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**“IT’S NOT AS STRAIGHTFORWARD AS IT
SOUNDS”:**

**AN ACTION RESEARCH STUDY OF A TEAM OF
FURTHER EDUCATION-BASED TEACHER
EDUCATORS AND THEIR USE OF MODELLING
DURING A PERIOD OF DE-REGULATION AND
AUSTERITY**

DAVID MARK POWELL

**A thesis submitted to the University of Huddersfield in partial
fulfilment of the requirements for the degree of Doctor of
Education**

The University of Huddersfield

September 2016

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Abstract

Modelling is a core competence for teacher educators. This action research (AR) study examines further education-based teacher educators' use of modelling and considers what role this may play in how in-service trainees learn how to teach within a university-validated initial teacher education (ITE) programme. The researcher, a university-based teacher educator, adopted a second-person practice approach to collaborate with a team of teacher educators and their trainees in an English further education college (FEC). The research used, as its conceptual and analytical framework, Kemmis et al.'s ecologies of practices and practice architectures. Data collection instruments employed included films of the teacher educators' classes and stimulated recall interviews (SRIs) based on them; focus groups with the trainees; and "teacher talk" meetings. There are nine main findings /contributions arising from this study. The principal ones were that effective learning to teach starts with "learning to look"; effective modelling is a result of the teacher educators' and trainees' "sayings, doing and relatings", and that the teacher educators involved in the study were modelling generic, core teaching behaviours. Initially the latter were implicitly modelled, though, as the study progressed, there was greater use of explicit modelling. There was evidence that some trainees noticed their teacher educators' use of implicit modelling, though others did not "see" it until it was pointed out to them during a peer teaching with debrief intervention. Many of the trainees said what was being modelling could be transferred into their own teaching contexts. This suggests that subject specialist mentors need to model the core practices of the trainees' subject to complement the generic, core practices modelled by the teacher educators. Inductions for the further education-based teacher educators in this study were uneven and overly technical in their focus. An extended and better balanced induction is proposed. Another recommendation is the proposal, building on Taylor's work, for a new fifth way of learning to teach: trainees acquiring and using the language of learning to teach. One of the actions arising within the study was the development of a viewing frame that teacher educators could use to enable trainees to "see into" the use of modelling within their classes and the evidence suggests it could be used across all three phases of ITE. The study contributes to debates relating to what is known about the classroom practices of further education-based teacher educators and the factors that shape those practices.

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Word Count 85,004

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Acknowledgements

This doctorate is dedicated to my Dad who was the first person to model to me how to write academic pieces of work. It was more than just the craft of writing; it was modelling the pure slog of constructing and editing the text. He always suggested I break up my text with some figures and tables. Dad, I've done that in this one too. I could not have done this without all that background work you put in, Dad. Thank you.

I wish to record my deepest appreciation to the team of FE-based teacher educators at the site where this study was completed. You opened your classroom doors and welcomed me inside, allowing me to film you teach and learn more about FE-based teacher educators' practices. Thank you for introducing me to your trainees too. It has been a privilege to spend these last four years with you.

I would like to thank my supervisor, Professor Roy Fisher, for his skilful guidance and expert advice, providing just the right amount of support and challenge. And thank you to Ann Harris who offered critical and thoughtful comments at the draft stage of this thesis.

Thank you to Jennie Coates, who first encouraged me to become a teacher educator; Alan Blackwell, Barry Turner and Linda Burgin, who gave me the chance to return to Craven College as a teacher educator in 2005, and my good friend, Ian Findlay, for the role you had in helping me get to the University of Huddersfield.

Thank you to Anja Swennen for role modelling to me what it means to be a teacher educator, for introducing me to the Association of Teacher Educators in Europe community and its Professional Development of Teacher Educators' Research Development Community, and for your friendship.

Thank you to Father Bede Leach, a friend and Benedictine monk at Ampleforth Abbey, for allowing me to use his phrase "the quiet life behind the face".

Finally, thank you to Julia and Mr. Ginger for putting up with the disruption and mess of this study for the last 6 years.

Glossary of abbreviations

This glossary of abbreviations will help you navigate your way around the acronyms and language of the further education and skills sector.

ACL	Adult and Community Learning
AL	Action Learning
AoC	Association of Colleges
AR	Action Research
ATEE	Association of Teacher Educators in Europe
AWB	Awarding Body
BIS	Department of Business, Innovation and Skills
CARN	Collaborative Action Research Network
CBHE	College-based higher education
CertEd	Certificate in Education
CETT	Centre for Excellence in Teacher Training
CPD	Continuous Professional Development
DfE	Department for Education
ECER	European Conference on Educational Research
ETF	The Education and Training Foundation
FE	Further Education
FEC	Further Education College
FEITE	Further Education Initial Teacher Education
FELTAG	Further Education Learning Technology Action Group
FENTO	Further Education National Training Organisation
FES	Further Education and Skills
HE	Higher Education
HEI	Higher Education Institution
HESA	Higher Education Statistics Agency
ITE	Initial Teacher Education

ITT	Initial Teacher Training
IWB	Interactive Whiteboard
LEA	Local Education Authority
LLUK	Lifelong Learning UK
LSDA	Learning and Skills Development Agency
LSIS	Learning and Skills Improvement Service
NAO	National Audit Office
Ofsted	The Office for Standards in Education, Children's Services and Skills
PGCE	Professional Graduate Certificate in Education
PP	PowerPoint
PTLLS	Preparing to Teach in the Lifelong Learning Sector (the introductory Level 3 award for those new to teaching)
RDC	Research Development Community (at ATEE)
RPCE	Research in Post-Compulsory Education
SET	Society for Education and Training
SRI	Stimulated Recall Interview
TIMSS	Third International Mathematics and Science Study
UCET	Universities' Council for the Education of Teachers
WBL	Work-based Learning

Notes on the study

I am aware that there is a recommended word limit for the award for which this thesis is being submitted, but this, of course, includes the key word “normally”. This study exceeds the normal limit in a way which is conscious, which is central to the academic integrity of the study, and not as a consequence of a disregard for the norms or of injudicious editing; it is a result of what has happened in the study. McNiff (2014, p.174) acknowledges that you do not know what will happen in an action research (AR) study; it is a journey “of discovery and creation”. This was my experience. This “story” was “an emergent form and fractal shape; each piece [linked] with others – a Gestalt – where the whole [became] more than its parts” (ibid). This made it imperative that I convey the granularity of the research process and of my thinking in ways that might not be necessary or appropriate had a different approach been taken. Hall and Callery (2001, p.260), drawing on Popay et al. (1998), argue that “detailed description is a quality indicator” of research and I wanted to emulate the best research.

In his third and final inaugural address, Frank Coffield stated: “The case I present tonight will be made in clear, simple English, which is one of our most potent weapons in the battle of ideas, but one which is, I think, decreasingly used by researchers” (Coffield, 2007, p.1). I hope I can honour Frank’s words. Words are important, especially when writing about a sector that seems to be undergoing “permanent revolution” (Coffield, 2008, p.10).

I have used the first, second and third person to tell the “story” of this study (McNiff, 2014, p.74). I use “I” and “my” when explaining decisions made and actions I have taken; the use of “I” owns the study and my account. I use “you” to invite you, as its reader, to judge the text. I use “they” and “their” when writing about the teacher educators in the study and I do this to protect their gender and identity and their site. I have spelled out numbers from one to nine, 10, 11 onwards are as figures. But if a number is used at the beginning of a sentence it is to be spelled out (even if it is 10 onwards).

The further education and skills (FES) sector has experienced “more than 30 years of policy hyperactivity” (Coffield, 2015, p.13) and a consequence is changes in names and terms. Mark Vanhoenacker (2014), writing about flying, states “I occasionally struggled to decide which units and terms to use in this book, as aviation itself, though otherwise globalised, is not always consistent”. I empathise with this. The terms used to describe the

FES sector, initial teacher education (ITE) and the providers delivering its curriculum have not been consistent. Since I joined the sector in 1986 it has been variously known as further education (FE), post-compulsory education and training (PCET), lifelong learning, the education and training sector, and currently by Ofsted and the Education and Training Foundation (ETF) as FES. ITE is sometimes referred to as initial teacher training (ITT) and also initial teacher training and education (ITTE). Ofsted (2015, para. 122, p.31) has an Initial teacher education inspection handbook which refers to “FE colleges”, “FE trainees”, and “quality of training” (para. 14, p.8). The terms teacher educators and teacher trainers, the people who deliver the ITE (or ITT or ITTE), are often used interchangeably within the sector. Who do they teach? Trainee is the term used by Ofsted and FEITE providers to describe anyone enrolled on an ITE award. However, “student teacher” is generally preferred by university-based teacher educators writing about learning to teach and modelling. FE colleges deliver the majority of the FEITE and one of them is the site for this research. This study is about FE-based teacher educators’ use of modelling within an in-service ITE programme and their trainees’ perceptions of how they are learning to teach and modelling’s role in that process.

Finally, AR has some features which make it quite different from other methodologies and I want to explain those for you, as the reader. First, the “story” of the research is an important feature in AR and I have honoured this by providing detailed accounts of my data collection and analysis, which are important parts of the “story”, and central to my claims. During the study, I have also invited other teacher educators to validate my research, actions and findings. These validation groups have included members of the Collaborative Action Research Network (CARN), who have fed back on papers I have delivered at their conferences, two groups of FE-based teacher educators, and those who attended my workshop at the Universities’ Council for the Education of Teachers’ (UCET) Annual Conference in 2015.

Chapter 1: Introduction

The start of this story

I have been a university-based teacher educator since 2009, though I started my career as a teacher educator in January 2004 at a general further education college (FEC) when invited to teach an introductory level 3 ITE award. I was reluctant at first to accept the work, but agreed to only because it was part-time, in an evening, and I could combine it with my full-time job. I have described myself as “a reluctant teacher educator” (Powell, 2016a, p.19). Six years later, in 2010, I read Noel’s (2006) work on becoming a teacher educator within this sector and realised that this informal approach to the recruitment of teacher educators was quite typical.

In September 2005 I was appointed a full-time teacher educator at a FEC and my allocated mentor told me that the most important aspect of the job was to “model good practice”. This was a piece of tacit advice; they did not expand on or return to it. In November 2010 when reading Lunenberg et al. (2007) I first came across a definition and typology of modelling for teacher educators and wondered what other FE-based teacher educators knew about it and how they used it. This was the starting point for this thesis. Modelling by teacher educators and their trainees’ perceptions of how they are learning to teach and modelling’s role in that process is the primary story, though there is another story, about what has been happening to FE-based teacher educators during a period of “de-regulation” and austerity. A third story, my own development as a teacher educator as a result of this study, is presented as a brief coda.

Mapping the landscape of FE-based teacher education

This study differs to existing research on modelling in two ways. First, unlike work on teacher educators’ use of modelling that has employed self-study (Loughran and Berry, 2005; Hogg and Yates, 2013; White, 2011; Burstein, 2009; Wood and Geddes, 1999) or case study approaches (Lunenberg et al., 2007; Ruys et al., 2013; Boyd, 2014), it is an action research (AR) study that adopts a second-person approach (Chandler and Torbert, 2003, p.142). I, as a university-based teacher educator and researcher, have undertaken this research “with”, not “on”, the team of teacher educators and their trainees (Chandler and Torbert, 2003, p.143). Second, research on teacher educators’ use of modelling has been almost exclusively on university-based teacher educators (Munby and Russell, 1994; Swennen et al., 2008; Garbett and Heap, 2011); the only currently published research on

FE-based teacher educators' use of modelling are Boyd's (2014) interview-based study and Reale's action research (2009). My research builds on Boyd's study and recommendations in two ways: by filming the teacher educators' classes and conducting a subsequent stimulated recall interview (Calderhead, 1981) with them; and listening to the trainees' voices about how they are learning to teach and the role of modelling in it.

Murray (2012, p.20) argues that "Teacher education as a field belongs to what Schön (1987) characterised as the 'swampy lowlands of professional practice'..." and Berry (2007a, p.31) states that research on teaching about teaching reflects "the indeterminate swamp zone" [sic] of practice described by Schön (1987, p.3). It is a complex and messy terrain, often difficult to describe [and map]." Thurston (2010, p.47), an FE-based teacher educator, describes FE-based teacher educators as "invisible educators" because so little is known about them and their work. My decision to film the teacher educators teaching and to speak to their trainees about learning to teach on their programme adds a dimension to existing research in the field, much of which has concerned the professional identities of FE teacher educators (Crawley, 2014; Eliahoo, 2014; Springbett, 2015) and their trainees (Orr, 2009; Rushton, 2015; Olukoga, 2015). We know little about what FE-based teacher educators do and this thesis opens the classroom door, deprivatising this important aspect of FEITE (Kemmis et al., 2014a, p.19). Petrie (2015, p.7), drawing on Deleuze, states that writing about FE "is to draw a map [of it]", so this study seeks to "map" a small and unknown area of the FE "swamp" (Berry, 2007a, p.31), making visible the work of FE-based teacher educators at one FEC (Thurston, 2010, p.52). I have been inspired by Weatherby and Mycroft's (2015, p.64) phrase, "thinkers as our friends", used by one of their trainees to explain how other people's ideas can reflect back on and affirm experiences. Wherever appropriate I have gone to the literature on FE-based teacher educators first, though, as is acknowledged by many researchers on FEITE (Noel, 2006; Crawley, 2014; Eliahoo, 2014; Springbett, 2015), this field is under-researched and the work invisible (Thurston, 2010, p.47), so I have also drawn on the literature on university-based teacher educators.

Structure of this thesis

This first chapter defines the FES sector; introduces the policy landscape for FEITE; sets out how FEITE is organised and its scale; looks at the roles and identities of FE-based teacher educators and seeks to establish how many of them there are; discusses the issues surrounding the induction of new teacher educators and the CPD needs and

support available for new and experienced teacher educators. The chapter closes by introducing the three key conceptual frameworks for the study – ecologies of practices and practice architectures; teaching about teaching and learning about teaching; and modelling – and sets out how I approached data collection. It ends by presenting the aim of the study and its five research questions.

Chapter two is concerned with the concept of modelling and its relationship to Loughran's (2006) notion of teaching and learning about teaching. It starts by investigating teaching and learning about teaching and then considers modelling's role in the process; it examines the research on modelling; it considers the role trainees' previous experiences have in shaping how they think about teaching and the relationship between trainees and teachers; it examines Taylor's (2008) work on understanding how trainees learn how to teach and uses this as a bridge to modelling and Korthagen's work on how one of the aims of modelling is to disrupt trainees' preconceptions of how to teach. Then it discusses Lunenberg et al.'s (2007) four forms of modelling and considers examples of teacher educators' use of the different forms of modelling with their trainees. The chapter ends by identifying how gaps in the literature have informed the design of my study.

Chapter three explains my positionality within the research and how, with "terrible honesty" (McNiff, 2014, p.51), I reflexively discuss my feelings, values and decisions about my study and consider their impact. I set out Bradbury's (2015) seven criteria for good AR and how these informed my study. I discuss my selection of data collection instruments, how these have been validated by other teacher educators and how these will help identify the "sayings, doings and relatings" (Kemmis et al., 2014a), p.31) of the five ecologies of practices at this college and answer the thesis' research questions.

Chapter four begins to tell "the story" of the research (McNiff, 2014, p.170), how I recruited its participants and chose to work with a team from one FEC. Then I discuss the ethical issues that surrounded gaining access to the field and securing informed consent from the participants. I tell the story of the messiness that arose as a result of the collaboration (Adamson and Walker, 2011, p.29) and the purpose of mess within action research (Cook, 2009). Chapter five is an account of the action and tells the "story" of a peer teaching with debrief intervention à la Loughran and Berry (2005) and the development of a viewing frame to help trainees "see into" (Loughran, 2006, p.5) teacher educators' teaching.

Chapter six sets out how I employed a bricolage approach (Kincheloe, 2004a) to analyse and thematically present the data. I explain how when there seems to be no conclusion to what the data says I have used secondary text to make “visible the complexity of narrating an ‘untidy’ world (Lather, 1997)...” (Segall, 2002, p.170). I conclude this chapter by stating how I have validated the findings as part of the data analysis process. Chapter seven provides a detailed analysis of the evidence and the claims arising from it and considers them in relation to the study’s five research questions.

Chapter eight is concerned with the quality and rigour of the research story, its “truthfulness” (McNiff, 2014, p.114) and the conclusions that can be drawn from it. It revisits Bradbury’s (2015) seven criteria for good action research and invites the reader to judge the quality of my study. I set out the conclusions in relation to each of the research questions and discuss the implications for changing FE-based ITE practices at a site and changing the practices of FEITE. This discussion covers the appointment and induction of new FE-based teacher educators; CPD for new and experienced FE-based teacher educators; the FEITE curriculum and the use of the Viewing Frame I have developed, and re-visiting the question of a professional framework for FE-based teacher educators. These recommendations aim to support the work of FE-based teacher educators and “inform the design and structure” of future FEITE provision (Mayer, 2014, p.42).

“Active forces” (Coffield, 2014a, p.83) shaping FE and FEITE

Emirbayer and Johnson (2008) emphasise that the FES sector “organizational field” is neither a single college, this would be an “organization-as-field” (p.22), nor all FECs, rather it is the “matrices of relations” (p.5) that exist as a result of the networks FECs are part of, all the activities associated with these networks, and how these connect to form the FES sector. So, this includes the FECs and their “relations” with the government departments responsible for them; the various quasi autonomous national government agencies who work with them and monitor them, such as the Education and Training Foundation (ETF); the students who study at them and the staff who teach in them; the partnerships the colleges have with other organisations, such as partner universities, and those who supply goods and services to them. These “relations” are not solely about the interactions, they are also about structural relations based on power and are part of an “ongoing struggle for domination over the field” (Emirbayer and Johnson 2008 p6). This “organizational field” of FE is also part of and impacted on by a larger political and economic structure that is concerned with issues of educational competitiveness, economic growth, welfare, health

and social inclusion (Edward and Coffield, 2008). An understanding of what constitutes the “organizational field” of FE is important when considering research with teacher educators and I do this in three ways: provide an overview of the sector; focus in on the funding of the sector and the impact this has on teaching and teaching resources; and discuss the impact of policy reform on the sector in general and more specifically on teacher education and FE-based teacher educators (Edward et al., 2007).

Defining the boundaries of the map

FE is difficult to define (Kennedy, 1997). The National Audit Office’s (NAO) (2015, para. 1.1, p.12) report, *Overseeing financial sustainability in the further education sector*, defines FE for accounting purposes as “formal learning that takes place outside schools and higher education institutions”, though Kennedy (1997, p.1) argues that when she was given this definition it became clear “that even this rough and ready guidance missed the mark” because of the complex relationships between schools and colleges and between colleges and higher education institutions. She added that it is “a large and fertile section of the education world” (ibid.) that gives a second chance to many. The NAO (2015, para. 1.1, p.12) estimates there are around four million learners studying within the FES sector, though it excludes learners studying at sixth-form colleges in this calculation. Public service training and offender learning do not seem to be part of the calculation either, though they, along with sixth-form colleges, are included in Crawley’s (2010, p.14) list of six types of organisation that belong to what he called the lifelong learning sector. These are: FECs, adult and community learning; work-based learning; sixth-form colleges; public services training; and offender learning. These four million or so learners include 16-19 year olds undertaking academic and vocational qualifications; adults studying basic literacy courses; apprentices; professionals undertaking part-time study to complete recognised work-related qualifications, including initial teacher education awards; offenders undertaking qualifications; students with learning difficulties and disabilities. These learners may be studying a qualification from entry level to Level 7 and are taught by teachers and trainers employed by “around 1,100 education and training providers” (NAO, 2015, para. 1.3, p.12); “around 240” of which are FECs, some of which are specialist colleges, for example, land-based. The NAO states that FECs account for over 50% of all learners. The others study at “around 700...commercial or charitable bodies” or through courses offered by their local authority (NAO, 2015, para. 1.3, p.12).

FECs' provision is complex too. Numerous FECs choose to subcontract the delivery of specialist provision to private training providers and charities. Some FECs work in partnership with higher education institutions to offer a range of higher education (HE) courses (NAO, 2015). The largest FECs have a budget of over £50 million and in excess of 15,000 learners (para. 1.4, p.12), though the largest many have considerably more students than that. The total budget for the FES sector is £7 billion (NAO, 2015, para. 1.7, p.13), with around 55% coming from the Skills Funding Agency, until recently part of the Department of Business, Innovation and Skills (BIS), and the remainder from the Education Funding Agency under the auspices of the Department for Education (DfE) (NAO, 2015). The sector is large, diverse, complex and difficult to define. Teacher educators based in FECs are what Murray and Male (2005) would describe as second-order practitioners teaching in a first-order setting. FECs account for 77% of providers offering diplomas/PGCEs/CertEds and 47% of all awards (ETF, 2016, p.19).

FEITE: yet another policy problem?

Cochrane-Smith (2005), quoted in Murray et al. (2009, p.30), states that “teacher education is positioned as a public policy problem” and has become the focus of policy makers’ attention at national and international levels. This view led the European Commission (2013, p.4) to state that “teacher educators are crucial for maintaining – and improving – the high quality of the teaching workforce”. Ellis and McNicholl (2015, p.17) suggest that ITE in England became “a public policy problem in the early 1980s”. However, Coffield (2008, p.9) claims “government policy is no longer the solution to our difficulties but our greatest problem”. He added that this has resulted in the FES sector suffering from “a permanent revolution” (ibid.) that is characterised by “hyperactivity” (ibid.) and “an intensifying [of] the already frenetic pace of change” (ibid). Hyperactivity begets hyperactivity, it would seem. This is a “sector that has been under review and reform for the past decade,” claimed Kidd (2013, p.15), though it could be argued that this started with the reforms of Mrs Thatcher (the Conservative prime minister 1979-1990), the first of which was the Further Education Act of 1985 that “allowed colleges to engage in commercial activities related to...generating more funding” (Hayes, 2016, p.271).

Steer et al. (2007) identify funding as a policy lever that successive governments have used to steer colleges since Incorporation in 1993. Before Incorporation, FECs were controlled and funded by their local education authority (Wolf, 2015). Incorporation, Thatcher’s solution to perceived problems of FE inefficiency, created a “marketised model

of education and training” (Lucas and Crowther, 2016, p.586), introduced a new funding methodology and established a “strict auditing regime” (ibid.). The creation of this “quasi-market” (p.588) in 1992 has had a significant impact on the sector. The increase in spending on FE by New Labour (1997-2010) had plateaued by 2004 and been rolled back since 2010 by first the Coalition government (2010-2015) and more recently by the Conservatives as they pursued their goal of eradicating the budget deficit (Wolf, 2015). Thus FECs have “experienced a real-terms funding cut of 27% in the last 5 years, combined with some significant cost increases” (House of Commons, 2015, para. 8, p.8) and this has meant that “110 colleges were operating a deficit in 2013-14, 22 colleges needed the Further Education Commissioner to intervene because of their financial situation between November 2013 and June 2015”, and 41% of colleges had “a worse financial health classification in 2014 than they forecast 2 years earlier” (NAO, 2015, p.4). Wolf (2015) concludes that this situation has arisen as a result of successive governments’ policies on FE being directed by economic and financial priorities and the sector being invisible politically. Wolf (2015, p.76) argued that the funding situation was now critical and the current difference in how colleges, schools and universities were funded was “unsustainable”, warning that FECs “could disappear if changes are not made soon to the way they are funded” (Powell, 2015, p.3). An important consequence of the systemic underfunding of FES sector is that “resources for teaching in the adult skills area have declined...” (Wolf, 2015, p.4). The Government seems to have ignored Wolf’s report. David Russell (2016), Chief Executive of The ETF, a predominantly government funded agency, in his keynote address at the FE Reimagined conference in June 2016 acknowledged that FE is underfunded, though felt that this being redressed was unlikely. The current Conservative government’s way round the funding situation would appear to be the introduction of “area reviews” for Post-16 education and training providers, the first round of which began in September 2015. The stated aim of which is for there to be “...fewer, often larger, more resilient and efficient providers...and more effective collaboration across institution types...This will ensure that we have the right capacity to provide good education and training for our young people and adults across England” (BIS, 2015, p.3). To conclude, the sector is underfunded compared with schools and universities and its teachers, including teacher educators, feel the effects of this in terms of salary, working conditions, including the number of hours they are expected to teach, and access to teaching resources (Lucas and Crowther, 2016).

Petrie (2015, p.2) argues that politicians and civil servants have consistently called FE “the Cinderella sector” and promised that it will finally be going to “the ball”. However, he points out that this metaphor is problematic, adding it is “toxic...filling the gap where real cognition and analysis of FE might take place” (p.4). FE is a sector which has become increasingly complex as a result of the considerable change, marketisation and reform it has undergone since Incorporation in 1993 (Edward and Coffield, 2008; Kidd, 2013; Lucas and Crowther, 2016). This led Orr and Simmons (2010, p.78) to observe that the FES sector has:

...been subjected to unprecedented levels of state intervention and [a] series of policy initiatives, relating to both strategic and operational matters. Virtually all aspects of FE are now highly mediated by the State. Keep (2006) argues that PCET in England is now the most highly-regulated and centrally-directed education system in Europe.

Today, along with the primary and secondary sectors, the FES sector is part of the “biggest train set in the world” (Keep, 2006, p.47) as policy makers tinker and tailor (Jephcote and Abbott, 2005) with them to meet their political and economic goals. Between 1999 and 2007 this manifested itself in successive attempts by New Labour (Steer et al., 2007) to reform and regulate teacher education with the FES sector. Emblematic of this was Ofsted taking on the responsibility of inspecting teacher education in 2001 and the Department for Education and Skills publication of *Equipping our teachers for the future* in 2004, and the 2007 Department of Innovation, Universities and Skills regulations (Lawy and Tedder, 2009). New Labour used this series of regulations, alongside the requirement for all FE teachers to join the then Institute for Learning (2002-2014), as its means of professionalising FE teachers (Simmons, 2013). By 2011 the teacher training curriculum in FE had become “factorised to a set of standards and constructed as a programme of strictly controlled and managed teacher training, with an emphasis on assessment, measurement and accountability” (Lawy and Tedder, 2009, p.53). All of which has contributed to teacher education in FE being in a “state of flux” (Lawy and Tedder, 2009, p.54). This has led “towards [a] narrow conceptualisation of practice and...this derives from the limitation of a standards driven agenda for VETT” (Avis et al., 2011, p.125).

The continuous cycle of educational reforms has been variously described as “policy hysteria” (Stronach in Avis, 2009, p.653), “policy churn” (Hess, 1999 in Ecclestone and Hayes, 2008, p.132) and “a policy epidemic” (Levin in Ball, 2003, p.215). As a

consequence, FECs suffer from what Petrie (2015, p.4) calls institutional attention deficit and hyperactivity disorder (IADHD) and this is often characterised by “a package...of three interrelated *policy technologies*; the market, managerialism and performativity” (Ball, 2003, p.215). These components are not necessarily equally present in all of the reforms, though when used together they create “a devolved environment” (OECD, 1995 in Ball, 2003, p.216) within which managers deploy performativity as:

...a mode of regulation that employs judgements, comparisons and displays as means of incentive, control, attrition and change – based on rewards and sanctions...The performances (of individual subjects...) serve as measures of productivity or output, or displays of “quality”, or “moments” of promotion or inspection. (Ball, 2003, p.216)

This environment does three things to teachers: it affects what they do, impinges on their identity (both personally and professionally), and alters their relationships with their colleagues and students (Ball, 2003). Mayer (2014, p.40), quoting Bullough (2012, p.344) posits:

[It] has resulted in a model of initial teacher education which privileges ...practical and experiential knowledge over theoretical, pedagogical and subject knowledge (Beauchamp et al., 2013) and is often informed by the “seductive pursuit of what we now call ‘best practice’: namely, single, best solutions, to complex problems”.

