

(Bob)

In addition, teacher educators' understanding of the term 'professional' is complicated by its business connotations in FE, where it is used to indicate a separate strand of education from academic or vocational qualifications, for example subjects such as accounting, which fall under the heading 'business and professional' courses. The term is also used to distinguish between the theory-focused PGCE and the 'professional route' DTLLS, in which it connotes practical, hands-on teaching delivery. A professional in this context is someone who 'does', rather than someone who 'knows'.

Knowledge and experience

The teacher educators nonetheless describe themselves as people who 'know' about education. Their knowledge is time-bound, subject-bound and people-bound. As such, knowledge is understood to involve an ongoing and interrelated process of gathering information and reflecting on experience. The difficulty of knowledge is reconciling their own conceptualisations of teaching and learning with the dominant discourses of their context.

These teacher educators understand how the education system has evolved (*knowledge about the past*), they understand the political and situated nature of the PCET contexts (*knowledge about the present*), and they understand the uncertain nature of the world to come (*knowledge about the future*):

Every time a new government comes in one of the first utterances they ever say is that we're going to do something about the appalling nature of education ... and put some great changes in place and another government will come in and say exactly the same thing. One of the things I do with my students is a kind of timeline that goes back to the 1944 Education Act and you see how they change as they go through the decades.

(lan)

I think some people are unaware of what teaching actually involves. The teaching bit is essential and you've gotta be a good teacher ... but the rest of it is hidden and you don't really know that until you're there.

(Gail)

Yeah, prepare them for a very uncertain future ... And if we churn out students who just are on linear lives from there to there, well life's not gonna go from there to there, that's why you need people to be educators and not just good at delivering their own curriculum speciality. And that's why I think they need to be teacher trained, to do that properly.

(Jim)

This overview of the education system is considered an important aspect of ITE. These responses emphasise who the teachers will be in the future, contrasting with the immediacy of the organisation's need to remain solvent and the resulting focus on customers, achievement rates, funding and inspection. While teacher educators aim to broaden student teachers' horizons, college and sector policy and practice limit that:

She lowered her voice and started talking seriously about how education is not doing what it should be for people and how she feels she has to be subversive and secretly try and develop the student teachers while feeling as though she's doing something she shouldn't.

(Field Notes 12/2/14)

The teacher educators' knowledge is also rooted in the subject matter of teaching and learning. This consists of theoretical and practical understanding of how *different* people learn *different* things under *different* circumstances. It involves knowledge of learning environments, which practices are valued and the content of the qualifications themselves. Some of these things have been acquired through formal qualifications, whereas others have developed through teaching a subject specialism prior to or alongside ITE. Much of it is learned through interaction with student teachers:

My own trainees ... this chap's done one [research project] on kids having to do work experience now and he'd researched these five models of work experience. Well I didn't know there are five models of work experience! (Wallis)

Finally, these teacher educators have knowledge of the people with whom they work. They understand the variety of individual characteristics and institutional 'hidden curricula' (Jim, Chris). Their student teachers experience difficulties in simultaneous identities as student and teacher within one organisation, as others have recognised in

FE ITE (Bathmaker & Avis, 2005; Orr & Simmons, 2010). They deal with similar time pressures, stresses, and terms and conditions as the teacher educators themselves. Importantly, these teacher educators know that not all their students are college-based teachers or will remain working in their current setting:

Because if you have come into teacher training via the FE only route and you are immersed in the culture of that organisation it influences how you look at the standards and what your students need ... Our sector is about all of it, not just the FE. We talk about transferable skills all the time and that also for a teacher has to be about being aware that there are different ways of thinking about something.

(Chris)

This knowledge is linked to experience. It is awareness built up over time and informed by immersion in multiple settings with a variety of learners. There is a sense that teacher educators need to have 'served their time' if they are to be credible:

I've had experience of different institutions and different styles ... I've been involved with different areas, like engineering and the arts. I have supported business studies, health and social care, early years ... so I've got quite a good range of experience across various curriculum areas. And I think that helps to understand when you're looking at new teachers coming in and to be trained about the different challenges that people face if they're in a workshop environment or a studio environment or a classroom environment.

(Gail)

You have to look at how this can be adapted to a huge number of teaching situations and that's what I add to the pot.

(Chris)

This group of FE teacher educators therefore consider themselves to be qualified and credible because of their extensive knowledge, experience of multiple and diverse

contexts, and professional values. Although teaching qualifications are considered an important standard to maintain, it is the content and process of achieving them that is valued above the qualification itself. Meeting the qualification criteria is a necessary step, but these teacher educators feel that the standards themselves are too narrowly focused on practical delivery skills. Instead, the qualification involves the 'professionalisation of practice' – a personal development journey during which teachers undergo:

... the changing, the personal changing, the personal reading, the understanding, the assimilating of information from peer reviewed papers and best practice and theory in order to actually change, modify and develop their own practice ... (Gloria)

Additional qualifications, such as a master's degree, are undertaken for personal development purposes, rather than to advance careers. Higher level learning is valued and contributes to the work of the teacher educator, with at least one reporting:

I've been against educational theory for most of my life really, you know I'm one of those people who will say oh yes it's all very well all this fancy stuff that people research, but you get into the classroom and that's how you do all that stuff. But actually I was quite taken with all this stuff the OU got me reading. (Bob)

There is an expectation among most of the teacher educators that they ought to be qualified at least to the level they are teaching, because:

You need to be at a standard where you're confident and students can tell you're confident delivering otherwise it would be a very uneasy situation.

(Floyd)

Teacher educator credibility is rooted in this willingness to learn, to consider professional knowledge an ongoing process. By combining this with their experience from different contexts and working with different people, these teacher educators have, in effect, created their own definition of what qualifies them to perform the role. Professionalism is understood to be attention to their practice.

6.4.2 As 'teacher'

The second identity that this group of teacher educators collectively possess is that of *teacher*, but two distinct teaching discourses emerged from their interviews.

In the first, teachers are perceived to stand at the front of a class and deliver learning activities for students to engage in. Teaching itself is a practical, skills-based activity, and a significant part of the work is employing techniques to motivate learners: trying to find 'a chink in an armour' (Gloria). Learning, in this scenario, is an outcome of teaching. This is what student teachers are either refining or learning how to do for the first time – a duality that perhaps explains why although these teacher educators usually prefer the term 'educator', they often still call themselves 'teacher trainers'. Teaching involves delivering or transmitting information about skills: 'the basics' (Wallis, Chris, Gail) or 'mechanics' (Steph), such as completing lesson plans and schemes of work, which combine to form the teaching 'toolkit' (Wallis, Gail). Developing all these skills results in the award of a teaching qualification, which is the benchmark standard for all teachers to achieve.

The second discourse reflects the kind of teaching that the teacher educators actually practise. In this sense, learning is not something that can be delivered, and learners have to 'work out the learning for themselves' (Bob). Teaching is about forming bonds with and inspiring students. It is unquantifiable in performativity terms. Rather

than transmitting knowledge, teacher education is about creating the conditions in which students develop their own ability to critically analyse their practice and debate curriculum issues. The qualification is only a part of the purpose of teacher education and is not solely sufficient for teaching needs:

People who come into educational classes think they're going to be taught how to teach and they are not. They're going to be taught how to understand how they are teaching.

(Gloria)

These distinct discourses coexist in the teacher educators' professional work, and so while they consider themselves *teachers*, their actual practices often do not conform to the dominant conceptualisation of teaching that they also perpetuate.

It is not clear, however, that the teacher educators make this distinction themselves. Like their senior managers, they make frequent references to 'good' or 'excellent' teachers. The attributes of these good or excellent teachers was almost exclusively framed in terms of the first kind of teaching discourse – that of transmitting information:

They're brilliantly explaining it to their trainees. They're superb at it actually. (Jim)

They may be very very good at their subject knowledge, but not brilliant at how you get that across

(lan)

Through the part of them that thinks of themselves as a teacher, these teacher educators both work within and reproduce dominant discourses, and act outside them because they do not reflect the work that teacher educators do which differs from that of other teachers.

6.4.3 As 'different from others'

This group of teacher educators view themselves as *different from other teachers* in several ways – as 'quite a sort of different breed really' (Steph). First, in common with senior managers, these teacher educators believe that teaching their colleagues sets them apart from others. This situation wherein both new and long-serving teachers take on the mantle of novice can cause problems:

Staff are sometimes reluctant to learn new techniques when they've been delivering for 20 years ... So it's quite difficult to break that barrier and not make them feel inadequate but try and make them positive and make the experience positive for both of us.

(Floyd)

We needed to have privacy because those colleagues quite often needed to come and see us and talk to us in confidence ... People now are part of the main staff room ... I couldn't relax in that situation because I still felt, well they felt that I was their teacher ... They were in a really quite difficult situation – they know that they've got to get this qualification and they're struggling because they're teaching a huge number of hours and they're new to teaching ... or they've been doing it for a long time and they feel threatened.

(Steph)

It is not unusual in FE to have a diverse student demographic, but the wide range of contexts in which student teachers operate adds an extra dimension to this for teacher educators. Student teachers may teach academic, vocational and other types of programme in both the public and private sector. They may have different levels of qualifications and ability to study at HE level.

Qualifications at HE level are an established part of FE (see Chapter 1), but ITE is somewhat different by virtue of the fact that FE has such influence over the kind of

HE that is taught in ITE programmes and over the kind of 'HE teacher' that teacher educators are able to be in the college environment. These teacher educators are placed between colleges and their university partners, and feel disconnected from both:

I got that in FE from a teacher that was an HE teacher. And I think that's what I am. I'm very conscious of the fact that I don't quite fit. But I don't mind that as long as I can still function. And where I have to fit then I will fit. And I think a lot of teacher trainers, if they're teacher trainers at heart, not just teaching their topic to student teachers, if you see what I mean, then that's how they feel.

(Chris)

Many ITE programmes fall into grey areas between the inspection frameworks of FE and HE, contributing to the teacher educators' sense of alienation:

You start feeling a bit bitter that we go to all that trouble to do things really well.

(Wallis)

It's just crazy really that nobody bothers to look at it.

(Gill)

The teacher educators' breadth of experience and usually non-vocational background set them apart from other FE teachers, because they feel that if they are to prepare student teachers for the future, they have to view things from a wider perspective than an exam-focused curriculum:

I think if you just came in and thought that you could start teaching teachers – you need a completely different strategy and a different set of skills for that I think.

(Gill)

6.4.4 As 'part of FE'

The teacher educators in this study describe themselves as *part of an FE sector* that is largely invisible or ignored as 'the poor relation' (Wallis), because policymakers have schools and universities in mind when they discuss education. The teacher educators consider this low public profile to result in worse terms and conditions than those in other sectors. But they are united in their belief in the quality of their provision, with some considering that schools are responsible for destroying passion for learning and others believing that FE lecturers are better teachers than university lecturers. There are frequent references to 'our sector', and explicit comparisons made with schools and universities, throughout the data.

This perceived lack of understanding from policymakers legitimises some of the things that these FE teacher educators dislike about their work, but view as typical for the sector. Lower earnings than their counterparts, working more hours than they are paid for, without realistically being able to reclaim time, and dealing with constant upheaval are considered integral to this context and generate a significant amount of collegial support:

I'll come in all day and then teach 6 to 9...but by 9 o'clock you're dribbling really ... Everybody's busy in FE aren't they? Everybody's running around like a headless chicken, and it's just that we always say it's about supporting each other and keeping everybody, especially this time of year cos it's when we're all sort of flailing a bit, it's just about propping everybody up and getting us to the end of the year really.

(Gill)

There is a strong sense of commitment to the sector and its people. Part of the teacher educators' professional identity is being willing to offer something over and above

their contractual requirements. This commitment is celebrated – perhaps clung to – in the face of disregard from influential policy advisers, which can be deflating. For example, regarding the Lingfield Report (BIS, 2012), one teacher educator commented:

They hadn't thought about that enough, you know what are we trying to professionalise and who – they hadn't thought that through enough at all. I cried when I read it, it was appalling. In even just how it had been put together it was really dismissive, I thought, and I couldn't believe it when it came through.

(Gill)

The teacher educators experience this sense of commitment to what the sector stands for even while disagreeing with some of the realities of working in it, and they find ways in which to reconcile much of the cognitive dissonance:

Well, my basic contract is always a .5 ... And inside I always say to myself 'You've done 4 days this week, next week just go in for 2' and it never happens ... I need to be a bit stricter with myself to not do quite as much really, but yeah, if it's gotta be done it's gotta be done hasn't it? I work for 4 days and it means I have a Friday off and don't have to worry about it at the weekend. I'm still quids-in compared to a full time person really.

(Wallis)

These teacher educators feel that they have little choice other than to accept FE terms and conditions if they want to continue their work. They consequently find ways to resolve conflict within their environment.

6.4.5 As 'employee'

Finally, this group of teacher educators describe themselves in terms of being *employees* of a business. They exhibit understanding of their individual line managers,

whom they recognise also work in a difficult environment with little autonomy. As has previously been found in other HE in FE programmes (for example Turner, McKenzie, & Stone, 2009), teacher educators themselves frequently hold management responsibilities that, for several, bridge the gap between teacher and manager that is sometimes referenced in the literature (see Chapter 2). In turn, they are described by their line managers as valued colleagues, who can be trusted to take responsibility for their programmes. The teacher educators reported organising their own working schedules, without having to complete timesheets, and being left alone to do their work. This is considered a cherished luxury, because 'we're all under the cosh now' (Chris).

At the same time, there is a perceived, and sometimes physical, distance between senior management and teaching staff. Contact with the highest echelons is restricted to being 'up before the principal' in 'The Executive Suite' (Gail) or 'Headmaster's Corridor' (Frank), to be 'grilled about our finances' (Gail). It is not acceptable to visit without an appointment and, as one passing member of staff remarked, 'even the carpet is different there'. The relationship, then, is not completely easy. The teacher educators do hold the college management responsible for some things, such as 'unreasonable teaching conditions' (Steph), or focusing only on negative statistics:

You're no good if you're not grade 1 proficient of course, but in order to get that you have to lie and cheat ... and you know I won't do that. I won't do it.

(lan)

Being an employee of a business sometimes has a detrimental effect on the teacher educators' professional identity, with a feeling of reduced status compared to a time when teacher educators required more experience and higher qualifications to teach on ITE programmes. The needs of the business have changed the way that they perceive their position:

The student is not a student anymore, they're more of a customer and therefore we are providing a customer service and we are being questioned more, challenged more and not treated or not seen as professionals, seen as someone who is selling them a product and there's a change of perception and I think that is dangerous. But also it's reality and so as teachers we've got to adapt to that without losing our professionalism so there's a real challenge there between meeting political needs and society needs but not losing your integrity as a professional.

(Gail)

This causes a tension between what they feel they are charged to do as educators of teachers and their obligations to their employers:

We try to do it for the right reasons. We're not driven by learning outcomes – we try to make it a holistic experience ... They might pass but I still think the course would have failed. All you are doing is ticking boxes, you're not developing people, are you?

(Jim)

I think that the responsibility of being an educator needs to be engrained and embedded within the teacher training ... There is some gravitas to it. I think that may have got a little bit lost along the way.

(Gloria)

The employee identity is not to be underestimated. Whatever the professional relationship with learners or the vocational calling of teaching, ultimately, like other employees, teacher educators attend work because they need their salaries. Because institutions must succeed financially, in many ways they have little choice but to

regard teacher educators primarily as employees serving the business. Consequently, employment issues may force professional values to retreat in the face of conflict.

6.4.6 Conclusion

The different and varied elements of teacher educator professional identity are therefore understood to be in tension with one another in the context of FE. These teacher educators feel a joint responsibility to their professional mission and their employing institution. They perceive themselves simultaneously as teachers and different from teachers. The differences are not perceived to be adequately recognised or acknowledged by their institutions, although the teacher educators appreciate the pressures under which colleges operate. These teacher educators are committed to the FE sector, but sometimes work outside of its discourses. They feel a responsibility to student teachers, their careers and professional development that supersedes the needs of the college, and yet acting on this makes them feel subversive.

The content of qualifications and the development journeys undertaken in achieving them hold greater significance for teacher educators than for their senior management teams, whose primary concern is diverted from the 'education' to the solvency of the business as government policy places 'renewed emphasis upon marketisation and user choice' (Avis, 2010, p. 205).

The teacher educators' own perceptions of their role are therefore slightly different from how they are positioned by their FE context. However, it is important to recognise that although what has been described in this section represents the sample as a whole, within even this relatively small group there are some significant differences in attitude and approach to the work. What follows, then, is an attempt to highlight how teacher educators in this context can differ considerably.

6.5 The typology of teacher educators

This typology demonstrates how the figured worlds of FE teacher educators are experienced differently by individuals. As described in Chapter 5, the typology consists of two main types, and although only one participant corresponded to all the criteria associated with one type, the remainder demonstrated a strong tendency towards one or the other.

Teacher educators in FE share a common context, broadly similar employment terms and conditions, and comparable professional practices, but there are some key differences. During the process of describing themselves, their work and their expertise, the participant teacher educators showed divergence along the lines illustrated in Table 6.1.

	Product-oriented (Type 1)	Process-oriented (Type 2)
Qualified and credible		
1. Qualification level	Up to and including first degree	Higher level academic (MA+)
2. Suitability for role	Proven excellent teacher (and/or manager)	Range and depth of experience
3. Derivation of	Deep knowledge of own subject	Deep knowledge of teaching and
professional credibility	expertise and teaching practice	learning; experience of broad
		contexts
4. Measurements of	Learning outcomes	Learning journey
success		
Teacher	A teacher foremost	Something more than, but still, a
		teacher
1. Perception of teaching	Teaching delivery and	Helping learners articulate own
role	administrative tasks	understanding
2. Subject matter	Teaching	Education
3. Focus of teaching act	Practical teaching skills	Theory underpinning practice
4. Subjects taught	Specialism/vocational subjects as well	Primarily ITE

Different		
1. Teaching colleagues	Problematic for student	Problematic for teacher educator
2. Broad experience of	Useful for teacher educator	Useful for student teacher
contexts and subjects	development	development
3. Second-order	Teaching of ITE rooted in practice,	Teaching of ITE rooted in ability to
practitioner	honed by subject specialist	teach anything
	teaching	
4. Diverse student	Teaches the subject	Teaches the people
demographic		
5. Responsibility	For meeting current qualification	For preparing learners for the
	criteria	future
Part of FE	Comfortable in FE	Uncomfortable in FE
1. Identification	As lecturer	As teacher or teacher educator
2. Experience	Mostly in FE	Significant proportion outside FE
3. Delivery	FE, including aspects found in	HE in FE setting
	other sectors, e.g. A levels/HE	
4. Comparative status	Favourable	Unfavourable
with other sectors		
5. Audit and	Necessary	Faulty
accountability		
6. Intention	To stay	To leave
7. Focus	Skills	Knowledge
Employee	Stable	Volatile
1. Management	Line management/aspiration	Course management
responsibilities	towards line management	
2. Terms and conditions	Acceptable	Oppressive
3. Relationship with	Supportive	Tense
senior managers		
4. Perception of	Acceptable	Problematic
additional roles		

Table 6.1 Typology of teacher educators

6.5.1 The product-oriented teacher educator

Product-oriented teacher educators identify strongly with their background as teachers. Perceived credibility as a teacher educator rests on status as an excellent

teacher, proven by achieving grade 1 observations or holding an AP post. Expertise is conceptualised as in-depth knowledge of specialist subject(s) and years of experience teaching the specialism(s). They are experienced teachers of younger FE age groups, having worked in schools and/or FE for most of their careers, but with little experience of older or higher level learners. This background is reflected in an approach to teaching and learning that focuses on the practical skills that teachers need to obtain learning outcomes from students. These teacher educators emphasise motivating students and engaging them in classes.

This type of teacher educator identifies with the FE context in which they work and embraces a skills-based teaching discourse. They view themselves and the sector as comparable to lecturers in schools and universities. Differences between the sectors are seen to lie in types of learner, qualification and subject matter, rather than issues of equity and status. These teacher educators perceive performativity frameworks as a necessary means of ensuring quality in their work, and although they do not enjoy lesson observations, they do not object to the values underpinning this practice. Measurement of learning and teaching provides evidence of meeting appropriate standards.

Similarly, the product-oriented teacher educator has a settled relationship with the employing institution. He or she is a long-standing member of staff, and either holds or aspires to hold line management responsibilities as a means of career progression – accepting that teaching workloads will reduce as a result. These teacher educators view the terms and conditions of their employment as satisfactory, understanding that teaching requires additional, not officially sanctioned, work that exceeds contracted hours. They have strong relationships with their managers, perceiving them as firm,

but supportive. They demonstrate a readiness to adapt, for example to take on new roles or administrative tasks, to suit the requirements of their management and institution.

This type of teacher educator primarily delivers the beginner ITE qualifications, such as PTLLS, or is involved in staff development as an AP. It makes sense therefore that the 'basics' of teaching, such as creating lesson plans, which naturally have a more practical skill component, are at the heart of the course. Student teachers, although often colleagues, are perceived as beginning teachers who are on the programme to learn to teach according to accepted definitions of good practice. Although sensitive to the fact that they are teaching colleagues, product-oriented teacher educators view this as more problematic for the student teacher than it is for themselves. They understand that colleagues may feel resentful or embarrassed when told how to perform these tasks.

These teacher educators enjoy the varied nature of their student teachers' specialist areas and contexts. They see lesson observations as an opportunity to increase their own knowledge base and experience of the sector.

Biographical details of product-oriented teacher educators

One female and two male teacher educators were categorised as *product-oriented*. They had been involved in teacher education for between one and 12 years. Two of the three had completed post-compulsory sector teaching qualifications and had taught in their current college since they were student teachers. Both undertook their qualification in-service at their respective colleges: one, a CertEd; the other, a PGCE. The other member of the group completed a secondary school PGCE, but spent much of his career teaching A level students in his current FE college. All three were longserving members of, and committed to, their current workplaces, which represent two of the three case study sites.

The subject backgrounds of the three were modern languages and computing. None had obtained qualifications higher than bachelor's degree, although one was enrolled at the time of the study on a master's programme. Two of the three continued to teach on courses outside of ITE for the majority of their time. One held a concurrent post as AP and had no course management responsibilities for his ITE role as the other two did. The third was semi-retired, and teaching part-time at his FE college and at a university. The other two had no experience of teaching HE.

Two of the three teacher educators were identified as specialist area mentors for student teachers, en route into teacher education. The third was appointed to an ITE management post on the strength of his previous management experience.

This group contains the lowest average years' overall teaching experience (21.3 years), but this ranges from 9 to 43 years, so it is unlikely that career length is a significant factor in positioning in this group. Neither is age a clear-cut characteristic: the type contains members of both the youngest (26–35) and oldest (56+) age groups.

6.5.2 The process-oriented teacher educator

Process-oriented teacher educators, although recognising the commercial needs of their employers, view themselves as part of an institution where the primary purpose is to provide learning opportunities. The forms of learning involved in this institution are often practice-based, as might be expected in a vocational setting, but not entirely. This type of teacher educator considers his or her specific role to be to offer something over and above the 'typical' skills-focused provision. This is because it is

aimed at *teachers* delivering this kind of provision, rather than at *learners* of vocational and practical subjects. Student teachers are therefore required to engage with the subject of education at an advanced level. The subject includes both the practice and theory of teaching. The teacher educator's job is therefore to help student teachers understand what it is that they already do. Those teacher educators delivering ITE accredited by universities, or who have in the past, view themselves as teaching HE, but mainly do not call themselves HE lecturers. They discern differences between their approach to, and the purpose behind, the qualifications that they deliver and those of other FE teachers. The majority of this type typically teach only on ITE programmes and are no longer engaged in their original teaching specialism. All teacher educators of this type have course management responsibilities.

Student teachers in this setting are frequently employed as teachers or trainers. Even those who are not paid as teachers, once on teaching placement, are presumed to be undertaking the full range of teaching responsibilities. The teacher educators therefore view their students as colleagues, whose experience can make a valuable contribution to the ITE programme. These teacher educators appreciate the wide variety of contexts available to student teachers in the post-compulsory sector. They believe that, from this perspective, they cannot be 'expert', since such expertise would require indepth knowledge of all these contexts. 'Expert', then, is not a term that the processoriented teacher educator associates with himself or herself.

This type of teacher educator does, however, believe that he or she has extensive expertise in the field of education. This expertise involves not only the knowledge of educational theory, but also incorporates proficiency in a specialist subject area and experience of the different contexts of post-compulsory education. These teacher

educators feel that student teachers benefit from their knowledge of these different contexts, and of how teaching and learning practices take place within them.

The notion of teaching colleagues is more problematic for process-oriented than product-oriented teacher educators. Process-oriented teacher educators view the student teachers as colleagues, but view themselves as simultaneously colleague and teacher. This causes unease when sharing workspaces and perceived pressure to perform professional practices. There are also difficulties attached to addressing student teachers' current and future needs: the intention is to prepare students for the future, not to restrict them to the policy ties of today.

Process-oriented teacher educators have extensive teaching experience away from FE colleges. They believe that they adopt an 'HE approach' to teaching and learning, whereby the student takes more responsibility for engaging with the learning as a form of professional development. Although such teacher educators use both the terms 'teacher training' and 'teacher education' interchangeably, they profess a preference for the latter, because of its connotations of being more searching and involved than 'training'. The skills focus of FE is regarded as too narrow for teacher education, and the process-oriented teacher educator therefore objects to the prevalence of audit and accountability measures. These are seen as flawed and restrictive, and are a source of discomfort. Although they believe in FE and what it has to offer, they do not agree that the methods and practices associated with performativity frameworks are conducive to those aims. Several feel that they are being 'squeezed out' and that their continued participation in the sector is becoming untenable. Consequently, relations with senior management are strained in some instances, because the teacher educators

do not feel as valued and supported as they would like to be and feel they were in the past.

Biographical details of process-oriented teacher educators

Five teacher educators were categorised as *process-oriented* – that is, one male and four female teacher educators, who stated that they had been involved in ITE for between 7 and 23 years.

Two of the five had trained specifically for post-compulsory education, but only one had taught solely in her current college since gaining a PGCE, which she completed in-service during this time. The other achieved a bachelor's degree in education and training (post-16). The remaining members of the group completed secondary PGCE programmes, although one of these had never held a teaching post in a school. All members of this group had taught in at least two different sectors of education for substantial periods.

The subject backgrounds of these five teacher educators included humanities, basic skills and IT. All had obtained qualifications at bachelor's degree level or higher, with three of the five holding a master's degree (two in education). Only one member of this group had additional responsibilities outside ITE at the time of the study: she taught on a PTLLS programme, but the majority of her working week was spent supporting students with specific learning difficulties. Representatives of this type are found in all three case study sites.

Two members of this group became involved in teacher education following staff development roles in other areas; the other three were identified as particularly suited to the role by management, even though they had no previous experience of ITE.

This group consists of the longest serving teachers in the study, with a mean average of 29.6 years' teaching experience, the least experienced having taught for 16 years, and the most experienced, for 39 years. The age range is smaller than that of product-oriented teacher educators, with three of the five falling into the 56+ category and the youngest being in the 36–45 range.

6.5.3 The stakeholder-oriented teacher educator

A third type of teacher educator developed after the other two. Although the teacher educators were all originally categorised within the twofold typology described above, when analysing how well individual teacher educators matched the characteristics associated with one type or another, I noticed that one group demonstrated a more balanced distribution of scores. This group was found to comprise the three teacher educators with line management responsibilities for the ITE programmes. As such, although they too displayed a tendency towards one type or the other, they also bridged the gap between the two in the same way as they bridge the gap between teacher and manager in the college hierarchy.

This third type – labelled the *stakeholder-oriented* teacher educator – does not display the same level of tension between conflicting priorities felt by process-oriented teacher educators, although they share many of the same ideals. For example, stakeholder-oriented teacher educators hold a strong belief that teaching is more than practical skills and that an understanding of underlying theory is imperative for good teaching. Yet they do not feel the same pressure to hide their encouragement of student teachers to think for themselves as do process-oriented teacher educators. The stakeholder-oriented type of teacher educator is as highly qualified as the processoriented teacher educator, but like the product-oriented type has a strong attachment to

FE, with a large proportion of his or her teaching experience having taken place in the sector.

Also like the product-oriented type, stakeholder-oriented teacher educators have strong working relationships with their own managers and feel supported by the senior leadership team. Their managers place a lot of trust in them. The stakeholder-oriented teacher educator's role includes accounting for achievement rates and budgetary spending, and while compiling data and justifying success rates is not considered enjoyable, this type accepts that it is integral to working in the sector. They do not feel that performativity frameworks are incompatible with good-quality teaching and learning activities, although the extent of measurement is considered excessive.

More so than process-oriented teacher educators, stakeholder-oriented teacher educators are also engaged in teaching other subjects outside ITE, including, but not necessarily restricted to, their specialist subject. Working closely with other teams, they are more attached to the college than process-oriented teacher educators.

They find it easier than the other types to articulate how they perceive their professional identity, describing themselves as professional, qualified people with sufficient status for their needs. They feel, however, that they do not have professional parity with their colleagues from other sectors.

Biographical details of stakeholder-oriented teacher educators

The three managers identified as *stakeholder-oriented* comprise one male and two female teacher educators, who stated that they had been involved in teacher education for between 10 and 22 years.

Two of the three trained in-service specifically for post-compulsory education; the other completed a PGCE for secondary teaching. Two had taught in at least two different sectors of education for substantial periods of time.

The subject backgrounds of the three include humanities, basic skills and accountancy. All had obtained qualifications at bachelor's degree level or above, with two of the three holding a master's degree. All three members of this group were teaching outside of ITE at the time of the study, with one performing the AP role. This group comprised long-serving teachers with a mean average of 22.3 years' teaching experience; the least experienced having taught for 20 years and the most experienced, for 27 years. All three were aged between 36 and 55 years.

One of the stakeholder-oriented teacher educators had course management responsibilities in addition to her team management position. Her primary focus at work was ITE, whereas the other two had broader responsibilities beyond ITE. All three had become involved in teacher education by virtue of their management abilities and track record, in addition to their reputations as excellent teachers.

6.6 How do these versions align with alternative depictions of teacher educator identity?

Published research on teacher educator identity in the United Kingdom, as noted in Chapter 2, often regards teacher educators as a homogeneous occupational group. School teachers enter the teacher educator profession in higher education institutions (HEIs) with in-depth knowledge of the schools sector in which their student teachers will go on to practise (McKeon & Harrison, 2010). At the point of entry to the HEI, they cease to enact their previous identity of school teacher, and become 'second order practitioners' (Murray, 2002, p. 16). They then work towards becoming academic researchers, in order to establish credibility within the discourses and practices of HE. Teacher educators in FE enter the profession in a more indirect and gradual fashion, often reported as being 'accidental'. They already possess in-depth knowledge of the discourses and practices of FE, and have varying degrees of familiarity with alternative contexts in the much broader PCET sector. They begin life as an FE teacher educator as an already esteemed FE teacher.

Teacher educators based in FE colleges have little interest in conducting research and their institutions do not require it of them (Exley, 2010). In the data collected for this study, self-perception as an academic arose only in relation to prior experience of working for a university, which highlights a difference between university-based PCET teacher educators and those working within FE. Participants felt no need to establish credibility in the institution on becoming a teacher educator, because all were already employed in the post-compulsory sector prior to appointment. As such, they held appropriate certification for teaching adult learners. This means that the difficulties faced by school teachers on becoming teachers of adults and the subsequent questions raised about their qualification are not shared by FE teacher educators. In a system in which there are no standard formalised qualification criteria for teacher educators, FE teacher educators are likely to enter this stage of their professional life appropriately qualified. Whereas school teachers are deemed to rely on their experience of the schools context as a qualifying credential for teacher education, FE teacher educators do not: they are already experienced teachers in the sector.

However, FE teacher educators experience a butting of cultures between the college in which they work and the validating awarding body, which is often a university: the FE context celebrates the practical nature of teaching; HE qualifications stipulate that practical teaching be informed by theoretical constructs. Over time, FE teacher educators are likely to take on more of the values held by their validating HE partners and have to reconcile this with continuing to work in an FE college which seeks to homogenise, standardise and 'collegise' its teaching staff.

There are, then, similarities between the two different contexts, in that the environment in which the teacher educator is based actively attempts to exert influence on his or her professional identity. The HEI does so by means of induction programmes and by encouraging new lecturers to undertake the PGCE in HE programme. The FE college, on the other hand, keeps teacher educators within the existing patterns of staffing by maintaining equal terms and conditions of employment between different kinds of teaching staff. Teacher educators in FE are discouraged from thinking of themselves as different to other teachers:

I believe that there is a notion amongst not all but some of the members of our teaching staff, that if you are delivering HE that you are somehow a superior form of life ... They are more demanding than FE staff. FE staff, by and large, are happy to deliver curricula in the way that awarding bodies say it needs to be done, sometimes staff government initiatives tell us it needs to be done. (Frank, senior manager)

The typology and biographical details presented in this chapter highlight the fact that FE teacher educators cannot be perceived as a homogeneous group. Even among this small sample, there are clear differences in attitude, experience and identity. While such distinctions are assumed in research from other areas of teacher education, those

expressed explicitly often refer to stages in a linear process, for example Murray's (2002, p. 216) 'Novices', 'Defenders' and 'Education Academics'. The differences between FE teacher educators are not easily attributable to length of service in ITE, since participants in this study were found to become involved in teacher education in varying degrees over different time periods. In many cases, they found it difficult to articulate exactly when they became a teacher educator.

The dual professionalism of the university-based school teacher educator (practitioner-academic) is magnified by the context of FE (see Chapter 2). This study implies that research plays a minor part, if any, in FE teacher educator identity, and that this professional identity is, in fact, multilayered and complicated by context perhaps beyond that of those residing in university settings. Noel (2006) indicates that teacher educators may come to experience their ITE role as their primary, or 'home', role, and in fact, for process-oriented teacher educators, this appears to be the case. By developing a distinct teacher educator identity, for process-oriented teacher educators the 'subject specialist' identity is replaced, while that of 'teacher' is preserved. Product-oriented and stakeholder-oriented teacher educators who continue to teach in areas other than ITE retain a strong subject-specialist teacher identity.

This study does not dispute claims that PCET teacher educators are more highly qualified, older, whiter and more female than the sector as a whole, and that they come from a smaller range of subject backgrounds (Crawley, 2013; Noel, 2006). It adds that, in FE, there is some variation in qualification level that appears linked to the level of comfort that teacher educators feel in their working context. Product-oriented teacher educators overall possess lower formal qualifications, with no member of the group having yet obtained a master's degree. This type has the strongest affinity with

the culture of FE and its tendency to privilege skills-based learning. Of particular significance in this group is that the teacher educator currently undertaking a master's degree reported that he was now open to theoretical ideas to which he was previously opposed. Process-oriented teacher educators, who are the most experienced and highly qualified, consider that a working knowledge of educational theory is a key component of professionalising teaching practice and find the FE culture challenging. They work confidently in the HE in FE environment whether teaching HEI-validated qualifications or those validated by a national awarding body, but feel that the college environment inhibits the creation of an HE ethos (Feather, 2011).

As discussed in Chapter 2, teacher educator identities in FE are problematic (for example Bathmaker & Avis, 2013; Colley et al., 2007; Edward et al., 2007). However, the suggestion that teachers are active participants in a conflict to achieve power and control by means, for example, of creative and strategic compliance (Gleeson, Davis, & Wheeler, 2009; Lawy & Tedder, 2012; Shain & Gleeson, 1999) rings hollow in light of the findings from this study. These teacher educators readily comply. What they also do, though, is offer something over and above what is required in order to meet their own expectations. This is aptly termed the 'even more' quality by Crawley (2013, p. 341). While this can be considered an expansive form of professionalism (Avis & Bathmaker, 2006; Crawley, 2012), teacher educators who work in FE colleges are locked into a particular kind of organisation that contrives at several levels to direct their professional identity. As Colley and colleagues (2007, p. 186) say: 'Responses to the fixity of audit may be to bend the rules, but may also include bending before them – fluid identities may be forced to run in structured channels.'

6.6.1 Conclusion

Teacher educator identity is tightly interwoven with the FE context. This context introduces several factors that are unique to this sector and not represented in research carried out on university-based teacher educators, as demonstrated in Chapter 2. In turn, many of the contextual details that are key to understanding the influence of the sector on teacher educator identity are not relevant to those working in HEIs. Rather than being concerned with 'becoming' a teacher educator (Boyd, Harris, & Murray, 2011; Murray & Male, 2005), the findings from this study indicate that a more important aspect of identity work for this group is the continual negotiation of acting concurrently inside and outside FE discourses.

6.7 Chapter summary

This chapter has considered some of the ways in which the FE context influences teacher educator professional identity. It has argued that political agendas that have positioned FE institutions in a competitive consumer market have had a limiting effect on the ways teacher educators can enact identities as autonomous professionals. However, the teacher educators in this study have been shown to seek out ways in which they can reconcile the demands of their employer and remain faithful to their own professional values. They are at once *within* the confines of FE and its operating discourses and *outside* it.

The chapter has presented a typology of teacher educators that illustrates some ways in which perceptions of professional identity diverge considerably among this occupational group. These divergences indicate different levels of comfort with key discourses of the sector and inform the following chapters, which discuss the extent to which these teacher educators, by developing educational technology practices, negotiate the paths of professional identity.

Chapter 7 What role do educational technologies play in teacher educators' professional practices?

7.1 Introduction

Chapter 3 described how policy requires technology to be used by education professionals in an attempt to enhance learning, but without clear guidance on what should be used, why such technologies should be used and how. Research into educational technologies has been spread across disparate areas, resulting in substantial bodies of literature on, for example, learning analytics, mobile technologies, online learning and technological pedagogies. Isolating specific technologies in this way can obscure how they form part of a large and complex configuration of technology practices in education institutions. This chapter therefore aims to draw together the technologies implicated in teacher educator work and explore how these are intertwined with a broader set of practices in further education (FE). It seeks to answer the following research question and sub-questions.

- 2. What role do educational technologies play in teacher educators' professional practices?
 - a. How is technology implicated in teacher educator practices in FE colleges?
 - b. What are teacher educators' perceptions of the role, benefits and drawbacks of these technologies in their work?
 - c. What do these perceptions of technology reveal about the pedagogical values and beliefs of teacher educators?

The chapter begins by identifying the technologies involved in this kind of work, and the participants' understanding of their functions and positioning in their practice. These perceptions are then interrogated for evidence of teacher educator professional identity in this setting.

7.2 The educational technologies implicated in teacher educator work

In keeping with the sociomaterial theoretical stance described in Chapter 3, this study conceptualises technology not as separate from, but as an integral component of, the social practices taking place in teacher educator work. The data generated references to a large number of specific technologies, as well as multiple references to 'technology' as an abstract concept. Given that 'technology' and/or individual specific technologies frequently figure in more than one practice, it is deemed appropriate here to consider technologies in terms of the practices that they help constitute and vice versa. Such practices are, in effect, technology practices, while practices also help to define technologies. The technologies that feature in teacher educator work are therefore described in this thesis as constituting, in part, a set of practices that serve the 'administration', 'communication', 'teaching' and 'organising' requirements of the teacher educator role.

 Administrative technologies are associated with the everyday running of courses and institutions, and typically take place in office space rather than in classrooms. The associated devices and applications are primarily made up of electronic systems employed to manage student, course and staffing data, such as management information systems, marking and plagiarism software, or electronic registers.

- *Communication* technologies are those used to communicate with other people, such as emails, social media platforms, interactive whiteboards (IWBs), mobile phones and video conferencing software.
- *Learning* technologies are used explicitly to aid the learning or teachinglearning process, and include presentation software, online resources and virtual learning environments (VLEs).
- *Organising* technologies reflect the ways in which technology is used to manage the temporal-spatial learning environment. These include:
 - technologies that physically locate learning, such as distance learning platforms, or online resources and assessment;
 - procedures for making resources available, such as sharing laptops between sites; and
 - technologies that are used to relocate work activities such as IWBs or SharePoint.

Examples of specific technologies referenced by teacher educators are provided in Appendix 16, while the practices in which they feature in teacher educator work are presented in Table 7.1 (see over).

Such practices are widespread in education institutions, and teacher educators in FE participate in them regularly, although the extent to which different types of practice are evenly distributed in this kind of work depends on the demands of particular job roles, for example certain administrative or communication technology practices feature to a greater extent for teacher educators acting as team or course manager.

Administrative technology practices	Communication technology practices
Keeping records	Contacting students
Evaluating provision	Communicating with colleagues
Assessing learning	Sharing information
Planning lessons	Delivering learning
Monitoring performance	Attending meetings
Accessing policy documents	Accessing resources
Verifying the quality of learning provision	Enabling collaborative learning
Monitoring attendance	Submitting evidence of learning
Producing documents	
Learning technology practices	Organising technology practices
Accessing information	Centralising resources
Recording information	Expanding the learning environment
Carrying out learning activities	Collecting coursework
Taking notes	Hosting learning activities
Assessing learning	Classifying people
Displaying visual aids	Supporting learning
Providing stretch and challenge exercises	Maximising resources
Conveying information	Increasing access to learning
Recording discussions	Orienting learning towards the future
Storing resources	Evidencing learning
Directing learning	Maintaining funding
Motivating learners	
Modelling teaching	

Table 7.1 Technology practices implicated in teacher educator work

This group of teacher educators have both positive and negative attitudes towards their technology practices, and so the data was analysed to ascertain to what extent perceptions are shared across different varieties of practice and different types of teacher educator, as organised within the typology of teacher educators presented in the previous chapter.

7.2.1 Administrative technologies

Administrative technology practices are concerned with the collection, storage and retrieval of information pertinent to the everyday running of an education institution. As such, these practices are instigated and often designed by the employing organisations in relation to their needs as competitive businesses working within politically mandated performativity frameworks (see Chapter 1, section 1.4, and Chapter 6, section 6.3). Administrative tasks are now commonly demanded of the teacher educator role.

The teacher educators in this study are positive towards technologies that can be used to increase efficiency and automate the tasks involved in administrative practices.

- *Product-oriented* teacher educators view them as time-saving, enabling a paper trail and automatically alerting them if they have neglected to input required data.
- *Process-oriented* teacher educators add that administrative technologies offer easy, centralised access to information and that the systems are cost-effective for the college.
- *Stakeholder-oriented* teacher educators also value the simplicity of tools such as Survey Monkey to help them gather student feedback.

All three types, however, agree that engaging in administrative technology practices is also time-consuming, adds to their workload and is unavoidable in their roles:

Even where computers can be used to save time for the individual, because of the way the systems work somehow it doesn't give you time. It's supposed to, because everything is straightforward and logically you would think that yes it does. But in the real world somehow it doesn't, because it just creates more of something that you have to do.

(Chris)

They felt too that administrative activities intrude into class time and stated that they frequently experienced problems accessing the systems. Many of the teacher educators think that there are too many separate systems and that time is needlessly spent duplicating data or recording information formally when it might previously have been handwritten for personal use.

Although one of the perceived strengths of administrative systems is centralised and efficient multi-user access, this can result in conflict between the priorities of different users:

[W]hen MIS thinks that the course ends ... if I'm not very careful those students go off the VLE. The record of their existence seems to go off. And so it's not a lot of use that happening and then 6 months later the EV comes in and I say oh yeah we had 73 students on here but unfortunately they've disappeared ... so that's just one example of how I spend a disproportionate amount of time really on that sort of thing ... One of my solutions was why don't I say that my course ends 12 months after when it ends. And I thought that was a brilliant solution. But then the MIS people say oh no that will mess up our achievement statistics, because you know we'd be running a course March 2014 and we wouldn't be able to say whether your people had passed until March 2015. So they stopped me doing that. So I'm now sort of sticking an end date about 6 weeks after the end of the course. But I'm beginning to think I was a bit daft to agree to that.

(Bob)

There are problems working out how to make the technology perform the roles that are needed by all those involved. Stakeholder-oriented teacher educators report that they frequently have to account for 'poor' results when their figures are inaccurately represented by a system that does not update in real time. It is felt that these problems could be addressed by consolidating systems and consulting users prior to their implementation.

Such negative perceptions reflect the time-consuming nature of the administrative practices themselves, and how tensions exist between participants and technological systems that are not configured to perform all the required functions. Conceptually, all three types of teacher educator perceive administrative technologies as helpful, but in practice experience them as an annoyance. Although the teacher educators did not immediately connect the concept of 'educational technology' to administrative technologies, they referred frequently to these kinds of practices when describing their daily duties. This suggests that while these technologies play a significant role in their work, the teacher educators do not necessarily recognise this. Frequent references to administrative technologies were accompanied by a sense of minor irritation rather than a definite and considered emotional response. The perception of time-consuming activities is possibly the reason for this: time pressures are a well-documented aspect of FE work (see, for example, Colley, James, & Diment, 2007; Gibbons, 1998; Male & May, 1998), and it is likely that administrative technology practices are perceived to be bound up in an already heavy workload.

7.2.2 Communication technologies

Whereas administrative technologies are perceived in terms of the time involved in activities, communication technologies are perceived in terms of their function. The practices surrounding communication technologies reveal a little of how the different types of FE teacher educator experience and manage the tensions of their context.

Product-oriented teacher educators perceive communication technologies as holding potential for student interaction and collaborative learning. They are fully engaged

with the concept of using technology to support learning and motivate students. They consider it to offer something to the learning process as a method of meeting assessment criteria, without detracting from the learning. They believe that trying out new ways of interacting raises student teachers' awareness of their own IT competence and that individuals' IT skills do not inhibit learning:

... a lot of what you're doing is to do with thinking and evaluating and reflecting and all that kind of stuff. That's not a technological skill ...

(Bob)

This teacher educator also felt that students contributed more to the group by engaging in online forum discussions because:

... when you speak you say things a little bit more spontaneously, without thinking them through so much and without planning, and then when you write an assignment you plan it in some detail. Well the forum is kind of a funny mixture of both.

(Bob)

He asserted that students would not ordinarily read another student's assignment, and that forum posts therefore expose them to others' more fully formed ideas. He believes that working with this kind of technology challenges teachers to analyse effective teaching, but that the disadvantage of such methods is the difficulty in assessing individual achievement through collaborative work. The current assessment system does not easily accommodate this and a persistent obstacle to online teaching is students disengaging when activities are not linked to assessment. In addition, when students access online courses remotely using their own equipment, the college cannot provide technical support. One teacher educator explained how he was considering instituting access to a reliable Internet connection as a condition of entry to his online

Preparing to Teach in the Lifelong Learning Sector (PTLLS) programme, although he thought this may have an exclusionary effect. Despite the enthusiasm of the teacher and advances in the technological infrastructure of colleges, the obstacles to effective technology practices that are sometimes believed to have been overcome (see Chapter 3) remain ingrained in the system.

Process-oriented teacher educators view communication technologies as an appropriate method of interaction with younger people and as an opportunity for student teachers to practise using technologies that they will need in their own teaching. This type of teacher educator does not overtly seek out new ways to interact with and encourage interaction between students via technology. They find the use of email to be both acceptable and unavoidable, but consider other technologies disruptive because they fail. They therefore try to limit student teachers' dependence on them. The institutionally sanctioned means of communicating information to students, for example via an IWB, frequently cause teacher educators problems and they would often prefer not to use them:

Just had call from Gloria. She said she planned to invite me to Mon evening's session and hadn't forgotten about me. Was glad I hadn't come to first session because kafuffle with number of students ... finally ended up with 16 instead of the expected 7–8. Had 6 the first night who hadn't been put through 'the system' yet, so that caused problems, couldn't log on etc ... Then had college quality observation last week. And got there a bit early to find the projector showing 'the pink screen of death'. Very stressful because had to move to a new room and felt all over the place so didn't appreciate being observed – thinks 'a bit long in the tooth' for it ... Said she was glad I wasn't there because all that gets in the way and 'isn't reflective of what you do, of what you planned' ... (Field Notes 4/2/14)

Although the colleges are considered to be well equipped, infrastructure issues persist. The teacher educators feel that technical support is needed to manage unreliable equipment, but initial teacher education (ITE) sessions often take place after the technical support team's working day is over. Gloria experienced a similar problem during the evening lesson that I observed the following week, during which the equipment failed again and the only colleague still in the building could not help. She then had to move the class a second week running. Teacher educators therefore work within larger systems of support that do not always meet their needs. The discrepancy between the number of students she expected and the number who had been enrolled and/or 'put through the system' was very disruptive, but out of her realm of control. Stakeholder-oriented teacher educators consider communication technologies a means of conveying important information between teacher and student, and their primary concern is the feasibility of different approaches, since students have to engage with any method for it to be successful. A text alert system might be convenient, but texts are also thought to intrude into personal space and email is believed to be more appropriate for a formal relationship. Some of the assumptions made by the college about how students will engage with technology have proven problematic:

During induction you have to have an email address for their Moodle accounts cos it won't accept anything unless it's got an @ address on it and we don't give them email accounts so we have to use their own ... We send their book fines by email ... and many were going to parents. And when we said to students do you have an email address they're like no, what do they email for? They've got everything else, they don't need email. So I mean they've quite often had to have an email address to set something up but once it's set up they don't need it, so they might have ... deleted it or never go into it... They're going to have a shock when they go to work aren't they, and have to use email everyday ... I asked a student this morning, and she was actually ... I know her so I know she

uses technology fine and everything, and she had to attach something to an email to send to a tutor and we went through a right palaver getting her logged into her own email account and attaching something. It was really surprising. She kept saying I just don't use this, she kept saying to me why would I want to use email?

(Faith, learning technologist)

Email is standard practice in many office-based jobs, and colleges have incentives to embed wider employability skills into students' daily routines:

Inspectors want to see colleges promoting and developing employability skills with the 16–18 learners, so maybe that use of technology comes under that employability umbrella.

(Wallis)

I think they've changed tack slightly. Cos what was 21st century skills? 2003–4? Now it's not so much about technology, cos in a way I think maybe with older learners that's where the deficit is. You get 16–18 year olds coming in now, they're pretty savvy really aren't they, more so than us. But employability, there's funding for employability obviously because all the 16–18 year olds have done a Learning to Learn award on top of their actual course.

(Gill)

Stakeholder-oriented teacher educators are not convinced that students like working with technology, and believe that teachers need to understand this and provide alternatives. They too perceive emailing to be unavoidable in their work, but note that not all teachers possess the required technological skills.

Email and other communication technologies reduce the need for face-to-face interaction with students, but the loss of dialogue and potential connectivity distortions can serve to inhibit, rather than enable, communication:

You also then need to understand some sort of fundamental principles of how we communicate. We don't just communicate by what we say, maybe a very poorly synched picture of our face – a lot of the body language and dynamics of a group discussion is lost when you do it remotely. It can seem very stilted and strange, so the expectation of what you're gonna get out of it, it cannot be the same as if you're all in a class.

(Jim)

These perspectives demonstrate the importance of communication to the teacher educator role, but reveal differences in the nature of that communication.