FEITE policy: a very English problem

Thompson (2014, p.20) observes that “the 2007 reforms failed to have a dramatic impact before the 2010 election”. He argues that this is unsurprising given the wider policy landscape of the Browne Review (2010), the micro-context of trainees having to pay their own fees from 2006 onwards and the unevenness of support for trainees from their local education authority (LEA). He asserts that “given time” (ibid.) the 2007 reforms would have achieved what they set out to do: a teacher-trained workforce that led to improvements in teaching, learning and assessment. He quotes from BIS’s (2012) *Evaluation of FE teachers’ qualifications regulations* (2007) to support his argument. It is also an instance of “policy lag”, which occurs, according to Solomon (2003, n.p.), when a “buy-in” (ibid.) to a policy comes up against others’ “self-interest” (ibid.), in this instance, employers, argues Thompson.

The slow progress made against the 2007 regulations, combined with the problems arising from the financial crisis, provided the newly elected Coalition government with an

opportunity to apply its austerity regime to the FES sector. In 2011 the Coalition government acted by establishing the Lingfield Review (Thompson, 2014) and one of its tasks was to “review progress made with professionalising the FE and Skills workforce following the introduction of the reforms stemming from ‘Equipping Our Teachers for the Future’” (BIS, 2012, n.p.). Thompson (2014, p.22) suggests “the report found exactly what it intended to find, and that the outcome had largely been pre-determined... [as] the infrastructure supporting the 2007 regulations was already being dismantled”. An instance of “answerism” (Avis et al., 1996, p.164), it would seem, especially as BIS’s “cautiously optimistic” assessment of the reforms came out “in the same month” (Thompson, 2014, p.22).

Lingfield’s (BIS, 2012b) report recommended abolishing the 2007 regulations, though advocated that new teachers should “successfully complete a preparatory award as part of their probationary period of service” (BIS, 2012b, para. 3.4, p.8). This meant that it was now for the FES sector’s employers to determine what qualifications, if any, were required by new teachers (BIS, 2012b). Lingfield also recommended that professionalism might be best achieved through “a refreshed relationship between employers and staff, codified in a Covenant – or compact – negotiated freely between them and setting out their obligations to one another” (BIS, 2012b, p.ii). This recommendation seems to represent the “institutional devolution and site-based management” (Ball, 2003, p.219) of performativity and shows a lack of awareness of the impact this might have on relationships within FECs. Ball argues that performativity closes down the possibility of “a shared moral language” and fosters a climate in which there is a “regress of mistrust” (Power, 1994 cited in Ball, 2003, p.226), “increasing individualization” (p.219) and “the destruction of solidarities based upon a common professional identity” (p.219). Instead policy reforms, like Lingfield’s, and the associated policy technologies of the market, managerialism and performativity “reform” teachers, their teaching and the professional relationships they have with their students, fellow teachers and managers (Ball, 2003). Lucas and Crowther (2016, p.583) claim that the result of what they call “the logic of Incorporation” is that the market dominates the thinking of FECs and this has resulted in teaching and learning, professionalism and the curriculum being neglected; a point Coffield forcefully made at the Association of Colleges’ (AoC) Annual Conference in 2006 (TES, 2016).

What scale is this map? Characteristics and scale of FEITE

Thompson (2014, p.2) describes FEITE as diverse and complex and suggests that it is characterised by:

1. The qualification and its level, i.e. an award (Level 3), a certificate (Level 4), a diploma (Level 5), a CertEd (Level 5) or PGCE (Level 6), and a specialist diploma (Level 5);
2. How you are studying, i.e. full-time or part-time, in-service or pre-service; face to face, online, blended;
3. The awarding body, i.e. is it a higher education institution or an awarding body?

A fourth category might be the site of study, i.e. a college, an adult and community learning provider or a private training provider. Springbett (2015) points out that in-service FEITE is not subject-based, though there are models that support subject specialist pedagogy with the Level 5 awarding body awards (City and Guilds, 2013; Pearson, 2013; Ascentis, 2016) and university awards.

Crawley (2014, p.52) acknowledges that analysing data on FEITE is difficult:

“Benchmarking data relating to LLS ITE has not systematically been collected across the sector, and this consistently leads to complications when seeking to compare and contrast provision and providers”. However, he argues that the FE college workforce data is an official source that can be used to gauge the scale of FEITE. Crawley (2012) and Eliahoo (2014) both used a combination of the Lifelong Learning UK’s data (LLUK), which ended in 2010 because of its closure, and Learning and Skills Improvement Service’s (LSIS), which closed in 2013, reports to discuss the numbers enrolled on FEITE courses from 2006-2007 through to 2010-2011. It is important to note that these ITE enrolments only relate to FECs, because they are based on the Staff Individualised Record (SIR), and so are unlikely to include any enrolments from the other five types of organisation Crawley (2014) identified as being part of FES sector.

Eliahoo (2014, p.50) observes that FEITE enrolments increased from 29,932 in 2006-2007 to 46,504 in 2007-2008; a 55% increase which she attributes to the change in regulations in 2007. The amended workforce regulation was important, though there were two factors that may have also contributed to this substantial increase. First, New Labour increased funding for FE after they were elected and, though this peaked in 2005, according to Wolf

(2015, p.14), this meant that more people were employed in the sector and thus more would need to be trained. Also, Lucas and Crowther (2016, p.589) state that a consequence of Incorporation was that:

...some colleges used non-teaching staff in quasi-teaching roles such as “instructors” and “demonstrators” blurring the boundaries between teaching and support. It has been estimated that by 2005 “learning support workers” accounted for 1 in 5 of the workforce. (Robson, 2006)

Those employed in these new roles may have studied for an ITE award in the hope that they could move into a full teaching role.

Eliahoo (2014) and Crawley (2014) state that there were 45,305 trainees in 2008-2009 and 45,590 in 2009-2010, though they do not provide a detailed breakdown of what courses these trainees were enrolled on. However, they do go on to claim that the 45,590 enrolled on FEITE in 2009-2010 was higher than the 38,500 enrolled on primary and secondary schools’ ITE (Eliahoo, 2014, p.51; Crawley, 2014, p.52), though Crawley (ibid.) does make the point that these figures are “not directly comparable” because of the differences in schools and FEITE, i.e. schools’ ITE has been until recently pre-service and FEITE usually in-service, though that is changing. I would like to add a further point here. Crawley cites Smithers and Robinson’s (2011) *Good teacher training guide* as the source for the school enrolments, though what the report actually states is there were “38,429 recruits to teacher training in 2009-2010” (Smithers and Robinson, 2011, p.16). We can add “39,103 final-year trainees” to the number enrolled on schools’ ITE (Smithers and Robinson, 2011, p.26) and there will be undergraduates in Year 2 of their degree to add to this. Either way, what is significant is that FEITE expanded considerably between 2006-2007 and 2007-2008.

Thompson tells us that the “overwhelming majority” of those being trained to teach are in-service trainees, i.e. they are already employed as teachers, and suggests that this is at least in part attributable to the considerable extent of vocational teaching taking place in FES sector (Thompson, 2014, p.1), though he does not provide any data to back up his claim. Crawley is more precise:

In 2012, ITE provision is provided by universities (approximately 55%) and awarding bodies such as City and Guilds and EdExcel (approximately 45%) (Crawley, 2012). 10% of all participants on programmes were pre-service either part-time or full-time, and 90% in-service, most of which are provided as the two-year part-time model (UCET, 2009). (Crawley, 2014, p.51)

Since the closure of LLUK the ETF has collected data on FEITE and reported on this in 2015 and 2016. Their most recent report (ETF, 2016) uses data from the awarding bodies, the higher education statistics agency (HESA), which captures enrolments on higher education courses, and the single individualised learner record (SILR), which is used to calculate funding for FE providers, to establish enrolments on FEITE. It acknowledges this is not a straightforward task:

Although providers are encouraged to include data on learners who are undertaking self-funded programmes, not all providers include this information. Indeed, by cross-referencing the SILR to the Ofqual certification data we found that only 68% of ITE learners studying diplomas or certificates in FE were recorded on the SILR. (ETF, 2016, p.7)

Whilst the ETF's report acknowledges the challenges in collecting accurate data and uses different data sources to the LLUK and LSIS reports, this is the only data available to compare enrolments on FEITE during the period of this study. Therefore, I have compiled Table 1.1 based on the enrolments for 2010-2011 from LLUK's 2012 report and the ETF's 2016 report. To ensure some level of comparability I have aggregated some of the data in the LLUK report. For instance, LSIS reported enrolments on four types of Level 4 course: the Certificate to Teach in the Lifelong Learning Sector (CTLLS) and the Level 4 Teaching Qualification at Stages 1, 2 and 3. It also reported by type of qualification at Level 5, e.g. Diploma or CertEd. On the other hand, the ETF aggregates the Diploma and CertEd with the PGCE. Therefore, I have aggregated the LSIS enrolments at Levels 5 and 6.

Table 1.1: The number of FEITE enrolments by year and type of qualification between 2010-2014

Year	Type of qualification					Total
	Award	Certificate	Diploma, CertEd & PGCE	Learning and Development Award	Other*	
2010-11	5,287	3,862**	22,730***	2,937	6,671	41,487
2011-12	36,750	8,600	16,170	Not reported	Not reported	61,520
2012-13	38,730	7,870	12,220	Not reported	Not reported	58,820
2013-14	34,340	6,250	11,450	Not reported	Not reported	52,040

* This category is a combination of the 2,466 enrolments on BEd/BA/BSc with concurrent qualified teacher status and 4,205 enrolled on “Other” teaching qualification not listed. Neither of which the ETF include in their report.

** LSIS reported enrolments on four types of Level 4 course: the Certificate to Teach in the Lifelong Learning Sector (CTLLS) and the Level 4 Teaching Qualification at Stages 1, 2 and 3. This figure is an aggregate of all those enrolled on these courses.

*** LSIS reported by type of qualification at Level 5, e.g. Diploma or CertEd, though the ETF report aggregates the Level 5 awards with the PGCE. For comparison purposes I have also aggregated the LSIS enrolments.

(Sources: LSIS, 2012, p.35; ETF, 2016, p.26)

A dramatic shift in types of enrolment for FEITE awards seems to have taken place since 2010. What is striking is the almost 700% increase in the Level 3 Award enrolments from 2010-2011 to 2011-2012 and the relative stability in its numbers since then and, on the other hand, the significant drop between 2010-2011 and 2013-2014 in the diplomas (Level 5), the CertEd (Level 5) and the PGCE (Level 6). Thompson (2014, p.20) suggests there is “a tendency for WBL and ACL employers to ‘settle’ for PTLLS as a terminal qualification rather than the first step towards full qualification”. However, the number of enrolments for the Level 4 Certificate (or its equivalent) grew from 3,862 to 8,600 in the same period, a growth of more than 100%.

Interestingly the ETF report makes reference to Level 7 awards but does not provide any information on the number of enrolments. It does, however, provide some analysis of the enrolments at Levels 5 and 6, stating that “the decline in diplomas, PGCEs and CertEds was mainly due to fewer learners studying these courses in FE colleges. The provision delivered by HEIs has remained fairly constant over the same period” (ETF, 2016b, p.25). This might be explained by the introduction of higher fees by universities for their awards in 2012-2013, the removal of the amended workforce regulation in September 2013, and the funding cuts means that fewer teachers are employed in the FE sector and many of them have already completed the ITE awards their employers require them to possess. The ETF’s report also states that “For diplomas, it is estimated that 90% of learners in 2013/14 studied part-time and approximately two-thirds of all PGCE/CertEd learners studied part-time” (p.30). It also suggests that in 2014-2015 68% of FEITE awards were part-time and 66% of trainees were in-service (p.15), though it does not provide any numbers to back this up.

For the first time more granular information on the specialist diplomas in literacy, numeracy and special educational needs and disability (SEND) that are offered by FECs is available. Overall enrolments on these awards grew “from 540 in 2012/13 to 654 in 2013/14” (p.31) and the ETF report (2016) suggests that this growth was mainly attributable to the significant numbers that enrolled on SEND diplomas compared with the previous year; there were 20 enrolments on SEND diplomas in 2012-2013 and 137 in 2013-2014 (p.31). In terms of overall enrolments, the majority are on literacy diplomas (345 enrolments), with numeracy having 172 enrolments and SEND 137. A piece of valuable new information that is significant for modelling within FEITE HESA tries to collect details of the first degree for trainees enrolling on their ITE awards. This data is by no means complete; the ETF reported that “80% of HE providers provided information on learners’ previous qualifications” (p.31). However, it does give us an insight into the subjects the trainees may be planning to teach. The four most popular areas were art and design, social sciences, business, and sport (ibid.) and Table 1.2 extracts some of this data.

Table 1.2: List of degree subjects trainees studied prior to enrolling on their course FEITE at a HEI in 2013-2014

Rank	Subject area	Enrolments	Proportion of enrolments
1	Creative arts and design	930	21%
2	Social sciences	530	12%
3	Business and administrative studies	410	9%
4	Sports	370	8%
5	English studies	330	8%
6	Health and social work	310	7%
7	Psychology	240	5%
8	Engineering, technology and computer science	230	5%
9	Science	230	5%
12	Law	170	4%
13	Mathematics	60	1%
14	Foreign languages	60	1%

Total n = 4,380.

(Adapted from ETF, 2016, pp.31-32)

Not all trainees studying at colleges and HEIs have a degree. Until relatively recently the highest level qualifications in a number of vocational subjects were at Level 3, for instance, hairdressing and beauty therapy. Crawley (2014, p.420) suggests that “there are at least 200 subjects on offer at any given time in just one medium sized provider”, and some of the teachers teaching these subjects may also be trainees on an FEITE. This has implications for FE-based teacher educators’ use of modelling as one of the ideas behind learning to teach and modelling is congruence: “teaching is congruent when it models effective teaching and learning strategies that student teachers will be able to reconstruct in their own classrooms. The congruent teaching may also display values held by the teacher (Willemse, Lunenberg and Korthagen, 2005)” (Boyd, 2014, p.58).

What do we know about the people who live in FEITELand?

“Teachers of teachers – what they are like, what they do, what they think – are typically overlooked in studies of teacher education.” (Lanier and Little, 1986, p.528)

Swennen and van der Klink (2009), university-based teacher educators involved in schools' ITE in the Netherlands, recognise that the term "teacher educator" does not necessarily mean the same thing in different countries. Providing a definition of an FE-based teacher educator is not straightforward. Crawley (2014) has spoken to more than 250 FE-based teacher educators and they found it difficult to define the term "teacher educator". Swennen and van der Klink (2009, p.3) provide an all-encompassing definition of teacher educators as "those teachers in higher education and in schools who are formally involved in pre-service and in-service teacher education", adding that those who supervise student teachers during their ITE or provide CPD for teachers are also teacher educators. Crawley (2012, p.5) initially defined an FE-based teacher educator as "any teaching professional supporting the learning and development of trainees on any of the currently recognised awards for teaching professionals in the LLS", which is not quite the same as Swennen and van der Klink's. However, neither of these definitions seems suitable for this study as they could potentially include mentors. Mentors have an important role within FEITE. They work in "a one to one relationship" with a trainee and they are responsible for developing the trainees' subject-specialist pedagogy (Hobson et al., 2015, p.1), though they have a distinct role that differentiates them from teacher educators (Tedder and Lawy, 2009) and for the purposes of this study they are not considered teacher educators.

Exley (2010), a university-based teacher educator involved in FEITE, when discussing FE "initial teacher training and education (ITTE)" (p.25) states that FE-based teacher educators are "...defined by the fact that they teach in ITE and continuing professional development (CPD)..." (p.27). I am more comfortable with this narrower definition, though this assumes all FE-based teacher educators are involved in CPD. Crawley, drawing on Exley's definition, revised his definition of an FE-based teacher educator, arguing that there is more to being a teacher educator than teaching. Crawley's (2014, p.20) most recent definition of an FE-based teacher educator was: "a professional teacher who works with new and experienced LLS teachers to help them support their own students' learning and build their knowledge, expertise and practice as a teaching professional". There is still some scope for mentors to be included here, though. The European Commission (2013, p.6), quoting from its 2012 *Supporting the teaching professions* document, states: "teacher educators guide teaching staff at all stages in their careers, model good practice, and undertake the key research that develops our understanding of teaching and learning". Almost there, though not all FE-based teacher educators will be research-active. Murray

and Male (2005) would describe FE-based teacher educators as second-order practitioners – first-order practitioners are teachers of their subject specialism – teaching in a first-order setting, which they suggest is a school, though it could be an FEC. A second-order setting would be a university. They state that “second-order practitioner teacher educators induct their students into the practices and discourses of both school teaching and teacher education” (p.126). A mentor might be expected to induct a trainee into the organisation’s practices, though few would be able to induct them into the discourse of teaching and teacher education; what Loughran would call the pedagogy of teacher education. Therefore, for the purposes of this study I am defining an FE-based teacher educator as a teacher who inducts their trainees into the practices and discourses of teaching in the FES sector and teacher education.

There has been no national study of FE-based teacher educators to collect data on who they are and how many of them there are. Crawley (2014, p.53) estimated there are about 1,500 and Eliahoo (2014, p.51) 2,426 teacher educators. Noel (2006) and Harkin et al. (2008) undertook smaller, regional studies of FE-based teacher educators; Noel had 130 participants and Harkin 97. However, Harkin’s research, undertaken for LLUK, has never been published. Noel’s (2006, p.159) findings were that 66% of the teacher educators were female and 34% were male and “although women are under-represented in management in FE generally, four out of five...centre managers are female”. Noel also concluded that these teacher educators were more white and older than the learning and skills workforce overall, which itself is predominantly female, white and ageing (Noel, 2006, p.152). Harkin et al. concurred with Noel’s findings. What is useful from Harkin et al.’s work is their analysis of the subject specialisms of 88 of the teacher educators, which is presented in Table 1.3.

Table 1.3: Teacher educators' subject specialisms

Subject specialism	Number of respondents
Skills for Life (literacy)	23
Business, management, law and finance	18
English literature and language	8
Health and social care	5
Science	5
Travel, tourism, sport, leisure and hospitality	5
ICT	4
Sociology	4
Psychology	3
Art and design	2
Beauty/complementary therapies and hairdressing	2
Motor vehicle engineering	2
Skills for Life (numeracy)	2
Advice and guidance	1
Agriculture and horticulture	1
Food studies	1
History	1
Special needs	1

(n = 88)

(Adapted from Harkin et al., 2008, p.19)

Noel also collected data on subject specialisms of the teacher educators in her study. She reported that they were:

concentrated in certain subject areas – particularly Business & Management Studies and Social Science and Humanities. Their representation in some subject specialisms far exceeds that of the trainees... This is particularly so in relation to ICT, which involves 5% of the teacher educators, 12% of the trainees, and is the subject area with the most learners in FE. Data analysis reveals that over half the... centres involve teaching teams with more than one teacher with the same subject specialism, even where the specialism is one not very well represented overall. There are examples of teams with as many as five members from the same background. This evidence of the clustering of specific groupings of teacher educators might suggest that, in some cases at least, a word of mouth, informal type of recruitment is occurring in connection with membership of teacher educator teams. (Noel, 2006, pp.159-160)

To the list of mainly female, mainly white and “ageing”, we can add that their subject specialism may not be the same as the specialism of the trainees they are teaching. This has potential implications for modelling and congruent teaching.

Lunenberg et al. (2014, p.7) argued that carrying out the six roles of the teacher educator can result in “tensions and conflict”...and so [they] are sometimes hard to combine”. Macguire concluded from her research on teacher educators’ work in an HEI that “the job... is constructed out of a multiplicity of concerns and issues that derive from the policy context, local micro political exchanges and personal commitments which together form ‘the impossible job’” (Macguire, 1993, p.143). What is evident in Macguire’s description is the “janus-faced” nature of teacher educators’ work articulated by Taylor (Murray et al., 2009, p.30); they face the demands of their classroom and their trainees and at the same time they have to fulfil the expectations of their college and the requirements of government policy. Whilst acknowledging Macguire has captured the nature of HE teacher educators’ work, Murray et al. (2009) argued that many teacher educators enjoy their work. Though what is this work?

Unlike the work undertaken by the Association of Teacher Educators in Europe and the Dutch Association of Teacher Educators to set out professional standards for teacher educators, there are currently no professional standards for FE-based teacher educators in England (Eliahoo, 2014). The DfES’ *Equipping our teachers for the future* publication states that LLUK would establish “a professional framework” (DfES, 2004, para. 1, p.4) to support the work and development of FE-based teacher educators by the end of 2006, “including skills, qualifications and experience...” (para. 4.4, p.14). This never happened. The closest there is to the professional framework is the ETF’s 2014 *professional standards for teachers and trainers*, though there is no mention of teacher education, teacher educators or teacher training within it. This is a concern as teacher educators’ “skills, expertise and knowledge must be carefully examined, articulated and communicated so that the significance of the role of teacher educator might be more appropriately highlighted and understood within the profession” (Korthagen et al., 2005, p.107). The European Commission (2013, p.4) agrees: “the development of explicit frameworks...can assist teacher educators to be as effective as possible”. The failure to develop a professional framework might be interpreted as an example of FE-based teacher educators being “the real victims of benign neglect (Lucas, 2004b, p.35)” (Eliahoo, 2014, p.224).

Roles of FE-based teacher educators

Role and identity seem to be used interchangeably when talking about these two interrelated but distinct things. Lunenberg et al. (2014) warn against confusing the two. To be clear, a role is what is done as part of a job, it may be fully articulated in the job description or it may not, and thus it shapes identity. On the other hand, identity is how a person sees them self and how others see them and this also impacts on role. Identity changes, as may role, as part of being and becoming a teacher educator (Hamilton and Pinnegar, 2015).

There are a number of authors who have discussed the role (or tasks) of FE-based teacher educators (Noel, 2006; Harkin et al., 2008; Exley, 2010; Boyd et al., 2010; Crawley, 2014; Eliahoo, 2014), though Springbett (2015, p.54) suggests that “there is an underlying assumption that teacher educators perform the same role”. Lunenberg et al.’s (2014) research on the roles of teacher educators provides a useful lens to consider these pieces of research.

Using a database of 137 journal articles, Lunenberg et al. (2014) identified six roles of teacher educators: teacher of teachers; researcher; coach; curriculum developer; gatekeeper; broker. It is useful to explain four of these terms because there are similarities with the roles of FE-based teacher educators. For instance, their use of the term “coach” also encompasses “mentor”, which was a role identified by Eliahoo (2014), and they describe the central aspect of it as “facilitating the learning process of student teachers” (Lunenberg et al., 2014, p.44). “Personal tutor” might be an appropriate term too. Lunenberg et al.’s notion of curriculum development is not about writing a new course – it includes the development of a curriculum based on the latest research; designing a “realistic teacher education” curriculum that enables the trainee to make links between theory and practice (p.52), and co-operation between universities and schools to ensure the relevance of the curriculum. This may be part of an FE-based teacher educator’s role though, as Eliahoo suggests, this is likely to depend on the college they work at and any HEI partnership they may be involved in. The term “gatekeeper” is concerned with teacher educators using “standards” to assess their trainees’ suitability to become a teacher (Lunenberg, 2014, p.58). This is something FE-based teacher educators do, though it is not identified within the existing research. The “broker” role is concerned with working closely with key partners to secure their full support in the preparation of trainees for a career in teaching (Lunenberg, 2014, p.59). An example of this in FE would be working

with mentors to support subject specialism (Exley, 2010), though it could be organising placements for pre-service trainees.

Noel's study (2006) of 78 teacher educators suggested that their roles "were diverse, and included those of manager, researcher, full-time teacher educator and part-time teacher educator". The latter point is worth explaining. Here the teacher educator may be part-time, i.e. paid on an hourly contract, or their teacher educator role may be fractional and part of a full-time post in which they also teach their subject specialism (or do other work).

Harkin et al.'s (2008, p.26) survey of 95 teacher educators from Westminster CETT identified eight roles that were undertaken alongside their work as a teacher educator. These were: "delivery of staff development, working in advanced practitioner [sic], peer coaching, teaching and learning improvement or CETT roles...administration, external liaison roles and secondments to other organisations, including partner HEIs" (p.26).

Crawley's (2014, p.136) study of 161 FE-based teacher educators is the largest study to date. It emphasises that being a teacher educator is "much more than" being a teacher. He suggests that FE-based teacher educators are "triple or multiple professionals" (ibid.). Crawley, citing Murray's (2004) and Exley's (2010) work, when discussing FE-based teacher educators' identity, seems to identify three roles: teaching their own subject specialism; a teacher of teachers; and supporting the development of the "workforce", the latter would seem to be about CPD, not ITE (Crawley, 2014, p.121). Crawley's online survey (Crawley, 2014, pp.326-333) also gives us an insight into what teacher educators consider to be the characteristics of a teacher educator. For instance, question 18 (p.330) of the survey identified the "essential characteristics of a good teacher educator" and asked respondents to indicate for each characteristic whether "I have this already" or "I need to develop this further". Crawley's (2014, p.5) claims there were 161 respondents to the survey, though there seem to be no more than 159 responses for any of these characteristics. The responses are presented in Table 1.4.

Table 1.4: Crawley's 15 essential characteristics of a good teacher educator

		HAVE		NEED	
	CHARACTERISTIC	No	%	No	%
1	The ability to model good practice in teaching, and knowingly – praxis	139	87.4	20	12.6
2	Flexibility, adaptability, availability	146	92.4	12	7.6
3	Gaining the professional respect of other teachers	141	88.7	18	11.3
4	Capacity to challenge self and others' actions and values/philosophies	106	66.7	53	33.3
5	Skills in developing professional beliefs, values and practice in others	116	73.4	42	28.6
6	Capacity to empower other teachers	132	83.5	26	16.5
7	Acknowledging/respecting/using others' skills sets/contexts	131	82.4	28	17.6
8	Encouraging independent/critical thinking in others	116	74.4	40	25.6
9	The ability to relate the taught elements of initial teacher education to a wide diversity of workplace settings	107	67.7	51	32.2
10	Broad range of teaching experience	134	84.3	25	15.7
11	Innovative and charismatic	102	65.8	53	34.2
12	Passionate about teaching and learning	153	96.2	6	3.8
13	Capacity to work with a wide range of teachers to challenge and inspire their development	135	86.5	21	13.5
14	Ability to step outside own comfort zone and enjoy that challenge	112	70.4	47	29.6
15	The “even more” quality (demonstrating a wide range of professional confidence as a good teacher, but “even more” so)	76	48.7	80	51.3

(Crawley, 2014, p.214)

An analysis of these 15 characteristics using Lunenberg et al.'s (2014, pp.19-21) work suggests that all 15 fit within the “teacher of teachers” role. Question 19 (Crawley, 2014, p.330) of his survey asked participants for “other characteristics you feel should be added/comments on the list”. Again most of these responses fell into the “teacher of teachers” category; however, one selected comment stated “[liaison with] mentors, managers and HR to support ITT trainees” as a characteristic (Crawley, 2014, p.218). This could be categorised within the “broker” role (Lunenberg et al., 2014, p.21). One other point is that 139 (87.4%) of the respondents felt they already “have” the skills and knowledge to “model good practice in teaching, and knowingly – praxis” (Crawley, 2014, p.214). As this was a survey, what they meant by modelling good practice could only be

seen in the additional comments they made. An analysis of these comments suggests that the respondents knew they had to model good practice but only one of them seemed to show an awareness of Lunenberg et al.'s (2007) four forms of modelling: "The ability to model good practice and talk about it, rather than just do it" (Crawley, 2014, p.347).

Another respondent stated: "A MODEL – a good teacher educator must practise what they preach throughout the process" (Crawley, 2014, p.406), though this was not explicated.

Exley (2010) asked: What does a teacher educator based in FE do that is distinct from what other FE teachers do? She identified five clear roles, the first three of which seem to be the same as those Crawley identified. They are:

1. Teach teachers how to teach, including the modelling of "effective practice" (p.28);
2. Teaching their subject specialism to students;
3. Delivering CPD at their college;
4. Developing their trainees' subject specialism in partnership with a subject specialist mentor;
5. Researcher.