- *Product-oriented* teacher educators believe that technology adds something to what they already have and opens up new possibilities for learner engagement.
- *Process-oriented* teacher educators prefer face-to-face collaborative dialogue: discussion with others facilitates engagement with the subject, and exploration of beliefs and behaviours. Technology is not necessary for this process, and when it fails, it substantially detracts from what could otherwise be achieved, so dependence on it is deemed inappropriate.
- *Stakeholder-oriented* teacher educators note non-teaching communication with students, which reflects their role as programme managers. They seek to find the balance between what they need to achieve and the alternatives available to them.

7.2.3 Learning technologies

The teacher educators referred to the technologies involved in their teaching and learning practices frequently, indicating that they play a significant role in their work.

For *product-oriented* teacher educators, these technologies enhance learning because they are engaging and fun. They 'liven up' and 'break up' the monotony of classes (Wynne), by getting learners out of their seats and occupied in hands-on activities. This helps them to interact with one another and learn to think for themselves without the teacher. Consequently, the learning environment can expand outside the classroom. Technology use in this sense is a targeted activity directed by the teacher. This type of teacher educator does not, however, like 'boring, old-fashioned' PowerPoint presentations and would prefer to see alternative presentation software being used to give the material a 'fresher feel'. The unreliability of technology is not considered a problem, because they feel they have adequate technical support. However, they are discriminating in their choice of technology-related activity and consider that they require more time to develop good-quality resources, warning:

There's no panacea – any piece of technology can be made mind-bogglingly boring and useless if you try hard enough.

(Bob)

Process-oriented teacher educators also consider learning technologies to be fun, hands-on tools that can break up classroom monotony. They deem them appropriate for younger student teachers and their learners, who are 'very used to looking at screens' and whose 'concentration spans are honed to the duration of a television advertisement' (Gloria). However, these teacher educators primarily consider learning technologies to be resources that supplement the learning by providing a stimulus for imagination and acting as an extension to the teacher. They also understand learning technologies to include quick and remote access to additional resources. Using technologies can support learning needs and meet inspection requirements. They have endless possibilities for use and can have pleasing aesthetic qualities. Process-oriented

teacher educators aim to make student teachers aware of new technologies and encourage them to explore ways to use them in their teaching.

They do not, however, accept all uses of technology for education, arguing that that teachers rely too much on 'whizzy' technology (Wallis, Gloria, Ian), and that it can be used as a 'smoke and mirrors' activity (Wallis, Gloria), or a 'gimmick' (Ian), without attention to its actual value for learning. Over-reliance is a problem when technology fails, and this group believes that it fails too often. Preparing resources and learning how to operate technologies when they might not work is an inefficient use of their time. They do not feel that requirements to use technology in their lessons are appropriate, considering that it can be less suited to higher level learning activities based on dialogue.

Stakeholder-oriented teacher educators value the immediacy of learning technologies and the wide range of resources available. They perceive technology as supporting other educational goals, such as improving confidence and developing life skills. For example, inserting searching skills into an activity or adding additional tasks to the VLE is not considered a wasteful use of time. For this group, technology enhances learning by increasing the assortment of methods and styles on which teachers can draw. Technologies are not suitable for all learners or all subjects, and can be demotivating for student teachers from settings where it is not widely available. Like the process-oriented teacher educators, this group is also concerned that student teachers may overly rely on 'whizzy' technology, becoming 'slaves to it' (Jim) and unable to manage when something does not work or goes missing. They think it important that student teachers learn how technology must be 'fit for purpose' (Gail) and should 'fit with your learners' (Gill). They consider the high volume of

technological resources available to be problematic, asserting that student teachers can 'drown' in it (Gail), so it is the teacher educator's responsibility to signpost them towards high-quality materials.

These different opinions about learning technologies between the different types of teacher educator hint at their perceptions of the raw essence of teaching and learning, and what their own role in that process is.

- For *product-oriented* teacher educators, perceiving themselves as excellent teachers and expert in their specialist subject area means that they believe they can find methods of using technology to both enhance learning for their students and demonstrate good practice.
- *Process-oriented* teacher educators display a more ambivalent relationship with technology. Chapter 6 suggested that the importance of their original subject specialist identity is reduced as they move into the new 'home' role (Noel, 2006) of teacher educator, in which they do not feel expert in all aspects. This may go some way towards explaining why this group of teacher educators place the responsibility for exploration on their student teachers, acting more as a guide and sounding board for them to reach their own conclusions.
- *Stakeholder-oriented* teacher educators emphasise the importance of the individuals involved in the learning process.

These differences are explored further in section 7.3.

7.2.4 Organising technologies

Organising technology practices contribute to the management of the environments in which learning takes place within the purview of FE colleges. This includes both the physical arrangement of technological equipment that affects how work activities are conducted and the ways that learning is located spatially and temporally through the use of technology-based learning resources.

The teacher educators in this study consider the technological infrastructure in their colleges to be adequate. Most classrooms are equipped with an IWB or projector, and many contain a small number of PCs. Where additional computers are required for a class, tutors can arrange for laptops to be provided or book a computer suite. The teams responsible for technical support are also considered effective, although technical issues are not usually resolved immediately. As observed in section 7.2.2, technical support teams are unavailable during the evening.

However, despite the availability of technology resources, there are still many hiccups in their application in practice. All three types of teacher educator pointed out that when technologies fail, it is disruptive and learners lose access to resources. *Stakeholder-oriented* teacher educators added that they are prevented from doing much of their own non-teaching work when the Internet connection fails. However, they all agreed that making materials 'remotely' accessible to learners in their own time was valuable. Students are then able to access additional resources from the VLE and work at a pace appropriate to them – and this can solve some problems caused by unexpected student absence. But all types of teacher educator indicated that remote learning through technology is not always suitable, because students have differing ability levels and needs that require face-to-face contact, which cannot be adequately

substituted through technology. Consequently, the teacher educators feel undervalued when they are obligated to use technologies in ways that they deem inappropriate.

Both *process-oriented* and *stakeholder-oriented* teacher educators added that locating work practices within technology-based systems might give students value for money, but it is disadvantageous for teachers:

It's hard work running an online course, because you know everyone's obviously got access to you day and night and it's so tempting to go on and see if somebody's uploaded –you know our Moodle page, when students upload work, you know, if you're home, and you think I'll just see who's uploaded and it's half past 10 and then you start reading ...

(Gill)

It's all-consuming, actually. At least all the students have gone home at whatever time and you don't see them until the next day, but they think you're completely accessible 24 hours if it's an online thing.

(Wallis)

In traditional modes of education in which student–teacher interaction takes place face-to-face inside the institution, there is an inherent boundary between teacher and student. Although teacher work may frequently occur outside the institution, this is largely invisible to students. These comments from Gill and Wallis suggest that this boundary is affected by relocating education work to the virtual space – a matter returned to in Chapter 9.

7.2.5 Summary

The technologies implicated in teacher educator work form part of routine practice in FE. The attitudes held towards these highlight some ways in which teacher educators negotiate their professional identity through engagement in these practices.

Administrative technologies are perceived to be concerned with the business needs of the organisation, contributing to competition and quality issues that are driving forces behind practice in this setting. The teacher educators have positive attitudes towards the technology and its potential for use, but negative perceptions of how the technology is used in practice. Concerns are related to professional value, status and recognition, with questions raised about what data is gathered, whose responsibility it is to record it and what it is used to measure. Administrative practices are felt to be an *addition* to what is considered the 'real work' of teaching.

Perceptions of communication technologies reflect the central role of relationship building and maintaining in teacher educator work. Apprehension of the potential disruption caused by technology hints at a deeper concern about teacher authority and autonomy. Relationship management, and therefore communication practices, are *part* of the 'real work' of teaching.

The teacher educators appear to have given the most thought to the role of learning technologies in their work, because teaching and learning lie at the core of their practice: this *is* the 'real work' of teaching and this is where their expertise sits. Opinions about the value of technology to the teaching-learning process rest on underlying assumptions about teaching and learning. With the exception of its compulsory presence in observed lessons, this is the area in which these teacher educators have the most autonomy in their selection and use of technologies, and the differences in attitude towards them supports the notion of an underlying orientation towards the product or process of learning.

Organising technologies *frame* the 'real work' of teaching and are experienced in terms of the disruption to the teacher educators' personal needs. These technologies

centralise the organisation of learning, causing the teacher educators to adjust the traditional boundaries of their practice. This involves a renegotiation of the professional self.

7.3 The role of technology according to teacher educator type

The teacher educators in this study hold different perceptions of the technology practices involved in their work. This section attempts to explore further how these perceptions align with the broader characteristics of teacher educator type according to the typology framework presented in Chapter 6.

7.3.1 Product-oriented teacher educators

Product-oriented teacher educators are chiefly concerned with the administrative and learning functions of technologies. Administrative technologies are embedded in their work, for example in reference to an ITE lesson, one teacher educator commented:

... it was really obvious when we talked about the roles of a teacher, how much IT stuff there was ...

(Wynne)

Yet despite this, it is seen as technology that diverts time and energy away from teaching. Learning technologies, on the other hand, are a welcome addition to the classroom and many organising technology practices are perceived in terms of their contribution to learning.

Product-oriented teacher educators are committed to using learning technologies because they hold so many possibilities for positively influencing the learning environment. This is considered to be the essence of their role.

I think it engages the students ... it allows them to interact with one another. If you're just didactic to them all the time ... I think there is a place for that style of teaching, but I don't think it's in FE anymore. The way we deliver now is a lot more bubbly. It's like we put a lot of energy into it a lot of the time, so we've got different methods, we'll start with lesson openers and different games just to engage students and wake them up and make them feel alive, and then different delivery methods, where we've got students up and around the classroom manipulating things, using the whiteboards, copying or demonstrating.

(Floyd)

Learning technology practices motivate and engage learners, and make learning more fun; as such, its use is built on the same principles as any effective teaching. It is not viewed as something that transforms learning, but rather as something that improves

it:

I just think if you have a computer, to use that for students to do their own research just works better to break up what you're normally doing. If you do that every lesson it wouldn't really work, you'd be bored wouldn't you, so you have to sort of vary it and use it very selectively I think. In my language lessons– there is a lot of scope – online quizzes, online grammar sites and if you were really conscientious then people could do amazing things and really practise and really learn and be really good... In the teacher training ... you obviously want to try and embed some of that because you know that in all the teachers' skills we know you can't do without [technology].

(Wynne)

Product-oriented teacher educators consider it good practice to demonstrate technology tools to their student teachers, who are there to learn the practical skills of teaching, such as 'questioning techniques or use of IT' (Floyd). They perceive ITE in terms of producing competent practitioners to deliver vocational skills-based subjects. To this group, teaching necessarily involves the imparting of information, and this

provides some explanation for their perception of technology as primarily a motivational tool: something that engages learners and helps them participate in learning processes.

Although many of their students are from vocational areas in which technology might be considered more or less appropriate than in ITE, these teacher educators believe that different levels of technological ability can be addressed through differentiation strategies. They are willing to experiment and learn new skills, and consider this an important quality of good teachers:

I don't believe everybody could go out and deliver sessions ... You either have the skill to do it or you kind of don't.

(Floyd)

Orienting learning towards the future, for example making courses available online, is perceived as a crucial educational development.

These perceptions of the value of technology reflect how the teaching element of their work is the primary concern of product-oriented teacher educators. Exploring new technologies supports their belief in themselves as excellent teachers, and as such they are enthusiastic about technology in many of the ways set forth by Collins and Halverson (2009), as described in Chapter 3. Product-oriented teacher educators were described in Chapter 6 as strongly attached to their institutions and comfortable within FE discourses. They accept, and are able to work comfortably within, imposed inspection frameworks and are therefore at ease with requirements to include technology in their lessons. They feel well equipped to continue to integrate technologies into their work, and feel that these technologies enhance teaching and learning practices.

7.3.2 Process-oriented teacher educators

Process-oriented teacher educators, meanwhile, perceive all technologies to be 'tools' to be employed as required. In this respect, learning technologies are no different from other kinds of technology and are perceived as resources that support learning activities. These teacher educators are suspicious of technology use for its own sake and consider it to be sometimes employed without due attention to its pedagogical value.

Process-oriented teacher educators are concerned that student teachers depend heavily on technology and are sometimes unable to teach effectively without it. This is deemed unwise, because technologies so frequently fail to work as anticipated. They feel that they themselves are discerning users of technology in their classrooms, but they engage in administrative, communication and organising technology practices routinely. They consider many different technologies to have potential for teaching, but do not prioritise exploring these because there are more pressing demands on their time, such as travelling to and carrying out developmental observations of teaching, holding tutorials and assessing student assignments. These are the core aspects of their role, contributing both to the direct development of their student teachers and to the more mundane, but no less important, retention and achievement rates. These teacher educators are not anti-technology, but consider their proficiency in this area limited. Some feel that they would be more technologically ambitious in their teaching if they could guarantee student teachers access to technologies in their own teaching environments or if they were earlier on in their careers. This implies that age may be a factor in adopting technology practices, although it is more likely that this is related to

the notion that teacher educator expertise is developed over time (see Chapter 6, section 6.4).

Process-oriented teacher educators consider different levels of technological ability among students to be problematic, because the strengths and weaknesses of individual teachers result in some being less suited to technology practices. They therefore think that it should not be a requirement. 'Good practice' to these teacher educators, then, is helping student teachers to decipher the value of learning technologies for themselves and to employ specific tools according to the pedagogical purpose at hand:

As a teacher trainer that's what you do. You have to look at how this can be adapted to a huge number of teaching situations and that's what I add to the pot. I might throw that idea in when we're talking about their own classroom practice and that's the bone they might pick up.

(Chris)

The aim of this group of teacher educators is to make students aware of their own practice and its implications for learners and learning. These teacher educators will therefore encourage students to use technologies in teaching more than they use them themselves. Because technologies will remain entwined with education, they are necessarily included in discussions of the theories underpinning teaching practices. As a group, process-oriented teacher educators are much less likely than others to use social media and do not welcome such distractions in their work:

We've got to interface something between social networking, so students have got mobile phones, and they are texting, social networking in class which is a constant – *constant*– irritation, so students need to value why they're in college and the learning.

(Gloria)

This attitude reflects their tendency to a processual approach to teaching and learning, whereby learners share the responsibility for their learning journeys, but it also hints at a preference for a more traditional teacher–student relationship whereby the teacher is afforded respectful attention.

The professional values of this group are not threatened or changed by the presence of technology in learning practices where they feel it plays a valid part, even while they may remain apprehensive about the role of technology in inspection frameworks. Although they encourage student teachers to explore new technologies and not to rely on a small repertoire, for example PowerPoint, to deliver the 'basics' of teaching, process-oriented teacher educators are likely to use a limited range of technologies themselves. This reflects the tension between the two competing teaching discourses present in teacher educator work – the dominant practical skills discourse, which coexists with a desire to create conditions that facilitate critical analysis on the part of students (see Chapter 6, section 6.4.2) – which appears felt most keenly by processoriented teacher educators.

Learning technologies are therefore foregrounded in process-oriented teacher educators' minds, despite a significant proportion of their work necessitating engagement with other kinds.

7.3.3 Stakeholder-oriented teacher educators

Stakeholder-oriented teacher educators believe that technology has to be used appropriately in teaching and learning practices, but they are generally receptive to it. Like process-oriented teacher educators, stakeholder-oriented teacher educators feel that their role is to help student teachers to develop future practices, and so they aim to instil an attitude that will enable this: It's not being afraid to twiddle on it I think, and if you empower people to twiddle with it enough that they can get something out of it then they will experiment with newer stuff. And they're also less likely to be scared of completely new stuff.

(Jim)

This group feels that the equipment available in colleges is quite limited, but that it is unlikely to change because updating the infrastructure is expensive. The challenge for student teachers is to develop their abilities to use these existing technologies in more ways that enhance learning. These teacher educators are themselves not especially 'whizzy' (Gill) with 'snazzy' technologies and are interested in learning only what is essential according to the needs of their job. They are the most likely of the three types of teacher educator to cover the non-teaching aspects of the teaching role, such as administration and communication practices, with their student teachers. This is probably the result of the importance of administrative and organising technology practices in their own management roles. Indeed, this type of teacher educator appears more aware of the degree to which these kinds of technologies feature in their work, and their frustrations with technology are related more to administrative systems than to other kinds of technologies.

In keeping with the characteristic balanced views of this group, stakeholder-oriented teacher educators have a less ideological relationship with technology than the other two types. They tend to weigh the potential advantages of technology use against the expense. They view it as something that can motivate learners, support learning needs and increase access to learning across space and time, but they also recognise the considerable cost of developing effective technology learning practices, in terms of both time and money. They believe that a technology infrastructure meets some

expectations of students, but appreciate that technology does not benefit every person in every situation. Consequently, the focus of this group is on the suitability and relevance of technology to the learning situation and to the learners involved at any one time:

You'll be talking to your colleagues in the staffroom, you'll find a website, you'll go: 'Oh this is great. I love it. I'm gonna use this' ... And then for some reason, for your group of learners, you know, either the font's wrong, or it's too complicated, or it's set at too high a level ... Just because you like something... you can fall into the trap of delivering in your own style, can't you? But it's not about that. It's about what does your group profile say – so I'm very wary of that, just because I think it's a great thing to do, or maybe I think that they don't need it. Well who am I to say? It's diverse in lifelong learning, isn't it? You know, they might definitely need it in the military ... Well it's gonna be very structured, very 'PowerPointy', very mechanical ... You know, it'd be wrong in another context but not in that ...

(Gill)

Responding to student need is a core professional value for this group, and they perceive many of the practices for which they are preparing students to be related to technologies.

7.3.4 Summary

It is evident that, despite the presence of so many different technology practices in their work, when talking about technology these teacher educators tend to have *learning* technologies primarily in mind. The predominant perceptions of technology and learning for each teacher educator type can therefore be summarised as follows.

• *Product-oriented* teacher educators are *embracing* users of educational technologies. They emphasise how they can utilise the motivational and

engaging qualities of technology to support students' engagement with learning activities. There is a strong emphasis on the social nature of learning and the kind of conditions that teachers need to create in order to facilitate this.

- *Process-oriented* teacher educators are *discerning* users of educational technologies. They focus on student teachers' exploitation of technology to support learning, rather than their own, emphasising the need to relate it to specific learning aims. Their uses of technology reflect their orientation towards learner-centred education, in which the act of learning takes place cognitively within individuals.
- Stakeholder-oriented teacher educators are responsive users of educational technologies. They view technology practices as linked to their overall educational mission. They emphasise the need for technology use to complement specific groups of learners and the practices in which they will need to engage. They routinely perform a cost-benefit analysis of technologies in learning.

7.4 Conclusions

Teacher educators' professional work is replete with technology practices, a significant number of which, in contrast with Hammond's (2011, p. 297) assertion, are not 'optional'. Although these teacher educators profess to be in favour of educational technologies, as has been implied in a number of studies (see for example Drent & Meelissen, 2008; Simpson, Payne, Munro, & Hughes, 1999), many of these practices constitute an obligatory, but unwelcome, addition to their role. However, it appears

that the stated benefits and frustrations arising from the different areas of technology practice are not explicitly recognised as rooted in separate practices; instead, they contribute to a general sense of 'technology' as a whole, which results in a muddled and contradictory attitude towards technologies. This may help to explain variation in espoused beliefs and in-use behaviours (Argyris & Schon, 1974) in relation to technology practices.

The needs of the college 'business', as described in Chapter 6, mean that certain uses of technology, for example recording and monitoring data, are prioritised. The college requires many such practices to be carried out in certain ways, and this obligation is experienced by the teacher educators in areas of their practice in which they consider it incompatible with their professional judgement, such as the classroom. The perception is that it is more important to the college that technology is used than what it is used for. This offers some insight into why many teacher educators define technology primarily as a learning tool – as part of the 'teaching toolkit' – and insist on pedagogical reasoning behind its use rather than conceptualising it as something that is fully integrated with their work. A traditional transmission model of teaching and learning remains dominant in this setting, and the teacher educators, while participating in the full range of required technology practices, have differing opinions on the extent to which technology practices should be required of them or their student teachers.

Deconstructing the term 'technology' into its related practices helps to illuminate how technologies are configured in education. Overall, technologies play a slightly uncomfortable and contested role in teacher educator work that appears related to the lack of choice in how they engage with them. This gives rise to the slightly negative

attitude towards learning technologies expressed by some teacher educators that may actually derive from the tensions inherent in their administrative, communication and organising technology practices being unconsciously transferred into the learning arena. For others, however, the frustrations associated with non-teaching technology practices are more easily articulated and separated from learning technologies, which are embraced. Viewing them in these ways provides further insight into why some teachers might appear to be enthusiastic about technology and others appear more sceptical (Collins & Halverson, 2009), as outlined in Chapter 3.

The three types of teacher educator have very different conceptions of how technology forms part of their professional expertise, depending on whether they perceive it principally as:

- a motivational tool, in keeping with acceptable skills and technology discourses of FE;
- a neutral learning tool, undeserving of the surrounding hype that imposes it on their practice; or
- a feature and requirement of modern life a social reality that should be reflected in educational approaches.

7.5 Chapter summary

This chapter has highlighted the differing, and sometimes conflicting, logics within the configuration of teacher educator technology practices in FE. These are obscured by a common tendency to perceive technology as a separate and independent entity – a tendency that also is visible in policy. Educational technology is therefore popularly understood to be part of the 'teaching toolkit', rather than as part of distinctly different kinds of technology practice. Entwined within these complex practices are discourses of learning and of obligation. The next chapter picks up these themes, specifically addressing how and to what extent these teacher educators develop expertise in technology practices, and exploring how this constitutes a site of professional identity enactment.

Chapter 8 How, and to what degree, do teacher educators develop their expertise in educational technology?

8.1 Introduction

The previous chapter concluded that discourses of learning and of obligation are entwined with technology practices in initial teacher education (ITE) work within further education (FE). The sense of obligation is derived from both institutional directives and individuals' varied perceptions of the role of technology in teacher educator practice. This chapter now explores teacher educators' educational technology expertise, given the differing and conflicting logics guiding their practice. It seeks to answer the following research question and sub-questions.

- 3. How, and to what degree, do teacher educators develop expertise in educational technologies?
 - a. What kinds of educational technology expertise are considered necessary in this context?
 - b. What forms does teacher educator learning about technology take?
 - c. In what ways is teacher educator professional identity enacted through these learning practices?

8.2 Technology expertise for FE teacher educators: To what extent is technology something that they need to learn?

The data indicate that there are certain expectations embedded within technology practices in FE colleges. Although these extend to the need for documenting and measuring performance through *administrative* technology practices, and are framed

by *organising* technology practices, as discussed in the previous chapter, in the teacher educators' accounts, the notion of expectation is predominantly attached to technologies shared with students – that is, *learning* and *communication* technology practices. The teacher educators consider the ability to engage in these particular sorts of practice an essential professional resource, and the expertise that they require to do so is determined by three distinct areas of professional responsibility: their student teachers' needs (*student-led technology expertise*), their own teaching practices (*teacher-led technology expertise*) and their institutions' expectations (*institution-led technology expertise*). The multifaceted nature of the teacher educator role discussed in Chapter 6 means that the nature of the expertise required for the role is equally such.

8.2.1 Student-led technology expertise

But mostly it's about trying to get them to think about why they're using it and to use it to its best advantage for their students.

(Chris)

From this perspective, the expertise that teacher educators require is concerned with ensuring that student teachers develop their own technology practices, as stipulated by awarding bodies and employing institutions. This involves student teachers improving their ability to operate devices and software (*instrumental IT competence*) and their ability to use technology to enhance learning (*pedagogical IT competence*). In order to achieve these aims, teacher educators must maintain a breadth of awareness about current technologies pertinent to education and expose student teachers to some of these. This requires both modelling their use in practice and creating opportunities for student teachers to experience them. Some of the technologies involved are readily

available in college settings, for example interactive whiteboards (IWBs) and virtual learning environments (VLEs), but the teacher educators also proactively seek out alternatives:

You have to try to incorporate something different or make people aware that there are other things. I think most people think it's just PowerPoint and ... I always think if you use educational technology it's got to be the students doing it, not just looking at it ... On the PTLLS they have to research a few learning theories ... what's the other thing that we did? Oh, I modelled a micro-teach and then had follow up research things and quiz things to get them involved. Or you know, get people up to the board and draw with a – what are they called – the interactive whiteboard. Just try and incorporate it to give people ideas.

(Wynne)

These teacher educators believe that technology should be integrated with their own teaching practices because student teachers need it, but they offer vague descriptions of exactly what it is that they need and how this is best achieved:

They need to experience it. They need to see it and they need to have a go at it. Yes. But they don't really need a lesson on how to do it.

(Jim)

I think by participating ... they're learning from doing this online course. I'm hoping it's giving them ideas about including a bit of online stuff in their own teaching.

(Bob)

They feel that developing student teachers' technology practices is embedded intuitively in their courses, and while they discuss the value of technology as a learning resource with student teachers, they do not typically distinguish technology practices from other elements of teaching. The aim is that student teachers develop and evaluate all of their practices, including technological ones, with the intention that

they become teachers with 'the ability to see the potential in technology they might not have considered' (Wallis), 'critically looking at everything that comes in and not just accepting that it's there' (Chris).

From a student perspective, teacher educator technology expertise forms part of a wider understanding of ITE as preparation for real-life teaching and the teacher educator's role in this. There is a heavy emphasis on what student teachers will go on to use in their future practice rather than on what they need to know specifically for their qualifications. Seen from this perspective, the teacher educators feel that they must learn 'what new things are going on out there' (Chris). The other kinds of expertise bound up in these practices, such as modelling good practice and developing critical thought, are already considered to be familiar and established in their work.