Underpinning all of this is Exley's (2010) belief that the teacher educator's central role is to facilitate the trainees' development as a teacher and one way this is done is by modelling to them a wide range of teaching strategies that they can adopt and adapt.

Thurston's (2010) paper discusses planned case study research into the factors affecting the development of teacher educators within FE. Within it she briefly discusses modelling. She draws on Marsh and Hattie's work to suggest that "academics...are rarely exposed to role models who demonstrate effective teaching" (p.50), though it is worth noting that Marsh and Hattie's paper is on the tensions that exist between being a teacher and researcher in HE. She does go on to mention the "long tradition" (ibid.) of English language teacher educators' use of modelling within their classes of the teacher educator and identifies Woodward's (1991, 1993) work on "loop input" as being part of this, though there is no reference to research on this. Thurston also considers the expectation that FE-based teacher educators will undertake scholarly activity, including research, and the tensions that exist because of working conditions within the sector. Murray (2012, p.20) argues that university-based teacher educators' work consists of "elaborated pedagogies"

that are “time-intensive and cannot easily be measured” and a tension occurs when there are research expectations alongside the teaching workload.

Eliahoo (2014, p.187) conducted a survey of 70 FE-based teacher educators and identified eight different roles they performed: “programme management, research, staff developer, advanced practitioner, administrator, mentor, teaching and learning coach, subject teacher”. Eliahoo’s analysis highlights that teacher educators’ roles also reflect the “learning cultures” of their college, adding that this makes “their work more challenging due to the differing – or absent – support that teacher educators receive” (Eliahoo, 2014, p.3).

The other role that these teacher educators may be expected to undertake is quality assurance (QA). For instance, according to Crossland (2009, p.98), college managers see it as “unproblematic” to combine ITT and QA lesson observations “and yet many ITT teams resist this approach”. Boyd et al. (2010, p.11) add that learning cultures of colleges mean that the teacher educators find it “difficult...to position themselves clearly in relation to institutional management and human resource colleagues and the quality assurance agenda”.

It seems that like teacher education in universities, FE-based teacher education “is a broad, heterogeneous and differentiated field...within which individual teacher educators undertake many different types of work” (Murray et al., 2009, p.29). What is unclear is whether teacher educators working at the same college have different roles (Springbett, 2015, p.54). It is clear that there seem to be primary roles, which all teacher educators do, and there are secondary roles, which are dependent on work context; there are six primary roles of FE-based teacher educators and seven context specific additional roles. These roles are presented in Table 1.5.

Table 1.5: Roles of FE-based teacher educators

	Primary role	Additional role
1	Teacher of teachers, this may be part-time or full-time	Researcher
2	Gatekeeper	Curriculum manager
3	Coach	Staff developer
4	Curriculum developer	Advanced practitioner
5	Broker	Teaching and learning coach
6	Administrator	Subject teacher
7		Quality assurance

Two of these roles are the focus of this study of teacher educators' use of modelling: teacher of teachers and researcher.

FE-based teacher educators' identities

Springbett (2015, p.49) posits that there are tensions and complexity in being an FE-based teacher educator, so "navigating the role is a difficult undertaking and that working at the junction of sometimes conflicting influences requires a negotiation of identity". Exley (2010), Crawley (2014) and Eliahoo (2014) contribute to this debate. Crawley (ibid.) writes about "triple professional or multiple professional" (p.121) and breaks this down into subject specialist, teacher educator and developing the teachers in their college. Eliahoo (2014) suggests a "triple professional identity": teacher, subject specialist, and teacher educator. Exley (2010, p.25) identifies four identities: subject specialist, subject teacher, educator, and researcher. Exley does qualify her identification of the four identities by suggesting that "there may be more parts" that can be added with further research, though "this may depend on the context of the practice" (ibid.). There seems some agreement here of what it means to be an FE-based teacher educator, though these are examples of group identities (Springbett, 2015, p.78), not the individual identity that shapes teacher educators' practices.

Hamilton and Pinnegar (2015, p.3) "name experience, memory, and knowledge" as significant contributions to teacher educators' identities, adding that the process of being and becoming a teacher educator is "an amorphous process", "interactive", "situated" and on-going. Defining identity is problematic, they argue, because something needs to be "static and settled" for us to do so. Yet Springbett (2015), citing Boyd et al. (2011) and

Murray and Male (2005), suggests that the transition from teacher to teacher educator may take up to three years.

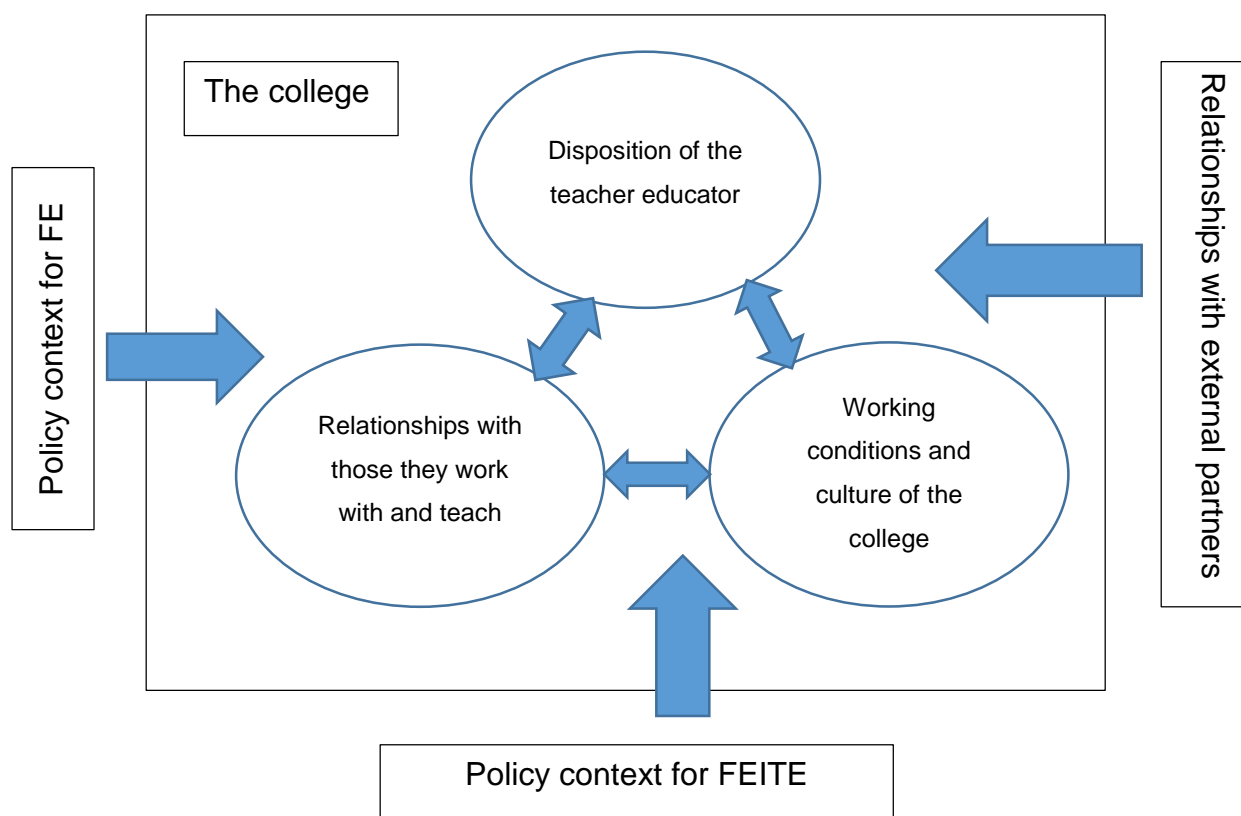
Hamilton and Pinnegar (2015) identify the intrapersonal and interpersonal factors that shape identity. They refer to Erikson's work and the role of individual's "physical and mental development" (p.7) and to the disposition aspect of identity. They also refer to Gee's work on positioning theory and the contribution of our workplace; those we work with and our relationships have an identity, suggesting that "identity is primarily about social and power relationships" (p.20). These different theories of identity, Hamilton and Pinnegar argue, "create spaces that open multiplicities rather than singularities of what we describe BECOMING teacher educators" (p.11). These identities become "visible" (p.20) in terms of what teacher educators say and do and in the relationships they have. This aspect of identity is important to this study because it uses Kemmis et al.'s (2014a) conceptual framework of ecologies of practices, the "sayings, doings and relating" (Kemmis et al., 2014a, p.31) of these practices and the "cultural-discursive arrangements, material-economic arrangements and social-political arrangements that makes those practices possible" (p.225).

Springbett (2015) used to be an FE-based teacher educator and provides a valuable insight into some of the tensions that exist with their work. She points out that teacher education is often part of what has been called HE in FE, where HE validated provision is delivered by an FE college, so it sits somewhat "uncomfortably" (p.2) between the respective traditions of HE academia and FE's student-centred, vocational learning. Another consequence of HE in FE is that those delivering FEITE will normally be contracted to teach more hours than those delivering university-based teacher education, according to Springbett, and she describes her own experience of this by noting how gradually she had "less time available in which to achieve more" (p.7). Simmons and Thompson (2007) concur that FE-based teacher educators will have a heavier teaching workload than their HE counterparts. They also identify four other factors that may contribute to these teacher educators' identities: less "professional autonomy"...fewer "opportunities for scholarly activity...pay and conditions firmly rooted in the lower tiers of the FE hierarchy...implementing a curriculum over which she has had little influence...[and] grappling with the problems imposed by limited resources" (Simmons and Thompson, 2007, p.530). They have become operatives "within an increasingly mechanistic, performatively focused model of teacher education" (ibid). Springbett (2015,

p.50), drawing on Ball, Friedson and Whitty, believes that FE-based teacher educators' identities are a result of "sites of struggle between parties with competing interests". Though it is "unclear" (p.52) how this all comes together in terms of an identity for FE-based teacher educators.

There are group identities but no single identity for FE-based teacher educators because even trying to name them as teacher educators is problematic (Murray et al., 2009). Hamilton and Pinnegar's (2015, p.11) notion of "multiplicities rather than singularities" is helpful. This allows recognition of the individual within the identity and what shapes their identity. It seems there are six elements that may shape and influence an FE-based teacher educator's identity. Three of these exist within the workplace and three outside it. The first workplace element is the disposition of the teacher educator who works there, which is based on who they are, their job role, their qualifications to do that job; what they teach, their disposition to their job (Springbett, 2015); their prior experiences of teaching and their memory of that; their knowledge; their relationships with colleagues and trainees, including other members of the team; the working conditions and culture of the college, including what agency they may have when working there. The three external elements are the "externalities" (Coffield, 2014a, p.83) of the national context of FEITE, the policy context for FE more generally and the relationships they have with others, including any university-based teacher educators they work with through a partnership. Like Kemmis et al.'s (2014a) ecologies of practices, the workplace elements are symbiotically interconnected and they may also be influenced by the three external elements. This identity ecosystem gives the FE-based teacher educators' identities their fluidity and "evolving nature" (Hamilton and Pinnegar, 2015, p.4). For instance, a heavy teaching load may impact on a teacher educator's mental development and physical well-being and shape the disposition element of identity. Talking to a friend about working at the college may bring a new awareness and disposition to their work as a teacher educator. This is represented in Figure 1.1.

Figure 1.1: The ecosystem contributing to an FE-based teacher educator's identity



Induction of FE-based teacher educators

The European Commission (2013, para. 41, p.11) argues that “the need for guidance and provision concerning the initial training, induction and continuing professional development of teacher educators is linked with the consistency and quality of the preparation of teachers (Caena 2012),” yet there is limited research on the induction of FE-based teacher educators. The principal research has been undertaken by Harkin et al. (2008) and Eliahoo (2014), though first I consider two pieces of work on university-based teacher education that may help illuminate the critical phase of induction for FE-based teacher educators.

Eliahoo (2014, p.74), drawing on Clemans et al.’s (2010) work on Australian-based teacher educators’ transitions from teacher to university-based teacher educator, describes the change in role as “complex and messy; dilemmas were not necessarily resolved, but managed; and moving between identities was the significant learning experience”. Induction is designed to assist with the transition between jobs, though inductions for new teacher educators need to be different (Murray and Male, 2005).

Morberg and Eisenschmidt (2009, p.104), writing about university-based teacher educators, describe the induction for new teacher educators as “a second-phase induction”, distinguishing it from the “first-phase induction” undertaken by new teachers. As well as being inducted into the university, its systems and building relationships with new colleagues, a “second-phase induction is a learning process about teaching” (p.105), they argue. They go on to point out that “teacher educators are teachers of teachers and thus need to serve as a role model for student teachers...and must be able to model excellent teaching...” (ibid.).

Boyd et al. (2011) have written guidelines for inducting new FE and HE teacher educators into the role, though writing from an HE perspective, suggest that the induction should last up to three years. It “deliberately goes beyond the initial year...and includes time to establish identities and roles” (ibid. p.7), they argue. However, Harkin et al.’s and Eliahoo’s research provides little evidence that the guidelines are being followed within FE.

Harkin et al. (2008) used an online survey to research the induction or training provided to 95 new teacher educators affiliated to Westminster CETT. These participants worked in HEIs (20); FECs (60), ACL (9); WBL (4); voluntary sector organisation (1); local government (1). Harkin et al. (ibid.) acknowledge this is a small sample, though it is the largest study of FE-based teacher educators’ induction. Their responses are listed in Table 1.6.

Table 1.6: Induction or training provided to new teacher educators

Activity	Response	Percentage
Briefing or attendance at a team meeting	62	63.9%
Co-teaching with a more experienced practitioner	46	47.4%
Carrying out joint teaching practice observations with another team member	35	36.10%
Mentor support	31	32%
Attending class as an observer	28	28.9%
Other	7	7.2%
None	15	15.50%

(Adapted from Harkin et al., 2008, pp.31-32)

80 ex 95 (84.21%) had some form of induction, though significantly 15 (15.79%) did not. The reason given by one of the respondents who received no formal induction was that they were the only teacher educator in the organisation. Only 3 of the 80 who were inducted had a “formal induction”, so it would seem that most of the induction is “carried out informally by colleagues” (Harkin et al., 2008, p.32). This is not necessarily problematic as Boyd et al. (2011) recognise that informal workplace learning is valuable; however, it becomes a concern if there is no formal induction to accompany it. Harkin et al. (2008, p.33) concluded that the “haphazard” nature of induction for teacher educators was a result of organisations not understanding teacher education and the skills and knowledge that underpin it.

Eliahoo (2014, p.221) concluded that “nearly half of the [70] survey participants had not experienced any induction to the teacher educator role at all”. Where an induction took place there was a “continuum of quality...from unsatisfactory to conscientious...” (p.130). Like Boyd et al. (2011), Eliahoo’s research suggests that the induction process should be “an incremental process of explanation about the ethos and overview of the course, set within the team’s context and the institution’s context. New teacher educators should be eased into the programme through team teaching, observing colleagues and mentoring” (ibid. pp.132-133). One of Eliahoo’s participants mentioned the significant role an HEI partner had played in their induction. Other forms of support provided to new teacher educators included mentoring, though this was dependent on the size of the course team, sharing “resources and ideas”, modelling of “good practice” (p.130), and the opportunity to observe another teacher educator. Where a team had other teacher educators within it who had considerable experience of being a teacher educator then they were happy to share their “tacit knowledge” (p.131) with their new colleague.

Eliahoo’s (2014, p.209) research suggests six types of activity as “minimum support” for new teacher educators in their role, though there is no indication at what point within the induction process these should take place or what other activities might be included as part of the three-year induction Boyd et al. (2011) propose. The activities are:

1. Observations
2. Shadowing and standardisation
3. Managing HE and FE interface
4. Mentoring and team support

5. Admin and VLE support
6. Help with course structure and content

Boyd et al. (2011, p.33) state the induction is about much more than “a bag of tricks”, it is about creating “time, space, support and opportunities to reflect on and analyse their emerging practice as teacher educators and the questions, issues and dilemmas it raises”. However, teacher educators’ working conditions dictate that time is not one of the things they have an abundance of. Eliahoo (2014, p.223) suggests that the Centres for Excellence in Teacher Training (CETTs) were able to do this when they were funded to undertake this type of work, though that funding ended in 2010. To summarise, the value of a well-planned, incremental induction is unquestioned; however, the consistent implementation and resourcing of it are the central challenges and issues.

CPD needs of FE-based teacher educators

Korthagen et al. (2005) assert that “the nature of teaching about teaching demands skills, expertise and knowledge that cannot simply be taken for granted” (p.107), so, as the European Commission (2013, p.6) acknowledges, “the...professional development of those who educate teachers is a prerequisite for raising the quality of teaching and improving learning outcomes”. This valorises the need for new and experienced teacher educators to have access to high quality CPD. There have been five pieces of research into the CPD needs of FE-based teacher educators: Noel (2006), Harkin et al. (2008), Noel (2011), Crawley (2014) and Eliahoo (2014). I discuss Noel’s (2006) and Harkin et al.’s work in Appendix 3.

Noel (2011) considered the CPD needs of FE-based teacher educators related to their use of learning theory within ITE courses. The response rate was 39. She was not surprised by so few respondents being interested in “part-time accredited provision” as there was little time to undertake further study and rarely management support for it either. However, the other eight CPD activities/support measures were seen as valuable by more than half of the respondents. Noel (2011, p.26) suggests that some of these might best be addressed through “collaborative group learning” and “through the facilitation of such an approach...the other support measures valued might be progressed”. The principal findings are presented in Table 1.7.

Table 1.7: FE-based teacher educators' different types of CPD needs related to learning theory

	Types of CPD and/or support measures rated by respondents (in order of greatest value)	% of respondents rating item 4 or 5 (when 5 = of great value)
1	Dedicated opportunity of sharing good practice	90%
2	Detailed guidance on key texts e.g. recommended books and journal articles	79.5%
3	A course reader, regularly updated, with a focus on theories and principles of learning	77%
4	Focused conference or workshop provision	74%
5	A teacher educator practitioner learning research group	72%
6	A teacher educator forum to determine jointly key learning theory to be covered – supported by subject experts	69%
7	CETT created resources to display in teaching rooms	67%
8	Detailed guidance in relation to curriculum planning and delivery e.g. sample lesson plan and resources	64%
9	Part-time accredited provision	31%

(Noel, 2011, p.23)

Eliahoo's study (2014, p.3) had 70 responses. Some of the survey covered the CPD needs of these teacher educators and one of Eliahoo's conclusions was that there are three "broad stages" (p.226) when considering the CPD needs of teacher educators. These are captured in Table 1.8, though it is unclear which stage the development of propositional knowledge, which she considers as one of their needs, belongs to. There also seems to be some duplication of peer mentoring and exchange of good practice in the table. 27 ex 56 (49%) of respondents said that teaching pre-service was different from teaching in-service and that this created additional CPD needs for them, though it was not made clear what these were (Eliahoo, 2014, p.197). 54 ex 62 respondents agreed or strongly agreed that they did not have time to undertake the reading and research expected of them by their HEI partner (p.199).

Table 1.8: Three stages in FE-based teacher educators' professional development needs

Stage 1	For novice teacher educators	Induction to HE procedures and processes; induction to andragogy, learning theories, observation practice and research methodology; team teaching; work shadowing; double marking; mentoring.
Stage 2	For teacher educators moving to a new post	Peer mentoring; exchange of good practice.
All stages	At all stages	Peer mentoring; exchange of good practice; networking with other teacher educators; opportunities for scholarship and research.

(Eliahoo, 2014, p.227)

161 respondents completed Crawley's (2014, p.5) survey and three of its questions give an insight into teacher educators' existing knowledge and CPD needs. Question 20 asked whether they have this knowledge or need it and question 21 asked them for "other subject knowledge you feel should be added/comments on the list" (p.331). The findings are presented in Table 1.9.

There are some interesting responses, though it could be argued that the inclusion of the phrase "good teacher educator" in the question might have led some participants to give "an inaccurate answer in order to present a favourable [sic] impression" (Galasiński and Kozłowska, 2010, p.272) to the researcher. It is noteworthy that not all 161 respondents seem to have answered each of the statements and response rates range from 161 for three statements down to 155 for one statement. Also, there seems to be an error in the table for the number of teacher educators who need help embedding equality and diversity into their teaching.

Table 1.9: Subject knowledge of a good teacher educator

	I have this		I need this	
	Nos	%	Nos	%
Pedagogy – theoretical and procedural knowledge of teaching	122	76.3	38	23.8
The theory and application of reflective practice	117	72.7	44	27.3
Teaching and learning principles and practice across the whole teaching cycle	137	86.2	22	13.8
Ways of working with adults, young adults, and 14-16 year olds, including coaching and mentoring	80	49.7	81	50.3
The wider context, history and development of lifelong learning	107	66.5	54	33.5
The wider benefits of learning	135	87.1	20	12.9
Embedding language, literacy and numeracy in teaching	77	49.0	80	51.0
Embedding information and communications technology in teaching	64	40.3	95	59.7
The ability to relate the taught elements of initial teacher education to a wide diversity of workplace settings	118	74.7	40	25.3
Embedding equality and diversity in teaching	107	67.7	32.3	31.7
Current developments in lifelong learning (e.g. QTLS; CPD; IfL)	112	70.4	47	29.6
Preparing for and working with inspections	83	51.9	77	48.1
Embedding sustainable development in teaching	40	25.2	119	74.8

(Crawley, 2014, p.222)

In his survey Crawley (2014, p.332) asked: “When other teacher educators were asked about support they already receive, or would like to have, they came up with the responses below. Please select those you consider you already have access to, and those you feel you would benefit from having”. Again, it is important to note that not all 161 respondents completed this section of Crawley’s survey, with 155 seeming to be the highest number of respondents for the statement “Reading/keeping up to date on current teaching & learning theory and practice”. The responses are presented in Table 1.10.

Table 1.10: Support needs of teacher educators

	I have this		I need this	
	No	%	No	%
Starting to teach on an ITE programme	132	90.4	14	9.6
Marking and assessing an ITE programme	129	84.9	23	15.1
Administering an ITE programme	118	78.7	32	21.3
Managing an ITE programme	115	77.7	33	22.3
Reading/keeping up to date on current teaching & learning theory and practice	107	69.0	48	31.0
What books/articles to read	107	71.3	43	28.7
Developing subject/curriculum knowledge	112	77.8	32	22.2
Joint moderation of student work	129	84.3	24	15.7
Research skills	112	74.2	39	25.8
Accessing online and offline academic sources	115	76.7	35	23.3
Structured induction	112	76.2	35	23.8
Detailed advice and guidance in relation to the curriculum, the sector and the reform agenda	101	66.9	50	33.1
Shared teaching resources	122	79.7	31	20.3
Regular team meetings	141	91.6	13	8.4
Joint observation of teaching practice and debriefing	121	79.1	32	20.9
CPD course attendance	127	85.2	22	14.8
A teacher educator mentor/critical friend	96	64.9	52	35.1
Joint curriculum development opportunities	93	62.0	57	38.0
Regular email/online contact with other teacher educators	104	69.3	46	30.7
Observation of others teaching ITE	101	66.4	51	33.6
Opportunities to team teach	110	73.3	40	26.7
Work-shadowing of experienced ITE staff	87	63.0	51	37.0
Support with research and scholarly activity	76	50.0	76	50.0
A training course on “how to be a teacher educator”	67	49.9	68	50.4

(Crawley, 2014, p.227)

FE-based teacher educators undertake a wide range of roles and their employer determines the work they do. Their college and the FE policy context, including ITE, have an impact on, and shape the identities of, these FE-based teacher educators. It seems there is nothing that unites them and brings them together. For instance, the continued

lack of a professional framework for FE-based teacher educators contributes to unsatisfactory approaches to induction for many new teacher educators and CPD for many new and experienced teacher educators. Their experience of being a teacher educator is dependent on where they work, who they work with, especially any teacher educator colleagues (if there are any), and their manager(s). This is the setting for this action research study of a team of college-based FE teacher educators and their use of modelling with their in-service trainees. Drawing on Avis and Bathmaker's work, Kidd (2013, p.16) argues that during periods of policy reform teacher educators can create opportunities for themselves "to explore new professional knowledge, re-evaluate practice and construct new identities", and it is within this context that this AR study is situated.

The study uses as its conceptual and analytical framework Kemmis et al.'s (2014a, p.4) ecologies of practices of a site, a contemporary theory of practice, the "sayings, doings and relatings" (p.31) of each of these practices, and "the arrangements of the [three] intersubjective spaces" – semantic; physical-time and social – that "enable or constrain" the practice. Kemmis et al. (2014a, p.38) call these arrangements the practice architectures of the site. More specifically, it looks at the interrelationships of the five practices of the ecologies of practices of a college – "student learning; teaching; professional learning, including ITE and CPD; educational leadership and administration; educational research, critical evaluation and evaluation" (Kemmis et al., 2014a, p.51) – and how these "sustain or suffocate" (p.50) teacher educators' use of modelling with their in-service trainees. I analyse the "sayings, doings and relatings" (p.31) of each of the practices and the accompanying practice architectures to identify:

1. To what extent these teacher educators use modelling with their trainees;
2. The factors shaping the teacher educators' use of modelling;
3. What their trainees say about how they are learning to teach on their in-service programme and modelling's role within it;
4. What happens when teacher educators work together to explore modelling and the pedagogy of teacher education?

To assist me, I have also employed as my "guides" Loughran's (1996, 2006) and Loughran and Russell's (1997) concepts of teaching about teaching and learning about teaching; Taylor's (2008) work on the four ways of understanding about learning to teach; and the literature on modelling, in particular Lunenberg et al.'s (2007) four forms of modelling.

Drawing on existing research on modelling and seeking to use new approaches to map its use at one FEC, I chose to collect data using the following seven methods:

1. Filming a teacher educator's class;
2. Reviewing the film with the teacher educator and using a stimulated recall interview to unpack their pedagogical decision making (Calderhead, 1981);
3. Semi-structured interview with teacher educators at the start of their involvement in the study to establish how they had become a teacher educator and then at the end to discuss their experience of it;
4. Focus group with teacher educators' trainees after the filmed class;
5. Teacher educators' materials from filmed classes;
6. Record team meetings with FE-based teacher educators to capture our "teacher talk and conversations" (Hardy, 2010, p.131) about their work, modelling and the study;
7. Pro formas to capture the teacher educators' CPD and feedback on the use of the Viewing Frame, which was developed as part of this study, by other teacher educators.

Combining the conceptual frameworks with my chosen data collection instruments, the aim of this study was to work collaboratively with a team of teacher educators from a FEC to examine their use of modelling within a university approved CertEd/PGCE in-service initial teacher education programme. I have sought to answer five research questions:

1. To what extent do FE-based teacher educators at one FE college use modelling with their trainees on a university-validated in-service initial teacher education programme?
2. What factors affect the use of modelling by FE-based teacher educators on a university-validated in-service initial teacher education programme delivered at a college?
3. How are trainee teachers at an FE college learning to teach on a university-validated in-service initial teacher education programme?
4. What are trainee teachers' perceptions of their FE-based teacher educators' use of modelling as a teaching method for learning how to teach?
5. What happens when FE based teacher educators work collaboratively with a university based teacher educator to improve the 'pedagogy of teacher education'?

Smith (2015a, p.44) argues that “research in teacher education should...be mainly (I do not say only) practice-oriented research”. What she means by “practice-oriented” is that it “is relevant to the practice field”, informs decision making and adds “new knowledge” (ibid.) to the field (and Smith is clear it is distinct from practice-based research). This “practice-oriented research” opens the classroom door and looks at how FE-based teacher educators use modelling and what role this may play in how in-service trainees learn how to teach. The findings will, it is hoped, “inform the design and structure” of future FEITE provision (Mayer, 2014, p.42).

Chapter 2: Literature review

The first case of a medical epidemic is referred to as patient zero: Lunenberg et al.'s (2007) *The teacher educator as a role model* was my paper zero for this literature review. Using a "snowball technique" (Ridley, 2012, p.56), which was my primary way of identifying texts, I chose my next three papers from those cited in Lunenberg et al.'s study.

All but two of the articles reviewed on learning to teach and modelling have been written by, or were about, university-based teacher educators' use of modelling with pre-service trainees preparing to teach in schools. This is significant if the teacher educator was teaching groups where all the trainees would be preparing to teach the same subject and so affording opportunities for them to model congruent teaching, defined by Boyd (2014, p.58) as when a teacher educator "models effective teaching and learning strategies that trainees will be able to reconstruct in their own classrooms". The two exceptions to this were a case study of 12 FE-based teacher educators from seven FECs (Boyd 2014), a university-based teacher educator, and a "first-person practice action research study" (Chandler and Torbert, 2003, p.142) by Reale (2009), an FE-based teacher educator.

Learning to teach

Teacher education is a complicated, multi-faceted and "layered pedagogy" (Boyd, 2014, p.52) and within England FEITE is situated within, and heavily influenced by, neoliberal policy (Avis et al., 2012). It is more than teaching the content of the curriculum, argues Russell (1997). It has two dimensions to it: "learning about teaching and teaching about teaching, each of which involves complex skills, knowledge, [cognitive and metacognitive] abilities and competences" (Loughran, 2006, pp.2-3); it is teaching and learning about teaching and it is encapsulated within the idea of a pedagogy of teacher education (Loughran, 2006, p.3). How teacher educators think about and enact a pedagogy of teacher education has evolved as a result of the work of teacher educators such as Russell (1997), Loughran (2006) and Korthagen (2001). Loughran (2006, p.2) acknowledges the influence of European teacher educators, like Korthagen, in helping other teacher educators to understand the relationship between teaching and learning and the role "self-understanding... connectedness... self-identity" have when enacting a pedagogy of teacher education. It is always developing, asserts Loughran (2006), and is concerned with the "sayings, doings and relatings" (Kemmis et al., 2014a), p.31) of teacher educators and trainees in their classrooms.

Russell (1997, p.44) calls learning about teaching the “content turn”, the learning of the knowledge set out in the initial teacher education curriculum. Teaching about teaching is concerned with “the pedagogical turn” (ibid.) and it requires that the teacher educator sets aside time within a class to explore, express and debate the strategies used to deliver the “content turn”. Modelling is part of this process, states Russell (ibid.). These twin “turns” are essential ingredients therefore of a pedagogy of teacher education (Loughran 2006). How a teacher educator conceptualises learning to teach will determine how their trainees view learning to teach and, in turn, how their pupils view learning (Taylor, 2008, p.80).

Wood and Geddis (1999, p.111) state that “teaching about teaching is difficult work”. Boyd (2014) draws on Taylor’s work on what “learning to teach” means for teacher educators, mentors and trainees in a university-schools partnership. Taylor (2008) interviewed 24 participants – teacher educators, mentors and trainees – involved in a one-year, pre-service programme for secondary school teachers that leads to Qualified Teacher Status. Her work identified “four different ways of understanding learning to teach” (Taylor, 2008, p.73). These were:

1. Cascading expertise;
2. Enabling trainees’ individual growth as a teacher;
3. Developing trainees’ teaching;
4. Trainee as teacher and learner.

Taylor suggested that three of these can be organised hierarchically; she does not place enabling individual trainees’ growth as a teacher within the hierarchy. Taylor states cascading expertise is the entry level and focuses on transmission of “procedural knowledge... from the expert to the novice” (ibid.). Developing student teaching is the second level and is about “facilitating students to acquire the teachers’ knowledge and facilitating their understanding of this” (p.77). Here the trainee, like an apprentice (Boyd, 2014), observes and works with expert practitioners with the aim of adopting and adapting what they have seen and learned. The third and highest level is student as teacher and learner. The intention is that trainees:

make sense, in a holistic way, of what they are doing...Teaching is largely generic and wide ranging in approach to help students to develop a broader sense of underlying principles of teaching and learning...[and] focuses on bringing about conceptual change in students (Taylor, 2008, p.78).

It requires the trainees to adopt varifocal lenses and see themselves as “both learner experts and expert learners” (p.79). This is both cognitively and affectively demanding (Loughran, 2006, p.3). Taylor does not refer to modelling as being part of any of these three ways of learning to teach, though her description of them suggests that it is evident in each one.

Boyd (2014, p.53), drawing on Loughran (2006) and concurring with Hogg and Yates (2013), suggests that trainees are involved in two important dimensions of learning: “learning to teach” and “teaching to learn” and this process is made more complicated because of what the trainees are also being asked to concentrate on and comprehend simultaneously – the content turn and pedagogical turn. Boyd illustrates this by explaining that in any class the trainee is being asked to learn about an “aspect of their curriculum subject”, the teaching strategy being used to teach this and the learning theory underpinning this approach. This may be overwhelming to the trainee (Boyd, 2014) and so it requires the teacher educator to discuss and debate their pedagogical choices (Loughran and Berry, 2005), and in the process make the trainees aware of “the dilemmas, issues and concerns germane to teaching about teaching” (p.196). Boyd (2014, p.57) goes on to suggest that here an important element of learning about being a teacher is the opportunity to “see teaching from the perspective of the learners”, or adopt the “student as teacher and learner” lens (Taylor, 2008). As part of this, the trainee may explore their existing conceptions of what teaching is, reflect on this, reframe it and apply it to their practice. It is this reframing what they learn “as learners” on their teacher education course into their own classroom that is particularly difficult and Boyd (2014, p.70) suggests that teacher educators’ use of modelling might be the “glue” to facilitate this.

Hoban (1997, p.135), writing about pre-service teachers, stated that they “should be encouraged to be metacognitive and become aware of how they learn in teacher education courses with the intention of informing their decision-making as they construct their personal pedagogies”. However, Loughran (2006, p.4) suggests that concentrating simultaneously on what is being taught and how it is being taught is exacting and “requires energy”:

For students of teaching, their learning agenda includes learning about specific content being taught, learning about learning and learning about teaching...their developing understanding of the complexity of teaching and learning...may not

be fully apprehended if it is not explicitly linked to their learning agenda (Loughran, 2006, p.5).

Learning to teach is significantly different from how trainees have been taught previously. Trainees serve what Lortie (1975, p.61) called “an apprenticeship of observation” which involved spending “13,000 direct hours in contact with classroom teachers by the time he [sic] graduates from high school”. Munby and Russell (1994) argue that trainees are not normally taught how to observe as part of their schooling or ITE, so Lortie’s apprenticeship of observation may be a misnomer. Loughran (1996) points out that what they have observed is a teacher teaching content without explaining their pedagogical decisions. Loughran (2006) and Russell (1997) suggest this may explain why trainees focus on content in their teacher education classes. Berry (2007b, p.121) suggests that these “prior experiences” of how they were taught and “popular stereotypes” of teaching combine to create a preconception of teaching as simply the teacher standing at the front and talking. Trainees’ preconceived beliefs about teaching can then be difficult to change unless the teacher educator explicitly discusses their pedagogical decision-making, according to Wubbels et al. (1997), or there is “a conversion from one authority to another or a gestalt shift” (Pajares, 1992, p.326). It is the responsibility of the teacher educator to “help student teachers explore and refine their perceptions” (Kessels and Korthagen, 2001, p.29). Modelling can play a role in this, according to Bullock (2009, p.301), who states that “the idea behind explicit modeling [sic] is to provide teacher candidates with a window into the pedagogical decision-making process of a teacher, an opportunity that they did not have during their apprenticeships of observation”.

Factors affecting how trainees learn to teach

Self-study research is “a methodology for studying professional practice settings” (Pinnegar, 1998 cited by Laboskey, 2008, p.252) and it provides useful examples of research into how trainees learn how to teach and teacher educators’ roles in this process. For example, Munby and Russell (1994) invited Russell’s pre-service science trainees to watch him teach physics classes in a school and participate afterwards in debriefs of the classes. Based on interviews with the trainees and observing their behaviour, Munby and Russell (1994, p.92) identified two further factors that shape how trainees learn how to teach: trainees’ ability to observe their teachers and the “transition from being under authority to being in authority”.

The trainees found it stimulating to observe the classes, however, Russell noted that it took the trainees longer than expected to start asking the types of questions and engaging in the types of discussions he had hoped for (Munby and Russell, 1994). He also noticed that “they did not know how to record notes, questions, or even what they were observing” (Munby and Russell, 1994, p.89). This led to the conclusion that:

Most teacher educators have observed so many lessons by student teachers that knowing what to observe comes naturally...Students need specific training for observation and significant periods of time to adjust to the new perspective on what happens in classrooms (Munby and Russell, 1994, p.89).

Other findings from this research suggest that it can be halfway through a one-year ITE programme and once trainees have returned from their initial teaching practice that some of them begin to make “the transition to new ways of thinking about their own learning” and how to teach, whilst others still want to be told what to do and how to teach (Munby and Russell, 1994, p.87). Their prior experience as a student conditions them into two forms of authority in the classroom: “the authority of the text and of the position of the person at the front” (Munby and Russell, 1994, p.92), and their experiences as trainees reinforce this. This led Munby and Russell to conclude that there is a need to explore the issue of authority within teacher education programmes. The purposes of this would be to help shift trainees’ existing beliefs (Pajares, 1992) and support the necessary change in perspective from that of the pupil “being under authority” of the teacher to the trainee “being in authority” as a teacher (Munby and Russell, 1994, p.92). This seems to be part of the “boundary crossing” and “becoming” that is part of learning to teach (Hager and Hodgkinson, 2009, quoted by Boyd, 2014, p.53), though this is not a straightforward transformation (Munby and Russell, 1994).

One ingredient in a successful transition is the trainees developing another form of authority: “the authority of experience”, which is a learned ability to know what to do in a given situation (Munby and Russell, 1994, p.92). Based on Schön’s work, they argue that this “knowledge-in-action is the knowledge that allows experts to perform” (ibid.), it is tacit and thus their teacher educators cannot describe it to them. The hierarchy of authority in schools valorises the authorities of position and reason over “the authority of experience” (ibid.) and this may stifle its development as well. The assessment requirements linked to lesson observations may also suppress and subvert it. Munby and Russell assert that an essential aim for teacher educators is to make their trainees aware of “the authority of experience” and ensure they appreciate its role in their development as teachers.

Phronesis and episteme

Another way teacher educators can sustain trainees' "authority of experience" is by bridging the gap between the teacher educators' "words and student's experiences" (Kessels and Korthagen, 2001, p.22). Whilst acknowledging there is an issue Boyd (2014, p.54) criticises the use of "gap" as a metaphor because it implies there are "two distinct bodies of knowledge, one is 'theory' and one is 'practice'". He argues that "from a sociocultural perspective this is questionable". He prefers the term "interplay" (ibid.), arguing that "professional knowing...is mediated, situated, social, dynamic and contested" (ibid.). It is clear one of the roles of the teacher educator is to support trainees so they can make their experience "explicit". Kessels and Korthagen (2001, p.28) posit that a way this might be done is through "the modelling instrument of *phronesis*" (p.29), which is the "concrete situations to be perceived, experiences to be had...and their consequences to be reflected on" within teaching practice or a teacher education class. It is also called practical wisdom (Boyd, 2014). Significantly phronesis seems to fit within three of Taylor's four categories of how trainees learn how to teach: "cascading expertise; developing student teaching; student as teacher and learner" (Taylor, 2008, p.73). The value of phronesis is that it valorises their experience and initially gives them the "perceptual" knowledge (ibid.) they need to make sense of teaching and how to teach. This is theory with a small "t" by Korthagen (2001, p.13), which Lunenberg et al. (2007, p.592), drawing on Bullough and Pinnegar (2001), calls "personal theory". To avoid the dangers of ignoring theory with a capital "T" (Korthagen, op.cit.), the role of the teacher educator is to draw on the trainees' phronetic knowledge and build a dialogue around it to analyse and reframe their viewpoint (Kessels and Korthagen, 2001). One way this can be done is by establishing and modelling "a pedagogy of inquiry" (Nichol, 1997, p.98), though Nichol acknowledges that it is not a straightforward task. Loughran (2006, p.9) posits that "phronesis can be a conduit to episteme", or propositional knowledge, and that "learning through experience can bridge the two in a meaningful way" (p.10). Modelling is based in phronesis (Loughran, 1997) and thus a teaching strategy that can facilitate the "interplay" of this process (Boyd, 2014, p.55). Loughran (1996, p.9), citing Valli's (1989) work on pre-service teachers, suggests that "a lack of appropriate modelling" was one of the elements that stifled how trainees learned to teach and that "it was difficult to alter this practice". Another is that trainees need time to practise what they have learned before it is fully adopted into their teaching (Hogg and Yates, 2013).

What is modelling?

There is a limited literature on modelling in teacher education (Lunenberg et al., 2007). Boyd and Harris (2010), whose research was on school teachers who had recently moved into a university-based teacher educator role, suggest that there was a difference in opinion of what modelling entails amongst new teacher educators, ranging from a “form of role play, with the tutor as classroom teacher and trainees as pupils, to a form of explicit reflective learning in which the tutor explains their own questioning and planning into the effectiveness of their practice in adult teacher education” (Boyd and Harris, 2010, p.17). Willemse et al.’s (2008) Dutch research provides another perspective on modelling. The study, conducted with Lunenberg and Korthagen, involved 54 teacher educators and studied the “moral aspects” (p.445) of their practices. Nine of the teacher educators were asked to develop a checklist to observe their practices and they found this difficult, claiming that their practices were shaped by their trainees’ responses within the class. Willemse et al. (2008, p.456) observed: “they searched for ‘golden moments’, which they defined as moments when a teacher educator could explain some information or theory (or express a value) in response to a question or problem raised by the student teachers”. More recently, Boyd (2014, p.51) concluded that “the frequency, nature and impact of [modelling as a] strategy is contested”.

Lunenberg et al.’s (2007) work is often cited by other authors, for instance, Boyd (2014), because it sets out a clear theoretical framework for modelling, including a definition and four forms of modelling relevant to the teacher educator. Lunenberg et al. (2007, p.589) define modelling as “the practice of intentionally displaying certain teaching behaviour with the aim of promoting trainees’ professional learning”. This may include the modelling of teaching strategies, resources, decision-making, behaviours and values (Willemse et al., 2005; Russell, 1997; Loughran, 2006). Lunenberg et al. (2014, p.26), drawing on Willemse et al. (2008), give examples of the types of modelling from the affective domain that trainees find particularly useful; examples included being empathetic, “compassionate, mindful... [and tactful]”.

Korthagen et al. (2005) state that a roles of the teacher educator is to “model the role of the teacher” (p.111), and it is through this demonstration of “exemplary behaviour” (Lunenberg et al., 2007, p.592) that the trainees are exposed to new approaches to teaching, and have an opportunity to consider its application to their practice and setting.

Lunenberg et al. (2007, p.589) identify three goals for modelling:

1. To support “the professional development of trainees”;
2. As a vehicle for changing education;
3. To improve a teacher educator’s own practice.

The second and third of these are congruent with aspects of “practical” and critical AR (Kemmis et al., 2014b).

Typology of modelling

Drawing on their analysis of existing literature, Lunenberg et al. (2007) stated that there are four forms of modelling:

1. Implicit. Here the teacher educator demonstrates good practice to their trainees but does not explain the pedagogical decisions behind it. Lunenberg et al. (2014, p.6) argue that “implicit knowledge and ‘practical wisdom’ are not a sufficient foundation of professional behaviour”;
2. Explicit. Here the teacher educator makes explicit the pedagogical decisions behind their good practice;
3. “Explicit modelling and facilitating the translation” to the trainees’ own practices (Lunenberg et al., 2007, p.591). This involves the teacher educator modelling good practice, explaining the decisions behind that practice and enabling the trainee to apply what has been learned to their own teaching;
4. “Connecting exemplary behaviour with theory” (p.592). This would involve enabling the trainee to make the link between the demonstrated good practice and relevant theory.

Boyd (2014) has identified a framework of modelling with four forms identified and these are organised in two levels, with the second level having three parts. Looking at it and having discussed it with Boyd (2016, pers. comm.), the ideas in the framework are the same as Lunenberg et al.’s four forms. The only noticeable difference is that Boyd swaps around explicit modelling with transference to trainees’ practice and exemplary behaviour linked to theory.

Lunenberg et al. (2007, p.590) draw on Wubbels et al.'s (1997) study of pre-service mathematics trainees in the Netherlands to discuss and characterise "implicit modelling". They suggest it may be best explained as teaching by example, though as part of this process there is no attempt by the teacher to explain their pedagogical options. Therefore trainees are observing their teacher educators' strategies, decisions and values, and seeking to interpret them. As a result, two potential issues may arise. Firstly, the trainees may not notice the examples being modelled and so do not apply them to their practice (Boyd, 2014). Secondly, there may be a lack of congruence between what a teacher professes and what they do (Wood and Geddis, 1999), or what Roberts and Österman (1998 in Wood and Geddis, 1999, p.108) call "companion meanings". This may lead to misconceptions and disorientation for the trainee.

Wubbels et al.'s (1997) study is important because of its claims that the trainees' pre-conceptions of how to teach, which were usually based on their own schooling or media representation of teachers from popular culture, were rarely transformed by the teacher education programme. Lunenberg et al. (2007, p.590) attribute this to "the failure of teacher educators to draw explicit attention to their pedagogical choices". Wubbels et al. (1997, p.20) argue that "most teacher educators try to influence trainees by rational, analytical ways of dealing with these conceptions" and that this has little impact on their practice. They go on to recommend two alternative approaches to help challenge and change these pre-conceptions. The first is the use of "non-rational, intuitive images or 'gestalts'" (p.20) and the second is to introduce "the so-called 'metaphor technique'...to make teachers' implicit views of mathematics education explicit" (p.20).

Explicit modelling is the second form of modelling and involves the teacher educator making explicit the pedagogical decisions behind their practice. There are five examples of this.

1. "Self-conscious narrative" (Wood and Geddis, 1999, p.111) was developed to help pre-service mathematics teachers gain an insight into the "hidden complexity of teacher thinking" (p.110). Wood, a teacher educator for 11 years when the research was undertaken, taught mathematics and recorded "all his classes" in a teaching block with his pre-service teachers. He then worked with his colleague Geddis to analyse the data and then continually "explain oneself" (Wood and Geddis, 1999, p.110) as part of a "joint construction" (p.110). The result of this work is their in-

depth analysis of a single class, which was written up to illustrate how self-conscious narrative was used by Wood. They called their case study the *French Lieutenant's woman* lecture because of the way John Fowles, the author of the book of that title, used a particular writing technique to step outside the story to explain to the reader "his deliberations on the options that faced him as an author" (Wood and Geddis, 1999, p.111). Wood saw how he might translate this into his practice in an attempt to "engage the class in a discourse about how his own thinking was enacted in his teaching" (p.111). The conclusions from this work were that Wood was able to provide his trainees with "both pedagogical actions and the pedagogical thinking that underpins them" (p.118). What they were not sure about was to what extent an outcome of this would be their own trainees drawing on this and teaching "their own students in a conceptually orientated manner" (p.118), and whether this also might result in "generally more effective teaching" (p.118). Loughran's (1996, p.17) "thinking aloud", where he talks about what he is thinking and doing whilst teaching so his trainees can "access his [thought] processes", seems to be the same as "self-conscious narrative".

2. Loughran and Berry's (2005) peer teaching with a debrief requires two teachers to work together to model and discuss an aspect of their practice with their trainees. For example, one teacher models an aspect of practice in a micro teach, with the trainees making brief notes of what they have noticed. Then the other teacher leads a debrief around the approaches used and these are discussed and debated with the teacher and the trainees. The aim of this is to enable trainees to appreciate some of the ambiguities inherent in teaching and learning and in the process "grasp the possibilities for learning about teaching...and to see these possibilities as opportunities...for practice" (p.196). In this particular case Berry was also modelling how to ask Loughran questions about his teaching. What they seem to be claiming is that they use peer teaching with a debrief to "build student-teachers' understanding of practice through phronesis rather than episteme" (p.196). Here they are using phronesis in a similar way to Bullough and Pinnegar's (2001, in Lunenberg et al., 2007, p.592) concept of "personal theory", that is, it is "perceptual" knowledge (Loughran and Berry, 2005, p.198) arising from the trainees' own lived experience; whereas episteme might be called "expert knowledge" (Loughran and Berry, 2005, p.196), which is "conceptual" (p.198) in character, and has a more general application to a variety of contexts. They point out that there is a danger of

an “unbridgeable gap” emerging between phronesis and episteme. The reason for this is that in the eyes of the trainee the “public theory” (Bullough and Pinnegar in Lunenberg et al., 2007, p.592) of episteme does not seem to provide “solutions” (Loughran and Berry, 2005, p.196) or explanations to the practical problems they experience as trainees. A danger here is that the teacher educator might inadvertently enlarge “the gap between words and experiences” (Loughran and Berry, 2005, p.197) by telling the trainee what they should “notice/learn”. Loughran and Berry acknowledge the complexities involved in managing discussions about modelling, so advocate the need for careful “decision-making” (p.197) when considering what to review and emphasise.

3. Schön’s joint experimentation (Loughran, 1996, p.16) requires the trainee to take charge of discussing a teaching issue with the class. The teacher educator facilitates the activity by using Socratic questioning to help the trainee explore and understand the issue.
4. Loughran (1996) uses journal writing to make visible his thinking during his classes with his trainees. Berry (2007a), a former colleague of Loughran’s, has also used this approach.
5. “Tiered teaching” (Garbett and Heap, 2011, p.236) was developed in New Zealand by two teacher educators who were preparing trainees to teach the primary science curriculum, which is not usually taught by a subject specialist. Consequently, and understandably, their trainees wanted to learn the knowledge content for the primary science curriculum and the “tips and tricks” of how to deliver it; they wanted to know what they had to teach and how to teach it. Russell’s (1997, p.44) “pedagogical turn” was not part of their classes. Having undertaken some self-study research, Garbett and Heap (2011, p.236) became aware that there was a danger that they were presenting the teaching of science as “unproblematic” and solely about “quality resources and strategies”. As a result, they developed a team-teaching approach that aimed to move beyond simply demonstrating “the modeling [sic] of exemplary practice” (ibid.). Instead they interrogated each other about their teaching as part of their classes and as part of this would think aloud (Loughran, 1996) to model Schön’s reflection-in and on-action. The central aims of the tiered teaching were to teach a class at “different metacognitive levels” (Garbett and

Heap, 2011, p.236) and make “visible” (p.235) the complexities of teaching and what lies “beneath the surface” (Loughran and Russell, 2007, p.218) of a class. It seems possible that tiered teaching is related to elements of Loughran’s (1996) “thinking aloud” and Loughran and Berry’s (2005, p.196) peer teaching with “de-brief teaching”, though neither of them are in the references of the paper.

“Explicit modelling and facilitating the translation” to the trainees’ own practices is the third form of modelling and here the emphasis is on the teacher educator’s skill in enabling the trainee to translate what they have experienced and discussed into their own practice, for “modelling behaviour is not meant to be copied by student teachers” (Loughran, 1997 cited in Lunenberg et al., 2007, p.591). Schön, cited by Loughran (1996, p.16), suggests two examples of this form of explicit modelling that can be used to promote reflection amongst trainees: Follow Me and Hall of Mirrors. Follow Me has some similarities with the “self-conscious narrative” set out by Wood and Geddis (1999, p.107). The starting point is the teacher educator demonstrating and commentating on their practice for the trainee, though where it differs from Wood and Geddis is that it suggests that initially the trainee mimics what they have been shown, practices it and then discusses it with their teacher educators so they “learn about the practice setting” (Loughran, 1996, p.16). Other authors on modelling, such as Loughran (2006), argue that modelling is not about imitation but adapting what has been modelled to their own practice. Hall of Mirrors involves the teacher educator modelling an aspect of practice that the trainee can then use in their own teaching. Loughran (1996, p.16) emphasises that what is important is that the trainees need to “experience” it as if they were a learner. The Hall of Mirrors strategy is an example of congruent teaching (Boyd, 2014) that takes advantage of the “student as teacher and learner” lens (Taylor, 2008). This form of modelling may have a limited application if the trainee prefers to reflect on examples from their own teaching rather than those being modelled to them (Lunenberg et al., 2007), emphasising the point made by Loughran and Berry (2005) that trainees seem to work best from a phronetic perspective. Lunenberg et al. (2007) go on to argue that this form of modelling can support improvements in trainees’ practices.

The final form of modelling is “connecting exemplary behaviour with theory” and within it the teacher educator is expected to make “links between practice and theory” (Munby et al., 2001 in Lunenberg et al., 2007, p.592). Lunenberg et al. point out that they could find only a limited literature on how this was being done, an example of which was from

Bullough (1997 cited by Lunenberg et al., 2007, p.592), who claimed that such an approach supported “his own development as a teacher educator”. Lunenberg et al. went on to illustrate this by drawing on Bullough’s account of how he first made sense of his teaching as a result of reflecting on his practice – the phronetic perspective highlighted by Loughran and Berry (2005) – and then engaging with what he calls public theory, also known as episteme or propositional knowledge, to develop, shape and at times attenuate the meanings he attached to his teaching. Bullough concluded by claiming (1997, p.20 quoted by Lunenberg et al., 2007, p.592): “Public theory has on occasion helped me to know what to look for and helped me better to see, to anticipate consequences”. Nevertheless, there is a tension between the tacit, “performative knowledge” (Harkin et al., 2002, p.6) of personal theory that trainees find most valuable and thus subscribe to and the public theory demanded by the teacher educator and the assessment requirements of the course, so Loughran and Berry’s (2005) advice for the teacher educator to be sensitive when dealing with this needs to be heeded. There is also some evidence that teacher educators, like their trainees, “rely on personal experience and implicit theory” (Bullough, 1997, p.20 in Lunenberg et al., 2007, p.592) at the expense of public theory and, in the process, their trainees may inadvertently “start re-inventing the wheel” based on “a limited theoretical framework” (ibid), with the teacher educators honouring their “students’ understandings at the expense of ‘right answers’” (MacKinnon and Scarff-Seater, 1997, p.39 cited by Lunenberg et al., 2007, p.592).

A complex practice?

It is evident from Lunenberg et al.’s (2007) and Swennen et al.’s (2008) studies that modelling was demanding for these teacher educators, some of whom were experienced, and so it is useful to examine Loughran and Berry’s (2005, pp.193-194) perspective here:

...the ability to articulate the purposes underpinning practice for oneself and others is a desirable professional competency to be developed by... teacher educators...However, even though it may be desirable, it is complex and difficult to do and is particularly difficult to develop alone.

This statement seems particularly significant for two reasons: first, it recognises the complexity inherent in modelling and second, it suggests effective modelling is best developed in collaboration with another or other teacher educator(s). The latter of these reasons is particularly pertinent as it forms the basis of the approach of this thesis.

Lunenberg et al. (2007, p.590) identify three factors that may prevent a teacher educator from modelling their practice to their trainees:

1. The teacher educator may not possess the necessary skills and knowledge to model practice;
2. The pedagogy of teacher educators is often based on “tacit knowledge” and as such they may not have the necessary language to explicitly and unequivocally explain their pedagogical decisions, and to link them to relevant learning theory;
3. The teacher educator may not possess the confidence to make public their decisions and may feel they are exposing themselves to judgement by their trainees and peers, though there is an assumption here that the trainees feel comfortable participating in such a “democratic activity”. Boyd (2011 citing McNamara et al., 2011) contributes to this debate around vulnerability by suggesting that a combination of increased internal and external accountability may make teacher educators feel vulnerable about doing this, and so perhaps less willing to open up their practice to interrogation. Hogg and Yates (2013, p.314) provide a different and more personal perspective: “Neither of us felt particularly comfortable” thinking aloud in the class; and “Anne, having neither witnessed nor experienced thinking aloud, simply lacked the confidence to try it” (Hogg and Yates, 2013, p.314). Garbett and Heap (2011, p.242) felt uncomfortable teaching in front of one another and preferred to teach by themselves as it allowed them to develop “a closer relationship” with their trainees. Discussions between themselves led them to conclude that “our unease was largely associated with lack of self-confidence and self-efficacy (Bandura, 1997)” (ibid.).