8.2.2 Teacher-led technology expertise

Expertise in educational technologies seen from a teacher perspective, however, reveals that most of the teacher educators consider neither their own pedagogical understanding of technology nor their ability to use such technologies to be well developed. Of the three types of teacher educator, product-oriented teacher educators are the most confident in their ability both to operate digital equipment and to understand what they aim to achieve by involving technology in their interactions with students. All types demonstrate that they are willing to engage in continuing professional development (CPD) and to learn more about technologies, but the extent to which they feel that this is essential for their work varies according to type.

Product-oriented teacher educators display an active enthusiasm for learning more about how technology might add something to their teaching practice:

I'm doing my best to transfer those principals to online learning. Because a lot of people will say to you there's no way you can really learn stuff online, you've gotta be in a classroom and all the rest of it. And I am weaning myself away quite effectively from thinking that that is the case. It's all really interesting. Really interesting. It's really interesting to see, to engage with this issue of getting people to learn stuff in a different context, using different vehicles.

(Bob)

Process-oriented teacher educators, meanwhile, suggest that there is no need for them to engage with technologies in this way:

What I'm actually trying to do is get them to think about it so therefore I don't necessarily *need* to know. Cos people are creative, they can think for themselves. So if I give enough prompts, or I question in the right sort of way, then they will start that thought process and they will come up with something. (Chris)

Stakeholder-oriented teacher educators indicate a level of uncertainty about their pedagogical knowledge, but believing that technology contributes to wider educational goals inspires them to learn more:

We need to understand how it can be used more than it is.

(Jim)

I like to think of blended learning as being a very good approach because ... the teaching of your own specialism is the tip of the iceberg – when you're in the classroom with people, aspiring teachers or other students, you are developing their personal skills, their confidence, and that is done by other ways, by group activities, by drawing out certain individuals and those are skills that are probably better done by a teacher who is very aware of individuals and then uses the technology as a tool to support that ... You've got to be brave enough to have a go, so that takes a bit of nerve doesn't it, because sometimes things don't work.

(Gail)

From a teacher-led perspective, then, the teacher educators perceive developing understanding of the relationship between technology and learning either as an exciting opportunity or an unnecessary addition to their role, but certainly as something that can be explored further. Attitudes towards what they need to learn are in keeping with their perceptions of technology described in the previous chapter:

- *product-oriented* teacher educators exhibit a generally positive stance towards learning technologies;
- *process-oriented* teacher educators tend to place more emphasis on specific learning aims when evaluating technology; and
- *stakeholder-oriented* teacher educators display a tendency to consider their place within a student's overall educational experience.

8.2.3 Institution-led technology expertise

The third perspective from which the teacher educators view technology expertise to be required is that of the institution. As has been shown both in this chapter and the last, this group of teacher educators feel that they should use technology in their teaching, but their institutions also oblige them to engage in firmly structured technology practices. A common example of this provided by participants was mandatory technology use in observed lessons – but there are also a number of other sites of obligation within the technology practices of FE ITE. Although these often involve the same devices or software as *learning* technologies, from an institutional perspective they frequently perform an *organising* function in the arrangement of teaching and learning in the college. The skills required to engage in these practices are often not perceived as constituting professional expertise, but rather as the peripheral demands of being an employee of the organisation. The teacher educators

experience this kind of obligatory practice in a number of ways, but the extent to which it is felt to be consistent or incongruent with their professional values and expertise differs.

Product-oriented teacher educators do not object to technology directives within the inspection framework, because the desired uses often align with their own perceptions of how technology contributes to learning. They believe that students should operate the technologies themselves, and they naturally turn to technologies to motivate and engage learners. They, in common with their line managers, perceive widely used technologies such as PowerPoint to feel stale, instead preferring alternative presentation software:

... a lot of members of staff here always use PowerPoint, so we've been having a look and researching different ones such as Prezi and stuff like that. It also gives our students a fresh feel every time they go into the classroom: they haven't got the same PowerPoint presentation, they can interact with different applications. (Floyd)

In contrast, other types of teacher educator are less likely to automatically turn to presentation software as a learning resource:

I've seen so many teachers when they start think the only way to communicate with a group is via PowerPoint, or some of the more whacky ones, via Prezi, which is actually PowerPoint but just looks different. It just whizzes doesn't it, all over the place ... You see it in their early micro teaches that they will almost be glued to the PowerPoint, and they won't, you know, read their slides ... but they are very much a slave to this presentation. Hmm and it's about saying yeah it's great to have that, but it should be there to support what you're doing.

(Jim)

Process-oriented and *stakeholder-oriented* teacher educators have a preference for more dialogic approaches to their own teaching, and a desire to help their student teachers to relax into the teaching role and find their own way, as described in Chapter 6. However, despite disagreeing with the notion themselves, they report feeling compelled to use PowerPoint in their teaching, especially during inspection:

They don't seem to appreciate that the teaching activity itself cannot be driven by a PowerPoint, and ... in this college, for example, in the internal observation process, you are actually marked down if you do not have the smartboard on and if you don't have some sort of – they honestly expect just a PowerPoint slide. If you have a PowerPoint slide on then that's fine, you get the grade, you can get the tick in the box.

(Chris)

Yet even this is an area of contention:

Actually, PowerPoint presentations in an observed lesson is going to kick you ... in terms of the marks you're gonna get because it's not what it's about ... There's only so much PowerPoint you could suffer in an hour and a half... the best use of technology I would have thought is that the teacher doesn't do anything with it and the students do everything.

(Derek, senior manager)

Although the guidelines governing the observation process do not set out exact parameters for technology use (see Chapter 3), this indicates that beliefs about technology at the higher levels of the organisation may be rather different from those of teacher educators and not clearly communicated to them. For these teacher educators, it is as though PowerPoint itself has become symbolic of fundamental differences in conceptualisations of what constitutes good teaching practice in FE colleges. Part of the required expertise in educational technology practices is also, then, keeping abreast of the preferences of the organisation's leadership.

The sense of obligation extends further than the observation process and into everyday teaching practices:

Well, in every lesson I have to use technology. I have to use it, you know, cos we have these smart boards in our classrooms and so every lesson I generally use the smartboard and that's just part of my role. So when I'm teaching PTLLS ... in their micro teach they're expected to use some technology. Also ... we're expected to deposit our resources on a VLE ... Now I don't use Twitter, no idea what Twitter is but I'm gonna have to find out about it... You know, as a teacher we've always been told don't go on Facebook and ... as teachers I think we've tried to say we don't allow it, we don't allow mobile phones, now I think there's a change, I think that we say you can allow them ... and that's something that teachers are going to have to learn.

(Gail)

Technology is projected to become more and more entwined with this kind of learning environment: in FE, the future of learning is tied to technology. Technology strategies and teaching and learning policies among the colleges involved in this study indicate that technology is expected to contribute to institutional aims by:

- enhancing learning for college students;
- providing business efficiencies;
- meeting customer expectations;
- promoting a culture of blended learning and SMART (that is, specific, measurable, achievable, realistic, and time-bound) working; and
- maximising participation.

These are clear indications of what colleges want to achieve when they invest large sums in technological infrastructure, and this has an effect on the kinds of expertise required of all teaching staff within the organisation. When particular devices are made available, colleges expect them to be used – and to be used in such a way that reflects the college's aims. These institutional expectations add an extra layer to what teacher educators need to know and do with technology, and demonstrate how professional expertise is entwined with other aspects of being employed in an organisation. Although policies and guidelines may, at first glance, encourage teachers to exercise professional autonomy and judgement in the use of technology to enhance learning, it seems that there is a reasonably significant level of control being exerted by the institution. Teacher educators in this kind of environment therefore also need to learn how to operate within the cultural technology discourses.

8.2.4 Conclusion

Technology practices in FE require teacher educators to develop expertise in several different areas. They feel that they must adequately attend to the needs of their student teachers' present and future engagement with educational technologies. They feel that they must also act to address perceived skill or knowledge gaps in the use of technology to support their own teaching practices. Finally, teacher educators' technology practices are framed by a set of institutional cultural expectations and discourses that organise the learning environment in particular ways. The kinds of expertise thus implicated in teacher educator work include pedagogical knowledge and practice, instrumental technical skills and the ability to operate within, and conform to, contextual discourses. These are not independent areas of expertise, but are rather elements that compete and combine in technology practices in FE teacher educator work. Each area of expertise is simultaneously informed by and informs the others. It is clear, then, that a substantial degree of learning is demanded of teacher educators if they are to participate in these essential professional practices.

8.3 Technology-related learning in teacher educator professional practices: What forms does this take?

When asked to describe how technological expertise is developed, the teacher educators often gave responses such as:

I don't know. I think I just knew before. I don't know. It's really just self-taught stuff.

(Wynne)

Most people don't learn.

(Jim)

... you just pick it up as you go along really.

(Steph)

Although they were able to give more detail when asked to describe a specific occasion on which they had learned something for their job, for example taking a course to learn how to operate the IWB, it seems that they have difficulty explicitly articulating how they develop the technological expertise needed for their work. When talking about educational technologies more generally, however, the teacher educators frequently indicated that engaging with technologies does constitute a learning practice for them and for their students. All such instances of data were therefore analysed to reveal ways that expertise in educational technologies is developed. This resulted in the identification of nine different routes taken by this group of teacher educators. These learning routes are presented in Table 8.1 (see over) in their order of prevalence, based on the number of times that they featured in the teacher educator accounts, together with the practices associated with them.

Learning route	Learning practice of teacher educator type				
0	Product-oriented	Process-oriented	Stakeholder-oriented		
College systems set up	Ask e-learning team	With line manager	Advanced Practitioner		
to support development	Ask to go on training	Training	(AP) team		
(provided)	events		Cross-college training		
	With line manager		Induction		
	Briefing sessions		IT team support		
	CPD at college		Library team support		
	Support from senior		Specific person in to		
	staff		train		
	Training		Training sessions		
			provided by college		
Not stated	Not explicitly stated	Not explicitly stated	Not explicitly stated		
Through own	From solving problems	Experimentation	Having a go and		
experimentation	as they arise	Fiddle	reading the screen		
	Having a go	Had to on own	Locked in room,		
	In own time	Practice	fiddled		
	Practice	They work it out	Not from manual		
	Self-taught	themselves	Trial and error		
	Specialist role				
	Teach yourself				
By seeking help from	Ask students	Ask colleagues	From experience of		
others		From students	colleague		
		Mentored by colleague	From learners		
		Talk about it with	From peers mostly		
		students	One-to-one with		
			library staff, etc.		
			Yell to the nearest		
			person		
External training	CertEd		Course		
	Doing master's degree		University partner		
	Master's degree		training		
	content		-		
	Proper training				
As part of the normal		Absorb and acquire	By talking with other		
course of the job		skills/information over	people		
~		time	Progressively		
		From observations	Accidentally		
			plagiarised		

Through collaboration		As a group with	Sitting with a colleague
with others		students	
Selectively (choosing	Do not – get someone		Do not
not to learn some	else to do it		Most people do not
things)			learn
			Not
Through reflection	Think about it a lot	Through reflection	
on/in practice			

Table 8.1 E	ducational	technology	learning	routes of	teacher educate	ors
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The second most prevalent route listed in the table, labelled 'Not stated', reflects the large number of instances in which these teacher educators talked about technology in terms of a learning practice, but without providing further details of that practice (see Appendix 17). This is included because it both illustrates the frequency with which the learning processes involved in technology practices were seemingly taken for granted and because these instances reveal further clues to teacher educator professional identity that are picked up towards the end of the chapter.

The dominant means of technology-related learning that emerged was through *systems set up by the college* to support technological skill development. Such systems consist of CPD sessions in the form of targeted skills training, specialised support from library staff, technology support staff or Advanced Practitioner (AP) teams, and formalised employee support pathways, such as induction and supervisory procedures. References to this kind of route occurred in the data much more often than any other, suggesting that technology-related staff skill development is a priority in these institutions, but that the institutional conceptualisation of professional development – as described by Evans (2011) and cited in Chapter 3, section 3.3 – positions teaching staff as work-based apprentices acquiring the externally sanctioned knowledge and practices of teaching.

The teacher educators are both aware of and use these college systems. Some are more prized than others, however. Mandatory and voluntary CPD training sessions are not perceived to result in expertise and are not highly valued:

Something is brought in, and usually it's demonstrated to a few people, not most people. They like it and say yes we'll buy that then and then they run training sessions which really just raise your awareness that it exists.

(Jim)

Most of it you're actually just sat there and talked through how it might work. And ideally then you would have a couple of hours to try it, but you haven't, you have to go away and practise by yourself again.

(Wynne)

These sessions are perceived to take time away from other priorities, are often run at inconvenient times and are seen not to provide a sufficient level of understanding for the teacher educators to translate into immediate changes in practice:

I think sometimes people don't appreciate, they think it would be really good to do this, this and this event or this college-wide CPD ... because it would drive us all forward because we'd be so much better at teaching or whatever, but actually what they don't realise is that we would probably need some time to do that planning or write that reference or something like that.

(Wynne)

The best thing is you've got to work with it, haven't you, yourself, really? Because the difficulty is, you've got the set dates of when you're being trained, which might be like February so that's the only time you can go 'Right, we've gotta go to Sharepoint training now.' So you go there and everything else is at the back of your mind and then come May, you think ...

(Gill)

The CPD provided by the college is not perceived to adequately address the teacher educators' needs, many of whom are employed on part-time contracts, cannot attend fixed times and so do not access the training:

We also have little slots you know, during the term, maybe on a Monday or a Thursday in the meeting slots, and I haven't attended anything because I've been teaching, or I was sort of part-time this year and that was my part-time afternoon so I didn't do it ...

(Wynne)

On the registration, because I was new, I was just shown – I was just told that it was there.

(Chris)

Other college systems are more valued, for example the teacher educators believe that APs, or the library and e-learning teams, would be willing to help them. But the most valuable support system is felt to be the informal support of other colleagues, rather than something that is organised by the institution:

You find a lot of staff support with IT so if I can't do anything on a spreadsheet – when it changed over to 2010 that just completely threw me cos I'm not very techie ... you find there's an awful lot of colleague help in there. I can just go '[Colleague], if I want to make this box, if I want to do this, how do you do da da da?' ... We help each other out a lot ... And that's invaluable, Tave. I know that might sound like a staffroom dynamic thing but you'd be lost without that really.

(Gill)

You know you'll sit in there and go does anyone know how I do that. You know I couldn't work out how to hide a column on an Excel spreadsheet the other day and one of the nurses, one of the girls who teaches nursing, came over and said 'Oh look if you just hover ... it's really simple.'

(Wallis)

The informal learning that takes place within workplace settings is well documented (see, for example, Eraut, 2000; Hodkinson & Hodkinson, 2004; Wenger, 1998), and I have already stated in Chapter 2 that teacher educators have been found to greatly value informal networks of support. It would seem that 'learning conversations' (Harrison & McKeon, 2008) between professionals routinely occur in relation to technology practices. However, the potential for colleges to rely too heavily on informal support networks between colleagues has been criticised (for example Clow & Harkin, 2009). This study suggests that not all teacher educators feel able to access this kind of help as much as they would like. Those who are employed part-time do not get the same opportunities to build relationships and familiarity with systems as full-time staff:

... she was talking about how hard she's finding it to work as part of a team again after so long. Planning new course yesterday, felt very separate from manager and [colleague] who work here – said she didn't know what they were talking about because she's on the periphery and has been for a long time ... Does one morning a week, becoming a full day in a few weeks. Said she didn't know how to 'behave and verbalise'.

(Field Notes 2/2/14)

There are structural issues intrinsic to the running of a competitive business organisation that do not encourage the kind of conditions under which teachers are able to fully benefit from informal networks of support. The characteristic large number of part-time staff and heavy workloads of FE (see Chapter 1) inhibit the development and maintenance of those conditions:

I think there ought to be a little bit more of a forum in college for people who are using Blackboard to get together. If I was full time I'd probably push for it a bit harder ...

(Bob)

I would go to [Gail]. Or I would ask in the staffroom. But there's only so much you feel you can do that because everyone is so busy. And really you feel then that you should know. Because after all you're the PGCE/Cert Ed tutor so you should know about these things ... But people are very very helpful. I mean that's one thing that still is part of a teaching culture: that people will support each other and that's really important. But I think even that has diminished over the years that I've been working in FE.

(Chris)

Colleague support sometimes comes at a cost. During one group discussion, 'Gail', who had recently taken on responsibility for distance learning programmes, stated that she had a lot to learn about it and reported on her visit to a private provider who 'successfully manages online provision' for a large number of learners nationwide. She was excited to hear that 'Chris' had experience of developing an online programme and keen to discuss it. Chris expressed serious reservations about the reasons behind the drive to increase this aspect of the college's business, wondering if it was simply 'easy money':

Chris immediately wanted to know what 'successfully' means. The difference in their concerns is very clear – Chris is protective of the depth of learning that should occur at higher levels. Gail says nothing that really disputes this – she's definitely on the learners' side – but her priorities are different. She needs to make this financially viable, that's a simple and unstated reality for her – that's her job.

(Field Notes 12/3/14)

Chris' expertise in this instance was guarded, indicative of her perception of fundamental differences between her values and those of her institution. She was willing to help her colleague, but reluctant to contribute to what she felt could become a corruption of her teaching and learning values – that is, 'buying into someone else's vision' (Chris). The importance of the practices that technology constitutes is apparent here: engaging in technology discourses and practices is way of enacting beliefs and values.

Learning opportunities occur throughout the normal course of carrying out the teacher educator role. I observed one lesson in which a process-oriented teacher educator talked about playing a game on her mobile phone. Her students had introduced her to the game in a previous lesson. One student teacher then recounted how, when one of his own learners played the game in class, he confiscated the phone, 'destroyed his score, and then gave it back', as punishment. The teacher educator did not question this action at the time. When we discussed the incident afterwards, she said that she had brought up the game as a relationship management strategy and did not know how to deal with the student immediately, because she did not know the context of the interaction and could not decide whether that kind of behaviour was appropriate or not. She had now realised that she had no knowledge of any college guidelines on such issues:

She also said that the questions I asked her about tech made her realise she needs to give it more thought. That more was going on with the tech than she had previously thought. Thinks could maybe use it as a focal point for behaviour management and that she might quiz the chap a bit more about his story ... Her professionalism is now demanding she follow it up ... she has gone away to think about the issue, how she dealt with it, what she needs to consider, what new

learning is involved for her in this and how acting on this can link back in with her future practice.

(Field Notes 12/2/14)

The technology was included in the lesson for one purpose, but unexpectedly highlighted a significant knowledge gap in procedures related to technology and professional behaviour in that learning environment. This caused the teacher educator to realise that her conceptualisation of technology as simply a tool might not be sufficient for the realities of her practice. Her reaction to this 'disjuncture' (Jarvis, 2009) thus demonstrates her willingness to learn and develop.

In addition to the occasions on which the teacher educators state that they learn alongside their students, they frequently talk about how they also sometimes rely on them for their technological expertise:

If you ask the students to produce a PowerPoint or something and they come up with some really wacky things and you just say 'Oh that's really good. Can you show me how to do it?'

(Wynne)

Using a smartboard sometimes you forget how to make the pen thicker or thinner or – your students will know.

(Gail)

Sometimes I blatantly use students as well. Cos I know some of them use them a lot more. So we might have a session ... where I say everyone come up and show us how much you know about this ... Cos some of them are really whizzy with it. (Wallis)

As these quotations imply, a lot of what the teacher educators feel they need to know about technology concerns instrumental IT skills. During conversations about developing expertise in technology-related pedagogy and theory, they repeatedly reverted to discussing how they gain instrumental skills. It seems that they have a very practical conception of technology: frequent recourse to the tool metaphor perhaps makes it difficult to conceptualise technology in other ways. They appreciate a need for pedagogical reasoning behind technology use, but cannot easily describe what this consists of, or how they have arrived at their understanding of the technology's role either in learning or their wider professional practices:

You also get used to the kind of tools that suit you. You see other people doing things and think well that's all very impressive but it wouldn't suit what I do. It's not kind of applicable really.

(Wallis)

This is an indication that many technology practices depend on intuition. This might be expected from experienced teachers, but one of the differences between teacher educators and other teachers is their ability to make teaching and learning processes explicit. As a tool, technology remains somehow separate from the core of their professional expertise:

Even when directly asking her about presenting administrative functions of tech to students she lapses into a skills/practical mode, talking about showing them how the system works not discussing relevance in teachers' work – administrative functions are almost invisible?

(Journal Entry 7/3/14)

The numerous references to learning about technologies through active experimentation also serve to reproduce the tool metaphor and practical skills discourse in colleges:

A colleague of mine and myself, locked ourselves in a room with a smartboard and just messed about with it for an hour until we started to think: 'Oh it does that, yeah.' And then once you can make it do the basics, you can use it in the classroom doing the basics and as you go and talk to people and they say: 'Oh it can do that as well,' and next time you try something else and that's how it tends to happen.

(Jim)

I've kind of sat and fiddled and thought I'll see what that does, what that tool does, so [learning is] very trial and error, very experiential ...

(Wallis)

The teacher educators highlight the cognitive aspects of their expertise development when talking about their work as a whole, but when discussing technology, they often describe a more kinaesthetic kind of learning – 'having a go', 'fiddling', 'twiddling', 'pressing buttons' and 'seeing what happens' – rather than reflective thought. This is further indication that technology is perceived as additional to, rather than a constituent of, teacher educator expertise.

8.4 Applying the typology of teacher educators to technology learning practices

The approaches that different types of teacher educator take to technology-related learning illustrate how professional identities are enacted in practice. Within these, it is possible to identify aspects of their wider beliefs and understanding of teaching and learning, and of their professional role and experience of working in this setting, alongside the views on technology that were outlined in the previous chapter.

8.4.1 Product-oriented teacher educators

Product-oriented teacher educators were described in Chapter 7 as *embracing* users of educational technologies, who perceive that the social practice of learning is facilitated by motivational and engaging technology-based tools. They consider

themselves to have good technology skills and seek out ways they can develop further. Their own approaches to learning about technologies support this. Product-oriented teacher educators try to attend formal CPD. The quotations from Wynne in section 8.3 demonstrate that it is not a pressing priority, since there are other demands on their time and they are confident in their abilities to self-teach. Table 8.1 in the previous section demonstrates that this type do not exploit peer support as much as the others, preferring to experiment with technology themselves. This suggests a playful and kinaesthetic attitude to exploring technology's possibilities, as hinted at by Wynne's response to her students' work, and that this type of teacher educator would enjoy working closely with colleagues to explore these further:

... you need to be sure that the e-learning team isn't dominated by people who are not actually teachers, they're techies. So I think that's an important issue really ... there needs to be more exchange of info, perhaps using a blog or something. I was trying to set up a Google+ community actually, but, well, it still might happen ...

(Bob)

The technology learning of the product-oriented teacher educator focuses on employing technologies for teaching. This type of teacher educator has been repeatedly shown to be primarily concerned with teaching practice. Instances in which they have described technology as a learning practice in general terms reveal their basic assumption that all teachers should know about and use technology:

I also do training with staff using interactive technology and stuff like that ... which has kind of improved my confidence and it helps me to support our younger members of staff and also our more experienced members of staff when they're not so comfortable using the technology. *And do you find that that is the case, that people aren't comfortable with it?*

I think there's a little bit of scaredom towards technology, especially with our older members of staff, cos I don't think they've been brought up around it like myself ...

(Floyd)

8.4.2 Process-oriented teacher educators

Process-oriented teacher educators were described in Chapter 7 as *discerning* users of educational technologies, who, in a learner-centred manner, prioritise student teachers' use of technology over their own. They learn what they need to learn in order to achieve specific aims when it is required. Technology is perceived as a tool to be employed for a particular purpose. This leads to a reliance on incidental collegial support. Because they perceive themselves as different from other kinds of FE teacher, it is not surprising that they consider themselves to have different requirements of technology for teaching from those of their student teachers. The practices that they attempt to develop in their students are not considered necessary for their own teaching.

Process-oriented teacher educators' discontent with formalised technology training may be related to a belief that their student teachers might benefit more from these CPD sessions than the teacher educators do themselves. It is evident from Table 8.1 that these teacher educators engage much less with systems set up by the college than the other two types –not mentioning external formalised training once in relation to technologies. In comparison, they frequently referred to higher level learning that they had undertaken in other areas of their professional practice.

This group contributed more than any other to the number of instances collated under the heading 'Not stated' in Table 8.1, frequently depicting technology practices as

learning practices, but in broad terms that reveal frustrations about the working context rather than insight into how practices are learned:

I think it's a bit like the specifications for the teaching always changing. I think things change so rapidly that you don't always have time to get particularly skilful in one thing before you're being asked to use something else ... and they've got a really irritating habit here of updating the system, so everything is new, and I know that sounds mad but even a different kind of way of getting to programmes and things can really throw you can't it ... I know if I do that that that it gets me to that. I'm not very good at these shortcuts, these F1s and things, so I've got my little safe way of doing something so then if they change the operating system and it's a different way of kind of accessing files and programmes and things that throws me a little bit. So yeah, that constant updating limits you a little bit.

(Wallis)

8.4.3 Stakeholder-oriented teacher educators

Stakeholder-oriented teacher educators were described in Chapter 7 as *responsive* users of educational technologies, who link technology practices to individuals and their needs. This type of teacher educator routinely performs what was described as a cost–benefit analysis of technologies in learning. In their technology learning practices, stakeholder-oriented teacher educators demonstrate that they have considered the perspective of all those involved. They view college-run CPD as raising their awareness of, rather than enabling them to use, new technologies themselves and consider that the timing of the training is not well suited to their requirements. But they also acknowledge the need for the college to provide training in the most efficient manner for the largest number of people:

But then they have the guidance sheet that they give you cos they know that everybody's gonna forget, and tick the box to say that everybody's been to the training.