Studies on teacher educators’ use of modelling

There seem to have been four different approaches to studying how teacher educators use modelling in their practice: self-study, case study, supported project and action research.

Self-study

This is seen as similar, but different, to action research (Lunenberg et al., 2007) and has most commonly been used by university-based teacher educators to research their own practice, making public their findings. Feldman et al. (2004, p.943) identify three characteristics of self-study. First, the focus of the study is the self; second, it uses what happens in the teacher educator’s classroom as “a resource for research”; and third, it

requires the researcher to be reflexive and self-critical when conducting and writing up the research. Examples include Wood and Geddis (1999), Loughran and Berry (2005), Burstein (2009), White (2011) and Garbett and Heap (2011).

What is distinctive about Burstein's study is how she sought to resolve the apparent "disconnect" (2009, p.121) for trainees between the theoretical ideas of their university course, what they observe and experience in the classroom and their preconceived ideas about how to teach. She sought to overcome this by working as a "Professor in Residence" (PIR) (2009, p.122) at a school and professional development site (PDS) where her trainees attend their Social Studies Methods course. Her role as PIR means she has combined being a teacher educator at a university with her teaching of social studies at the school. This arrangement means that her trainees have been able to observe her teach her sixth-grade social studies classes, where she can model the theories they have been learning about on the course, as well as having the opportunity to jointly plan and teach classes with her. At the end of the observations she reviewed her teaching with her trainees and this seems to have developed their understanding of the links between theory and classroom practice. There are similarities here with Berry and Loughran's (2005, p.195) belief that trainees need to "experience a teaching situation" and this can then be "unpacked" with them. Feedback from her trainees was that her approach to teaching social studies using explicit modelling was more realistic than the teaching used in the other methods' modules they were studying.

Case study

This is where the case study focuses on a single teacher educator, for example, Ruys et al. (2013), or on a number of teacher educators within a larger study, for instance, Lunenberg et al. (2007).

Ruys et al.'s (2013) Belgian study used an ethnographic approach to research Katherine's modelling of differentiation within her teaching of pre-service primary teachers; she had been in the role for four years when the study began. The researcher, who posed as a "trainee teacher educator" (p.97) learning about teacher education during the research, made detailed notes on "over 65 h [sic] of seminars, lectures, assessment, excursions" (ibid.) from two 14-week courses, which were part of the second year of a teacher education programme, to build a picture of Katherine's practice. "Informal interviews" (ibid.) were held with Katherine, her colleagues and her students too. The findings from the

research were that Katherine tended to implicitly model a “limited...and restricted” (p.102) range of differentiation strategies, though she showed a “rather limited familiarity with the provision of meta-commentary in her teaching practice” (Ruys et al., 2013, p.101). Consequently, her trainees assumed that “differentiation does not take place in teacher education” (ibid.). For instance, the researcher overheard one student say: “Differentiation? In teacher education? You will not find it!” (ibid.). One of the strengths of this study is the amount of time the researcher spent with Katherine and her trainees, the authors argue, and this will have increased the likelihood that they saw her “typical” behaviour (Cohen et al., 2007, p.258). Ruys et al. (2013) argue that the findings from this research justify the development of a set of professional standards that will support the development of Belgian teacher educators’ professional knowledge and skills. They acknowledge the findings from Swennen et al.’s (2008) research that one day of training is insufficient and instead advocate “co- or team reflection on a regular basis or establishing a professional learning community to promote teacher educators’ (i.e. teachers of future teachers’) skills in giving meta-commentary” (Ruys et al., 2013, p.104). They had two recommendations for future studies: include “student teachers as providers of information on the pedagogical behaviours of teacher educators” (ibid.), and a longitudinal, ethnographic study of a number of teacher educators to capture real teacher educator behaviour.

Lunenberg et al.’s (2007) study is an example of a case study of several teacher educators. They recruited 10 Dutch university-based teacher educators, four of whom were working with primary trainees and six with secondary trainees, all of whom volunteered to be observed for the study. Lunenberg et al. observed each teacher educator twice to see how they used modelling in their practice. Six out of the 10 used explicit modelling, though none of them explicitly discussed the link between their “exemplary behaviour” (p.592) and the theory underpinning its use. Their research concluded that whilst modelling could be “a powerful instrument” that can shape and influence changes in trainees’ practice, they added, “there appears to be little or no recognition of modelling as a teaching method in teacher education” (p.597). It is worth adding that the researchers admit they told the participants what they were looking for in the observed classes and concluded that this might have made them more aware of their pedagogical decisions and impacted on their teaching behaviours, making the results perhaps “overly favourable” (p.598). One other weakness in this study is that the researchers used a “pre-tested list of areas of focal attention and a prescribed format”

(p.594). This field note approach is considered to be a less accurate data record than a film of the class (Calderhead, 1981; Savage, 2016).

Another example is Boyd's (2014) case study of twelve FE-based teacher educators in college-based higher education (CBHE) from 7 FECs in the north-west of England and 9 university-based teacher educators, all of whom were from the same institution in England. All participants were interviewed about their use of modelling within their teaching, though there were differences in how these studies were carried out. The university-based teacher educators were part of a "longitudinal study" and were asked to bring a copy of "a session plan or teaching resource" to discuss with the researcher (ibid.). Whereas the FE-based teacher educators' interviews included a "prompt question" (ibid.) about how they used modelling within their teaching, Boyd's is one of two studies of FE-based teacher educators' use of modelling to have been published. Whilst the decision to not film the teacher educators teaching nor speak to their trainees places limitations on the findings, both of which Boyd acknowledge should be part of any further research, it still provides a valuable insight into how they say they use modelling within their teaching. However, it is worth bearing in mind that in research by Lunenberg et al. (2007, 2014) what teacher educators said they do and what they did when they were observed were not always congruent.

The principal findings were that congruent teaching was commonly used to model by the FE-based teacher educators, in the words of one of the participants: "the best, up to date, current practice...and the best current practice as regards technologies" (p.63). One college, seemingly reflecting the impact of the performative culture and inspection regime, expects the teacher educator, as they described it, to "promote" the college's "own teaching and learning model" (ibid.). Some of the FE-based teacher educators stated that they also modelled their values to their trainees, for instance, "being student centred" (p.64). Boyd highlights that not all of the FE-based teacher educators referred to modelling when discussing their teaching; however, by probing further, they provided descriptions of aspects of their teaching which, in Boyd's opinion, were examples of congruent teaching. Boyd (2014, p.65) identified that some of the FE-based teacher educators, as advocated by Hoban (1997), would require their trainees to be metacognitive during a recap at the end of the class, though he considered this implicit modelling, not explicit, unless the teacher educator's account indicated that there was "some kind of stepping out" by them during the reflection on the modelling used.

Boyd (2014, p.65) states “about half...of both groups of teacher educators” provided examples of explicit modelling in their teaching, though he illustrates this with just one quotation from an FE-based teacher educator. He adds that “only two of the teacher educators” (ibid.) make reference to relevant theory when explicitly modelling and then quotes a university-based teacher, leaving me to wonder whether the other was an FE or a university-based teacher educator. Boyd suggests “there is little significant evidence of teacher educators”, both FE and university-based, I assume, though we are not told, setting time aside for their trainees to consider the value of the strategy or behaviour that has been modelled and its suitability for their own teaching context. Boyd uses a quotation from one of the FE-based teacher educators who states that they do this by asking their trainees to consider its application to their own teaching context, so this suggests that it may be present in some of the FE-based teacher educators’ practice. Boyd surmises that “the teacher educators” (again both FE and university-based, it must be assumed), trust that this reframing and translation to the trainees’ own practice will happen outside the class. This may be a result of the impact of “a factorised” curriculum (Lawy and Tedder, 2009, p.53) on the teacher educators’ own practices.

Boyd (2014, p.65) concluded that whilst congruent teaching was used by the FE-based teacher educators and “about half” of them explicitly modelled their teaching strategies, these teacher educators, nevertheless, had a limited conceptualisation of modelling as a teaching strategy in at least two ways. First, they thought that it was only relevant early on in the programme because of the subject specialist nature and context specific nature of FEITE. Second, they had a narrow idea of what they should be modelling and restricted this to demonstrating “good practice”, an example of the impact of neoliberal policies on classroom practice (Coffield et al., 2007), rather than taking a more critically reflective approach to teaching, which Boyd feels is important. There were two other significant conclusions about these FE-based teacher educators’ use of modelling, according to Boyd. In the first, like the university-based teacher educators in Swennen et al.’s (2008) study, they found it difficult to, or could not, explain the theory or theories that underpinned their use of modelling. Second, only a small number of them asked their trainees to consider how what was modelled might be applied to their own teaching. Lunenberg et al. (2007) state an important element of modelling is the teacher educator discussing with the trainees the transferability of the modelled strategy or method to other teaching contexts. Boyd (2014, p.66) reflects: “This reconstruction is the underlying purpose and intended

outcome of the modelling and is at the heart of realistic teacher education (Korthagen et al., 2001) so that its absence from teacher educator practice seems questionable". Boyd's (2014, p.64) paper states that "some" of these FE-based teacher educators "did not use the term 'modelling'" when discussing their teaching and it would seem are not able to "talk about their work" (Swennen et al., 2008, p.540) using the pedagogic language of teacher education, which was also a finding in Swennen et al.'s research on university-based teacher educators' use of modelling. To summarise, Boyd's research suggests that congruent teaching was evident within these FE-based teacher educators' practice and the principal areas for professional development would seem to be developing a more expansive approach to modelling and greater use of all three forms of explicit modelling. The key factors that seem to affect these teacher educators' accounts of their use of modelling were the neoliberal policy context, identity, professional knowledge, their command of language, and workplace settings. Surprisingly Boyd makes no reference to time being a factor in the use of modelling as this has been cited by other studies such as Garbett and Heap (2011) and Swennen et al. (2008). I conclude with Boyd's two suggestions for further research in this area: teacher educators are observed teaching a class and the voices of the trainees are captured and analysed. This would, in his view, assist teacher education teams to "see into" (Loughran, 2006, p.5) and "better understand their practice" (Boyd, 2014, p.67).

Supported projects

Supported projects are used by teacher educators who wish to develop their use of modelling and so are "supported" by (an)other teacher educator(s) to explore this (Swennen et al., 2008, p.531). It seems similar to second-person action research (Chandler and Torbert, 2003). There appears to be only one published example of a supported project approach to research modelling – Swennen et al.'s work – in which three volunteer teacher educators from the same institution used a professional development opportunity to explore whether, with support, they could develop "congruent teaching", which is defined by Swennen et al. (2008, p.532) as:

the attunement of learning and teaching at two levels: attuning the learning of student teachers with the teaching of teacher educators and attuning the learning of the student teachers' pupils with the teaching of the student teachers themselves.

Swennen et al. identified three possible elements of "congruent teaching" they were looking to develop with the teacher educators: the use of modelling, explaining the

pedagogical decisions whilst teaching, and making links between appropriate teaching and learning theory and these teaching decisions.

There were three stages to Swennen et al.'s (2008) research. Stage 1 involved the research team interviewing the three participants about their use of modelling in their teaching. This was followed up by an observation of a session that the participant had identified so that a "teaching value" (p.536) could be observed. This was then followed up with what the researchers call "a stimulated recall interview" (p.535), in which the participant watched a video recording of the class and provided a commentary on what they were thinking when teaching that class. Stage 2 involved the three participants attending a one-day workshop led by the researchers to explore ways of teaching with congruence. Stage 3 involved a further observation and SRI.

The participants in Swennen et al.'s study believed that time was the determining factor that affected their ability to plan for and explore congruent teaching within their classes. Whilst Swennen et al. seem to acknowledge this as a consideration, they felt three other aspects of their practice had greater significance for congruent teaching:

1. The teacher educators showed little cognition of congruent teaching;
2. Their apparent limited knowledge of relevant theory that might be used to explain and illuminate their practice. Before the support was provided an observation evidenced that all three teacher educators were able to model their practice and two of them were able to explain their modelling, though none of them could make links between their practice and relevant theory. After the support workshop it was observed that all three teacher educators were able to model their practice, explain their modelling and make links between their practice and relevant theory;
3. The participants seemingly did not possess "the professional language" (p.541) needed to explain their "teaching value" and that when they developed "a language" (p.540) to discuss their teaching then this supported the advancement of congruent teaching. Swennen et al. concluded the one-day workshop approach they used was probably "not sufficient" (p.541) to fully address these two areas of concern, finding that "the professional development of teacher educators" needed to be taken "far more seriously" (p.541).

Action research

Daniel's (2011) and Reale's (2009) studies are the only two published works applying action research to modelling. However, both are somewhat problematic. Daniel's (2011) paper refers to the use of AR to explore modelling in its title, though she actually describes it as a "self-study that can be taken as a kind of action research" (p.214) and later as "an exploratory self-study action research" (p.215). Reale's (2009) paper does not mention AR (or self-study) as its methodology, though it seems to characterise "first-person action research" (Chandler and Torbert, 2003, p.142). Daniel's research was undertaken in a Malaysian university as a response to her pre-service biology teachers' obsession with completing the syllabus and teaching to the test, a consequence, she suggests, of their own prior experiences as trainees and head teachers' preoccupation with exam results. Like the UK, Malaysia has undergone considerable policy change in the field of teacher education and teaching and this is the backdrop for her study.

After an initial investigation into 12 pre-service trainees' attitudes towards the teaching of biology, Daniel designed an intervention, based on Bandura's theory of social cognitive theory, to explicitly model a series of different activities that promoted a more student-centred approach to the teaching of the subject. She used "the author's field notes, an open-ended questionnaire, spontaneous videos captured via hand phones and photographs" (Daniel, 2011, p.221) as her data sources and included examples of questions she asked, quotations from the data sources and examples of activities in the appendices to increase the "verifiability" of her work (Bleijenbergh et al., 2011, p.150). To validate her findings and conclusions, she shared them with two colleagues and invited them to comment on the research process and her claim (McNiff and Whitehead, 2011). She concluded that her use of explicit modelling contributed to a change in these pre-service biology trainees' conceptions of how to teach and a shift away from "finishing the syllabus" (p.229) to a more student-centred approach. However, the study did not seek to establish whether they would then apply these approaches in their future teaching. On the other hand, Daniel claims that these pre-service biology teachers were more able to make links between perceptual and conceptual aspects of teaching having used modelling. She also believes that her practice and professional knowledge improved as a result of undertaking her study, reflecting one of the goals of modelling identified by Lunenberg et al. (2007).

Reale's (2009) is the only published writing I have found where an FE-based teacher educator discusses their use of modelling, though it does not seem to be a formal study. The focus of Reale's writing is telling his "story" (McNiff, 2014, p.170) about two classes in which he used images and visual hooks to support his trainees' learning about how to conduct AR. Reale (2009, p.27) recognises it is important to "model good practice", adding: "this has been the biggest challenge of the last half dozen years..." He illustrates this by example of how he plans a session on how to use "a visual hook" (ibid.) to explain ideas and then models the process to them in the class; however, Reale does not refer to Lunenberg et al.'s (2007) four forms of modelling or use the language of modelling to tell his "story". At the end of the second class, Reale recounts how he asks the trainees whether they "had tried something like this to put their course into a visual context" (p.31). Reale seems to be using Lunenberg et al.'s (2007, p.591) "explicit modelling and facilitating the translation to the trainees' own practices", though he makes no reference to this in his account. Later, on the advice of a colleague, he passes his account to "Christine", one of the trainees, for validation (McNiff, 2014, p.81), though again he does not call it this. Drawing on her feedback, Reale (2009, p.36) notes:

She was aware that I try to "model" good practice when teaching the class and often have mid-class "timeouts", to discuss how I've just taught something. But the nature and process of this had only now become apparent to her, having been given this chapter to read.

This prompted further reflection by Reale and Christine and they agreed "how interesting it would be, for us as teacher training tutors, to share with our learners, the sort of reflections I've explored in this chapter" (Reale, 2009, p.37). Interestingly, Reale makes no reference in the literature of Loughran's (1996) use of a journal or Berry's (2007a) use of an online journal to do this. Reale's account suggests that he understands modelling is important for him to do – he has co-written a conference paper with Boyd and Allan – though he had not yet acquired the language of modelling to explain and justify his practice, as Swennen et al. (2008) advocate.

To summarise, teacher educators are expected to use modelling as part of their pedagogy, though it is a complex teaching strategy that is best developed in partnership with other colleagues. Working with colleagues in a collaborative way has the potential to support teacher educators as they develop their practice from implicit modelling, through explicit modelling and onto explicit modelling that includes links to trainees' practices and relevant pedagogical theories.

Factors influencing teacher educators' use of modelling

The literature suggests that there are at least 10 factors that shape and influence teacher educators' use of modelling:

1. Policy context (Boyd, 2014);
2. Time (Swennen et al., 2008; Burstein, 2009; Garbett and Heap, 2010; Hogg and Yates, 2013; Lunenberg et al., 2014);
3. Funding (Burstein, 2009);
4. The curriculum (Lawy and Tedder, 2009; Lunenberg et al., 2014);
5. Competing job roles (Boyd, 2014; Lunenberg et al., 2014);
6. Teacher educators' identity, including their confidence (Noel, 2006; Lunenberg et al., 2007; Garbett and Heap, 2010; Hogg and Yates, 2013; Lunenberg et al., 2014);
7. Teacher educators' professional knowledge, including their knowledge of theory and knowledge of modelling (Russell, 1997; Loughran and Berry, 2005; Lunenberg et al., 2007, 2014; Boyd, 2014);
8. Teacher educators' command of language (Swennen et al., 2008; Boyd, 2014);
9. The tensions and dilemmas that are inherent in teaching and learning about teaching (Berry, 2007a);
10. The trainees the teacher educator is working with (Boyd, 2014).

There is a growing amount of literature, both in the UK and internationally, about the professional identities of university-based teacher educators preparing their pre-service trainees for work in the schools sector (Boyd et al., 2010); however, less has been written and is known about teacher educators delivering CBHE (Noel, 2006; Thurston, 2010; Springbett, 2015).

Three important points for this FE-based research have emerged from the literature:

1. The possible impact of the FE teacher educators' work context on their practice. Noel's work provides useful insights into the differences between working as a university-based teacher educator and being an FE-based teacher educator. One of the most significant points is the fact that teacher educators in FE colleges may be teaching "their own colleagues" (Noel, 2006, p.152) and this might contribute to the feeling of vulnerability that Lunenberg et al. (2007) and Boyd (2014) have mentioned. Lunenberg et al. (2014, p.26) assert that modelling demands that

- teacher educators open up their practice to inquiry and take a “vulnerable” stance. This is not easy within a climate of managerialism and performativity (Boyd, 2014);
2. How they become a teacher educator in FE and the impact this might have on the ability to use modelling in practice. Korthagen et al. (2005, p.107) emphasise that “the nature of teaching about teaching demands skills, expertise and knowledge that cannot simply be taken for granted”, and this seems especially significant when considering how some teacher educators in FE colleges are recruited to their role. Noel (2006) noted the informality surrounding some of their appointments and this might, in Lunenberg et al.’s (2007, p.590) words, mean that they “lack the necessary knowledge and skills to use modelling effectively”. The uneven inductions and CPD for FE-based teacher educators will compound this (Eliahoo, 2014);
 3. FE-based teacher educators may have more than one role and this might influence their identity and practice. Noel’s (2006, p.166) research identified that “teacher educators frequently move into the role initially on a part-time basis – even though they may well be full-time”, that is they teach their subject specialism alongside their teacher education work. Noel calls this a “dual role” (p.161) and 41% of the 78 participants in her research identified themselves in this category. Where this “dual role” exists, Noel indicates that those interviewed saw themselves primarily as teacher educators, even if the majority of their work was within their subject specialist department. Boyd et al. (2010, p.4 citing Land, 2004) suggests that some FE teacher educators might see themselves undertaking similar work to the “academic development units” found in universities, where they will be working with staff new to teaching to support them in their new role. This work could be seen as multi-dimensional in the sense that it might include coaching individual staff, delivering staff development and aspects of management. Boyd et al. (2010 citing Crossland, 2009) go on to suggest that FE-based teacher educators can also become involved in aspects of quality assurance, for instance, undertaking teaching observations as part of the college’s quality assurance system. Boyd et al. (2010) suggest that some FE teacher educators occupy “multiple positions” (p.4) and that where this happens it is likely to contribute towards their sense of professional identity, as well as determining their practice. Lunenberg et al. (2014, p.7) concur, adding that this can result in “tensions and conflict” which mean that the roles may be “hard to combine”.

Lunenberg et al. (2014) identifies time as a factor that teacher educators cite as impacting on their use of modelling. Hogg and Yates (2013, p.319) discussed how they found they were “running out of time in lectures and flicking through slides to cover content”. This might be called Type 2 time. Loughran and Berry (2005) acknowledge that explicitly examining practice is time-consuming and that this can create a tension with the need to engage trainees, who may want to get on with the class. The teacher educators in Swennen et al.’s study (2008, p.537) “felt that they did not have enough time to prepare congruent teaching”, which might be called Type 1 time, “and that there is not enough time during their lessons to explain their modelling and link it to theory”. They did not quantify this, though Garbett and Heap (2010, p.242) did:

For every hour of face-to-face contact, we spent a minimum of two hours preparing, planning, and debriefing. The thought that we were adding more depth to our lessons often appeared to be small recompense for the extra effort and the perception of some students that assessed content coverage was reduced.

Burstein (2009) had a different challenge. She used external funding to create a (PIR) role; a dual role of a teacher educator based at a university and a subject-specialist teacher at one of the local schools that allowed her trainees to observe her teaching classes in the school and they co-planned and co-taught there too. She “taught part-time at each campus” (p.126) and claimed managing her time was a significant challenge. She planned blocks of time at the respective campuses, though even then there were scheduling clashes with commitments.

Burstein (2009, p.126) acknowledges that the external funding required for the PIR model was “an obvious limitation” to its sustainability and once the funding ran out then it was not possible to continue the model in its existing format, though she continued with a very limited version afterwards. However, she says that with imagination other models of PIR could be developed with the support of senior managers, partner schools and former trainees.

Berry (2007a) identifies six dilemmas and tensions that are part of teaching and learning about teaching which teacher educators need to negotiate. These are telling and growth; confidence and uncertainty; action and intent; safety and challenge; planning and being responsive; valuing and reconstructing experience. She acknowledges that “making explicit the complexities and messiness within their own teaching” is a somewhat

counterculture for teacher educators, though if this is not done then trainees may perceive teaching to be “deceptively simple” (p.70). Therefore, teacher educators need to make themselves vulnerable and “reveal to their trainees the problematic nature of their work” (ibid.).

Garbett and Heap (2010), Daniel (2011) and Boyd (2014) pinpointed the trainees as a determining factor in the use of modelling. Both Garbett and Heap, and Daniel found that they had to allocate some class time to improve their trainees’ knowledge of biology as well as teaching them how to teach and this impacted on the curriculum planning and the time available for modelling. FEITE is different from school-based ITE in a number of ways; the most significant difference when considering teacher educators’ use of modelling is who the trainees are. The university-based studies of modelling are about its use with groups of trainees who are all being prepared to teach in either primary schools or secondary schools and where, in the case of the latter, their teacher educator is a subject specialist in that field (Loughran and Berry, 2005; Garbett and Heap, 2011; Daniel, 2011). However, there are over 200 subject specialisms taught in the FES sector (Crawley, 2010), many of which are vocational and not taught in classrooms (Boyd, 2014), and so the in-service FE-based teacher educators cannot and will not be a subject specialist in the field of most of their trainees’ expertise. The FE-based teacher educators in Boyd’s study used this reason for “constrained use of modelling” (p.64).

Trainees’ perceptions of their ITE, modelling and its contribution to their learning how to teach

There has only been one large-scale study published about former trainees’ perception of their FEITE and modelling: Harkin et al. (2002). The other studies are from university-based trainees preparing to teach in primary schools and secondary schools in England (White, 2011), Israel (Smith, 2005), New Zealand (Hogg and Yates, 2013), and the United States of America (Burstein, 2009).

Harkin et al.’s (2002) Learning and Skills Development Agency (LSDA) funded research sought to answer the following research question: “What are FE teachers’ perceptions of the effectiveness of initial training in helping them to teach and to support learning?” (p.1). A secondary aim was “to enhance the research capacity of staff in FE colleges through collaborative working between the LSDA, higher education institutions (HEIs) and FE colleges” (ibid.). Led and supported by a team of university-based teacher educators and

the LSDA, a team of FE-based researchers undertook the data collection for this study of teachers “who had undertaken ITT within the previous 10 years” (p.2) in two phases. Using convenience sampling (Cohen et al., 2007), the FE-based researchers circulated a questionnaire based on the FENTO standards to their own teachers and then followed this up by “interviewing [a sample of] staff from other colleges” (p.2). All together “812 questionnaires were distributed, of which 321 (39.5%) were returned, and of which 244 (30%) were correctly completed and valid for use in the data analysis” (p.11). 50 teachers were interviewed.

The main messages from Harkin et al. (2002) were that 82% of the respondents rated their FEITE as helpful or very helpful. The three most valuable aspects of the courses were planning and preparing programmes, reflecting and evaluating, and developing a range of techniques, and assessing learners’ needs, assessing the outcomes and achievements and providing learners were the bottom three. Harkin et al. (2002, p.17) concluded that the “deliverers of ITT are powerful role models of good practice”, although they had not observed their teaching to establish what forms of modelling were being used. The former trainees’ comments quoted in the study suggest that these teacher educators were modelling teaching strategies and “the affective side of modelling” (Lunenberg et al., 2014, p.26), knowingly or unknowingly. However, there were some criticisms. One of the respondents wrote: “Not enough on realistic techniques or on class management, particularly with disruptive trainees, rather than why they are disruptive” (Harkin et al., 2002, p.18). The interviews reinforced some of the messages from the questionnaires and provided new insights into the former trainees’ experiences. For example, the teacher educators were not just modelling teaching strategies but being inspirational:

“...she was so very professional, so understanding, so proud to be a teacher that she made me feel that I was pursuing a known profession. (B47)” (p.26)

“...inspired by observing the people who taught us...in my own teaching I try to replicate that enthusiasm. (A7).” (ibid.)

Lunenberg et al.’s (20014) “affective side of modelling” is audible in their voices. However, there were more comments about the lack of modelling or help with regard to “how to deal with difficult students” (Harkin et al., 2002, p.22), one of five such comments. Other teacher educators were clearly not role models to some of the teachers interviewed:

“The lords and lordesses of the PGCE need to go out and get new stuff – videos – flashier stuff – something more visual. (A15)” (p.27)

“...one or two of the teachers were not up to scratch...” (ibid.)

“The lectures were delivered, we weren’t given a chance to be involved ...We were asked questions but didn’t do a thing in groups. (A9)” (ibid.)

The diversity of the groups on FEITE sometimes also raised other issues. For instance, a number of interviewees felt that they had not had enough support on how to teach their subject specialism or insufficient time had been given to how to teach in their teaching context.

The interviewees identified observing their teacher educators; watching their peers teach, either in a class or as part of a micro teach; and their own lesson observations as valuable and important elements in how they learned how to teach. One significant finding was how those former trainees who had been videoed teaching found it gave them a new insight into their teaching. One interviewee said: “tell you what was good, that was the video: when they videoed me micro-teaching for 15 minutes. I got a lot out of that (A20)” (p.28). This mirrors Endacott’s (2016) advocacy for the use of SRI in ITE.