(Gill)

Table 8.1 shows that stakeholder-oriented teacher educators engage with the widest variety of routes to learning among the three types. Those areas in which the group has developed technology learning practices by means of routes 'Not stated' reveal that they feel that successful technology practices result from a combination of individual and collective willingness and contextual conditions that support learning processes:

... if you've got a culture which allows people to make mistakes or things not to work, and the students accept that, that's fine. If you've got a culture where students will complain if you've said I'm gonna do a PowerPoint and it doesn't work ... or a teacher's gonna be observed and the projector doesn't work and they're downgraded, that sort of culture of fear is really gonna make people very anxious about trying new things. They'll only stick with tried and tested. So if you can have an open culture where people can have a go, work with students, trial and error, aware of what's out there, then it should be part of the package of your toolkit as a teacher.

(Gail)

For the stakeholder-oriented teacher educators, then, learning is not just about achieving outcomes or undergoing a process of development, but is situated in a wider context. Part of enacting professionalism is working within the realities of that setting.

8.5 Conclusions

Teacher educators learn how to engage in the technology practices required for their job in a number of ways. There is a substantial amount of support for staff within the

college's technological infrastructure, but teacher educators do not consider this provision adequate for their needs. They think that formal CPD training raises awareness of technologies, but does not result in robust learning outcomes. Several teacher educators feel that the formal support systems are difficult to access and, consequently, that their needs are overlooked. To address these gaps, they actively turn to one another and wider colleague networks in an informal and experimental approach. This is in contrast to Boyd's (2010) assertion that teacher educators are sometimes too reliant on the development opportunities embedded in their institutions, instead supporting the suggestion made in Chapter 2 that 'relationship maintenance' (Ellis, Blake, McNicholl, & McNally, 2011) describes how teacher educators learn and develop. Some part-time teacher educators do not feel comfortable asking busy colleagues for help with things that they feel they ought to already know, however. These teacher educators therefore have increased difficulty accessing two of the most frequently used learning routes. This places a strain on their self-perception as qualified and credible professionals.

Many references to technology learning practices in fact concern the instrumental skills required to operate technologies. Such references also often denote technological expertise required explicitly by the employing institution, for example how to use the IWB or VLE. Little information could be provided on how expertise in technology pedagogies is developed, which suggests that teacher educators may take a passive approach to some of their development, as argued by Boyd (2010). The inability to confidently articulate development strategies reflects a tendency within educational technology discourses (practitioner, institutional and political) to merge the two concepts of instrumental and pedagogical expertise. There is an apparent assumption in policy and literature (see Chapter 3), and among the senior managers

participating in this study, that teacher educators already possess the pedagogical expertise necessary to participate in learning technology practices. How this expertise is formed and enriched remains largely unexplained and unchallenged.

8.6 Chapter summary

Following on from Chapter 7, which examined teacher educator perceptions of the roles of technologies in their work, this chapter has explored the extent to which teacher educators accept and address a need to develop expertise in these areas. It has established that required expertise is rooted in three avenues that compete and combine: meeting their student teachers' needs, meeting their own teaching needs and meeting the needs of the college. The teacher educators' actions to develop this expertise are compatible with their categorisation within the typology of teacher educators. However, technology practices remain on the periphery of what is understood to constitute teacher educator expertise.

The final chapter now turns to a discussion of the discourses of identity, technology and context that have been identified in Chapters 6–8 in order to consider the answer to the central research question.

Chapter 9 Disentangling discourses of identity, technology and context: A discussion and some conclusions

9.1 Introduction

In this final chapter of the thesis, I address how far this study has been able to answer the overarching research question:

To what extent is FE teacher educators' professional identity enacted through negotiating the development of expertise in educational technology practices?

In order to do this, I have returned to the three main questions that were posed at the end of Chapter 3 and which have been explored in detail in Chapters 6–8.

- 1. How do discourses of teacher educator identity align in FE ITE institutions?
- 2. What role do educational technologies play in teacher educators' professional practices?
- 3. How, and to what degree, do teacher educators develop expertise in educational technologies?

Chapters 6–8 were reviewed for their key findings and a meta-analysis was then performed, in order to bring the findings together and explore how they are mutually constituted by discourses of identity, technology and context.

Chapter 6 discussed the multiple discourses of teacher educator identity in the further education (FE) context. Drawing on Holland, Lachicotte, Skinner, & Cain's (1998) concept of 'figured worlds', it was demonstrated that the context of FE acts to position teacher educators in three ways: through *political governance*, through the *business status* of the FE college and through the *vocational history* of the sector itself. The teacher educators in this study were then shown to perceive themselves in terms of five key identities: as *qualified and credible*, as *teacher*, as *different from others*, as *part of FE* and as *employee*. It was argued that a political context that locates FE institutions in a competitive consumer market limits the ways that teacher educators can practise identities as autonomous professionals. However, they were shown to seek out ways in which they can reconcile competing definitions of professionalism. A typology of FE teacher educators was subsequently developed, which illustrated how teacher educators' underlying orientation towards the *product, process* or *stakeholders* of learning results in them experiencing differing levels of comfort with the key discourses of the sector.

The typology developed in Chapter 6 served as a framework for exploring, in Chapters 7 and 8, how teacher educators enact professional identities by participating and developing expertise in educational technology practices. The findings suggested that technology practices in FE initial teacher education (ITE) are congruent with teacher educators' professional values and perceptions of expertise to different degrees. As *embracing*, *discerning* or *responsive* users of technology, their approaches to professional development reflect the extent to which they perceive a need for particular technology practices in their professional roles.

The findings from Chapters 7 and 8 were cross-referenced against the ways in which teacher educator identity was described in Chapter 6, as summarised in Table 9.1 (see over). By drawing on this synthesis, this final chapter now discusses how the discourses of identity, technology and context identified in the study are entangled, and what implications this has for a professional space of authoring for FE teacher educators.

The three ways in which the	Political governance				
FE context positions teacher	The business status of the college				
educator identity	The vocational history of FE				
	Qualified and credible				
The five key identities of FE teacher educators	Teacher				
	Different from others				
	Part of FE				
	Employee				
Teacher educators	Oriented to the	Oriented to the	Oriented to the		
categorised according to the	product of learning	process of learning	stakeholders of learning		
typology	(product-oriented)	(process-oriented)	(stakeholder-oriented)		
Teacher educators'	Embracing users of	Discerning users of	Demonstration and a fin		
corresponding approaches to	a 'motivational	a 'neutral learning	<i>Responsive</i> users of a		
educational technologies	tool'	tool'	'social reality'		

Table 9.1 Drawing together identity, technology and context

9.2 The prioritisation of technology practices in FE colleges

As described in detail in Chapter 6 and elaborated throughout the thesis, FE teacher educators are located within a highly politicised context that serves to position them in three overarching ways.

- From a policy perspective, they support a mandatory professionalisation process.
- From an institutional perspective, they contribute to the survival of the business in which they are employed.
- From the perspective of FE as a historically vocational sector, they represent excellence in the practical skill of teaching.

These influences are tightly woven into the technology practices both within and surrounding teacher education in FE colleges.

Technology practices that serve the needs of the 'college as business' are prioritised in FE. These are primarily associated with administration systems designed to collect and manage student, course and staffing data. As discussed in Chapter 7, such systems play a significant role in the day-to-day responsibilities of the teacher educators participating in this study. However, prioritised technology practices also relate to the 'quality' of learning provision, for example using an interactive whiteboard (IWB) in a classroom or the decision to deposit additional learning resources within a virtual learning environment (VLE). Such practices were deconstructed earlier in the thesis to highlight how technologies are used for different purposes in education (see Chapter 7, section 7.2), but key to understanding the prioritisation of some technology practices over others in FE colleges is their underlying contribution to the pursuit of an important institutional goal: to measure and demonstrate high performance. Technology practices align with the assertion that 'FE operates within a performativity culture obsessed with notions of measuring quality and improvement' (Chapter 1, section 1.5). The technologies that can contribute to the generation of evidence, such as management information systems, or which can be measurably observed in use, for example including a web search as a lesson activity, become integral to institutional practices and are therefore normalised. As introduced in Chapter 8, continuing professional development (CPD) in colleges heavily favours an instrumental approach to technologies – that is, how to operate the technologies for these purposes. The teacher educators, too, have a strong tendency to use instrumental discourses when describing their own technology learning practices.

Chapter 3, section 3.2.1, noted a general assumption in education that a 'good' school is a technologically equipped one (Cuban, 2001). That premise extends to a direct link between technology use and the notions of 'good teacher' and 'best practice'. Educational technologies are specified in professional standards and ITE curricula, their inclusion underpinned by ideological suppositions about the capacity of technology to improve learning outcomes and transform a failing education system. Idealised and speculative connections between technology and the 'good teacher' are therefore reified by this textualisation and technology co-opted in the practice of judging teaching performance. Each recursively lends credibility to the other, and ties between technology and the professionalism of teachers are therefore cemented.

Hyperbolic and deterministic policy language firmly positioning technology within frameworks of good teaching (see Chapter 3) promises staggering improvements in education. When these fail to materialise, the belief that technology has the power to achieve these remains intact and the fault is located elsewhere, for example in teacher behaviour. Teachers are, after all, considered 'difficult learners' in FE (see Chapter 6, section 6.6), so perhaps this is an easy conclusion to draw. Chapter 8 discussed how PowerPoint software has different meanings attached to it, and that while these teacher educators often believe that inspectors want to see them using a token slide, their managers state that they disapprove of PowerPoint teaching. Occasions on which PowerPoint was used ineffectively appear to have given rise to a perception that PowerPoint itself, rather than the practice whereby it is employed, is inherently damaging for learning – and that an appropriate solution is therefore to use alternative presentation software. Although the teaching method remains the same, rather than further debate the utility of classroom technologies, the ruling discourses assert that 'bad' teachers use PowerPoint and 'good' teachers use Prezi. Broader perceptions of

the efficacy of technology are therefore able to hold. The concepts that link technology and good-quality education are too tightly intertwined to be straightforwardly disentangled.

9.3 Technology practices and teacher educator identity

Chapter 3, section 3.2, explained how policy instructs teachers to find 'ways to use technology to underpin learning wherever it can add value or extend the learning context' (ETF, 2014a, p. 16). The current lack of explicit guidance from policymakers on technology practice implies that teacher educators have become the specialists in technology pedagogy that policy goals suggest they need to be (Simpson, Payne, Munro, & Hughes, 1999). This study has shown that although policy language confers teachers with the responsibility to operationalise the improvement of learning through technology, FE teacher educators may have less autonomy in their technology practices than is assumed (see Chapter 7). As well as attaching administrative tasks to teaching roles, FE colleges also guide learning technology practices through the provision of certain kinds of equipment in classrooms, the expectations of particular uses of technology during inspections and the mandatory location of learning resources on VLEs. These practices are a daily experience for FE teacher educators, and even form part of their ITE programmes when the needs of the host college are centralised, as described in Chapter 6.

This group of teacher educators associate technologies with what they repeatedly term a 'tick box' culture in FE. This is especially evident in their accounts of the quality assurance framework in colleges. Technology use is required in observed lessons, to the extent that team managers feel they must justify decisions to award high grades if

technology is not used. The teacher educators feel that it does not matter to observers what the technology is used for, which undermines both teacher educators' expertise and student teacher development. A significant part of their own professional role is to conduct lesson observations and these have a strong developmental nature. A theme running throughout this study is the extent to which these teacher educators feel that they have inappropriate demands for technology use placed upon them, given their pedagogical expertise. Technology practices therefore become a professional issue for this group.

Applying the typology of teacher educators, Chapter 7 demonstrated how the teacher educators' perceptions of the role of technology in their work reflect wider beliefs about the nature of teaching and learning, and of their own contributions to the development of future teachers. Variously categorised as *embracing*, *discerning* and *responsive* users of technology, the teacher educators' approaches to technology were shown to correspond to orientations towards the *product*, *process*, or *stakeholders* of learning. Technology was shown to be understood principally in terms of a tool metaphor: as a motivational tool, a neutral learning tool, or a tool that connects education to the needs of modern society (see Chapter 7, section 7.4). In turn, these perceptions are reflected both in the extent to which the teacher educators feel they need to learn about technology and of what such learning should then comprise.

The apparent reconciliation of the presence of technology in their professional world with more widely held beliefs and practices of teaching and learning suggests that the teacher educators should perceive technologies to be fully integrated with their professional expertise and commitment to CPD. However, this is not the case. Knowledge about technology is perceived to be different from teacher educators'

professional knowledge: that is, the teaching and learning expertise forming the foundations of their role.

Chapter 6 explained how the teacher educators believe they possess the necessary expertise to perform what they understand to be an important role. The foundations of this self-held authority are: their professional values; their teaching experience; their time-bound, subject-bound and people-bound knowledge; and their conceptualisation of professional knowledge as an ongoing process of development. Although many teacher educators feel that they have appropriate IT skills for their role, for most these skills remain somehow separate from their professional expertise. The *qualified and credible* identity is built on a depth of knowledge and experience that is not perceived to exist for educational technologies. Technology and this identity are therefore incongruent.

The teacher educators in this study distinguish between their well-developed teaching and learning knowledge and their poorly developed technology abilities, with the exception of the *product-oriented* type. Although these, too, perceive themselves to have developing technological 'skills' rather than established 'expertise', this group fold technologies into their teaching knowledge in a way that the other groups do not. *Product-oriented* teacher educators identify strongly with their *teacher* background, accepting the skills-based discourses of FE without difficulty (see Chapter 6, section 6.5, Chapter 7, section 7.3, and Chapter 8, section 8.4) because they position the practical nature of teaching as central to their work.

The teacher educators were noted in Chapter 6, section 6.4.2, to operate within two distinct teaching discourses: the dominant practical skills discourse that permeates FE; and a more nurturing and theory-based discourse of student exploration related to their

role as teacher educator. All three types of teacher educator frame technologies in the skills discourse. For example, when asked about how they developed theoretical understanding of technology pedagogy, they would frequently explain instead, in instrumental terms, how they learned to operate hardware or software. This might be explained by the large number of administrative and communicative practices that they engage in away from the classroom. But given that the dominant perception of educational technology is expressed in terms of its relationship to *learning* (see Chapter 7, section 7.3), it suggests a tension between perceptions of teaching as practice and of professional expertise as knowledge or experience. Technology is situated within the teaching 'toolkit'. It is therefore associated with the *teacher* identity rather than what makes teacher educators *qualified and credible*. Since they routinely engage in technology-related learning practices (see Chapter 8), this could be because notions of teacher and educator expertise are not clearly defined in FE.

All three types of teacher educator aim to improve student teachers' technology skills: partly because these are life skills in modern society and partly because they are useful for teachers who want to work in FE, but also partly because technology skill development is included in the minimum core qualification specifications and it is the teacher educators' job to ensure that the qualifications are achieved. In this way, the key identities of *teacher*, *part of FE* and *employee* are combined. However, because they also feel that they are *different from other kinds of teacher* in FE, many teacher educators consider that their role is not so much to use technologies in their teaching themselves as it is to enable student teachers to develop such skills and understanding. They are therefore unlikely to seek out a deeper understanding of technologies in learning. An instrumental model of teacher development, as denoted in the situating of technology inside a skills discourse and the prevalence of skills training in FE

institutions, 'may appear to meet short-term needs, but does little to develop reflexive professionals capable of intelligent action in fast-changing contexts' (Fisher, Higgins, & Loveless, 2006, p. 39). This same tension between *teacher* and *qualified and credible* identities may also exist for teacher educators in higher education institutions (HEIs), whose credibility is often understood to be based on their background as school teachers (see Chapter 2, section 2.3). A significant proportion of teacher educator research is carried by teacher educators based in HEIs, and if these perceptions of technology are shared in that context, it is likely to severely limit the ways in which teacher education technology practices will be explored.

9.4 Professional knowledge and technology practice as sites of struggle

There is a difference in the underlying perceptions of risk associated with technology use by different types of teacher educator. *Product-oriented* teacher educators do not consider technologies a threat to their sense of professional self. If problems occur, these are related to existing structural formats that can change. For example, as students gain access to better technologies, difficulties associated with online courses may reduce. Meanwhile, they actively seek out ways to explore technology use, such as for collaborative assessment purposes, even though it increases their workload and current assessment systems cannot yet accommodate such changes in practice. Their perception of the motivational and engaging affordances of technology as described in Chapter 7 is unchanged.

Process-oriented teacher educators, meanwhile, experience discomfort when technology use results in a loss of control in the classroom. The pressure that Gloria expressed (see the field notes extract in Chapter 7, section 2.2) reflects a tension

between having to use technology in observed lessons and believing that such requirements are inappropriately imposed on teachers. That judgement was made based on her authority as a *qualified and credible* 'educationalist' (Gloria), but that authority is undermined when her planned lesson is disrupted during an observation. The obligation to include technology despite its potentially disruptive effects may result in an uncomfortable disjuncture for experienced teachers, whose wider mistrust of the observation process has been discussed throughout this thesis.

Such an occurrence demonstrates how professional knowledge and practice constitute sites of struggle in FE colleges. The disruptions to identity and self that can be caused when professional values and judgement are felt to be demeaned by the practice of imposing something into a teaching moment are not considered in an instrumental model of teacher development. Yet this occurrence reveals that, as Fenwick (2010, p. 106) states, 'knowledge circulates and sediments into formations of power'. Whatever disparity there might be between the teacher educators' perceptions of developmental observations and the judgemental observations of the performativity frameworks, as *employees* they remain subject to performance review. If Gloria does not know how to respond when a technology fails during an observed lesson, her selfperception as a competent teacher is challenged. The authority she claims, as a credible education specialist, to question requirements for technology use in her lessons is then, by extension, diminished. She has little choice but to comply, and then to suffer embarrassment and disempowerment if it fails. It must be noted, however, that the role of technology specifically in observations may be a preoccupation for the teacher educators precisely because a significant proportion of them feel that they lack technology expertise. They are thus inhibited from fully participating in the 'performance' that has become normal practice during the figured worlds (Holland et

al., 1998) of inspection, but this obstacle goes unrecognised in the subsequent evaluation of what is hoped will be a showcase of their expertise. Failure to excel during the observation, after acting against deeply held values and beliefs in an attempt to meet the expectations of the context, is unlikely to encourage acceptance of technologies. Knowledge of teaching and knowledge of context compete in situations like these. The discourses of knowledge and practice that dominate FE do not necessarily facilitate the outcomes that policymakers envision. Inspections are intended to engender excellent teaching practices, but can in fact hinder them.

Chapter 8 discussed how the teacher educators in this study have a tendency to rely on colleagues and experimentation for technology-related learning, with many sharing their opinion that the training offered by the college is not useful, is ill-timed and is primarily a 'tick box' exercise. This is the sanctioned and officially recognised technology knowledge – but it is not that learning which is valued and trusted by the teacher educators, without which they would feel 'lost' (Chapter 8, section 8.3). Unfortunately, the increasing pressures on time and workload in the sector mean that the availability of collegial support is likely to shrink. Chris, for example, commented that she feels it has already begun to diminish and that she feels less able to impose her needs on colleagues. An unexpected and unwelcome consequence of efficiency measures might be that this significant and valuable method of learning is threatened. At times such as these, technology is recognised to have a disruptive effect on teacher educator practice; at others, the destabilisation is less explicit. Chapter 7 discussed how Gill and Wallis reported changes in working patterns, and in the expectations of student teachers about when tutors would work, which were caused by VLE practices. Teacher educators, and other teachers too, have more choice about receiving student

work or queries if they are located online, but it means that they are also put in a position where they might need to (re)articulate the boundaries between work and home. Orlikowski (2007) recounts how communication practices were reconfigured after a company supplied employees with Blackberry devices. In this example, although workers could choose not to check their emails, they felt increasingly obliged to check and then to respond to them outside of working hours. Orlikowski (2007, p. 1442) asserts that '[w]hen such expectations are enacted in practice, they are reinforced over time, becoming intrinsically bound up with the device, and shifting how people think and act with it'. Boundary defining of this kind is a necessary, but perhaps not fully considered, consequence of relocating learning interactions to online environments. This group of teacher educators already feel that they have a heavy workload, and such practices could intensify this feeling. Organising technologies support institutional needs, but they contribute to changes in teachers' working practices that can affect their world away from the institution. In turn, such changes in working conditions may affect teachers' continued presence in FE.

Educational technology practices therefore remain a deeply contested area. Chapter 6 described teacher educator expertise as based on extensive experience of education as a political arena, and it is possible that they project a broader wariness of policymakers onto technologies because of their association with unwanted consumeroriented and performativity practices. The teacher educators express worries about progressive spending cuts and attempts to professionalise teachers for political gain, which are then echoed in reference to technology. This also touches on some wider public discourses about how technology is perceived to replace people in their customary roles and what that will mean for the future. There are thus many layers of discourse present in the configuration of teacher educator technology practices that

illustrate how technologies can be understood as a set of 'performed relations' (Orlikowski, 2007).

9.5 Educational technology or educational technologies?

Throughout this study, participants referred to technology as a singular and finite entity – a tendency mirrored in educational technology policy language. Treating it singularly suggests that it constitutes an unproblematic 'thing', with clear boundaries, and therefore disassociates the technology from the practices with which it is inextricably intertwined. This obscures 'the dynamic process of materialization – including material and discursive practices – through which things emerge and act in what are indeterminate entanglements of local everyday practice' (Fenwick, 2010, p. 5). Chapter 7 described how technology is implicated in teacher educator work through technology practices, which in turn help to define the technologies themselves. The relationship between people and technology is therefore recursive in a way perhaps not fully recognised by these teacher educators, their managers or policymakers.

The ontological impossibility of meaningfully separating technology and human actors implied by the sociomaterial perspective guiding this research helps to explicitly problematise educational technologies. What is presented in policy as a teaching tool is then understood by teacher educators and their managers as a teaching tool. It may be perceived variously as *motivational*, *neutral* or simply a *social reality* (see Chapter 7), but it is primarily conceptualised as something that can be metaphorically picked up and applied to a learning context. The tool metaphor, however, is unhelpful in explaining why teacher educators and their managers appear

to feel so strongly about technology in education. It is an extension of the skills discourse that dominates English FE – a discourse that enables the simplification of complex social processes (that is, teaching and learning practices) into something that can be standardised and quantified for measurement. Technology therefore provides a useful means by which the accountability agenda introduced in Chapter 1 can be carried out.

The measuring practices in FE emphasise failure and deficit rather than adequately accommodate the sector's complexity. The concepts of teaching and learning are treated within these practices as unproblematic. Although many teachers are capable of producing a grade 1 lesson during inspection, the notion that they routinely achieve a grade 1 standard in every lesson is unrealistic:

... even Grade One teachers have bad days.

(Gloria)

Conceptualising teaching and learning as simple processes and understanding technology as a tool means that when something unexpected occurs, the procedures that would enable teachers or their supervisors to manage it may not be in place. For example, in Chapter 8, section 8.3, an incident was described in which a teacher educator introduced a gaming app into the session, which led to a student teacher divulging how he had behaved questionably with a learner. The incident highlighted a gap in the teacher educator's knowledge of college procedures – if indeed such a procedure existed. When technology is perceived as a tool, such ramifications are likely to be excluded from the outcomes anticipated from its use because they are not 'typical or normal' (Gee, 2011, p. 170) within that figured world. Conceptions of

technology place people into particular roles and identities at the same time as conceptions of a practice designate particular roles and identities to technologies.

Failure to adequately consider these implications causes tension and conflict. One learning technologist remarked how although all teaching staff had been set objectives for technology use by their line managers, responsibility for monitoring the achievement of these had been given to the e-learning team. This team was populated by non-teaching staff, who felt ill-placed to judge the effective use of technology in subject specialist teaching activities. This illustrates an apparent tendency in education for those who set policy to assume that others will understand how to operationalise it. Chapter 2, for example, discussed how teacher educators 'unravel' codified lists of standards, recontextualising them into the 'pedagogy of teachers' (Nasta, 2007, p. 15). That they will possess the required expertise in educational technology is seemingly taken for granted. Ultimately, the technology practices in FE ITE that are intended to increase customer choice, maximise resources and contribute to better learning outcomes may have the opposite effect. Although technology forms a constituent part of many practices in which contested relations are performed, existing structures do not consistently encourage teachers to do anything other than employ technologies as tools.

9.6 Conclusions: To what extent is FE teacher educators' professional identity enacted through negotiating the development of expertise in educational technology practices?