Former trainees’ views about the theoretical aspects of the courses were split; some loved it, others were dismissive of its value and relevance. These quotations suggest the differences in opinion:

“some of it ... especially by educationalists was balderdash...not relevant to everyday teaching. (A10)” (Harkin et al., 2002, p.28)

“I found the psychology parts of more interest – the theory behind the practice. (A16)” (ibid.)

“Theory? I loved it, soaked it up like a sponge. All these ‘ologies’. (B38)” (ibid.)

These two quotations sum up the two extremes:

“...like Bloom’s Taxonomy, went over my head. (A3)” (ibid.)

“The theories were the useful bits for me. Bloom’s Taxonomy put things into perspective for me. (A14)” (ibid.)

There are three important points here:

1. Harkin et al. (2002, p.8) suggest that trainees may find it hard to comprehend and apply theories of teaching and learning if they are “focused on survival in the classroom”;
2. Some of these teachers’ voices reflect Eraut’s (1994, pp.11-12) observation about schools’ initial teacher education, it seems, though applicable to FE, it could be argued: “syllabi are notoriously overcrowded because they attempt to include all the knowledge required for a lifetime in the profession, almost regardless of trainees’ ability to digest and use it”;
3. A number of interviewees in Harkin et al.’s study did not see the relevance of theory and did not allocate time to look at it because of what else they had to learn. This seems an example of trainees consciously letting theory drop off their “cognitive workbench” (Britton et al., 1985, p.228) because it is not seen as “really useful knowledge” (Johnson, 1988, quoted by Simmons, 2015, p.3).

Reflection was seen as a very valuable part of the course. One interviewee stated: “Yes it was – probably the most important part of it... (B40)” (p.25), though another felt that “...we weren’t given a lot of guidance on how to do it... (B39)” (Harkin et al., 2002, p.25), suggesting that their teacher educators may not have modelled how to do it.

Harkin et al.’s study gives an insight into former trainees’ perceptions of their experiences of FEITE. Whilst the study was not about modelling, the findings give an indication of how their teacher educators role-modelled teaching strategies and the affective domain (Lunenberg et al., 2014). However, based on the teachers’ voices, this modelling was inconsistent. The study does not indicate what forms of modelling were used, either. This research, although dated, highlights the tensions that surround theory within FEITE and how some trainees do not see its relevance and so do not engage with it.

Boyd (2014, p.67) posits that by listening to the voices of trainees teacher educators can “see into” (Loughran, 2006, p.5) and “better understand their practice”. I shall consider three papers from university-based teacher educators who have done this: White (2011), who was then a new university-based teacher educator at a post-1992 university in England; Hogg and Yates (2013) were based in New Zealand and they investigated trainees’ perceptions of modelling in large lectures; Burstein (2009), who was based in the United States and developed the PIR model to model to her trainees how to teach.

White (2011) and her colleague “redesigned” (p.484) their sessions to make them more dialogic and she used “informal feedback and anonymous questionnaires” (p.489) to listen to the voices of pre-service secondary teachers. 26% of the trainees voluntarily completed the survey at the end of the year. White does not indicate how many this percentage represents, though does report that five of the trainees did not like classes where there was no active learning. She also presents a selection of comments from the survey in a table, reporting “10 [positive] comments about professional attributes and 23 [positive] comments about professional skills that had been modelled successfully” (p.491).

Examples of the modelling trainees commented on include: “high expectations”; “forming positive relationship with learners”; “punctuality”; “implementing group work”. One less positive comment was that “some examples were a little patronising” (p.490). One of the outcomes of her use of explicit modelling was that her trainees were applying what they had learned into their teaching practice. White discusses the value of gathering informal feedback from trainees though she does not discuss any of her trainees’ informal feedback or quote it. Her paper concludes by claiming that using explicit modelling with her trainees has supported them to better understand the links between their practice and relevant theory, enabled them to translate what they have learned from their classes into their own teaching and to become more effective at interrogating it.

Hogg and Yates (2013) undertook a self-study of their use of modelling with a 12-week compulsory course on general pedagogical knowledge for pre-service primary and secondary teachers. They point out that what differentiates their study was that they were teaching a large group of 178 trainees in a lecture theatre. In line with self-study’s purpose of improving trainees’ learning, the researchers wanted to hear their “student teachers’ perceptions of our modeling [sic] of teaching models and critically reflective practice in lectures” (Hogg and Yates, 2013, p.315). They used an end of year questionnaire and focus groups as their data collection instruments; the focus groups were “facilitated by a

research assistant to minimize [sic] the possibility of our status leading to participants 'tell[ing] the powerful what they want to hear'..." (p.316).

There were 10 valuable findings from this research:

1. Their modelling of critical reflection was visible to some trainees and invisible to others, though the quotations selected do not always strongly support their line of argument. For instance: "I observed that when either [one was] lecturing, the other was taking notes and listening carefully, I think to get feedback for the other lecturer. A kind of critical friend (P23/FG5)" (Hogg and Yates, 2013, p.318). A more useful quotation was:

it's hard to know whether or not they were...we don't actually see whether they go away afterwards and think and change, 'cause we only see what they deliver, we don't see if they've thought about it or anything. It could be actually quite useful, to have them talk a little bit about the process (P22/FG2) (ibid.).

2. The way in which modelling is presented to trainees and the frequency of its use by a teacher educator or within the programme, which Lunenberg et al. (2007) also highlight, seem to contribute to trainees' awareness of it. Hogg and Yates (2013, p.319) use quotations to support their argument:

They actually started saying this is why we're doing what we're doing, we're modelling [sic] it and we're doing it for these reasons ...when they did that it...it sort of made things click (P13/FG4).

I feel that we did it for the first time then...and then we had to do it for the Kura course...and in primary we had to use the reflective inquiry...and by that time, the third time round, I feel like, all right, I think I've got the hang of it now (P11/FG2).

3. Time to model and time for the trainees to practise their new learning. One of the trainees said: "Those...first three weeks, I thought, are these lecturers running to catch a train? (P11/FG2)" (ibid.). This made the researchers aware that they had got caught up in the tension that exists between covering the content and the pedagogical requirements of the course, reflecting the dilemmas faced when dealing with an "overcrowded" ITE curriculum (Eraut, 1994, p.11). They concluded that:

While we could not create more time, we could rearrange how time was used. We “stopped trying to cover the waterfront” (Kosnik et al., 2009, p.174) and now prioritize [sic] lecture time for further discussion and reflection of content after teaching experience, sacrificing some content coverage (Hogg and Yates, 2013, p.319).

4. Trainees found the tiered nature (Garbett and Heap, 2011) of their classes placed significant cognitive demands and tensions on them and consequently they found it difficult to assimilate their new learning:

it's so intense and so condensed...you forget that it's not only learning about behaviour [sic] management, you're learning how it's being modeled [sic]...for me, I keep focusing on the knowledge side, trying to get as much of the knowledge that I can, but then I'm like, oh, there are other elements that I'm meant to be working on as well (P13/FG4) (Hogg and Yates, 2013, p.320).

The researchers recognise this and conclude that teacher educators need to find strategies to support trainees so that they can comprehend and digest the content and at the same time pay attention to what is being modelled;

5. Trainees appreciated the modelling of a variety of teaching strategies within the lectures. There were “75 unsolicited positive comments” (ibid.) on this modelling and it was not done in a patronising way either, they reported;
6. Modelling gave the trainees the confidence to try out these new strategies in their teaching practice. For instance, one student stated: “I think we did a rally-table brainstorm three times...And I actually used it on my TE, which worked really well, I was really impressed (P3/FG2)” (ibid.).
7. A trainee spoke about how the teacher educators' explanations of the theories underpinning their use of modelling helped them:

It was more...here's some of the theory behind co-operative learning and what the principles are, the key ideas that you need in there...you need to be aware of the background behind something to implement it well, and that's what I liked, that they gave us that background (P16/FG1) (Hogg and Yates, 2013, p.320).

However, some of the trainees felt that the teaching strategies modelled were not congruent with their subject specialism;

8. The trainee has to see the relevance of the modelling if they are to adopt it into their practice;
9. Other trainees liked the strategy, though said they need more time to practise what they had learned before they would be confident enough to use it in their teaching. For instance, one said: "We just didn't get enough practice at doing things...I've got to do something in order to learn it (P12/FG3)" (p.321).
10. The success of modelling is based on what the teacher educator *and the trainees do* (p.324). Kemmis et al. (2014a, p.31) would argue that it is more than just the "doings" of the teacher educators and trainees that make modelling effective. They would suggest that modelling's potential is a result of how teacher educators' "sayings, doings and relatings" and trainees' "sayings, doings and relatings...hang together". This success is also dependent on the sematic space, in terms of the language used by the teacher educator and trainee, the physical-space time arrangement, which provides time for trainees to digest the new strategies that have been modelled and then more time to practice them in a safe space before they adopt them into their teaching, and the social space that is shaped by power relationships in the classroom (Kemmis et al., 2014a, p.4).

To summarise, some trainees notice their teacher educators' use of modelling, whether it is implicit or explicit; however, not all do. One factor that seems to inhibit their seeing the modelling is the dual focus of the class: the content turn and pedagogical turn (Russell, 1997). This can be overpowering, cognitively and affectively, as they switch between these two lenses, trying to assimilate what they are seeing, hearing and doing. Britton et al.'s (1985, p.228) work on the cognitive workbench model illuminates what is happening here:

Because the short-term working memory is so limited in its capacity (assuming conventional estimates of the capacity of short-term memory are correct), it is often unable to hold all the component processes and prior knowledge used in reading.

Britton et al.'s work was concerned with assessment of expository text, though it could arguably be applied to what is happening in a layered teacher education class. If this argument holds, a key priority seems to be for teacher educators to develop strategies that

equip their trainees to negotiate this tension and thus both understand the content of the class and consider the use of modelling within it. Britton et al. (1985, p.227) would describe this as “removing...some of the cognitive load” resulting from the content turn and pedagogical turn.

It is worth returning to Boyd’s work at this point and considering his proposed layered pedagogy for teacher education. What Boyd (2014, p.70) argues is that modelling is part of “a layered pedagogy of teacher education”. It is not just about a teacher educator modelling to their trainee, it should be also about that trainee then modelling to their own pupils/students. This could be particularly powerful in vocational subjects, it could be argued. Boyd’s thinking is captured in Table 2.1.

Table 2.1: Boyd’s layered pedagogy of teacher education

Teacher educator learning to teach (scholarship and research)	Teacher educator teaching to learn (critical reflection/enquiry)
Teacher educator uses explicit modelling of being a teacher learning from practice	
Trainee teacher learning to teach (taught sessions)	Trainee teacher teaching to learn (workplace learning)
Trainee teacher uses explicit modelling of being a learner	
Pupil/student learning	Pupil/student learning to learn

(Boyd, 2014, p.70)

There have been a range of approaches to researching teacher educators’ use of modelling in their practice that have drawn on a number of data instruments. I plan to build on the existing research by drawing on Loughran and Berry’s (2005) advice that modelling “is particularly difficult to develop alone” and so plan to adopt an AR approach to my thesis. Kemmis et al. (2014b, p.4) describe AR as “a practice-changing practice”. This study aims to change FE-based teacher educators’ “understandings of practices, and the conditions under which they practise” (p.59). By adopting this approach within an FEC, there are two potential ways in which this thesis is different from previous research. First, I worked collaboratively with the FE-based teacher educators, who were all teaching on the same programme, at one FEC. Secondly, the work was done in an FEC, which is an under-researched area of education (Thurston, 2010; Eliahoo, 2014; Crawley, 2014). This seems to be a “blank spot” (Lunenberg et al., 2007, p.586) on the FEITE map.

Chapter 3: Methodology (or being reflexive about “the sayings, doings and relatings” of this study)

During the Collaborative Action Research Network (CARN) 2013 conference Mary McAteer ran a workshop titled Action Research: methodology or way of thinking? AR is more than a methodology; it is the “sayings, doings and relatings” of a study (Kemmis et al., 2014a, p.31). This chapter aims to provide a “thick description” (Lincoln and Guba, 1985, p.125) of the methodological thinking and decisions that influenced this study, increasing the “transparency” of my account. The chapter has four sections:

1. It sets out the research questions for this study and how they were developed;
2. It discusses how these research questions and the literature review informed my approach (Horn et al., 2009);
3. I explain how the research questions and the literature review informed data collection (Pirie, 1996) and how these were piloted (Bell, 2005);
4. I discuss the ethical considerations.

“Reality is messy” Orr (2009, p.74) argues. This account has two types of messiness: the practices being studied and the study of these practices. Coffield (2014b, p.113) described teaching, learning and assessment as “messy”, “unpredictable”, complex and ambiguous, and Schön (1983, p.42) stated that the “swampy lowlands” of professional practice “are confusing messes”. This study is situated within the “messy” classroom practices of FEITE. To maintain its authenticity and honesty (McNiff, 2014) I discuss “mess”, “messy” and “messiness” (Segall, 2002; Law, 2003; Cook, 1998, 2009; Orr, 2009; Adamson and Walker, 2011) as concepts which are not used in the pejorative or to suggest that my research is “disordered or undisciplined” (Thomas in Cook, 2009, p.278). Adamson and Walker (2011, p.29), when discussing teacher collaboration, which is at the heart of this study, identify four dimensions to messiness: “complexity, unpredictability, difficulties and dilemmas”. They add that teacher collaboration has been described as a “messy” process (ibid.), though it is recognised that establishing “teacher communities” (Admiraal et al., 2012, p.273) to jointly explore practice strengthens the possibility of improving teaching and learning (Little, 2002). Cook (2009) supports use of the term mess within research arguing that it is endemic, though rarely reported, because of fear that this would make the work somehow inferior. Cook writes more positively about mess and claims that it is

characterised by “knowledge, experience, judgement, creativity and intuition...” (1998, p.101) and dealing with it effectively is a “very highly skilled process [that requires]...expertise...know-how...[and] sensitivity” (p.103). Eraut claimed (2000, p.133) that “tidy maps of knowledge and learning are usually deceptive”. This study does not “tidy away” its messiness (Cook, 1998). This is, for me, part of telling this study’s story honestly (McNiff, 2014, p.101). I model this by using “secondary text” to document and make “visible the [difficulties] of [researching] and narrating an ‘untidy’ world” (Segall, 2002, p.170). I have done this by italicising quotations where the participant’s voice may be offering a “second [alternative] text” to mine.

The purpose of this “reflexive account” (Altheide and Johnson, 1998, p.292) is to critically reflect on the study, my role within it, and make explicit the decisions made and the actions taken as part of the research process (Guillemin and Gillam, 2004), with the aim of enabling the reader to consider the validity of any subsequent claims to knowledge (Altheide and Johnson, 1998).

Asking the right research question(s)

Horn et al. (2009, p.262) advise that research needs to “first establish clear, well-focused research questions, goals or hypotheses”. Agee (2009, p.432) uses the metaphor of research questions being the “navigational tools that can help a researcher map possible directions but also to inquire about the unexpected”. Initial research questions are a starting point for an action research study and are often revised during it, according to McNiff and Whitehead (2011, p.121), “because [action research] is a developmental process where nothing stands still”. After some reading on teacher educators’ use of modelling, I identified the research aim and four provisional research questions. The aim was to work collaboratively with a team of teacher educators from a FEC to examine their use of modelling within a university approved CertEd/PGCE in-service initial teacher education programme. The four research questions were:

1. To what extent do FE-based teacher educators *at one FE college* use modelling with their trainees on a university-validated in-service teacher education programme?
2. What factors affect the use of modelling by FE-based teacher educators on a university-validated in-service teacher education programme *delivered at a college*?

3. How are trainee teachers *at an FE college* learning to teach on a university-validated in-service teacher education programme?
4. What are trainee teachers' perceptions of their FE-based teacher educators' use of modelling as a teaching method for learning how to teach?

I have italicised to show revisions made after "reflecting on" (Flick in Agee, 2009, p.432) the questions once the focus of the study became a team of FE-based teacher educators at one college.

Alert to Agee's (2009) advice that additional questions might be added during a study, I asked the participants if they wanted to add any questions at a "teacher talk" meeting in September 2013 as we came to the end of the first cycle of the study and looked forward to the second cycle. Teacher Educator B, the centre manager, suggested a fifth question:

5. What happens when FE-based teacher educators work collaboratively with a university-based teacher educator to improve the "pedagogy of teacher education"?

I am my methodology: why action research?

I was drawn to an action research approach for three reasons:

1. Lunenberg et al. (2007) suggest that it "can indeed encourage modelling in teacher education, provided this issue is one of the focal points";
2. As a teacher educator I wanted to go "beyond describing, analysing and theorizing social practices" (Somekh, 2006, p.1) and take some action;
3. An opportunity presented itself to me to adopt a collaborative approach with a team of FE-based teacher educators and I knew this was an aspect of teacher educators' work that was under-researched (Korthagen, 2001).

I chose not to use a self-study approach, a methodology which has similarities with AR. Self-study emerged as a methodology out of AR (Feldman et al., 2004). Teacher educators, who were practising action researchers, had self-doubts about their practice as action researchers and whether what they were doing was creating new knowledge in their research, so they proposed a way forward: self-study, a new methodology for classroom practitioners. Self-study has similarities with AR, though the significant difference is in the

nature of change within each (Feldman et al., 2004). Self-study's focus is on the "self", improving our self-understanding as practitioners and using this to improve trainees' learning and AR is concerned with "change in the classroom" (Samaras, 2010, p.57). I was interested in both; however, what was the deciding factor was that, when I started my research, I was doing less face-to-face teaching each week, and felt that a study focusing on myself may be difficult to complete if my work circumstances changed. It seemed an AR approach with others would be more sustainable.

Cognisant of Lunenberg et al. (op.cit.) and Noel (2006, 2011), my early thoughts were to focus on holding two types of "professional conversation" (Kvale and Brinkmann, 2009, p.2) with these FE-based teacher educators. The first would be a stimulated recall interview (SRI), which involves teacher educators agreeing to have one of their classes filmed and then sitting down with the researcher and commentating on their teaching and pedagogical decisions within the class (Calderhead, 1981), to "see into" (Loughran, 2006, p.5) the teacher educators' use of modelling. The second would be a semi-structured interview to find out more about how they became a teacher educator and their work as a teacher educator.

From discussions with colleagues, I became aware that it might be difficult to identify participants for the research. It is one thing talking about modelling with other teacher educators; it is something quite different to then observe them teach and discuss their practice afterwards. I wanted to discuss and explore this with the attendees at a workshop I was delivering in June 2011. 23 attendees booked for my workshop and I invited them to complete a short questionnaire about their use of modelling and asked if they would be interested in participating in my research. A copy of the documentation used is in Appendix 5. I used "volunteer sampling" (Cohen et al., 2007, p.116) to identify some potential participants, though I intended to adopt a "purposive sampling" (Denscombe, 2003, p.15) approach to select participants for the study. A fuller account of this event and my data collection at it are included in Appendix 4. Four teacher educators, all from the same college, expressed an interest in being involved in the study during this event.

I was aware of Lunenberg et al.'s (2007, p.598) belief that "action research can indeed encourage modelling in teacher education, provided this issue is one of the focal points". Loughran and Berry (2005, p.194) considered modelling as "complex and difficult to do and is particularly difficult to develop alone". Korthagen (2001, p.8) stated that "in most

places, there is no culture in which it is common for teacher education staff to collaboratively work on the question of how to improve the pedagogy of teacher education". These writers guided me to the conclusion that this was perhaps a unique opportunity to set up a small-scale "second-person", collaborative action research project (Kinsler, 2010, p.179) with this group of staff. I approached their manager in June 2011 – Teacher Educator H – to see whether they would agree for the research to be completed with their team. On 15 August 2011 I received confirmation they were happy for the team to be involved. We also agreed that other teacher educators from the centre might also be interested in participating and that I should ask them about this. A pen portrait of each of the teacher educators in this study is in Appendix 1.

What is action research?

AR is "a family of practices...that aims...to link practice and ideas...[though it is] not so much a methodology as an orientation to inquiry" (Reason and Bradbury, 2008, p.1). It is different, and this means that it has struggled to gain acceptance in the paradigm wars (Sparkes, 1992), for instance, it is sometimes dismissed as "mere activism" (Levin and Greenwood, 2011, p.29), though it has now established itself in educational research (Baumfield et al., 2013). The *Sage handbook of action research* (2008) allocates six pages to definitions of AR, though I am reluctant to privilege one definition. AR is "a practice-changing practice" (Kemmis et al., 2014b, p.4); it "aims to change practices, people's understanding of their practices, and the conditions under which they practice" (p.59). There are different traditions and approaches to AR. Indeed there is evidence of what seems almost like a civil war as authors seek to rhetorically assert a hegemonic control of it. For instance, Carr (2006, p.432) is critical of the way in which some action researchers fail to understand the "tradition of inquiry" that pre-dates Lewin's work and the consequent contamination of AR. One way AR has split is based on the question of who should undertake the research: an outsider investigating others' practice or a practitioner researching their own practice, which has similarities with self-study (McNiff and Whitehead, 2011). Carr and Kemmis (1986) identified three forms of AR:

1. Technical
2. Practical
3. Critical

Technical AR is concerned with a practitioner improving their practice by investigating what changes need to be made and implementing them. Others might be involved in the

research but have no control over it (Kemmis et al., 2014b); the decisions, actions and changes are the sole responsibility of the researcher. Three criticisms of AR are:

1. It is seemingly preoccupied with solving practical teaching problems at the expense of addressing issues of social justice and democracy;
2. The “practical” approach appears to be driven by teachers feeling that any research they do should focus on responding to government policy and initiative;
3. The methodology has become “an institutionalized mode of in-service teacher education” (Kinsler, 2010, p.172). She claims that there is now a gap between the research and action elements of the methodology and as such there is insufficient focus on the “practical outcomes” (Kinsler, 2010, p.172) of the research, adding that there is limited evidence of the impact of the AR.

Practical AR involves working with others to consider issues of mutual interest, though in this instance they are normally referred to in the second person (*ibid.*). The researcher retains control of the research, but they collaborate with their participants and listen to their views. Kinsler (2010) reviews a range of work to explore the criticism that much of the action research undertaken by teachers is little more than solving practical classroom problems and thus not emancipatory in character. One of the explanations given for this seemingly uncritical “technical” or “practical” approach is that often this action research is being undertaken as part of a university course, so the student researcher venerates the university tutor’s “authority of position” (Munby and Russell, 1994, p.92) and “expert” views or methodology at the expense of their own or alternative approaches (Kinsler, 2010, p.177). However, she counters this by arguing there is a danger of generalisation and suggests that educational action research which focuses on raising achievement rates for “historically marginalized and undereducated students” (p.183) might also be considered emancipatory.

Critical AR, also known as critical participatory action research, emerged in the 1980s and 1990s as a response to concerns about social injustice. It proposed an alternative way of working which invited those with shared values and goals to collaborate on jointly-owned research projects to address issues of inequality. Participants are referred to in the “first-person (plural)” (Kemmis et al., 2014b, p.16) and at the heart of its way of working is Habermas’ notions of communicative space, where participants can talk, and communicative action. For instance, Mycroft’s (Education and Training Foundation, 2015)

Folded Arms Brigade (FAB): the digital resilience project in which she used a “Thinking Environment” (Kline cited by Weatherby and Mycroft, 2015, p.64) to explore use of information technology. One of the concerns that Kemmis et al. (2014b, p.27) have in relation to the technical and practical approaches is that they have a “doubleness” about them; there are always consequences, or undesirable side effects, of improvement. Critical AR recognises the “doubleness” and uses criticality to actively monitor the impact of what they do.

One of the criticisms of action research is that its models and frameworks can make it formulaic (Cook, 1998) and constrained (McNiff, 2014); a way of doing research, McTaggart (1994, p.315) states, that:

slavishly following the “action research spiral” constitutes “doing action research”. Action research is not a “method” or a “procedure” but a series of commitments to observe and problematise through practice the principles for conducting social enquiry.

Essentially, it is being reflexive about “the sayings, doings and relatings” of the study during the research.

Characteristics of AR

Somekh (2006) identifies eight methodological principles of AR, Kemmis and McTaggart (2008) seven features of participatory action research (PAR), and McNiff eight common themes in AR. Bearing in mind the contested notion of AR (Carr, 2006; Reason and Bradbury, 2008), what is striking is some of the common ground these perspectives share, though Kemmis et al. (2014b, p.5) argue that only PAR can do certain things. For instance, it can overcome the “doubleness” of other forms of AR because of the way it is conducted. These principles and features, dependent on the approach, can be used to frequently and reflexively interrogate the activities of action researchers. Table 3.1 makes visible these similarities and differences.

Table 3.1: Comparison of Somekh’s methodological principles of AR; Kemmis and McTaggart’s features of PAR; McNiff’s common features of AR

	Somekh	Kemmis and McTaggart	McNiff
1	Integrates research and action	A social process	Collaborative and democratic
2	Conducted by a collaborative partnership of participants and researchers	Participatory	Prioritises the well-being of others
3	Involves the development of knowledge and understanding of a unique kind	Practical and collaborative	Value-oriented; values pluralism is respected and accommodated
4	Starts from a vision of social transformation and aspirations for greater social justice for all	Emancipatory	Self-reflective
5	Involves a high level of reflexivity	Critical	Goal-oriented towards social action
6	Involves exploratory engagement with a wide range of existing knowledge	Reflexive	Open-ended, evolutionary and transformational
7	Engenders powerful learning for participants	Aims to transform both theory and practice	Situated and contextualised
8	Locates the inquiry in an understanding of broader historical, political and ideological context		Critical

(Source: Somekh, 2006, pp.6-8; Kemmis and McTaggart, 2008, p.280-283; McNiff, 2014, p.23)

Kemmis et al. (2014b, p.27) have added to their existing seven features two others. First, they advocate placing less emphasis on contributing to knowledge and more on making a contribution to “history” and a “better world”; the second is sustainability.

An “unconstrained vision” of AR creates opportunities, fosters learning and sustains creative thinking; “it is about becoming; [being] at home with openness, optimism and critique” (McNiff, 2014, p.13). These behaviours and values create the conditions for a successful piece of action research, though it is the researcher who has to navigate their

way through the “swampy lowland” of practitioner research (McNiff and Whitehead, 2011, p.19) and generate new, “actionable knowledge” (Somekh, 2006, p.1) that transforms practices and ways of knowing, thinking, doing, saying and relating (Somekh, 2006; Kemmis et al., 2014a).

This AR study is classroom-based (Kemmis and McTaggart, 2008); it fits best within Kemmis et al.’s (2014b) “practical” form. As such, Chandler and Torbert (2003, p.142) would describe this research as “second-person practice” as it is carried out “with rather than on” a team of FE-based teacher educators. Its collaborative approach means that I drew on the communicative space and communicative action aspects of critical action research to facilitate the working with the team in this study. Finally, this study belongs to the family of action research based on espoused propositional knowledge (McNiff and Whitehead, 2011, p.12).

The conceptual framework that houses this AR study consists of Kemmis et al.’s (2014a) ecologies of practices; the “sayings, doings and relatings” (p.31) of these five practices, how these “hang together” (p.4) in terms of the “languages and discourses that express ways of thinking... material and economic arrangements that support different ways of doing things...and social and political arrangements that support different kinds of relationships between the people involved” (p.3). These are part of a “practice landscape” (p.5), an FE college, for example, and a “practice tradition” (ibid.) such as teacher education.