Technology practices, and their role in professional learning and development, have been shown to reveal the entanglement of identity and contextual discourses in FE. In

line with Crawley's (2013) findings (see Chapter 2, section 2.2), the teacher educators participating in this study have been demonstrated to feel passionately about, and consider themselves expert in matters of, teaching and learning. However, the findings suggest that many teacher educators do not perceive technology practices to constitute professional expertise, even though such practices are thoroughly intertwined with their work, and even though they believe that technology can, in fact, enhance teaching and learning. Teacher educator technology practices therefore cannot be understood in terms of moving from peripheral to full participation in teacher education practice (see Chapter 2, section 2.3). These teacher educators are deeply committed to their students and perceive themselves to engage routinely in a continuing process of professional learning to support their role in teacher development. Why, then, has technology not become more closely integrated with notions of professional expertise for these teacher educators? This thesis has offered some insights into why such a dichotomy might exist in FE by demonstrating how technology practices require teacher educators to negotiate several paths of identity. The study has highlighted the multilayered nature of teacher educator identity in FE, aligning with previous attempts to demonstrate how professional identities in education are made up of competing parts. Chapter 2, for example, discussed the dual professionalism of FE teachers (IfL, 2009; Orr & Simmons, 2010), the many subidentities attached to teacher educators in HEIs in the United Kingdom and abroad (Davison, Murray, & John, 2005; Murray, 2002; Sweenen, Jones, & Volman, 2010), and the dual, triple or quadruple nature of teacher educator identity in the wider postcompulsory education and training (PCET) sector (Crawley, 2013; Exley, 2010; Noel, 2006). Although all of these models of identity account for the importance of context in professional identity, it is perhaps Crawley's (2013) conceptualisation of the 'even

more' quality of teacher educators that offers most illumination to the findings from this study. Teacher educators in FE have been shown to consider themselves *different from other teachers*; they could also be said to consider themselves *even more* qualified, *even more* experienced teachers, with *even more* knowledge of teaching and learning, *even more* entwined with the FE sector and other parts of PCET, with experience of more contexts, more diverse learners and more subjects and levels than most teachers.

Crucial to building a better understanding of FE teacher educator identity is the significant role of their *employee* identity. This study has demonstrated how, in an era of public spending cuts, the 'business' needs of colleges are deeply entwined with teacher educators' practices. There is something anomalous in a system in which expert teachers are trusted with much of the responsibility for running their programmes as aspects of a business, yet have substantially less autonomy when using technology for teaching and learning purposes. Teacher educators operate at the junction of FE and HE worlds, serving student teachers from diverse contexts. They possess professional values and reasons for becoming and continuing to be a teacher, or teacher educator. They have deeply held convictions about the nature of teaching and learning, and about the purposes of education. These aspects of their professional work do not necessarily align easily with the ruling discourses and practices of FE colleges. Perhaps their status as *employee* of a college, too, is experienced as a source of even more tension and conflict. Chapters 1 and 2 described FE as a restrictive professional context; the professional situation of FE teacher educators is unlikely to be fully understood without a more explicit recognition of how being an employee of their context exerts pressure on their professional identity, obliging them to

continually negotiate how to be an FE teacher educator 'kind of person' (Gee, 2000, p. 99).

This study has illustrated how this group of FE teacher educators engage with educational technology practices in ways that reflect their underlying orientation to the *product*, *process* and *stakeholders* of learning. These orientations signify deeply held beliefs and values about the nature of their professional mission. The findings suggest that the strong emphasis on technology as an unproblematic learning tool in college and sector policy obscures its wider entanglement with the full range of practices implicated in teacher educator work. The three types of teacher educator have been described as *embracing*, *discerning* and *responsive* users of learning technologies – labels that reveal their underlying level of ease with the ruling discourses of the FE setting. Recognition of technology practice as an element of their professional expertise and subsequent decisions to actively develop this expertise are understood to be rooted in this core relationship with their environment, in which tensions between individual notions of professionalism and the fixed structures of the context are variously contested and reconciled. This therefore implies that teacher educator professional identity is enacted by negotiating the development of expertise in educational technology practices to a significant degree.

9.7 Contributions of the research

The FE sector's teacher educators are situated at a key point in teacher development, and yet, as established in Chapter 2, despite repeated policy attempts to professionalise the workforce they have been severely underrepresented in policy and research. An already sparse literature on teacher educators has instead favoured those working in university settings, with a principal focus on programmes for intending school teachers. Because many of the topics of concern to these groups reflect contextual circumstances that do not correspond to the FE environment, this study has explored how teacher educators enact identity within the particular context of the FE college. In order to do this, a baseline understanding of FE teacher educator identity has been presented in the form of a new conceptual typology of teacher educators specific to the FE sector. Technology practices, with their ideological foundations and unique positioning in education (see Chapter 3), have been shown to be a rich site for revealing identity negotiation in everyday practices in this setting. Where policy and research have often conceptualised educational technologies as singular or discrete entities that act on reality, this thesis has drawn on a combination of sociocultural and sociomaterial theoretical perspectives to examine how technology practices are constituted by an entanglement of performed relations (Orlikowski, 2007) in which teacher educators negotiate the identity discourses of FE institutions. The study therefore offers an original empirical and conceptual contribution to the underresearched population of teacher educators based in FE.

The research design aimed to foster a collaborative and participatory relationship where participants and researcher engaged in the project as colleagues (see Chapter 4, section 4.3). Analysis and discussion of the data was therefore guided by the matters considered important, typical or normal within the figured worlds of these teacher educators. This means that this study has not addressed all the points raised by the review of the relevant literature in Chapters 2 and 3. The study has been organised around the conception of 'types' of teacher educator; categories that cross gender boundaries. It has also explored technology practices as an integral and mandatory feature of education work. Examining the data from the perspective of teaching as a

gendered profession, FE as a feminised context or technology as a culturally male domain was therefore considered to fall outside the scope of this study. Similarly, other commonly accepted aspects of identity, for example ethnicity, disability or sexual orientation, have not been explored in the study because participants did not raise these as issues. In keeping with the conceptualisation of qualitative data analysis as the process of assembling a jigsaw puzzle described in Chapter 5, this thesis presents only one possible interpretation of the data. The box contains many more puzzles.

9.8 Implications for teacher education practice, policy and research

This study suggests that the figured worlds (Holland et al., 1998) of FE colleges are sufficiently different from other educational settings to warrant consideration as a distinct context. The typology developed during this study has highlighted a diversity among a small group of teacher educators that, through an explicit focus on their technology practices, has been helpful in revealing to some extent how values and beliefs can be reinforced by, or exist in conflict with, the dominant discourses of FE. By dismantling the technology configurations into their component and interrelated practices and applying the typology, these teacher educators have been shown to be *embracing, discerning* or *responsive* users of technologies. This analysis has suggested that the teacher educators' attitudes to technologies are not based on the technologies themselves, but rather on how technologies are bound up in practices that extend beyond them. These descriptors may therefore hold further potential for exploring not only technology practice, but also teacher and teacher educators' wider engagement with the ruling discourses and practices of FE or other contexts.

Few teachers can avoid extensive technology practices in education institutions, but the systems in place to ensure that they can fully participate in these practices are not robust. This suggests a need to expand officially recognised learning practices beyond a limited conceptualisation of CPD as skills training. The study has demonstrated that teachers are unlikely to view all of the technology practices implicated in their work in the same way, but this possibility is not routinely addressed in attempts to position teachers on continua ranging from passionate to cynical about technology: see, for example, the model of Collins and Halverson (2009) cited in Chapters 3 and 8. Considering technology further in terms of its role in the practices and relations of education institutions could open up new avenues to understanding how technology can support or enhance learning.

This thesis reports on a small case study, which was shaped by its south west context. In Chapter 4, section 4.6.1, I noted that certain characteristics of the region could influence who performs the role of teacher educator, the responsibilities of the post and the demographic profile of the learner population. The region has the second lowest ethnic mix in the country, with only 5% of the population classifying themselves as non-white in the 2011 census (ONS, 2012). This means that the majority of teacher educators in the area are not only likely to be white, but will also most likely be predominantly working with white students. Given a low regional population, together with the highest proportion of inhabitants of pensionable age of any English region (SWO, 2012), the number of learners studying for FE courses may be lower than in other areas. It would therefore follow that teacher education teams in the south west are small. In turn, this may affect the responsibilities of their roles in comparison to other parts of the country. Similarly, the median salary in the immediate locale is lower than the national average, which could result in the

foregrounding of professional concerns that might be less meaningful in areas with greater employment and promotion opportunities. For example, negative perceptions of the role or institution might be more visible in this area than in those where teacher educators have more opportunity to change jobs. However it can be noted that people in the south west are among those with the greatest life satisfaction ratings in the country (ONS, 2013).

As discussed in Chapter 4, a strength of case study research is its capacity to explore the complex dynamics of a particular setting. The inherent attention to the case in question may therefore limit how easily the findings can be applied beyond the scope of any such study. Despite the regional peculiarities described above, however, the concerns and working conditions of the teacher educators investigated in this study are likely to have relevance to the wider FE sector. As described in detail in Chapter 1, the progressive centralisation of FE policy, the efforts to professionalise the workforce and the drive towards standardisation of teaching practices mean that colleges in this area operate under many of the same terms and conditions as elsewhere. Chapters 6-8 illustrate many matters of importance to this cohort of teacher educators that can be traced to national policies. The participants, although situated in local communities, share the influence of policy on practice within their communities with teacher educators from other areas. It is therefore anticipated that as well as providing a detailed case study of FE teacher educators in the south west, the findings from this research may resonate with the experiences and identity negotiations of those outside the region.

Further research would be required to test the typology, as it has been described in this thesis, against larger populations and other contexts. However, the analysis of FE

teacher educators as enacting an orientation towards the *product*, *process* or *stakeholders* of learning, as presented here, permits a tentative attempt to consider the possible implications of these different types for the future of teacher education. Chapter 1 explained how teacher educators are positioned at a key point in the development of future teachers. As outlined in Chapter 2, Noel (2006) and Crawley (2013) describe PCET teacher educators as similar in age, gender, ethnicity and background in a way not representative of the sector as a whole. What follows is an effort to suggest that the diversity that characterises FE can be celebrated equally in its teacher educators. If the typology proposed here proves tenable outside the scope of this research, the three types of teacher educator offer varied and complementary contributions to the future of further education.

• With a focus on learning outcomes and qualifications, *product-oriented* teacher educators may produce teachers who are able to fulfil the current requirements of the FE teacher role, but who may not adapt easily to educational reform. Student teachers following their example may feel professionally compatible with FE discourses, but a workforce populated by such teachers could consequently contribute to FE becoming more fixed in its behaviours and unable to adapt to change. This would not assist the creation of an HE ethos in FE colleges in the future, if such a thing is actually possible. However, if expansion into online environments is the future of education, then this type of teacher or teacher educator could be a valuable asset. Their active use of technologies to support learning is more likely to result in innovation and/or some kind of transformation of learning and the learning environment than are the efforts of those other teacher educators who have less enthusiasm for the 'possibilities' of technology.

- *Process-oriented* teacher educators offer an extremely rich and deep . understanding of educational processes. They have strong reservations about the discourses and practices of teaching and learning in FE, and sometimes struggle to reconcile their own beliefs with their context. They marginally employ technology to enhance their teaching, asking their student teachers to take responsibility for exploring the role of technology. They have a slightly subversive attitude towards developing critical thinking skills in their student teachers, arising from the incongruence of their values and FE discourses. Teachers who come through this kind of ITE may be better equipped to uncover the mysteries of education and to conceive solutions to some of the problems currently experienced in FE. They are, however, probably more likely to leave the sector because of the tensions between professional values and institutional practices. These teacher educators would not be as well suited to engaging remote learners online, given that their current teaching methods rely on face-to-face interaction and dialogue. They are unlikely to pursue a deeper understanding of technology and therefore student teachers will experience less modelling of technology pedagogies.
- *Stakeholder-oriented* teacher educators are good teachers and teacher educators, and proven managers who maintain a strong attachment to teaching and are unlikely to give this up in favour of more management responsibility. They are therefore probably in a more stable position in their organisations than other teacher educators, but remain less powerful than some managers in their organisations. Their continual negotiation of a middle ground between ideals and practicalities means that the teacher education in which they are involved may help produce the next generation of teachers

who can successfully reconcile the pressures of a business environment with the ideals and core values of teaching.

It would be easy to further speculate that certain types of orientation might be more attractive to policymakers and institutional leadership as best suited to meeting inspection targets – but, in the past, FE has been subject to perpetual change, and further change will continue as long as the sector is attached to political agendas. It therefore seems prudent to maximise the capability of the sector's teaching staff to tackle the challenges of change as they arise. Maintaining diversity among the orientations of teacher educators could make a significant contribution to ensuring that teacher education continues to produce competent and curious professional teachers. Too much focus on the survival of the business may ultimately lead to its decline if good teachers and depth of learning are sacrificed in favour of achieving short-term outcomes. Over time, this could put the college reputation at risk. Remember the warning, in Chapter 6, section 6.3, of one senior manager:

I tell you, not every college in the county will be here in 5 years. There isn't the market ... one of the big colleges will go. Someone will go. Because there is not enough money. Not enough students.

(Frank, senior manager)

Reputation as an excellent learning provider will therefore become more important as state funding reduces and colleges compete on the open market. Evolutionary theory would suggest that those with the ability to adapt will be best placed to stay the course.

This was the 1st main study interview and I think it went very well in so far as answering my research Qs. There was definitely some interpersonal something going on – I do try to not show my agreement etc when they are speaking but a big part of building rapport is demonstrating understanding and encouragement. I try to balance it out by also nodding and murmuring when she (they) says things I don't necessarily agree with – at the very least I don't think that I show my disagreement to participants. I do know I need to keep an eye on this, but the truth is that I'm not neutral, I do have a vested interest in the subject. Also, with *TE3M* we both did the same MA at Lancs and she knows my supervisors. And we met at a TE conference, so clearly we have some things in common. I think ultimately this all leads to trust and rapport – I just need to be careful about not asking leading Qs or voicing my own opinion in the interview. When this one was over we did have a bit more of a chat.

Extract A Journal Entry 31/5/13

I told him I did one of the quals he expressed liking for. Why did I do that? To get him onside? To tell him I agree? Because actually I don't agree. No, I do agree in some ways but don't see it as black and white as he does. So what effect did my saying that have? I think it probably gave him the nod to tell me more about why he thinks that. And that's valuable data. Does it mean that I have then had the unintended effect of closing him down on alternative views? No, I don't think so. He already expressed his opinion and he doesn't strike me as the sort of person that much cares what I think so don't think he would sway that easily. The real issue here is that I end up in 'conversation' with participants more that maintaining any kind of objective distance. I don't see how I cannot participate myself - I just have to stay wary of what I give them. In this case it was a factual statement. I didn't' tell him I loved it or that thought it was better than my PGCE (I did, but not for the same reasons he's giving). The thing about the folder for PTLLS is true, but then PTLLS is not all practical teaching and not theory, it's just a more tentative gentle touch on all of it. I shouldn't try to direct what they say to suit my research agenda, but in this interview I am trying to set the scene, get the context TEs work in and I think that has been achieved.

Extract B Journal Entry 18/3/14

Appendix 2 Devising the research instruments

loration of <i>document analysis</i> d personal meaning Purpose: Richer impression of context; dominant discourse;
context; dominant discourse;
, , , , , , , , , , , , , , , , , , , ,
·
practices
you do on a typical Observe practices
b Course guidance docs, etc.
find most Scheme of work docs
allenging about Observe attitudes
e doing the job?
& Maguire (2007); Noel (2006); Orr & Simmons (2010
nt do you consider Procedures, awarding body docs
ofessional'? meeting minutes, CPD policies,
nt do you think etc.
er you a Listen to language
?? Government/official docs
nt do you think Do their thoughts match their
understand the behaviours, e.g. IfL behaviour,
t you do? CPD, etc.?

Summary	How do TEs feel they are	How do TEs present themselves	Is there disparity between self	
	positioned by policymakers?	to outsiders?	and projected perceptions of professional self?	
Comparative literature	For example, Bathmaker & Avis Salisbury (2009); Turner, McKen	(2005, 2013); Colley, James, & Dimer zie, & Stone (2009)	1	Diment (2003); Jephcote &
Purpose: Role of relevant	What kind of relevance do you	What kind of	What do you think distinguishes	ITE course materials, etc.
training/experience/qualification	think ITE has for the PCET	experience/training/qualifications	your professional expertise from	
	teaching workforce?	do you consider important for	that of other teachers?	
		TEs in the post-compulsory sector?		
Summary	What are TEs' perceptions of	How do TEs differentiate	How do TEs differentiate	
	their function?	themselves from wider	themselves from wider	
		workforce?	workforce?	
Comparative literature	For example, Avis & Bathmaker	(2006); Bathmaker & Avis (2005); Co	olley et al. (2007); Colley, James, Dir	ment, & Tedder (2003); Lucas &
	Nasta (2010)			
Educational technology				
Purpose: Definition and role of	What kind of use do you think	In what ways do you use	What sort of things do you think	Scheme of work, lesson plans
educational technology	technology has for education?	technology in your job as a TE?	teachers need to know about	Course delivery, assessment
			educational technology?	practices
			Can you tell me about how you	
			present educational technologies	
			to your students?	
			to your students.	
Summary	What can it be?	What is it in practice?	What should it be?	

Purpose: Effect on job role	What sort of things do you think	Which of these technology uses	What sort of difference have	Observe attitudes
	TEs benefit from knowing about	are unavoidable?	educational technologies made to	Scheme of work, lesson plan, etc.
	educational technology?		your job/teaching practices?	Observation of lesson
	How has educational technology		Do you think you've had to	College policies/procedures
	benefited you?		change anything about the way	Meeting minutes
	What's been less good about		you do your job or what you have	
	educational technology for you?		to know because of technology?	
			How do you feel about this?	
			What sort of support do you get	
			with technological issues?	
Summary	What are the pros and cons?	What is mandated?	What difference has it made to	
			TEs?	
Comparative literature	For example, Ananiadou & Rizza	(2010); Drent & Meelissen (2008); H	lammond, Reynolds, & Ingram (201	1); Selwyn (2011a)
Purpose: External influences	Why do you think policymakers	What are the advantages of your	What kind of professional	College ICT policies, VLEs, etc.
	have made such a big deal about	use of educational technology for	autonomy do you feel you have	Awarding body docs
	educational technology?	your student teachers?	when it comes to using	Assessment practices
	What do you think inspectors are	What are the disadvantages?	educational technology?	
	looking for when it comes to use			
	of or attitudes to educational			
	technologies in your role			
	Do you think your beliefs about			
	educational technology are			
	shared by other people?			
Summary	What external factors influence	What is the effect of the 'end-	What are the restrictions on	
	technology choices?	user' on technology choices?	technology choices?	

Professional learning and develo	opment			
Purpose: Identify learning	Do you feel TEs are appropriately	What training have you done that	How significant a part of your	CPD record, reflective journal
associated with educational	skilled to use technologies for	was intended to help you use	expertise do you think	entry, qualifications
technology	educational purposes?	technology for educational	technology is?	College ICT policies, presence of
	What do you <i>need</i> to know about	purposes?	How have you picked up the	VLE
	technologies for your role? Why?	Who instigated the need for this	necessary abilities to use	
	What would you do to learn	training?	technology for education?	
	something technology-related you		Describe a time when you have	
	felt would help you in your job?		had to learn something about	
			technology for your job.	
Summary	What technology-related learning	What formal learning is	What is your personal experience	
	is involved in this role?	permitted, encouraged or	of learning about educational	
		demanded?	technology?	
Comparative literature	For example, Bingimlas (2009); Ko	opcha (2012); Lawless & Pellegrino ((2007); Ottesen (2006)	
Purpose: Effect of learning on	Has there been any pressure on	How has this training affected	How does the process you've just	Observe general practices
job/professional identity	you to use educational	your teaching practices (e.g.	described compare with your	
	technology/learn about	changes, improvements,	usual way of learning new things	
	educational technology?	obstacles)?	for your job?	
	What kind of impact do you think		What would you do if you were	
	the need to learn about		to want to develop further in this	
	technologies has had on what you		area?	
	do?		Do you envisage any obstacles to	
			you becoming more familiar with	
			educational technologies?	

Summary	What is the effect of learning on	What is the effect of learning on	What do TEs think of	
	person and role?	practice?	technology-related learning in	
			general?	
Comparative literature	For example, Ertmer (2005); Ottent	preit-Leftwich, Glazewski, Newby, &	& Ertmer (2010); Veen (1993)	
Purpose: Contextualise in	Can you describe an ideal 'future'	Briefly describe a typical	Tell me about the role of learning	College CPD policy/timetable
professional development	for the professional development	professional development 'year'	in your professional life (your	Meeting minutes
	of teacher educators in this sector?	for you, e.g. no. of hours,	CPD).	IfL CPD declaration
		locations, topics	Who has responsibility for your	Government/official docs
			professional development?	
			What sort of support do you need	
			to develop in the way you want?	
Summary	What is professional development	What does it look like in	What does it mean to TEs?	
	ideally?	practice?		
Comparative literature	For example, Barak, Gidron, & Tur	niansky (2010); Ceulemans, Simons	s, & Struyf (2012); Eraut (2000) ; ET	F (2014a); Fenwick, Nerland, &
	Jensen (2012); Mulcahy (2012); No	el (2009); Swennen & Bates (2010)		

CPD = continuous professional development; ICT = information and communication technology; IfL = Institute for Learning; ITE = initial teacher education; PCET = post-compulsory

education and training; TE = teacher educator; VLE = virtual learning environment

Appendix 3 Teacher educator interview schedule

- Introduction: self, study, ethics, questions
- Background info from questionnaire, opening question topic: how got into tr edn, experience of ITE, currently teaching on ...

Key Questions – Professional identity

- 1) Tell me what you do (on a typical day in your job) Classes, meeting, marking,
- 2) What do you find most motivating/challenging about what you do? Money, satisfaction, learners
- 3) We hear the word 'professional' a lot at the moment, eg in the Lingfield Report. To what extent do you consider yourself a 'professional'?

IfL membership, meaning of term, salary, status, networks, qualifications

- 4) To what extent do you think others consider you a 'professional'? Policy makers, friends, family, other professionals, employers, partnerships
- 5) To what extent do you think other people understand the scope of what you do? Who, what, feelings
- 6) What do you think distinguishes your professional expertise from that of other teachers?

Key Questions – Educational technology

- What sort of things do you think teachers need to know about educational technology? Qualification, level of skill, better than students, subject area, information literacy, how at ease are you
- 2) Can you tell me about how you present educational technologies to your students? Who decides, vary between tr edrs, awarding bodies, vle, online course elements, what's good/bad et speed, youth, plagiarism etc, planned in SOW, just comes up
- What sort of difference have educational technologies made to your job/teaching practices? OR
- 4) Do you think you've had to change anything about the way you do your job or what you have to know because of technology? How do you feel about this?
 - Assessment, making resources available, communication, VLE, required learning, place in ITT
- 5) What sort of support do you get with technological issues? IT team, colleagues, students, support lines, forums
- 6) What kind of professional autonomy do you feel you have when it comes to using educational technology? Awarding body guidelines, qualification requirements, students, managers, college, society, pressure

Key Questions – Developing expertise

- 1) Tell me about the role of learning in your professional life (your CPD)
- How often, hours, what sort, where, with who, who decides (responsibility), opportunities, cost
- 2) How significant a part of your expertise do you think technology is?
- How have you picked up the necessary abilities to use technology for education? Have you, methods, feelings, impact
- 4) Describe a time you've had to learn something about technology for your job.
- 5) How does the process you've just described compare with your usual way of learning new things for your job? Organisation, enjoyment, players, collaboration
- 6) What would you do if you wanted to develop further in this area?
- 7) Do you envisage any obstacles to you becoming more familiar with educational technology?
- 8) What sort of support do you need in order to develop the way you want?

Closing Questions

- 1) What sort of advice do you think you would give prospective/future teacher educators?
- 2) What plans do you have for the future? How about the college's teacher training provision (in light of all the changes)? What do you think the FE Guild is going to turn out like?

Senior managers

Introduction – as others

Background

Opening questions

- 1. What are the main duties and responsibilities of your current role?
- 2. Can you tell me about how you came to be attached to the teacher education team here at the college?
- 3. Can you tell me about your own experience of doing initial teacher training?

Key Questions – Background

- 4. Can you tell me a bit about the history of teacher education in the college? How long, partnership, learners, cost, uptake
- 5. Can you describe the teacher education provision in the college now? No of staff, no of students, demographics, plans
- 6. What part does teacher education play in the college? HE, profit, partnership, to train staff etc
- Is ITT separate from other training/development, eg APs, CPD etc? Who is responsible for those

Key Questions – Professional identity

- 8. What kind of experience/training/qualifications do you consider important for teacher educators in the postcompulsory sector?
- 9. Are these things specifically looked for in your selection/recruitment procedures? Is there a job description for a teacher education post that I can have access to?
- 10. How do you think teacher educators differ from other teaching staff in the college?
- 11. Do you think teacher educators should engage in research/scholarly activity? Should other staff?
- 12. Do you consider the teacher education provision HE and, if so, do you think there are any differences between the FE/HE teaching staff?

Key Questions – Educational technology

- 13. What sort of things do you think teachers (generally) need to know about educational technology?
- 14. What do you think the advantages/disadvantages of educational technology are for students?
- 15. Is there a college policy(ies) regarding (educational) technologies? Can I have access to it/them?
- 16. What kind of technology infrastructure do you have in place at the college (for educational purposes)? How chosen
- 17. Do you provide training on using equipment, enhancing learning through technology etc? Who delivers this and why them?
- 18. What do you/the college look for in terms of educational technology use in lesson observations? Can you explain the reasoning behind this?
 - Box on form?
- 19. What would you expect your teacher educators to be doing with educational technologies in their work? Is this something different from other teachers?

Key Questions – Developing expertise

- 20. What training is provided/supported by the college in educational technology use?
- 21. What other kind of learning do you think staff do in this area? TE, other staff, who initiates/provides/pays
- 22. Is there a college policy regarding CPD that I can have access to?

Closing Questions

- 23. What do you think the future of teacher education is likely to be in the sector?
- 24. What do you think the future of HE provision in the sector is going to look like?

Learning technologists

Introduction – as others

Opening questions

- 1. What are the main duties and responsibilities of your current role?
- 2. Can you tell me about how you came to be with educational technologies here at the college?
- 3. What sort of training have you had in this area?