Ecologies of practices are a relatively new concept. I identified with how this theory of practice for a site, in my instance an FE college, and its living system of the practices of a site can be studied and understood in terms of how they “sustain...or suffocate” (p.50) one another. It is a concept that is “theoretical...practical... [and] also critical” (p.6). I liked the notion of how each of the practices consisted of “sayings, doings and relatings” (p.31), the “practice architectures” (ibid.), and how these “hang together” (p.4) in three intersubjective spaces: semantically in our shared language, physically in our material reality and socially in our relationships (Kemmis et al., 2014b, p.77). Modelling is about “sayings, doings and relatings” too and I recognised the congruence with this theory of practice. What was also significant is that ecologies of practice are situated within the “practice landscape” (p.5) of a site, which “enables and constrains how life can be conducted there” (ibid.), and a “practice tradition” (ibid.), which sets out “how people conduct themselves” (ibid.). The

existing research on modelling had focused on four of the five ecologies of practices at a site. For instance, Loughran and Berry (2005) looked at teaching; Hogg and Yates (2013) considered student learning; Swennen et al. (2008) focused on professional learning; Ruys et al. studied researching. Some of them looked at the relationship between two or three of the ecologies of practices, however, I had not found a published study that looked at all five practices together nor how they sustained or suffocated each other. My study could do that if I adopted this conceptual framework.

Baumfield et al. (2013) advise that to successfully map the “swampy lowlands” (Schön, 1983, p.42) of these FE-based teacher educators’ use of modelling of professional practice the action researcher needs to know three things:

1. Their intention
2. Their process
3. Their audience

Choosing the right tools for this job

Pirie (1996) states that research question(s) determine(s) the choice of data collection instrument(s). I would add to that that a literature review also strongly informs the decisions made about data collection methods. Only Boyd (2014) and Reale (2009) have conducted research into FE-based teacher educators’ use of modelling. Reale’s was a reflective account of two classes and discussions with a trainee. Boyd used semi-structured interviews, though he recommended that any future studies included the filming of classes and listening to trainees’ voices. I followed his advice.

Noel’s study (2006) used interviews and questionnaires to find out about the work of teacher educators. I used semi-structured interviews with my participants to find out about their teaching careers, their move into teacher education and their work as a teacher educator. Swennen et al. (2008) used stimulated recall interviews with teacher educators to explore their pedagogical decision-making. This method moves beyond the filming of classes that Boyd (2014) suggests and takes the filmed teacher educator into the role of observer (Savage, 2016) as they “relive” the class when watching the film (Calderhead, 1981, p.212). Hardy (2010, p.131), one of Kemmis’ team, employed communicative space “to deliberately develop conversations”, what he calls “teacher talk”, to generate communicative action for a project on flexible learning in an Australian university. Therefore, I recorded the meetings I had with the team to capture our “teacher talk” as we

discussed the study, the data collection methods, and action, often called praxis by action researchers (Hardy, 2010). The two final data collection methods used were focus groups to listen to the voices of the trainees (Liamputtong, 2011) and the materials used by the teacher educators, what Baumfield et al. (2008, p.30) call “naturally occurring data”, such as lesson plans, PowerPoint slides, and hand outs, as they would give me a further insight into the teacher educators’ planning for their sessions. My chosen data methods were a combination of “traditional research methods...data arising from teaching and learning activities...and data that can be incorporated into the [college’s] routine” (Baumfield et al., 2013, pp.53-54).

To summarise, this study employed seven data collection methods:

1. Film of teacher educators’ classes;
2. Stimulated recall interview (with teacher educators);
3. Semi-structured interview (with teacher educators);
4. Focus group (with teacher educators’ trainees);
5. Teacher educators’ teaching materials and planning documents from filmed classes;
6. “Teacher talk” from meetings about the study with the team.
7. Pro forma to document the teacher educators’ use of “out of segment” modelling; capture their CPD, and their feedback on the use of the Viewing Frame.

Table 3.2 shows how these data collection methods were employed to answer the study’s research questions.

Table 3.2: The research questions and data collection methods used to answer them

Research question	Data collection method(s) used to answer it
To what extent do FE-based teacher educators at one FE college use modelling with their trainees on a university-validated in-service teacher education programme?	Film of class SRI Semi-structured interviews Teacher talk Focus group with trainees Teacher educators' teaching materials and planning documents Pro forma
What factors affect the use of modelling by FE-based teacher educators on a university-validated in-service teacher education programme delivered at a college?	Film of class SRI Semi-structured interviews Teacher talk Focus group with trainees Pro forma
How are trainee teachers at an FE college learning to teach on a university-validated in-service teacher education programme?	Focus group with trainees Teacher talk Film of classes SRI Semi-structured interviews Pro forma
What are trainees teachers' perceptions of their FE-based teacher educators' use of modelling as a teaching method and does it help them learn how to teach?	Focus group with trainees Pro forma
What happens when FE-based teacher educators work collaboratively with a university-based teacher educator to improve the "pedagogy of teacher education"?	Teacher talk Semi-structured interviews Film of a class SRI Focus group with trainees Teacher educators' teaching materials and planning documents

Kemmis et al. (2014b, p.150) argue that research, which draws on multiple perspectives and voices, levels the playing field and potentially reduces issues of power and self-interest. By combining methods and listening to “people from different ranks” (Altrichter et al., 2008, p.147) to answer a research question, or by collecting the data from more than one source in the case of trainees’ perceptions of their teacher educators’ use of modelling, I have triangulated the data. This has strengthened my research in three ways:

1. It has provided “a more detailed and balanced” (ibid.) account;
2. I have been able to undertake a “more profound interpretation” (ibid.) of the data;
3. I have attempted to “break the hierarchy of credibility” (ibid.) that can exist in accounts if only the powerful voices are heard. The use of triangulation, however, does not obviate the weaknesses of the methods chosen.

At the Research on Post-Compulsory Education (RPCE) conference in 2014 it was suggested to me that it would have been better to have observed the teachers than film them; however, filming a teacher teaching offers different affordances than observing using a checklist, requiring hasty notes to capture verbatim what has been said (Jewitt, 2012). It captures much more detail than simply observing someone teach. It can notice and record teacher behaviour, student behaviour, and the classroom setting. Kemmis et al. (2014a, pp.223-224), reflecting on their reliance on “transcripts and interviews” to analyse the practice architectures of classroom practice, stated that “we regretted we did not make video recordings since these would have given us much better records of the material-economic arrangements and physical set-ups of classrooms...” This permanent record can also be revisited frequently during data analysis (Pirie, 1996). However, observing and filming teachers teach introduces what has been known as “reactivity” (Savage, 2016, p.6), also known as the “Hawthorne effect”, into data collection. This is when the object being observed changes their behaviour because they are being observed and thus compromises the external validity of the process (Cohen et al., 2007). One way this can be reduced is by “replacing the physical observer” with a remote recording instrument or by undertaking more observations so that the teacher becomes more comfortable with being filmed, a process called “desensitisation” (Savage, op. cit.).

SRI is an innovative data collection method that combines the strengths of filming a teacher teaching with those of an interview, as the observed person then thinks aloud about the class and their pedagogical decision-making in it, giving an insight into their

interior world (Calderhead, 1981). Savage (2016, p.15), drawing on Pomerantz's (2005) and Henry and Fethers' work (2012), points out that:

participants recalled more information more accurately than in standard interviews and that they also noticed new and unexpected aspects of the interaction...viewing the video of the interaction stimulated participants to remember the thoughts, feelings, concerns, and reactions during the event.

There are limitations to their use. Calderhead (1981) identified seven that may affect the validity of this tool including the anxiety of being filmed and talking about their teaching, the teachers' ability to make explicit their tacit knowledge, and the naturalised practice (Lunenberg and Korthagen, 2009) of their practice that they may not notice or feel is unremarkable. These can be reduced by the way in which the participants are prepared for the SRI. One that is more difficult to resolve is that participants may want to give answers that please the researcher, though this is a weakness in interviews and questionnaires too (Calderhead, 1981). Altrichter et al. (2008) add that the position of the video-camera affects what is seen and not seen in the film.

Nunkoosing (2005, p.698) states that interviews are the most commonly used qualitative data collection method but goes on to warn us not to "take the interview for granted". Nunkoosing describes an interview as a method for making public what an interviewee thinks, feels and how they behave; it is a way of "creating reality with words" (p.700). Interviews are unique encounters, he argues, and interviewers may not adapt the data collection tool sufficiently to reflect this.

At the heart of successful interviews are rapport, well-chosen questions, skilful questioning and careful listening. It is the responsibility of the interviewer to create the conditions for this and then facilitate it: "The interviewer uses her or his skills to enable the interviewee to tell stories that would otherwise remain untold" (Nunkoosing, 2005, p.702). This assumes that the interviewee will reveal what the researcher is looking for; some hold back information to protect themselves, according to Nunkoosing. The researcher must accept this as "not knowing is itself an important stance for the interviewer to take" (Nunkoosing, 2005, p.702).

Interviews are also about power and relationships, states Nunkoosing. For instance, who is the interviewer and who is being interviewed? Power structures shape the dialogue within an interview and make the idea of a semi-structured interview a misnomer,

according to Nunkoosing. Holding back information is one way an interviewee may exercise power. The identity of the researcher, including “the theories and ideologies” (p.700) they believe in, shapes and influences their approach and Nunkoosing argues that, as their identity changes during the research, this means that future interviews may be approached from a different standpoint.

What is said in an interview is usually transcribed, analysed and translated into text. The research process decides what is left in and what is left out. The tacit nature of some knowledge means the interviewee may not be able to articulate all that they know (Polanyi, 1967). They choose what they say and what is left unsaid. What interviews usually offer is an authentic account of a person’s lived experience, though it is not usually the whole truth (Nunkoosing, 2005). One way an interviewer may reconcile gaps in accounts or build on an interviewee’s story is to interview other people who know the story and/or the participant (Altrichter et al., 2008). One of the other issues is that the final text is usually the researcher’s authorised account of the research, and this raises issues of whose account this is. One way a researcher can self-censor their account is to invite participants to move beyond the formality of member checking (Fitzgerald et al., 2013), which involves passing transcripts back to the interviewee for checking with an opportunity to redact any sensitive information, and invite them to provide a “secondary text” (Segall, 2002) that sits alongside and responds to the authorised version. Segall (2002, pp.150-151) provides an explanation of secondary text in his research into pre-service trainees’ accounts of learning to teach:

[Secondary text] was born out of my desire to create a polemic, text that invigorates discussion about pre-service education rather than stifles through the (misleading appearance of consensus)...the Secondary Text attempts to reflect the impossibility of mapping an “untidy” world into a “tidy” text (Lather, 1996, p.529) and the problematics inherent in the interpretation of (someone else’s) lived experience.

The way the secondary text is made visible to the reader in Segall’s book is through the use of italicisation. I have adopted the same strategy.

The fourth piece of data about the value and impact of modelling came from a focus group with the teacher educators’ trainees after the session I had filmed. One of the reasons I decided to use a focus group was because of its “collective nature”, which can support participants to express their ideas and views, and another was its ability to “generate complex information...with the minimum amount of time” (Liamputtong, 2011, p.2). Focus

groups have some of the same strengths and weaknesses as interviews; however, the way in which the focus group is organised is important and adds additional strengths and weaknesses to this data collection method. This study involved focus groups of existing trainees, what Liamputtong (2011) calls pre-existing groups (as opposed to constructed groups), with usually 12-14 trainees in a group. This is slightly higher than the maximum recommended number of 12 (ibid.), though I chose not to split them into smaller groups because of the time available.

A strength of a focus group was economy of time, and another was because the trainees knew each other there was a likelihood that they would “feed off” each other’s responses (Wellington, 2000). On the other hand, dominant voices may speak over the less assertive members or “inarticulate” (Cohen et al., 2007, p.377) in the focus group and then it is down to the researcher to attempt to manage the discussion (ibid.). On the other hand, focus groups provide an opportunity and safe environment for the voices of trainees to be heard and these have been “absent in the research literatures on teacher learning and teacher leading” (Kemmis et al., 2014a, p.9). This opportunity to have their voice heard (Campbell, 2011) may result in participants sharing information which they may be remorseful about afterwards and that may have implications for group relationships (Robinson, 2010).

“Teacher talk” (Hardy, 2010, p.131) captured at meetings shares the same strengths and weaknesses as interviews and, I would argue, as with focus groups, the group dynamic and what has been said may be dominated or influenced by an individual or the team leader. Nunkoosing (2005, p.704) suggests that “talk connects an external world of events to an inner world of thoughts and emotions...[and thus] provides the means both to construct and to understand reality”, allowing participants to recount their experiences of being involved in the study.

Kemmis et al. (2014b, p.184) recognise the value of using “naturally” occurring teaching materials and planning documents as data in action research, though there is no real discussion of the strengths and weaknesses of them other than they put no extra demands on the participants. These materials and documents are being used to triangulate with other data and to see into how FE-based teacher educators may be planning for modelling in the filmed classes, though what may not be clear is to what extent this is representative of how they normally plan for their classes.

A reflexive account of seeking participants for the study and the impact of performativity on their decision-making

...the limited number of critical studies in pre-service education may not result only from the reluctance of critical researchers to enter teacher education classrooms but from the reluctance of teacher educators, fearing the consequence of such studies, to invite them into their classrooms (Segall, 2002, p.170).

In July 2011 I had informed consent from four participants for the study as a result of my presentation at the conference and written permission from Teacher Educator H, the centre manager. My next step was to get approval for the study from the college where they worked.

Seeking institutional approval

Cohen et al. (2007, p.55) explain that obtaining “official permission” from the institution where the research is to take place is normally the “first stage” of the informed consent proposal. Though because of the “rhizomatic” (Goodley, 2007, p.324) way the research had developed, this was actually the third stage of approval and after I had gained informed consent from the possible participants and their line manager.

My initial approach to the college was made by telephone in mid-August 2011. I followed by writing to the Principal requesting access to the college to carry out my research. A copy of my letter is in Appendix 6. One of the assurances in my letter, which I naively thought was unproblematic, was that I would make available a copy of the completed thesis. Almost 12 months later this assurance would become a problem as I sought to secure more participants for the research and they said they would not be involved because they did not want the senior management to see my thesis. I have been haunted at times by it, though it is quite common to make such assurances when seeking permission. For example, McNiff and Whitehead (2011, pp.97-98) include it in their exemplar letter for requesting permission. I made one other important point in my letter: I informed the Principal it was my intention to apply for some funding to support the research I was undertaking and that some of this money might be used to support cover costs so that the staff would be available to attend any meetings and proposed training events so there would be no additional cost to the organisation.

I received a signed institutional consent form in late August 2011 giving approval for my research to proceed. In addition, at the bottom of the form, they added a short note in their own handwriting that read:

I do want you to ensure this research impacts as little as possible on day-to-day activities. I would like to have an indication of the level of funding available to pay for cover and the extent to which you think this will be used. The college would wish to see the final report/outcome of the research (personal communication, 25 August 2011).

I was quite comfortable with these conditions and let the line manager at the college know that I would proceed on this basis. Reflecting back on this later, the language used was indicative of a performative climate. My impression now is of a college in which the manager wanted the research to be a series of measurable outcomes: minimal disruption, funding for cover and a report on their teacher education team.

All ready to go?

I thought I was now ready to start my research in September 2011, though my undertaking overseas teaching at short notice, a cancelled meeting, an Ofsted inspection, and Teacher Educator H, who had initially agreed to the study, leaving the role, meant that it was July 2012 before I would go back to the college to meet the team with their new team leader, Teacher Educator B. This illustrates how “messy” collaborative research can be. There were six teacher educators at the meeting. Those present included the new team leader – who had already agreed to participate, Teacher Educator C – who had agreed to participate, three possible participants – two of whom had joined the team recently but knew nothing about the research, and a person who had originally agreed to be involved but had withdrawn their consent. One of the original participants had left the college and another member of the team had been unable to stay for the meeting, so at the start of the meeting I believed I had two definite participants. I had assumed the meeting would be fairly straightforward based on the enthusiastic response I had received 12 months earlier and I expected that two or three others would come forward and volunteer for the study. I was unaware of the full consequences of a recent restructuring at the college.

I started with an initial explanation of the aims of my research, and moved on to explain how I intended to use a stimulated recall interview as one of the data collection instruments. One of the possible participants expressed concerns about being “videoed” and so I sought to try and assure them that I had already piloted the tool, but they

remained unconvinced and said they wanted to think more about it. This response reminded me of Loughran and Berry's (cited in Lunenberg et al., 2007) assertion that modelling is based on the assumption that teacher educators are confident and comfortable enough to make themselves vulnerable by opening up their practice for debate and discussion with their trainees, and that this "vulnerability" is something that does not necessarily come easily to all teacher educators (Lunenberg et al., 2007, p.590). I have come to realise that making yourself vulnerable is something that is potentially risky and dangerous in a performative environment. This response might also be viewed using Bourdieu's concept of "habitus", which argues that people's "judgement and practice" are shaped by two things: firstly, their "life experiences" and, secondly, the "economic and cultural conditions" they experience in their lives (Emirbayer and Johnson, 2008, p.4). Importantly, habitus connects what happens within the organisational field with what occurs in the organisation-as-field and, as such, can be a powerful lens for analysing what is influencing organisational behaviour at macro and micro levels, according to Emirbayer and Johnson (2008).

The atmosphere suddenly changed when I told the possible participants that I had agreed to provide the senior manager, who had given institutional approval for the research to go ahead, with a copy of my completed EdD. One of the possible participants expressed concern, and we spent some time discussing their concerns, and my own, about how my research could be misused. I sought to reassure them that I would go back and discuss the issues raised with my supervisor before any research began and would get back in touch. I left the meeting with three participants and another person saying they would like to think about it further. The person who had been unable to attend the meeting had yet to decide whether they would be involved. As I drove back to my workplace, it struck me for the first time that perhaps the fear of being observed or the research being seen by a senior manager reflected the "performative environment" (Lumby, 2009, p.354) in which these two teacher educators felt they were being asked to work. Specifically, there seemed to be evidence of "an erosion of trust between staff members (Avis, 2003), and a sense of surveillance and being controlled (Ball, 2003)" (Lumby, 2009, p.354). This is confirmed by Teacher Educator F's comments when I discussed it with them later in the study:

I wasn't very happy with the very first session...I think it was this whole idea that you had somehow got permission from the management here to do the study and that in some way that you were going to report back what was happening in

our classrooms, that they were going to be the beneficiaries of it and whether you explicitly meant to say that or not, I'm not sure, but that's how we as a group received that and... we had quite a lot of discussion about it and weren't happy about it (Interview, December 2015).

Reflecting back, two points seem significant. First, “at the reconnaissance stage” (Kemmis et al., 2014b, p.92) of a study, “the sayings, doings and relatings” of that first meeting can set the tone for the study. It would be November 2014 before Teacher Educator F accepted that I could be trusted and they would always return to this initial meeting during our “teacher talk” meetings throughout the study. Second, there seemed to be a “regress of mistrust” existing (Ball, 2003, p.226) at two levels: a mistrust between the teacher educators and the senior manager requesting to see my study and a mistrust between some of the potential participants and myself about what I was looking for in the research, how I planned to collect and use the data, and the power relationship that existed between us. All of this seemed to increase the feelings of vulnerability amongst some of those present at the meeting, though some of the “side effects” of performativity include “self-worth” being diminished and the emergence of “self-doubt and personal anxiety” (Ball, 2003, p.220). All of which might contribute to a teacher educator deciding not to participate in a study about modelling. I am aware now that I could have adopted a more co-operative approach by inviting the potential participants to be “co-researchers and co-subjects, jointly generating ideas, designing the project, and drawing conclusions (Reason and Torbert, 2001)” (Kinsler, 2010, p.174) and this might have reduced some anxieties. Subsequently, I have been told by Teacher Educator B that even this approach would not have changed the minds of two of the people at the meeting. In November 2014 during a “teacher talk” meeting we revisited what had happened in June 2012 and there follows an extract of what was said:

Teacher Educator B	I think what people were worried about – if I may be so bold to say – is that there was a host of competing and contradictory practices within so many people ...I think [the start of] this research came at a moment where people were vulnerable in that respect.
Teacher Educator F	We were quite vulnerable.
Teacher Educator G	We brought our baggage with us.

Another way of looking at this would be to draw on Bourdieu's notion of capital. "Capital is not a thing, but a social relation" (Marx quoted by Emirbayer and Johnson, 2008, p.3). It seems to me that this study offered participants an opportunity to build their professional capital (Hargreaves and Fullan, 2012), which is a function of human capital, social capital and decisional capital. However, fears about the surveillance culture, vulnerability and low levels of trust amongst others militated against this.

I discussed the meeting with my supervisor and agreed that I would contact Teacher Educator B, the team leader, and provide details of the five assurances I had made in my letter to the Principal, and suggest two options for moving my research forward. Option 1 was that only those who were comfortable with my assurance to "make available a copy of the thesis after I have completed the EdD" participate; option 2 would be to attempt to renegotiate with the senior manager what I would provide, the proposal being that I would present a summary of the findings. Teacher Educator B felt option 1 was the best way forward and agreed that I would visit the college in the autumn term to finalise the research and see whether the one undecided member of the team might participate.

A meeting in December 2012 confirmed who would be involved and when the data collection might begin. I asked Teacher Educator A, who had participated in my pilot study, to accompany me to the meeting as I thought it would be useful for Teacher Educators B, C and F to hear their experience of being filmed and the SRI. This strategy seemed to work well as it recruited Teacher Educator F, reassured Teacher Educator C who, since I had met them in July, had become unsure about being involved. By the end of the meeting I had three firm participants: Teacher Educators B, C and F. Teacher Educator D was another possible participant but they had not been able to attend either the June or December meetings. They subsequently contacted me in late January to say they were happy to participate. However, Teacher Educator G indicated they would not participate in November 2012. Segall (2002, p.170) provides a useful insight here: "...regardless of how committed teacher educators are, not everyone would relish the idea of having their practice open to external, critical scrutiny". I now had four participants and the study could begin.

Research design

Horn et al. (2009, p.261) assert that one of the researcher's responsibilities is: "...to provide a relatively comprehensive description of the study design to enable critical

appraisal and assessment of the validity of findings". A full account of the design and piloting of four of the data collection instruments – filming a class, SRI, semi-structured interview, and focus group – is presented in Appendix 7 and contributes to the “academic integrity” (Levin, 2012, p.133) of this study. Piloting the data collection instrument was valuable in four ways:

1. I learned new skills in how to film a class, use an SRI and chair a focus group;
2. I knew that the data collection instruments were reliable and had construct validity (Baumfield et al., 2013);
3. I was reminded of the importance of being careful when collecting data and to always have a back-up plan in case my data collection instrument failed. For instance, always make two recordings of an interview; have two cameras for filming and spare batteries;
4. I was confident using the data collection instruments.

Being ethical before and during this study

Prior to commencing this research I re-read the British Educational Research Association’s (2011) ethical guidelines, and, during the study, I made every effort to observe them and “reach an ethically acceptable position in which [my] actions [could be] considered justifiable and sound” (BERA, 2011, para. 3, p.4). The guidelines make specific reference to action research:

Researchers engaged in action research must consider the extent to which their own reflective research impinges on others, for example in the case of the dual role of teacher and researcher and the impact on students and colleagues. Dual roles may also introduce explicit tensions in areas such as confidentiality and must be addressed accordingly (ibid., para. 12, p.5).

As this is second-person action research, I am not working with my own trainees, however, there were implications for my participants. I approached the ethical issues in two stages; the first was before the study started and the second was on-going during the study. As part of the first stage I secured “fully informed consent” (Oliver, 2003, p.28) from the college where the study would be taking place and from each of my teacher educators. I did this by producing a consent form that included all the information “a participant might conceivably need in order to make a decision about whether or not to participate” (Oliver, 2003, p.28). A copy of the teacher educators’ consent form is included in Appendix 8. A copy of the trainees’ consent form is included in Appendix 9.

No incentive was offered to anyone to participate, so I am thankful for their support. Four teacher educators initially signed the consent form and agreed to be involved in the study. They spoke to their trainees about the study and got verbal consent from them to be filmed and be part of a focus group on the understanding that I would be asking for written consent when I met them. I was not directly involved in teaching or assessing any of these trainees, though I was responsible, with another colleague, for co-ordinating an online element of a module they did on the course and the associated conference they attended. My University, however, had employed two of the participants as specialist conference tutors.

The second stage involved protecting the anonymity of the participants and the college (DiCicco-Bloom and Crabtree, 2006). I did this by using generic titles for their role in the study and then gave them a number or letter as an identifier and removing reference place names.

DiCicco-Bloom and Crabtree (2006, p.318) observe that the recording of interviews, focus groups and “teacher talk” is risky for participants because “recorded data is incontrovertible”. I reminded the participants prior to any recording that I was about to record and asked them to confirm they were agreeable. Before my interviews with participants I would position the tape recorder by the participant and explain they should stop the recording at any time if they wished to.

The final consideration was to protect the information I had collected (DiCicco-Bloom and Crabtree, 2006). All recordings were passed to a technician to transfer onto a CD. I then copied the CD onto my work laptop, which is password protected, and stored the CD at home. I explained to my participants that this was what I would be doing and promised that I would safely look after them until I had completed the study or no longer needed them (DiCicco-Bloom and Crabtree, 2006). Pirie (1996) raises an important point about the ethics associated with filming classes: whose film is it? Whose data is it? I ensured each of the teacher educators who were filmed had a copy of the film for their own purposes, though I did not ask the trainees if we could show sections of the films to others for validation purposes or as part of disseminating the research. This is something I will do in future. To conclude, properly conducted action research can be described as “ethics in

action” (McNiff, 2014, p.16) for at the very core of its values are working harmoniously, respectfully, sustainably and ethically.

Power, politics, positionality and bias

Three factors may have had an impact on this study: the relationships between the participants, the power relationships between myself and the participants, and my own positionality. McNiff (2014, p.24), drawing on Herr and Anderson (2005), identifies seven types of positionality in AR; my positionality might be described as an outsider “working collaboratively with insiders”.

When this study started in 2011 I was a Senior Lecturer in Teacher Education at the University of Huddersfield. In September 2013 my role changed significantly as I took on the role of Deputy Director of an ITE consortium partnership between the University and 20 FECs, though the role was fractional, it was 0.5, and so I retained some course leadership roles. In September 2014 I became the Director of the Consortium and my knowledge of ITE and skills in ITE project work resulted in the ETF inviting me to be a member of their ITE Working Party in May 2015; this group plays a leading role in shaping the FEITE landscape. The college and the team of teacher educators with which I was researching were one of the University’s partners, and this meant I had a relationship with them other than as a researcher. Atkins and Wallace (2012) posit that such a relationship has ethical and methodological ramifications for a study. I am alert to this and have reflexively commented on the issues that have arisen.

Kemmis et al. (2014b) provide a useful insight into how power may shape and influence research. First, they point out that the social space in which the research takes place is based on “pre-existing relationships of power and solidarity” (p.77). This then contributed to the “communicative power” (p.46) within the study and particularly the “teacher talk” during the team meetings as we discussed and planned the study. Whilst I sought to build up trust by negotiating with the teacher educators in an attempt to reach a “consensus” (p.160), this was my doctoral study, and I had to delicately balance my research goal, their professional goals and the ethical priority of doing no harm to my participants (BERA, 2011, para. 20, p.7).

What was less clear to me as the researcher was the relationships between the participants. I could observe the relationships within the team – they hold each other in

high regard based on their respective qualities, they have different strengths and were always supportive of each other in team and individual discussions – though I had a brief amount of time with the trainees and so was unable to notice if there were any issues that might have influenced the data collected in the study. In hindsight, it would have been useful to me to spend more time watching the trainees and teacher educators in classes to get more of an insight into the “relatings” of the classroom, though one of my key considerations was not to disrupt too much the teaching of these trainees.

This study was designed with the intention of placing “another brick” (Wellington, p.137) in the research wall of FE-based teacher education. I sought to adhere to the “seven criteria...[for] quality in action research” (Bradbury, 2015, p.8). These are clearly articulated research objectives; “partnership and participation” (ibid.); adding to our existing knowledge of classroom practice; congruence between research objectives, data collection instruments and data collection; “actionability” (ibid.) of the research in other settings; being reflexive; that the research is significant beyond its setting. I will return to these criteria in the conclusions to ask the question: to what extent has this piece of AR met the seven quality criteria?