Key Questions – Educational technology

- 4. What do you think the advantages/disadvantages of educational technology are? For students, teachers, the college
- 5. What sort of things do you think teachers need to know about educational technology in order to use it effectively?
- 6. What do you think the best way for them to achieve this is?
- 7. How significant a part of teaching and learning do you think technology is at this college? College-wide, different subjects, different levels
- 8. What kind of technology infrastructure do you have in place at the college (for educational purposes) How chosen, anything excluded – VLE, PCs, laptops, wi-fi, smartboards, admin systems, mgt systems, support for use, specialist training
- Can you describe the process that takes place when a new piece of technology is introduced (from idea, through purchase, installation & implementation)?
 Eg smartboard, vie etc
- 10. What do you think the college might look for in terms of educational technology use in lesson observations? Can you explain the reasoning behind this? Box on form? Teachers, students
- 11. Are there any college policies regarding (educational) technologies? Can I have access to it/them?

Key Questions – Developing expertise

- 12. Is training provided/offered on using technological equipment? What sort of form does it take? Who, where, why etc
- 13. Is any training that focuses specifically on enhancing learning through technology take place? What kind of training? Who delivers this and why them? Where, who for?
- 14. What training is provided/supported by the college in educational technology use?
- 15. What other kind of learning do you think staff do in this area? TE, other staff, who initiates/provides/pays
- 16. What would you expect your teacher educators to be doing with educational technologies in their work? Is this something different from other teachers?

Using for teaching, presenting/discussing with student teachers etc

Appendix 5 Group interview schedule

Introduction

Hi everyone. Thanks for coming along today. It's lovely to meet you. My name is Tave and as you know I'm doing this research for my PhD thesis. Over the next few weeks I will be holding a series of these discussion groups with teacher educators around the south west. I am aiming to better understand teacher educators' experiences of learning in their professional role, and in particular, I am interested in learning associated with educational technologies in teacher education.

Let me tell you a bit about how the discussion will be conducted today. As indicated in the information sheet you have been given, your participation in this discussion is completely voluntary and you are free to leave if you do not want to take part. However, I value all of your opinions, so hope that you will stay and share your views with me.

There are no right or wrong answers, so please feel able to speak freely. I would like to hear as many different viewpoints as possible, so please do speak up if you disagree with someone else, but please do so respectfully. We won't be going around the room, so jump in when you have something to say, but it is important that people speak one at a time so that I don't miss anything.

I will be recording the discussion so that I have an accurate recording of your views. I'm afraid I won't be able to keep up with you if I try to write it all down. Anything you say today will only be used for this research project and will be treated in full confidence. The recording will be stored securely and will not be shared with anyone else, and I will use pseudonyms in my thesis. Is everyone ok with being recorded? The discussion will probably last for about an hour or so. Please help yourself to the refreshments provided.

Do you have any questions before we begin?

Introductory questions

- 1) Let's start by going around the group so that you can introduce yourselves and tell me which qualifications you are currently delivering and the sorts of students you are teaching.
- 2) We often hear the terms 'teacher educator' and 'teacher trainer'. Can you describe what these terms means to you?

Now that we have discussed your understanding of some of the terminology, I would like to discuss teacher education in the post-compulsory sector.

Topic 1: Professional identity

- 1) What is a teacher educator in the PCET sector?
 - Similar/different to other sectors, role, responsibilities, variety
- 2) What kind of relevance do you think initial teacher education has for the PCET teaching workforce? Standardisation, teacher vs learner, types of assessment...
- 2) How do you feel about government attempts to 'professionalise' the PCET workforce? Positives, negatives, identity, history of sector...

Moving on from issues of general professional interest, I would like to discuss another area of education policy that has received much attention over recent years.

Topic 2: Educational technology

- 1) What kind of use do you think technology has for education? Benefits to you, time, improved learning, motivation, collaboration
- 2) What sort of things do you think teachers benefit from knowing about educational technology? Operational/mechanical skills, life skills, admin, research about learning improvement
- 3) How has educational technology benefited you?
- 4) What's bad about educational technology?
 - Time, role change, knowledge level, disruption

- 5) Do you think your beliefs about educational technology are shared by other people? teachers/teacher educators, administrators, managers, IT team, what specifically, how know
- 6) Why do you think policy makers have made such a big deal about technology in education? Strategies, infrastructure, investment
- 7) Describe what you think inspectors are looking for when it comes to use of or attitudes to educational technologies in your role.
- 8) What do you think the role of educational technology will be in the future? Less, more, moocs, online

Linking your views about educational technology and your professional position, I would like to talk now about your experiences of learning associated with technologies in your job.

Topic 3: Professional learning

1) Do you feel teacher educators are appropriately skilled to use technologies for educational purposes?

2) How do they become so?

Methods of training, participants, formal

- Have you experienced pressure to learn about and use technologies? Who, why, when, impact on job/feelings re job
- 4) What do you <u>need</u> to know about technologies for your role? Why? Relationship to learning, updates, social media, VLE platforms etc
- 5) What would you do to learn something technology-related you felt would help you in your job? Device, software, educational benefit
- 6) What kind of impact do you think the prevalence of technology has had on what you do?
- 7) Can you describe an ideal 'future' for the professional development of teacher educators in this sector? Technological/general, qualifications, freedom, research...

Close

We are now reaching the end of the discussion. Does anyone have any further comments to add before we finish? Thank you very much for participating in the discussion.

Appendix 6 Questionnaire

Research into Teacher Educator Identity and Expertise Questionnaire

Please answer the following questions as fully as you can before your interview. Any questions you have can be addressed then. Feel free to write as much as you want and continue on additional paper if necessary.

About you

What is your name?								
What is your job title?								
How long have you been	a teacher ec	lucator?						
What is your highest qual	ification?							
How long have you worke	ed in your cu	irrent wo	rkplace?					
Do you currently teach ou teacher education course			What	subject(s)?				
How long have you been teaching?			In whi	ch sector(s	;)?			
Which subject(s) have you	u taught?							
If you are a member of a	professional	body ple	ase state v	which				
Do you keep a record of y	our CPD?			May I ha	ve access to a	any of this?		
Please circle your age gro 16–25	up and gend 26–35	ler: Male	36–45	Female	46–55		56+	

About your job Briefly describe the main duties and responsibilities of your current role

When people ask what you do for a living, what do you tell them?

What kind of experience/training/qualifications do you consider important for teacher educators in the post-compulsory sector?

About educational technologies

In what ways do you use technology in your job as a teacher educator?

Which of these technology uses are unavoidable in your job?

What are the advantages of <u>your use</u> of educational technology for your student teachers?

What are the disadvantages?

About learning

What training have you done that was intended to help you use technology for educational purposes?

Who initiated the need for this training?

What changes have occurred in your teaching practices as a result of this training?

Briefly describe a typical professional development year for you (eg number of hours, locations, topics...)

Appendix 7 Permission to recruit letter

Dear <>

Permission Request for Research

I am writing in relation to my doctoral studies within the Department of Education Research at Lancaster University. Following a fruitful discussion with <> last week, I would like to ask permission to recruit current members of staff delivering teacher education programmes at <> to investigate their perspective on professional learning practices associated with educational technologies.

This study will help to gain an understanding of how teacher educators in the post-compulsory sector develop their professional expertise. In view of the current debate on professionalism within the sector, this research will improve practitioners' understanding of their own learning practices and professional identities.

The study involves the use of data collected by questionnaires, interviews and focus groups which will be held with a selection of staff at a time convenient for them. In agreement with individual participants, data will also be collected by observation of taught classes and access to professional development records. I also request access to course documentation, such as schemes of work, lesson plans and governing policies, to build an understanding of technology practices within this educational context. Ethical clearance in relation to the research has been granted by the Lancaster University Research Support Office.

If you would like further information about this project please contact me by email. You can also contact my supervisor, <>ban, or the Head of Educational Research Department, <>.

Yours sincerely

Tave Springbett Postgraduate Researcher <email>

Please sign below and return to me to give permission for this research. I attach a copy for your records.

Authorising signature: _____ Date: _____

Appendix 8 Follow-up to initial contact

Dear <>

Recruitment of teacher education staff to research study

Further to our discussion this morning, I am writing to provide you with further details of my proposed research at <>.

The research forms part of my doctoral studies in Educational Research with Lancaster University. I have been an adult literacy teacher for ten years and became interested in teacher education when asked to pilot a new PTLLS programme and the QCF assessor qualifications for a local college. My experiences of running these courses and beginning the transition from teacher to teacher educator made me very aware of the level and breadth of expertise demanded of teacher education staff. Consequently, I am researching how this expertise is developed by teacher educators and how this process is supported or constrained by conceptualisations of professional identity. To make the project a manageable size I am focussing on learning experiences related to educational technologies.

Very little research has been carried out on the professional experiences of teacher educators in the post-compulsory sector and, as the teacher education landscape is once again under review, it is an area that deserves attention. Teacher knowledge gained from practice is an invaluable source of information about learning and teaching processes and one that is too often untapped.

I am conducting a case study of teacher educator learning practices and, with your permission, <> will be one of four participating further education colleges in the south west. Each site has been selected based on its position as an established teacher education provider in the post-compulsory sector, its status as an FE college and its location in the local area. I hope to recruit all <> staff who deliver teacher education programmes.

The case study methodology requires me to gather rich and detailed information from a number of sources. As previously stated, the data collection methods consist of questionnaires, interviews, a group discussion, observation and document analysis:

Method	Required from:	Time needed:	Asking about:
Questionnaire	All participants	15 mins approx. (9 questions plus demographic info)	Job role, qualifications & training, current use of technology and its advantages/disadvantages and contribution to professional practice
In-depth	Face to face meeting with	1 hour approx.	Personal perceptions of professional identity,
interviews	each of the participants, held at the college/other suitable location/via Skype as convenient	before end summer term	understanding of educational technologies and associated learning practices
Group	Face to face meeting with all	1 hour approx. before	Community perceptions of teacher education
discussion	participants together, held at the college at your convenience	the end of the summer term)	in sector, their roles/responsibilities, place of technology in education and policy, need for technology-related learning in role
Follow-up	Face to face/telephone/Skype	20-30 mins approx.	Clarification of issues arising from initial data
interview	meeting with each participant	during the autumn term	
Observation of taught class	Any participant happy to let me observe/participate in session	Conducted during usual teaching hours (estimated September)	Educational technology use in practice, presentation of professional identity issues to student teachers

The total time commitment for each staff member should be no more than about 3 hours over a period of two terms.

In addition to these methods of data collection, I would like to conduct a discourse analysis of relevant documentation such the schemes of work and/or lesson plans for participants' current initial teacher education courses. This is to identify the level of

significance afforded educational technology within teacher education qualification frameworks, ie the frequency and extent of its use. It will provide a backdrop for understanding participants' statements about their technology practices and allow me to triangulate my data, thus ensuring its accuracy and reliability. The governing policies I mentioned in my previous correspondence refer to qualification standards and criteria set by awarding bodies and the college professional development policy or ICT policy if there is one. Again, this is helpful in establishing technology and learning practices in this particular educational context. All data will, of course, be stored securely and anonymised prior to inclusion in my thesis.

Taking part would be a wonderful opportunity for members of staff to contribute to a growing body of research focussed specifically on our sector. In particular it will give voice to teacher educators, whereas in the past such research has often been from the perspective of student teachers. It offers a space in which to engage in critical reflection of professional learning practices and add to participants' own continued professional development.

I hope this answers your questions. If you require anything further, please feel free to contact me on <tel> or <email>.

Thank you for your time and I hope you consider taking part in this exciting project.

Yours sincerely

Tave Springbett **Postgraduate Researcher** Department of Educational Research Lancaster University

Appendix 9 Invitation to participate

Dear Colleague

I would like to invite you to take part in a research study which is part of my doctoral studies in the Department of Educational Research at the University of Lancaster. Before you decide you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Talk to others about the study if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

My aim is to explore the relationship between learning and professional identity for teacher educators in the post-compulsory sector. I am particularly interested in learning associated with educational technologies and how teacher educators feel these fit into their professional role.

Why have I been invited?

You have been invited to take part because you are currently employed as a teacher educator in a postcompulsory setting in the South West.

Do I have to take part?

Your participation in my study is completely voluntary and you can withdraw at any stage without giving a reason. I invite you to ask as many questions as you like and assure you that the confidentiality of the data collected will be respected.

Participant's Involvement:

I will be using a case study methodology to help me gather rich and detailed information on what it is like to develop professionally as a PCET teacher educator. It is important, therefore, that I can collect data from a variety of sources. You are invited to take part in a focus group and/or a one-to-one in-depth interview that will take place at your convenience in your place of work. Each will last about 45 minutes to 1 hour and will help me understand your experiences of learning in your professional context. There is also a short survey for you to complete. I would like to observe participants in practice where possible. I will also request access to any available documentation, for example a scheme of work, a CPD record or reflective journal entry, that has a direct connection to your learning or use of educational technology.

The data will only be used for this research project. It will be stored securely and be accessible only to me and, with your permission, my supervisors as supporting evidence for my thesis. In the event that either of them requests access to it, all reference to you will be removed to protect your anonymity. I will use pseudonyms when referencing the data in my thesis and there will be nothing in it that can identify you directly. You may have access to your interview transcripts once they have been transcribed. Lancaster University requires that I store the data for a reasonable period of time after completion of my doctorate. Only anonymised data will be kept.

I am happy to discuss the data and the project with you at any time and you may contact the Head of Department, >, on >.

What are the possible benefits of taking part?

By taking part you will have the opportunity for critical reflection on your learning practices and what being a teacher educator means to you. It will be a chance to contribute to a severely under-researched area of teaching expertise and help policy makers understand the unique attributes of teacher education in the lifelong learning sector.

Remuneration/Compensation:

Please note there will be no remuneration or compensation for participation in this research project.

If you do not have any additional questions, and if you consent to participate in the study as described above, please agreed so by completing and signing the attached consent form.

Thank you

Tave Springbett

Consent Form

Title of Project: Learning to teach with technology: Teacher educators constructing identity and expertise

in post-compulsory initial teacher training

Name of Researcher: Tave Springbett

	· · · · · · · · · · · · · · · · · · ·	Please initial box
1. I confirm that I have read and understand the information sheet dated February 2013 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered		
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.		
3. I consent to the interview(s) being filmed/audio taped/notes of the interview(s) being taken (<i>amend as required</i>)		
4. I am/am not happy with the data from the interview(s) being stored and kept securely and confidentially for up to five years following the successful completion of the researcher's PhD Viva (<i>delete as applicable</i>)		
5. I agree to take part in the above study.		
Name of Participant:		

Date:

Signature:

Appendix 11 Preliminary data analysis from the pilot study

(Taken from document submitted for confirmation of PhD status, February 2014)

In what ways do teacher educators describe themselves and their expertise?

PCET TEs appear to have diverse responsibilities. The pilot data suggests that they do not easily fall into the categories presented by the literature (eg academic, HE lecturer, school teacher), instead straddling roles often presented as polar opposites, eg teacher vs manager: teams share teaching and management responsibilities. Participants exhibit respect and understanding for the college perspective, suggesting that tensions between a managerialist regime and teacher autonomy are not as clear cut as sometimes implied (eg Friedson 1999; Gleeson et al 2005; Whitty 2008; Ball 2008). They largely reject the term 'professional' to describe themselves, and use the discourse of skilled craftspersons rather than professionals (Friedson 1999), in terms of the practical nature of teaching. FE-based teacher educators appear to experience difficulty bridging the divide between FE and HE as has been identified by previous research (eg Murray 2007; Ellis et al 2011; Noel 2006; Harwood & Harwood 2004: Turner et al 2009), but with the added complexity of a more diverse and problematic student body.

Issues and questions raised for further data collection and analysis:

- Do TEs privilege particular parts of their evidently diffuse work and roles?
- Work in this context is known to be influenced from several sides (Boyd et al 2010), but might the industrial origins of their context impose practical limits, eg language, on their space to develop identities as teacher educators? Do my participants come from vocational backgrounds? Do they draw on alternative professional discourses?

What are teacher educators' perceptions of the role, benefits and drawbacks of educational technology?

They think positively of educational technologies, but insist on appropriate application. Technologies are talked about in terms of the equipment used rather than the activities they are used for. These conclusions are not reached through explicit reflection, they are just 'obvious'. TEs assert that teachers need proper training and qualifications and that technology is important for teaching and learning, yet they agree that individual teachers are responsible for working out how it is used.

TEs say they do not use much technology, but then list many examples where they do. Technology features in multiple administrative tasks (often the first mentioned are recording systems, considered an impediment to work). University-based teacher educators find credibility for their professional role in their practical teaching experience (eg Boyd 2010; Lunenberg et al 2007), but these participants do not position themselves as experts. In many ways their technology practices seem invisible to them. The data, however, suggest that they have assimilated technology into their work with ease which may indicate a greater level of expertise than TEs recognise in themselves.

Issues and questions raised:

• Could the different attitudes to technology and qualifications be related to the level of regulation attached to each? Eg considering how and why somebody is learning is less important than that they are learning and achievement can be demonstrated. Does the focus on the practical administration of teaching obscure possibilities for pedagogical exploration with technologies?

• Might the skills discourse dominating further education be internalised by teacher educators despite the fact that they hold conflicting 'expansive' and 'democratic' professional beliefs (Crawley 2012; UCU 2013; Sachs 2001)?

How, and to what degree, do teacher educators develop their expertise in educational technology?

Formal training in technology is considered unhelpful and inconvenient. In contrast, non-formal learning is abundant and valued. TEs demonstrate an unstructured and 'reactive' (Eraut 2000), but active approach to incorporating technologies in their practice, eg 'trial and error' and asking colleagues or students for help. Although they may find it difficult to describe the process of this learning, TEs do engage in subsequent (unrecorded) reflection. New technologies are then used, discussed with students and colleagues and collectively the level of expertise increases.

Issues and questions raised:

- The attitudes to CPD could be an example of the policy field exerting influence on the field of teacher work (Hardy & Lingard 2008) but could the value attached to the extensive informal learning signify how TEs create a space for their own development and within their professional setting (cf 'going underground' James & Diment 2003)? Are they resisting the label expert?
- If the non-formal learning consists of knowledge that is not identified at the outset, it puts me in mind of Engeström's expansive learning theory learning new forms of activity as they are created (2009)
- Technology in this context is not only about learning how to use it or using it for a purpose, but is also about dealing with its presence. How does this relate to notions of professional identity?

What discourses and contexts frame educational technology practices in teacher education institutions?

This environment is governed at several levels: professional practice is constricted by external policies and institutional demands. Decisions are made by people who are not 'credible', eg non-educationalist policy makers. Part of their sense of professional accountability means finding a way to work in a system they do not like. Working conditions are accepted, and TEs consistently work many more hours than they are paid for. TEs sometimes use a management discourse, which may also explain the dominance of a skills discourse in place of a professional one. Inspection serves as a yardstick for quality.

Colleges are ostensibly invested in technology use and support. They encourage its use in teaching and employ technical support teams. But the purchase of digital devices and their physical locations are not discussed with these users. Training is dictated by management and technical staff, and there is little input from TEs. Overlooking this significant resource hints at the limited perception of teacher educators by their organisations. Operationalising educational technologies is problematic: registers are completed twice, sites are blocked and there is frequently new technology being instituted that is considered frustrating.

Issues and questions raised:

• Could the type of technology and its positioning in teaching contribute to the disempowerment of teacher educators enabled (although unintended) by education institutions? Are alternative perceptions of TEs indicated? Do they adjust their expectations to fit the institution? Are TEs able to be positive about educational technologies because the college is? Because it is expected? How much space is there to disagree?

Appendix 12 Development of themes from initial codes

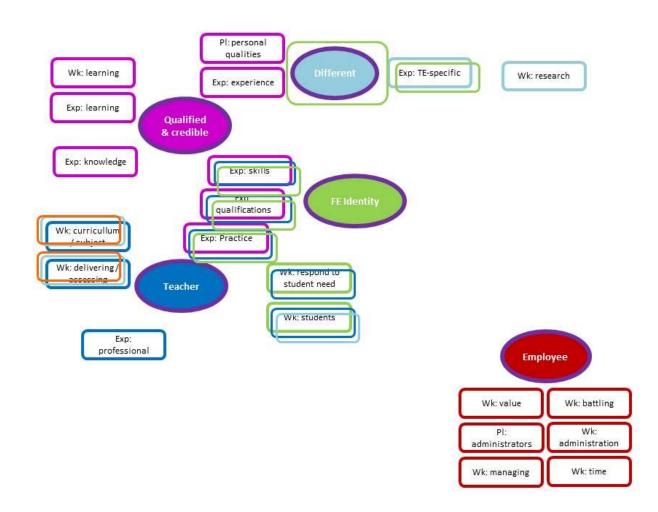
ATLAS.ti code	Basic themes	Organising theme	Global theme
TE_WORK_research	Time		Different
	Expectation		
players_TE_different from	Diverse	People	
others	Teach colleagues	Places	
	High quality provision	Things	
	Not inspected	0	
	Two specialisms		
	HE in FE		
	Teach people not subject		
	Broad experience		
	Managers		
expertise_TE	Scope	Scope	
expertise_TE	Broad contexts	Scope	
	Adaptation		
	Ahead of curve		
	Preparation for future		
players_TE_non-teaching role	Course management	Administration	Employee
	Line management		
	Quality review		
TE_WORK_administration	Recording	Administration	
	Monitoring		
	Organising		
	Planning		
	Evaluating		
TE_WORK_managing	Course	Administration	
	Team	Relationships	
	Time		
	Learners		
TE_WORK_value	By managers	Relationships	
	Partnership working		
	Support		
TE_WORK_battling	Funding	Terms & conditions	
0	Change		
	Workload		
	Time		
TE_WORK_time	Not enough	Terms & conditions	
· · · • · · · · _ • · · · •	Extra hours		
	Geographical range		
players_TE_employment issues	T&Cs	Terms & conditions	
players_re_employment issues	Relationship with managers	Relationships	
	Workload	Relationships	
	Staffing		
	Policies		
	Collegial support	Ducinens/construction	
players_TE_identification with	Cost	Business/economy	FE
FE	Status	Performativity	
	Observation	Politics	
	Measurement	Practical	
	Investment		
	Customer		
	Practical teaching		
	Change		
	Haphazard/accidental		

	Importance of subject knowledge		
	Politically visible		
	Importance of employers		
	Uncertainty/change		
	Outcomes		
expertise_experience	Instincts	Experience: change and	Qualified &
expertise_experience	Contexts	contexts	credible
	Diverse learners	contexts	creatore
	Curriculum change		
	Management		
players_TE_qualified	Longevity	Experience: longevity	
players_re_quained	Qualification	Experience: longevity	
TE_WORK_learning	Constant	Knowledge: ongoing and	
	From student teachers	infinite	
expertise_knowledge	History	Knowledge: ongoing and	
expertise_knowledge	Change	infinite	
	Politics		
	Other sectors		
	Validated		
	Learning theory		
expertise_learning	Contexts	Knowledge: ongoing and	
expertise_learning		infinite	
	Evolving CPD	Inninte	
	On the job		
	Teaching qualifications		
	Higher level Curriculum		
ounartical qualification	Theory Ouglification	Knowledge velidetion of	-
expertise_qualification	Qualification	Knowledge: validation of	
	Level		
	Knowledge of contexts		
	HE Cubic et hand		
	Subject-based		-
expertise_professional	Expert status	Professionalism: linked	
	Professional	to status and recognition	
	Values		
	Autonomy		
	Responsibility		
	Undermined		
	Integrity		
	Quality		
	Effort		
	Questioning		
	Boundaries		
players_TE_personal qualities	Thick skinned	Professionalism: people-	
	People-centred	centred	
	Flexible		
	Special		
	Ability to work with teachers		
players_TE_teacher	Product	Practical focus;	Teacher
	Learner responsiveness	Relationships	
	Delivery		
	Drawing out		
	Vs manager		
	Practitioner]
TE_WORK_curriculum	Reform	Change	
	Practice	Practical focus	
	Measurable		

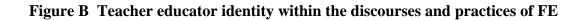
	Essential content	
	Limiting for students	
TE_WORK_responding to	Tutorials	Relationships
students	Enquiries	
	Advice & guidance	
TE_WORK_student	Diverse	Relationships
demographic	Colleagues	
	Practising teachers	
expertise_skill	The 'basics'	Practical focus
	Practical teaching	
	Skill set	
expertise_practice	Daily 'doing'	Practical focus
	Modelling	
	Diverse learners	
	Working with others	
TE_WORK_teaching/delivering/	Information	Practical focus
assessing	Criteria	
	Practical	
	Not right	
	HE in FE	

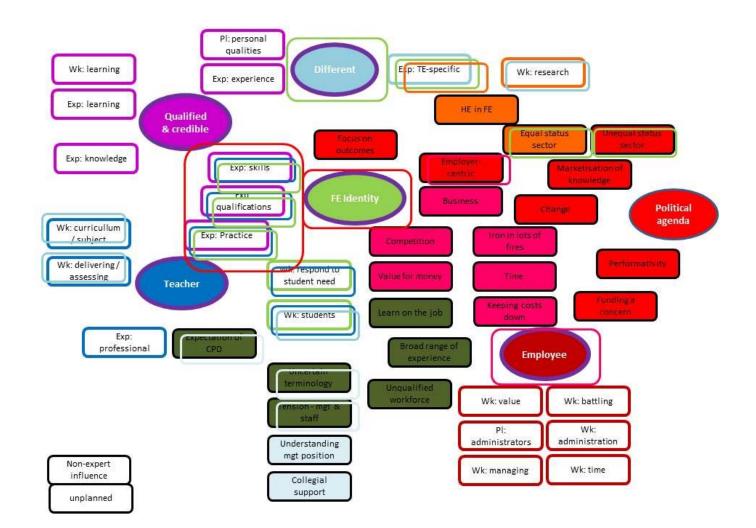
Appendix 13 Development of a contextual identity map

Figure A Teacher educator identity

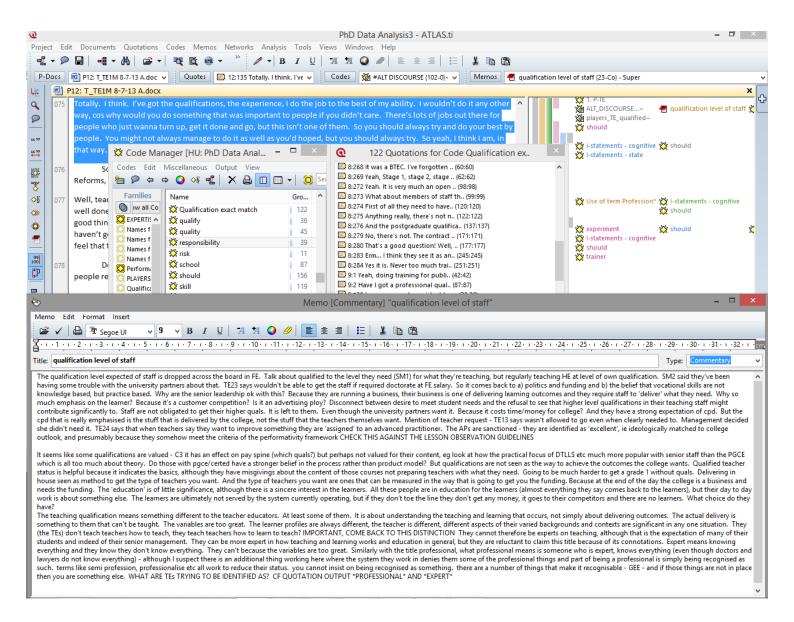


The colours show how different aspects of their key identities overlap.





Appendix 14 Following the threads of identity



Appendix 15 Deciphering the technology data

The following pages contain snapshots from the data analysis process.

Example A is taken from a spreadsheet investigating the role of technologies in teacher educators' practices. The extract presents data related to one teacher educator type. At this point, the data had been developed from the initial deductive codes drawn from the literature into categories of practice of which technologies form a part. Attention was then turned to the specific technology referenced, the role that it plays in teacher educator work, and the stated benefits and drawbacks identified. The data was then searched for themes, which were recorded with pen and paper, and are reproduced as follows.

Benefits	Drawbacks
time saving	time consuming
paper trail	extra work
automated	intrusion
innovation	too many systems
engaging	conflict
something extra	not panacea
cost-effective	reliance
no harm	reliability

Example B is the Atlas.ti output for one code.

Examples C and D depict stages of analysing this data, again concentrating on one teacher educator type.

This illustrates the multiple readings of the data, each one identifying and pursuing themes.

Finally, **Example E** represents the exploration of a recurring theme in the technology data across the three teacher educator types.

	code	Quot.		Tech	Role	ype 1 Benefits	Drawbacks
Wynne	adminv	10.192	adm		Store records/marks	benents	Extra work
Wynne	adminv		adm	electronic v		time saving	
Wynne	adminv		adm	Email	Paper trail	Know information is re	ceived
Wynne	adminy	10.192			data input		Duplicate registers, need time, don't want to be 'fi
Wynne	adminv	10.192		Systems	monitor attendance		time-consuming, big chunk of day, not updated eg
Wynne	adminy		adm	tech genera			too much to do, too many databases
Bob	Infrast		2 adm		EV evidence of learni	ng	conflict between EV needs and MIS needs for same
Wynne	adminv		2 comm		reminder		
Wynne	adminv		comm		communication with	students	
Bob	Enh Ig			forums	group interaction		should be able to contribute to actual assessment
Bob	motiv			forums			difficult to assess in current system
Bob	Enh lg			forums			have in person, but no-one else would have read hi
Bob	Incr choic					keep people engaged i	• •
Bob	Dist lg		3 comm		• •		vith thinking/evaluating/reflecting doesn't change
Bob	motiv				collaborative work	1	difficult to assess in current system
Bob	Incr choic	11.29	comm	online learr	learning through inte	·	effective teaching is about, diversity,
Bob	Incr choic						people don't attend if voluntary
Bob	motiv				remote communication		
Wynne	adminv	65.21	comm	student pre	collaborative work	raise awareness of ICT	competency
Wynne	Enh Ig						there's more to it than just powerpoints - it's got to
Bob	Infrast				online meetings/class		multiple sound devices causes feedback, require r
Bob	Enh lg		3 comm		share thoughts		takes people a while to get their head around proc
Floyd	St sk/pref				staff training on softw		older members of staff scared of tech. Difficult to
Wynne	adminv				Information about ne		No time for prof req
Bob	Pers pref			Internet			"there's no panacea – any piece of technology can
Floyd	Pers pref				Module on ITE progra		, p , p
Bob	Infrast			online cours			course materials/content
Floyd	Enh lg				teacher skills		more suited to theory rather than practical for som
Wynne	Enhlg			-	vital to teacher's skills		can't do without it
Bob	Infrast			-	for learning uses	e-learning team	dominated by non-teachers
Wynne	Infrast				for learning uses	e-leaning tean	different team to equipment support
							need help working out how to use it
Bob	motiv			VLE - Blackb	Uaru	hands on out of coats	
Floyd		15.23	-	computer		hands-on, out of seats	
Wynne	Infrast	10.33	-	computers		helps them get to know	w each other
Wynne	adminv	65.21			produce handouts		
Wynne	motiv	1.55	-	Google	access information		
Wynne	motiv	1.55		internet	research		· ·
Wynne	adminv	65.21				expand learning out of	classroom
Wynne	adminv	65.21	-	IWB	Student activities		
Floyd	motiv	15.23	-				, engaging environmnet, more energy "bubbly"
Floyd	Enh Ig	15.18		IWB	resources	have them in class, can	use different tools
Bob	Pers pref	11.47		IWB			
Wynne	motiv	1.55			show stuff online		
Bob	Cost effv	11.28	-		the future	,	w could use in own teaching
Wynne	motiv	1.55	5 lg			motivating for student	
Floyd	Pers pref	15.22	2 lg	PowerPoint	delivery system for te	aching	boring, old-fashioned
Floyd	Enh Ig	15.18			give presentation		boring to use PowerPoint all the time
Wynne	adminv	10.192	2 lg	PowerPoint	communicate information	ation	
Wynne	adminv	65.21	l Ig		presentation		
Wynne	Enh Ig	10.26	-	tech genera	research, give power	liven up lesson, break	you can tell them to use amazing sites but they pro
Floyd	motiv	62.25	5 lg	tech genera	Develop STs	increase exposure to t	time to develop resources
Wynne	motiv	65.25	5 lg	tech genera	model to STs, share g	easily adaptable, good	overreliance, underprepared without tech
Floyd	Enh Ig	15.24	1	tech genera	place for it to support	it could help in most de	not suitable for some
Bob	motiv	63.23		tech genera	Prepare STs for teach	first hand experience,	have to know what you want to achieve, different
Wynne	Enh Ig	1.59		tech genera	type assignments		had students who are bad with tech, student phob
Floyd	motiv	15.23		tech genera		engages students	
Wynne	adminv	65.21		video clips			
Wynne	motiv	1.55		video clips		inspires group contribu	utions
Wynne	adminv	65.21			access course materia	motivating for student	
Wynne	motiv	1.55			resources/links	valuable resources	
Floyd	Enh lg	15.18				students can work thro	bugh resource
Wynne	Infrast	10.31		Computer re			have to book
Wynne	Infrast	10.35	1		use in class with no co	plenty available	
Bob	Pers pref	11.47		laptop		take infrastructure to r	emote site
Wynne	motiv		org	online cours	:es	take initiastructure to r	rubbish - need F2F
Bob	Incr choic					same as E2E course but	t can be done in own time at distance
Wynne	tr role		org l org	tech genera		Sume as FZF COUISE DUI	can you be replaced?
				-	for equipment difficu	stav quito lato	
Wynne	Infrast Cost offu	10.36					not available all evening
Bob	Cost effv	11.17		video		can still do assessment	
Bob	Infrast	11.235				eventually they'll get i	can't get round it if it fails, there is no Plan B
Bob	Cost effv	11.28			submit assessments		
Wynne	Enh lg	1.360,			store resources		esson can catch up, all students can go there for mo
Floyd	motiv	15.23		applications		physical application of	learning
Floyd	motiv	15.23		computer co			
Floyd	motiv	15.23	3	programmir	g		
Wynne	Pers pref	1.38	3	tech genera	lly	fun for the TE	

Example A Exploring technology practices

Quotation-I	Filter: All						
HU:	PhD Data Analysis3						
File:	[C:\Users\tavey\Documents\Scientifi	c Software	\ATLASti\	TextBank\	PhD Data /	Analysis3.h	or7]
Edited by:	Super 22/10/2014 12:20						
Date/Time:							
	lo you, as teacher educato (163:173)						
	I model in class never (174:174) expected to have a cert (175:175)						
•	they learn this sort of (33:35)						
	but there's a lot of work (37:39)						
	T co-ordinator has so (12:13)						
	new staff forum, one of (22:24)						
5:20 And wi	no delivers that? Erm, fo (49:50)						
5:21 Would	it be possible to get a (51:56)						
5:40 Er I'r	n not sure really, cos (21:21)						
5:43 Yeah, l	ike I say, we actually (58:58)						
5:8 Oh, mak	ing the team bigger. Bi (42:42)						
	you as a college, do yo (236:241)						
	know. I think I just k (120:120)			-			
	nentioned the other day wh (116:129)						
	vas erm that was the firs (132:137)						
	it is a requirement ye (92:92) rm. That was * * * * (60:60)						
	rm. That was ** ** (60:60) u will see when you read (29:29)						-
	o is PTLLS Express as I. (34:36)						
	ose idea was it to do the (40:43)						
	ks a bit OU like I have (48:48)						
	ther thing that I tried b (67:67)						
L1:31 Yes, w	vell you also have to thi (84:87)						
L1:33 When	you say it's a disproport (88:92)						
L1:36 you'v	e been saying that's ther (106:113)						
11:39 The m	asters that you're doing (122:125)						
11:40 Are yo	ou planning to carry on d (126:136)						
	s long as they're in yo (111:111)						
	e how they understand wh (99:102)						
	so, it's also an additio (25:25)						
	In't – I tend to see now t (38:42)						
	ould have to designate co (47:52)						
	s one question that I ne (99:101)						
	y professional role (74:74) ember back in 1990 we wer. (53:55)						
	eah. I mentor a number (6:6)						
	t with I was an advance (21:21)						
	to enable us as teacher (42:42)						
	to start with I was just a (8:10)						
	we have an internal po (108:112)						
	lo you know what to do? Ho (113:115)						
	lid you learn how to use t (79:80)						
16:238 So ar	n I right – is this what y (85:86)						
L7:16 No, I u	used to. I used to get – (163:163)						
	here anything in your d (131:135)						
	t's one thing that the c (158:163)						
-	u think your approach to (165:169)						
	u think that you have cha (121:122)						
	yeah yeah all new staff (54:54)						
	you know, there's ETRACK. (113:113)						
	ere are some things that (152:157)						
	npression I've got from w (158:163) re something that you've (164:171)						-
	think there are any, um, (172:175)						
	r discussion was mainly (172.173)						
	Training intended to help (34:41)						
	Training intended to help (31:38)						
	Training intended to help (34:41)						
	Fraining intended to help. (31:38)						
	Training intended to help (31:38)						

Example B Atlas-ti output for code: Tech-pracs_a learning practice for TEs

Quot.	Ref to tech	Required to/for	How learned	Depth of Ig	Justification given
1.48	IWB	operate	ask students		kids are brilliant at it
1.51	IT competence	expected	briefing sessions	low	
1.51	IT competence	expected	practise		
1.51	IT competence	expected	teach yourself		
1.51	IT competence	expected	ask students		
10.5	tech for work		self taught	just try the button	
10.5	tech for work		specialist role		know how good it can be
10.5	new programme		CPD at college	just talked through	try to get to it
10.5	new IWB		CPD at college	just talked through	still have to then practise yourself
10.5	CPD opportunities		ask to go on them		have to be proactive
10.5	PowerPoint		ask students		really good, show me how
10.25	laptop	learner support	proper training		collaborative with student
11.6	tech system	work for all students	practise		got to be resilient
11.6	Blackboard	work for all students	practise		might be fatally flawed
11.10,	Blackboard	put work online	ask e-learning team		better to have a forum to learn together
11.10,	Blackboard	put work online	ask e-learning team		dominated by techies not teachers
	Blackboard	put work online	ask e-learning team		confusing
11.10,	Blackboard	put work online	ask e-learning team		converted to appreciating how it can be used in an active way
11.10,	Blackboard	put work online	ask e-learning team		simplicity in having everything in one place
11.10,	webex	communicate online	from solving problem	s as they arise	careful not to exclude people who don't have tech specs
	tech in education		MA content		
11.16	distance learning		MA content		makes you think about effective teaching practices
11.18	teaching materials		having a go		way of making things more interesting/motivating
11.20,	online course	set up learning enviro	ask e-learning team		modelled it on classroom
11.20,	online course	interaction between s	doing MA		
11.27	PowerPoint	ST work	don't, get someone e	lse to do it	
11.27	screencast	ST work	don't, get someone e	lse to do it	
11.31	forums	interaction between s	tudents		attach to assessment
11.31	Blackboard	quality assurance	not		problems making it accessible
11.31	online course	set up learning enviro	in own time		learning takes time
11.33	tech system	usable for everyone			no good if you have to be techie
	online course	set up learning enviro	think about it a lot	results in more exp	pertise than some others
11.40,	tech in education	for personal interest			
,	interactive tech	expected			all staff should know about it
	tech skills				staff ask
	machines/software	operate	CertEd	had to write about	how could incorporate it into delivery
	software	operate	training		older members of staff scared, young more likely to know how
	IT competence	model	training		
	IT competence	model	support from senior s	taff	

Example C Analysing technology learning practices

Quot.	Ref to tech	Required to/for	adm	comm	lg	org	How learned		
11.20,	online course	set up learning environment			lg	org	ask e-learning team	College setup	institution
1.51	IT competence	expected					briefing sessions	College setup	institution
10.5	new IWB			comm	lg		CPD at college	College setup	institution
10.5	new programm	e	adm	comm	lg	org	CPD at college	College setup	institution
1.51	IT competence	expected					practise	experiment	institution
11.31	Blackboard	quality assurance	adm	comm	lg	org	not	ignore	institution
15.2	interactive tech	expected			lg		not explicitly stated	unknown	institution
11.33	tech system	usable for everyone					not explicitly stated	unknown	institution
10.5	tech for work						specialist role	College setup	student
15.32	IT competence	model			lg		support from senior staff	College setup	student
15.32	IT competence	model			lg		training	College setup	student
11.6	Blackboard	work for all students	adm	comm	lg	org	practise	experiment	student
11.6	tech system	work for all students					practise	experiment	student
11.14	tech in educati	on					MA content	External training	student
10.25	laptop	learner support		comm	lg		proper training	External training	student
11.27	PowerPoint	ST work		comm	lg		don't, get someone else to do it	manipulate	student
11.27	screencast	ST work		comm	lg	org	don't, get someone else to do it	manipulate	student
11.40,	tech in educati	for personal interest					not explicitly stated	unknown	teacher
15.5	tech skills						not explicitly stated	unknown	teacher
11.10,	Blackboard	put work online			lg	org	ask e-learning team	College setup	teacher
10.5	CPD opportunit	ties					ask to go on them	College setup	teacher
15.17	software	operate	adm	comm	lg	org	training	College setup	teacher
11.10,	webex	communicate online		comm	lg	org	from solving problems as they arise	experiment	teacher
11.18	teaching mater	ials		comm	lg		having a go	experiment	teacher
10.5	tech for work						self taught	experiment	teacher
1.51	IT competence	expected					teach yourself	experiment	teacher
15.8	machines/soft	operate	adm	comm	lg	org	CertEd	External training	teacher
11.20,	online course	interaction between student	s			org	doing MA	External training	teacher
11.16	distance learni	ng				org	MA content	External training	teacher
11.31	online course	set up learning environmnet		comm	lg	org	in own time	osmosis	teacher
11.36	online course	set up learning environmnet	adm	comm	lg	org	think about it a lot	reflection	teacher
1.51	IT competence	expected					ask students	seek help	teacher
1.48	IWB	operate		comm	lg		ask students	seek help	teacher
10.5	PowerPoint			comm	lg		ask students	seek help	teacher
11 31	forums	interaction between student	s	comm			not explicitly stated	unknown	teacher

Example D Identifying the expertise required for the teacher educator role

			Type 1						Туре	2					•	Туре 3	
Quot. 1	Tech	Role	Expectatio	From	Comment	Quot.	Tech	Role	Expectation	From	Comment	Quot.	Tech	Role	Expectatio	From	Comment
1.44 i	internet	research	need mor	college	difficult if tech fails	2.62	tech	keep up v	global skills re	e government		1.44	ICT	integrate	in every le	esson	requirements are misinterprete
1.44	IT activitie	es	in lesson (college		2.65	tech	the way fo	need to educa	agovernment	is it really the solution	2.73	tech	part of br	specialist	TE	
1.46	IT tasks	build IT sk	should be	TE	needed in work	2.72	tech	inspection	will be used	ofsted	seasonal focus change	2.78	tech	increase p	upskill	governme	economic drivers
10.28 t	tech		admin tas	college		2.89	Tech	employab	16-18s will be	inspectors	tech part of employab	12.21	Tech	teaching	teachers r	need to ex	perience, see it and have at a go
10.28 I	IT	part of tea	have a god	TE	might make life wor	9.31	IWB	observed	marked down	college	think it's nonsense	16.7	tech	teaching	teachers s	should em	tit's our responsibility
15.3 & t	tech	teaching	more exp	TE		9.33	tech	observed	that there wil	I TE		16.24	hardware	e meet stud	institutior	TE	to help us achieve that
15.4 t	tech	teaching	young pec	TE		13.9	tech	paramour	maintain/imp	government	don't understand	16.24	training	meet stud	institutior	TE	to help us achieve that
15.6 t	tech	necessary	staff shou	college		13.9	IWB - Sma	observed	marked down	college		16.25	IWB	lessons	have to us	TE	part of my job
15.10, p	presentati	ions	should be	TE		13.9	PowerPoi	observed	tick in box if h	college		16.25	Tech	microtead	c STs must ເ	TE	
15.10, l	lesson ma	terials	should be	TE		13.9	tech	observed	not stipulated	J TE		16.25	VLE	access rer	deposit re	college	
15.18 t	tech		should use	TE		13.10,	Tech	observed	observers wil	l other staff		16.25			online sub	college	so can be checked for plagiarism
62.21 a	all tech		unavoidab	le in job		13.11	Tech	teaching	STs need to fi	٤TE	system doesn't lend it	16.25	phone	learning	will be us	TE	needs agreement on safety
62.22	variety of	professio	helpful to	them		13.18	Tech	admin	not in LLUK st	andards		16.25	facebook	learning	will be us	TE	needs agreement on safety
63.20, v	variety of	delivery v	STs should	experier	ce multiple vehicles	13.29	Tech	teaching	use it because	e it can be mea	sured	16.25	Facebook				ady savvy with social media
						14.6	IWB	teaching t	model to STs	TE		16.25	Tech			•	eraction/dynamism with IT
								-	model to STs				Tech				the students will go elsewhere
						14.6	IT skills	teaching	STs improve t	F TE	and college should he	19.37	IT resourc	resource	ι one resou	irce has to	be IT based
						14.20,	equipme	nt	access to equi	i TE							
						14.20,	IT skills	entry req	IT literacy in S	college							
						17.12	tech	teaching	inevitable	TE							
						17.12	tech	teaching	used for its pe	e TE							
								professio	minimum cor	e AWB	development differen	t for al	I				
						17.37	tech	STs' teach	use where ap	¢ TE							
						17.38			achieve quali								
						17.41			,		email/use the internet						
						17.41			at least to bas								
						17.41			willing to exp								
						18.45					. If you ignore it you ne						
						18.46					t probably come from a		ility to wi	der resourc	ces		
						18.49					basic because there for	use					
							PowerPoi		unavoidable i	,				students			management
						64.22					chs can support their pra	actice a	nd suppor	rt own IT sk	ills - core st	tandards	
						66.22	email		unavoidable i	n job							

Example E Investigating the 'obligation' to engage with technologies

Appendix 16 List of technologies referenced by teacher educators

Administrative technologies	Communication	Learning technologies	Organising technologies
	technologies		
Blackboard	Blackboard	Blackboard	Blackboard
College portals	Chatrooms	CAD software	College portals
Computers	Emails	Computers	Computer rooms
Course documentation	Facebook	Diagnostic equipment	Distance learning
Dashboard	Forums	Documents	Email submission
Data and storage	IWB	E-books	Hardware
Databases	Moodle	E-portfolios	IWBs
Electronic marking	Online discussions	Google	Internet
Electronic work	Online learning systems	Interactive quizzes	IT skills
Email systems	Online tutorials	IWB flipchart	Laptop scribes
Enrolment forms	Phones	IWBs	Laptop trolleys
E-tracker	PowerPoint	Internet	Laptops
Evaluation software	Presentations	Internet access	Library systems
Figures	Smartboard	iPads	Online assessments
Management information	Texts	iPhones	Online courses
systems	Video conferencing software	Laptops	Online support
Moodle	VLE tools	Libraries	Onscreen learning tasks
Plagiarism software	Webinar software	Links	Q drive
ProObserve	Wikis	Mobile phones	Sharepoint
Records	Word-processed documents	Moodle	Smartboard
Registers		Online learning systems	Technical support
Reports		Online quizzes	The way forward
Sharepoint		Online resources	Video capture
Statistics		PowerPoint/presentations	VLEs
Survey Monkey		Promethean board	
VLEs		Screens	
		Smartboard	
		Social media platforms	
		Specialist software/hardware	
		Video cameras	
		Video clips	
		VLEs	
		Wands	
		Websites	
		Xerte objects	

CAD = computer-aided design; IWB = interactive whiteboard; VLE = virtual learning environment

Appendix 17 Instances of technology expressed as learning practices by teacher educators

"not e	xplicitly	stated"		
TE	Quot.	Tech	Role in tg	attitude to
Bob	11.31	forums	interaction between STs	attach to assessment
Floyd	15.2	interactive tech	expected	all staff should know about it
Bob	11.40,	tech in education	for personal interest	
Floyd	15.5	tech skills		staff ask
Bob	11.33	tech system	usable for everyone	no good if you have to be techie

Yes, well you also have to think that there's more to education than just getting a pass ... I need some sort of way – well, you understand what I'm trying to do. Give them some credit for either coming to the tutorials or for taking part in the discussions or something. You see one of the ways I thought I could possibly do the discussion forums, or at least with some of them is by saying one of the assessments, what you submit is what you put in the discussion forum. So you don't have to go away and write a separate thing, but I don't know if I can do that technically really. It's quite hard to – cos if then I was marking your contributions to my discussion forum I'd have to see all your contributions in one place ... and I don't know if that's technically possible really. And I've also actually with everything that I do I've got to be thinking about the external examiner. She's gotta be – it's no good her coming in and me saying well you know, it's all in there somewhere. She's gotta be able to come in and in an hour or half an hour see what work my students have done and see my feedback and all the rest of it. She can't be hunting around for it. But I think that idea of linking it to the discussion forums is another one that's got a bit of potential really. (Bob, 11:31)

Chris	13.7	computer system	expected	not fair, changes so frequently
Chris	13.7	computer system	expected	they break down
Chris	13.16	reg & other figures		cost-saving for college
Chris	13.7	laptop		can take it with you
Chris	13.7	PowerPoint	only method in military	not suitable for some environments
Chris	13.7	PowerPoint	only method in military	disadvantage
Chris	13.7	powerpoint		is not the thing students will remember
Chris	13.7	specific techs		not readily available in all tg envs
Chris	13.7	tech		burden - additional to tg & subj spec
lan	1.48	tech	model use in tg	
Steph	14.2	tech	keep STs up to date	
Chris	13.25	tech in classroom		not the cure all we anticipated
Wallis	17.16	tech in classroom	delivery vehicle	
Wallis	17.4	tech systems	operate	constant change a bit irritating

And also, it's also an additional burden as well. Because, not only have you your subject specialism which you have to keep up to date with, not only do you have you your teaching specialism which you have to keep up to date with, but you also have something that is so vast and is so frequently changing that you have a third thing that you have to deep up to date with and so people tend, because of the time constraint, to get to know one little bit and then to just use it for that because everything else they see as being more important to teaching. So I don't it's fair that – well anyone – should be expected to know the ins and outs of a computer system and also they do break down. You know, and then you're back to the basics of you know how do I teach this session. (Chris, 13:7)

Gail	16.238 Powe	rPoint	relied on	have a culture where ok to make mistakes
Jim	1.48 IWB		dem to STs	
Jim	1.49 IWB		model tr behaviour	
Gail	16.238 tech		got to make it 'safe'	people are frightened of IT
Gail	60.26 tech		support STs	not enough guidance, skype/vid conf etc ar

I think you've got to be aware what's out there. You've got to always know what's new and what's there. (Gail, 16.238)

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