Chapter 4: The “story” of the initial investigation

Can we develop a closer description of the practice of action research by including descriptions of the messy thinking, jumbling, botanising, sifting and crystallising experience? This description would develop the concept that professional knowledge, judgement, tacit knowledge, intuition, and professional maturity are important when choosing a way forward amidst data gathering and analysis. Data does not give out its own meaning, finding that meaning is the researchers [sic] art (Cook, 1998, p.107).

The purpose of this chapter is to introduce the participants and the college and chronicle how the data was collected in the initial investigation stage of the study to answer its research questions. I follow this with a reflexive account of the data collection process. I am mindful of Levin’s (2012) advice that if action research is to enhance its credibility then its researchers must get the right balance between telling their story and the rigour and relevance of their accounts, ensuring the former does not dominate the latter.

The participants and their college

Hall (2012, pp.37-38) explains the purpose of setting the scene for research.

...Anyone reviewing the research should have sufficient information about “both sending and receiving contexts” (Lincoln and Guba, 1985: 297) to make decisions about future purposive sampling. Researchers would be able to use the known characteristics of the original study (the “sending” context) to decide whether or not these would be applicable to transfer to their own study focus (the “receiving” context).

This provides meaningful context for all five of the study’s research questions. Like many colleges, the one which was the focus for this study has undergone several restructures. During this study three restructures directly affected the team – 2012, 2013, 2014 – and there were others that affected staff and which indirectly impacted on FEITE. In February 2013 there were 13 teacher educators in the team; by September 2016 there were five. The focus of this study is teacher educators’ use of modelling, though there is another story that runs parallel, that is of the considerable change in FEITE since the announcement of the interim findings of the Lingfield Review in March 2012. In fact, the data discussed in chapter one suggests that the changes began earlier and are correlated to the Coalition government’s (2010-2015) funding cuts to the FE sector and work-based learning and adult and community learning employers’ view that the Level 3 PTLLS award was a terminal qualification (Thompson, 2014, p.20), as what has happened at this college

has been mirrored at others. Out of 13 teacher educators in the team, six were involved in this initial investigation stage. Their involvement is summarised in Table 4.1.

Table 4.1: Teacher educators' involvement in the initial investigation stage

Participant	Role	Involvement in this stage of the study
Teacher Educator B	Team leader	Filmed teaching and SRI; interview; focus group held with their trainees; attended "Teacher Talk" meetings
Teacher Educator C	Full-time lecturer**	Filmed teaching and SRI; interview; focus group held with their trainees*; withdrew from study after focus group, though attended "Teacher Talk" meetings
Teacher Educator D	0.8 lecturer and advanced practitioner	Filmed teaching and SRI; interview; focus group held with their trainees; attended "Teacher Talk" meetings
Teacher Educator E	Curriculum leader	Joined the team in September 2013; attended "Teacher Talk" meetings
Teacher Educator F	0.7 lecturer	Withdrew from study in February 2013, though attended "Teacher Talk" meetings
Teacher Educator G	0.4 lecturer	Attended "Teacher Talk" meetings

*The focus group was held with trainees after receiving their verbal consent, though only two trainees gave written consent for this data to be analysed. An account of what happened, including the ethical issues that arose, is discussed in this chapter.

**Full-time lecturers at this college were timetabled to teach more than 830 hours per annum.

Copies of the interview schedule used with the teacher educators at the start of their involvement in the study, and the trainees focus group questions, are in Appendices 10 and 11 respectively. All data collected during the study was captured digitally; interviews, SRIs, focus groups and "Teacher Talk" meetings were recorded and the films were captured on a video camera. However, the data collection process was messy too. Here I am drawing on Adamson and Walker's (2011, p.29) definition of messiness as "complexity, unpredictability, difficulties and dilemmas" and responding to Cook's (2009) call for mess to be documented. I discuss these instances of messiness within my reflexive account of the data collection process and then explain how they contributed to the rigour of the study.

Murray (2012, p.20) argues that teacher educators' work is "time-intensive and cannot easily be measured" and consequently impacts on teacher educators who are research-active; I have experienced this as a "research apprentice" (p.21). There have been occasions when I was unable to progress this study because of my own work commitments. I had three periods teaching in China during the study and one of those meant I was unable to attend meetings offered to me in January 2012, resulting in a delay to the start of the study of perhaps six months. There was one instance when an SRI was postponed because of a meeting that Teacher Educator D had to attend and we could not then meet for two weeks because of my diary. This meant that it was 21 days after the filmed class when we met to review, and Pirie (1996) suggests that ideally a meeting should take place within seven days of filming.

McNiff (2014) advises that key events and ideas should be recorded in a research diary. I did not follow this religiously owing to time constraints as I was trying to combine a busy job with caring responsibilities, and data collection and reading were being "shoehorned in" where I could; my diary was a mess and reflected the hyperactivity of the sector (Coffield, 2008). This is an instance of the mess that Cook (2009) writes about and how this creates a sense of not doing what is supposed to be done as an apprentice researcher (Murray, 2012). AR often reflects professional lives (Cook 1998). However, I did not completely ignore McNiff's advice as I made notes and I have been able to draw on these "memos to analysis" (Maxwell, 2005, cited in Dresing et al., 2015, p.62).

Another messy detail is that my binary relationship with the teacher educators – I was collaborating in research with them, and I was Director of the Consortium of which their college was a member – on two occasions when I was collecting data at the college participants raised Consortium issues. Atkins and Wallace (2012) warn the researcher about the possibility of this happening.

I wish I had arranged a data collection planning meeting with the participants before it commenced, though I was in China when I received an email from Teacher Educator C, who was keen to agree a date for the filming. Trying to be helpful rather than being mindful, I responded to the email and agreed a date and time. This is an example of the messiness of my professional life (Cook, 1998) and how it can impact on our AR. On reflection, what I should have done, and did in the second cycle, was set up a meeting with

the participants to agree how we would collect the data and introduce the study to the trainees. My prompt response to Teacher Educator C's email may have contributed to problems experienced with his trainees after the focus group and as I sought their written consent to use the data.

Table 4.2: Chronology of events in the initial investigation (November 2012 – January 2014)

Date	Event (including data collection)	Link to research question(s)	Notes
24 November 2012	Presented proposed methodology and data collection methods for study at Collaborative Action Research Network conference.	Research Question 1 (RQ1), RQ2, RQ3, RQ4 and RQ5	Received positive feedback about decision to use SRI.
10 February 2013	Teacher Educator F emailed to withdraw from the study though indicated that they hoped to re-join in May 2013.	RQ1, RQ2, RQ3, RQ4 and RQ5	Replied to Teacher Educator F to explain I understood. Contacted them in May but they still did not feel able to join the study at that stage. They became involved in the study when "Teacher Talk" meetings commenced in September 2013, though they were not filmed as part of the study. They were interviewed about their involvement in the study in December 2015.
12 February	Briefed Teacher Educator C's trainees about the study. Then filmed Teacher Educator C's class.	RQ1	
13 February	SRI with Teacher Educator C, though unable to complete it	RQ1, RQ2, and RQ5	SRI completed on 14 February.

Date	Event (including data collection)	Link to research question(s)	Notes
	because they had to leave to do an observation.		
15 February	Teacher Educator C emailed to withdraw from the study.		Replied to Teacher Educator C to explain I understood.
25 February	Briefed Teacher Educator B's trainees about the study. Then filmed Teacher Educator B's class.	RQ3 and RQ4	
	Interview with Teacher Educator C.	RQ1, RQ2, and RQ5	
26 February	Met with Teacher Educator B to do stimulated recall interview.	RQ1, RQ2, and RQ5	
	Held focus group with Teacher Educator C's trainees.	RQ3 and RQ4	Left consent forms for trainees for signing with Teacher Educator C.
4 March	Held focus group with Teacher Educator B's trainees.	RQ3 and RQ4	Left consent forms for trainees for signing with Teacher Educator B. All forms signed and returned.
7 March	Briefed Teacher Educator D's trainees about the study. Then filmed Teacher Educator D's class.	RQ1, RQ2, and RQ5	
14 March	SRI with Teacher Educator D postponed and re-scheduled.	RQ1, RQ2, and RQ5	Teacher Educator D emailed me on morning of SRI to ask to rearrange. We had to rearrange the rearranged SRI as well because of their commitments.

Date	Event (including data collection)	Link to research question(s)	Notes
	Held focus group with Teacher Educator D's trainees	RQ3 and RQ4	Left consent forms for trainees for signing with Teacher Educator D. All forms returned.
28 March	Met with Teacher Educator D to do stimulated recall interview.	RQ1, RQ2, and RQ5	
16 April	Interviews with Teacher Educators B and D.	RQ1, RQ2, and RQ5	I had not received any consent forms from Teacher Educator C's trainees so handed them extra copies.
18 April	Email from Teacher Educator C regarding only two of their trainees had signed the consent forms, others would not sign.	RQ3 and RQ4	
13 May	Discussed Teacher Educator C's trainees' reluctance to sign the consent form with my supervisor and agreed I would offer to visit the group and resolve the matter.	RQ3 and RQ4	Emailed Teacher Educator C with proposal to meet with the group on 21 May. Teacher Educator C felt this was "not a good idea". I accepted this.
4 September	"Teacher Talk" meeting with teacher educators to share some provisional findings from the study and agree the action for stage 2.	RQ1, RQ2, RQ3, RQ4 and RQ5	Teacher Educator E and G joined the study.
17 January 2014	Validation event to share provisional findings with teacher educators at a	RQ1, RQ2, RQ3, RQ4 and RQ5	Teacher educators from across the Consortium.

Date	Event (including data collection)	Link to research question(s)	Notes
	Consortium Network meeting.		

Reflexive discussion of data collection process in cycle 1

Before data collection began Teacher Educator F, having indicated they were happy to be filmed, emailed that they could not be involved in the study explaining their reasons.

Teacher Educator C withdrew for personal reasons after the SRI, though they agreed to be interviewed. These were instances of messiness that occurred as a result of the “complexity, unpredictability and difficulty” (Adamson and Walker, 2011, p.29) of collaborating with a team, they also needed to be accounted for as part of answering RQ1.

There were two decisions to be made about filming of the classes which would impact on the data collection process (Savage, 2016): where did I position the camera, and should I stay in the session when filming? These would help me answer RQ1. I wanted to minimise disruption when filming (Pirie, 1996) and so waited for trainees to choose their preferred seat before placing the camera. Savage (2016) suggests that it is possible to film classes remotely to reduce the impact of filming, though there was not the technology available to do this at the college when we filmed in 2013 and 2014, and, more importantly, I could not simply start the filming and periodically check it, as Pirie (1996) suggests, for two reasons. First, I wanted to film the “wholeness” (Goldman, 2009, p.30) of the teacher educators’ practices in terms of their “sayings, doings and relatings” (Kemmis et al., 2014a, p.31), and this meant following their movement around the room – they do not stand in a static position. Second, I wanted to ensure that there were no technical problems during the class. As is evident from the transcription of Teacher Educator C’s class in Appendix 12, I had to change the batteries in their class as was the case in each of the other films (see Appendices 19, 20, 21).

To ensure I sufficiently answered RQ1, the duration of filming was agreed with each teacher educator at the start of the class and they were invited to indicate which teaching behaviours or values they would be modelling to give their SRI foci. The length of filming in this cycle varied between 59 minutes to 87 minutes. The reason the latter was longer was because Teacher Educator C requested that filming continued after the break, when it had been scheduled to stop. The SRI normally took place within the seven days of filming that

Pirie (1996) advises, though there was an instance with Teacher Educator D when we had to rearrange the SRI because of them having to deal with a situation that had arisen the previous day. This resulted in a delay and the SRI took place 21 days after the filming. This may have impacted on their ability to vividly recall their thoughts and decision-making from the class and thus answer RQs 1 and 2, though their commentary was detailed.

As part of answering RQ5, I decided not to watch the films before reviewing them with the teacher educators as I had seen the class. I wanted us to watch the film together as co-observers, and I wanted them to own the account by stopping the recording when they wanted, which is how Pirie (1996) approaches SRI. I hoped to hand control of the account to the teacher educator and any questions I asked were my responses to what they had said. When the teacher educator stopped the film I would turn on the audio-recorder, state at what point the film had been stopped for transcription purposes, and ask them what they would like to say about what they had seen. Savage (2016), drawing on Prosser (2007), suggests that involving the teacher educator as co-observer reduces researcher bias because it shares the power and control of the data collection process and allows them to tell their version of the class.

To ensure we answered RQ1, I started each SRI by asking the participant what they had sought to model in the class and explained how we would watch the film together. The films were held on my laptop and so we watched using that. SRI was time-consuming, and I became worried that it was placing too much demand on participants. However, it was a rich process and offered insight into these “teachers’ thoughts and decision-making” (Calderhead, 1981, p.216). Savage (2016, p.7) posits that most of the research using SRI pays “only cursory attention... to the impact of reactivity in the validity and reliability of data collection”. The impact of filming was discussed within the “Teacher Talk” meeting on 3 September 2013, and, as a result I changed our approach to data collection in the second cycle, and we invited one of the trainees to film the class. Here I was taking an “active analytic stance” (Morse et al., 2002, p.9) in relation to RQs 1, 2, 3, 4 and 5. I should have asked about their experience of being filmed at the end of the SRI, and this would have given me an insight into the impact of any reactivity and informed RQs 1 and 2. However, during a “Teacher Talk” meeting in October 2015 Teacher Educator D said: “I didn’t feel constrained actually, even with you sitting in the corner and I kind of forgot about you almost immediately, sorry! (laughs)”, suggesting my presence may not have been as

significant as I had thought. It is also worth noting Lunenberg et al.'s (2007, p.598) comments on their study:

The outcomes...may even be overly favourable, as the teacher educators participating in our study were informed about the purpose of the observations, and reported that by participating they had become aware of their own pedagogical choices and the degree to which they acted in accordance with their views of learning and teaching.

After the SRI, and as I was transcribing and analysing, I would come back to the teacher educators to ask questions about aspects where I was unclear. Here I was answering RQs 1, 2 and 5. As part of this, I invited the teacher educators to provide a parallel, Second Text (Segall, 2002, p.150) to my interpretation if they wished. This was more than member checking (Segall 2002) as I was recognising that my interpretation of the film was not the only one possible. Two teacher educators used secondary text to respond to my comments and analysis: Teacher Educator C and Teacher Educator D. Teacher Educator C's secondary text can be seen within the transcription and analysis of the class, which can be found in Appendix 12. A comment from Teacher Educator C suggests that the filming and the follow-up SRI helped them explain any misconceptions I might have: "Doesn't this whole experience show how little a normal teaching observation can uncover? This whole experience of the transcript and stimulated recall discussion uncovers a lot more [of my thoughts and decision-making]" (Transcript of Teacher Educator's filmed class, March 2013).

When answering RQs 3 and 4 a challenge was when to hold the focus groups with the trainees. Studies on modelling that have involved listening to trainees have been pre-service programmes (Loughran and Berry, 2005, for instance) and they have greater flexibility in terms of time when to meet compared to the in-service trainees in my study. Two of the three classes filmed in this cycle took place between 5-8pm and I was aware that the trainees would be tired; I was also concerned about disruption to any one class. I therefore decided I would return a week after the class and hold focus groups at the start of the following class, in the belief that the trainees would be less tired and more focussed.

The focus groups answered RQs 3 and 4; they lasted no more than 30 minutes to minimise disruption to learning. At the start I reiterated how I would be collecting the data, emphasised I would be tape-recording and asked five questions relating to learning to

teach and modelling (see Appendix 11). A question I did not ask the trainees, and should have, was: What was your experience of being filmed as part of this class?

I have five key reflections from the focus groups with trainees:

1. I had to quickly establish a relationship with the trainees as they were not my own. What I did to do this was to speak to each trainee before the class to find out their preferred name, their subject specialism, where they worked and introduce myself. This enabled me to build a rapport;
2. I had to carefully manage discussion because in one group in particular there was a very vocal trainee who, although their contributions were valid, dominated our “professional conversation” (Kvale and Brinkmann, 2009, p.2). I did this by using their preferred name to thank them for their contribution and then inviting others to contribute;
3. Whilst the trainees were able to articulate how they were learning to teach, the trainees in this cycle said very little about the teacher educators’ use of modelling within the class and never, other than using the word modelling, used any of the language of learning to teach or modelling when discussing how they were learning to teach. A conversation with Mieke Lunenberg at the Association of Teacher Educators in Europe conference in 2016 suggested that it might have been fruitful to have shown the trainees the film of the class as a memory stimulus and then asked them to identify their teacher educators’ use of modelling. This was a technique Martijn Willemse used (Willemse et al., 2008), she said (Lunenberg, pers. comm., 2016). I had not considered this because of the time constraints but can see its value and would have done this if working with pre-service trainees. If we had used the Viewing Frame that was subsequently developed, they might have been better equipped to discuss modelling
4. I did not pass back to the trainees the transcription for comments before analysing it. A reason for this was that I did not get a chance to check the transcription until the two Year 2 groups of trainees had completed their course;
5. “A disorienting dilemma” (Mezirow, 2000, p.22) for myself and Teacher Educator C. The filming of the class had seemingly gone to plan, so I returned the following week for the focus group with their trainees. I forgot to take the consent forms for the focus group to the session, though I explained I would send them through to Teacher Educator C. Then I set up and ran the focus group. I noticed that the

trainees were quieter than expected during our discussion, so I patiently waited for them to answer questions or build on their responses. I thanked the trainees at the conclusion of the focus group and left as soon as I had finished so their class could start. I thought nothing more about it until I got an email from Teacher Educator C, who had been chasing up the signed consent forms. Two of the trainees had signed the forms; however, the others had not. Teacher Educator C wrote:

The group were very reluctant to be involved after your visit and one learner was very unhappy with regard to “wait time” used with them when you asked a question. It was when you asked the trainee how I used modelling as they thought I had used it and then you waited a long time for their answer to explain how and they didn’t respond. They said that they felt they were made to feel stupid because they felt pressurised to respond. I have explained that was not your intention. They said that a long wait time for 1-2-1 questioning is fine, but in a whole class context they felt very unhappy with the experience. They also did not understand what you were researching despite your PowerPoint presentation and explanation but were pleased that the consent form explained the reasons for the research...I am sorry that the group have been so reluctant to participate.
(pers.comm, April 2013)

I reflected deeply about this. I had adopted the same approach with another focus group that week and they had all signed the forms (and the following week the third group of trainees would all sign the forms too). My conclusion was that I had not built up a sufficiently strong relationship with this group of trainees before the study started and they were therefore unsettled by the “wait time” (Rowe, 1974) strategy used, echoing the disorientation that students can feel with any change of tutor. I did two things as a result. First, I discussed the situation with my supervisor to explore a way forward. I decided that I would email Teacher Educator C to ask if I could meet with the group so I could apologise to the trainees and then persuade them to sign the consent forms for the focus group. Teacher Educator C replied saying they felt that was not a good idea and I accepted this, not wishing to cause further problems. I decided, following discussion with my supervisor, to use data from the filmed class, as they had not objected to that, though we would not quote any of the trainees. Consequently, data from that focus group has not been used in the study. Second, I resolved to spend longer getting to know trainees in Cycle 2.

The interviews with the teacher educators were unproblematic and provided the rich “professional conversation” (Kvale and Brinkmann, 2009, p.2) I had hoped for, though they

did last longer than I had said they would. I felt that I should let the participant talk until they felt they had said everything they wanted.

After collecting and transcribing data from the first cycle, as one way of answering RQ5 I met with the team to share preliminary findings and begin discussions about the next stage of the study. I had learned a great deal from this first cycle and was keen to implement this in Cycle 2. At the heart of critical participatory action research is the idea that “participants get together and talk about their work” (Kemmis et al., 2014b, p.33) and whilst this study is practical AR, the setting up of this meeting created space for us to talk and an opportunity to discuss what we would do next. Hardy (2010, p.131) uses the phrase “teacher talk” to describe meetings in which “deliberately developed conversations...stimulated academics’ praxis in the form of committed, collaborative inquiry into teaching practice and students’ learning”, and I adopted this approach. This “Teacher Talk” meeting and all future meetings were recorded and transcribed so I could analyse our “conversations” (ibid.). A new teacher educator joined the team at this stage, Teacher Educator E, who took on the newly created role of Curriculum Leader, and Teacher Educators C, F and G, who were already team members but not part of the study, agreed to (re)join the study for the “Teacher Talk” meetings only.

Four important ideas came out of our first “Teacher Talk” meeting (A transcript and analysis of this meeting is in Appendix 13):

1. The possible impact of my filming the sessions. Concurrently with this study, I was doing some other research on modelling with Anja Swennen, Pete Boyd and Corinne Van Velzen, and what I had agreed with the primary teacher educators, who were the focus of this study, was that one of their trainees would film the class. I felt more relaxed about this approach because this work was not my doctorate, though our “teacher talk” led me to think that we might ask one of the trainees to film the class in Cycle 2;
2. We discussed whether the teacher educators might hold the focus group with their own trainees. I was open to these ideas, though wanted to discuss them with my supervisor first;
3. In relation to RQ1, Teacher Educator C said:

I kind of felt that while we were reviewing the film footage...I’ve got a lot of past experience with these students in terms of empathy and relationships and connections and you can’t

capture that in an hour's sort of observation and I was trying to think "how much can you actually see in an hour?" ("Teacher Talk" meeting, September 2013).

This reminded me that there was other modelling taking place that would not be captured if we only reported the use of modelling from the filmed classes. Kemmis et al. (2014a, p.226) observe that when we study teachers' practices we are normally glimpsing a very "small segment" of their work. I wanted to ensure we captured this out of "segment" modelling (ibid.) and so in future "Teacher Talk" meetings I would ask about how they were using modelling in their practice. As I write now, I wonder if asking them to have a diary of their teaching and materials would have been a way of validating their "teacher talk". This might have helped even more fully answer RQ1.

4. Add a fifth research question to the study which the teacher educators wanted answering: what happens when a team of FE-based teacher educators work together and with a university-based teacher educator to explore the pedagogy of teacher education? My response to these two ideas evidences my commitment to enhancing the rigour of my research by moving "back and forth between design and implementation to ensure congruence among question formulation...data collection strategies, and analysis" (p.10). I ended this first "Teacher Talk" meeting by agreeing that I would set up a meeting to discuss our action for Cycle 2.

An important feature of AR and a quality mechanism is the monitoring of progress and validation of findings, even if provisional, by a validation group or groups (McNiff, 2014). I was presenting my research at conferences, for instance ECER in Istanbul and CARN in Tromsø, both in 2013, to get informal feedback on the study, though I built in a formal validation event at the end of Cycle 1 with a group of FE-based teacher educators. I set up five groups to have a look at my preliminary analysis of data in terms of the teacher educators' practice, professional knowledge, professional identity and the impact of the organisational field. A transcript and analysis of this are in Appendix 14. The information sheet and informed consent form are in Appendix 15. The feedback gave me four key messages to consider:

1. Group A suggested that “some of what you get back from your trainees...about your [use of] modelling depends on the power balance within your relationship” (Validation event, January, 2014).
2. Group B made an interesting point about the teacher educators’ knowledge of theory. There follows an extract from our discussion (ibid.).

Group B	I think we’ve really struggled with this, David, because of the responses made...all three of them didn’t really understand about the theory behind it. They said that they don’t feel confident in delivering theory.
DP	Well that’s the key word, isn’t it: “confidence”.
Group B	So this is not representative of, we’d say, other [FE-based] teacher educators.
DP	That’s interesting.
Group B	It looks as though the sample were all like brand new teacher educators which didn’t quite make it a valid sample, did it? All the comments seem to come from a lack of pedagogical knowledge and that doesn’t ring true, does it?

What I may have not explained clearly enough to the validation group was that this is what they said they were least confident in, it was not that they could not do it. The preliminary finding is actually congruent with other research, such as Swennen et al.’s (2008), which suggests that university-based teacher educators’ knowledge of theory is an area for development in relation to their use of modelling. Perhaps the validation group were reluctant to admit that knowledge of theory was an area for development.

3. Teacher educators’ identities are affected by the college (Validation group E, January 2014);
4. Group E confirmed my findings and then suggested that:

We thought that the findings were valid and we strongly identified with the things that came out of them...but there was something that we thought was missing in that at least one of us felt that modelling can become part of the culture of the teacher educator classroom and, therefore, even when it is not being made explicit if you can get them into the habit of looking and unpicking and discussing your practice they’ll see it even when you don’t point to it (Validation group D, January 2014).

The potential of using a viewing frame with trainees is implicit in the above comment, though it would be October 2014 before it was developed.

These validation groups ensured I was actively checking that I was answering RQs 1, 2, 3, 4 and 5.

I return to Cook's assertion (2009, p.277) that "mess and rigour might appear to be strange bedfellows". I have learned from the "discomfort" (p.283) of the instances of mess from the first cycle of the study, most of which were outside my control. This initial messiness made me think more deeply about my "sayings, doings and relatings" (Kemmis et al., 2014a, p.31) with the participants; it made me a more thoughtful and better action researcher in Cycle 2.

Chapter 5: The “story” of the action in Cycles 2 and 3

My focus in cycles 2 and 3 was to ensure I had answered RQs 1,2,3,4 and 5 when the study concluded. Six participants were involved in Cycle 2 and they and their involvement are presented in Table 5.1 below.

Table 5.1: Teacher educators involved in Cycle 2 of the study

Participant	Role	Involvement in this stage of the study
Teacher Educator B	Team leader	Attended “Teacher Talk” meetings. Attended planning meeting for Cycle 2 and was involved in the peer teaching with debrief session. Line manager of and mentor of Teacher Educator E.
Teacher Educator C	0.9 lecturer	Attended “Teacher Talk” meetings.
Teacher Educator D	Full-time lecturer	Attended “Teacher Talk” meetings. Attended planning meeting for Cycle 2, though not able to be involved because not teaching on the programme.
Teacher Educator E	Curriculum leader	Attended “Teacher Talk” meetings. Attended planning meeting for Cycle 2 and was involved in the peer teaching with debrief session.
Teacher Educator F	0.5 lecturer	Attended “Teacher Talk” meetings.
Teacher Educator G	0.4 lecturer	Attended “Teacher Talk” meetings.

Table 5.2 provides a chronology of the data collection during Cycle 2.

Table 5.2: Chronology of planning and data collection process during Cycle 2: the first intervention December 2013 – November 2014

Date	Event	Links to RQs	Notes and analysis
10 December 2013	Planning meeting with Teacher Educators B, D and E.	RQ1, 2, 3, 4 and 5	
21 January 2014	Briefing of Teacher Educator E's trainees about study to secure fully informed consent.	RQ1, 2, 3, 4 and 5	
10 February 2014	Planning meeting with Teacher Educators B and E to discuss session based on Loughran and Berry's (2005) example of peer teaching with debrief.	RQ1, 2, 3, 4 and 5	
25 February 2014	Filmed peer teaching with debrief class. Teacher Educator E was in role of teacher and Teacher Educator B was the debriefer.	RQ1 and 2	
	Focus group with Teacher Educator E's trainees.	RQ3 and 4	
5 March 2014	SRI with Teacher Educators B and E.	RQ1, 2, and 5	
30 April 2014	"Teacher Talk" meeting with team. Shared preliminary findings from peer teaching with debrief session.	RQ1, 2, 3, 4 and 5	
16 May 2014	Interview with Teacher Educator E.	RQ1, 2, and 5	
4 June 2014	"Teacher Talk" meeting with team. Built on discussion from meeting on 30 April.	RQ1, 2, 3, 4 and 5	
23 October 2014	Piloted Viewing Frame with Teacher Educator E as part of a session on learning to teach.	RQ1 and 5	A missed opportunity to collect data.

26 November 2014	"Teacher Talk" meeting with team. Viewing Frame shared with the team.	RQ1, 2, 3, 4 and 5	Team agreed to use the Viewing Frame in their teaching.
14 October 2015	"Teacher Talk" team meeting	RQ1, 2, 3, 4 and 5	Teacher Educator B not present.
3 November 2015	Focus group to validate findings from Cycles 1 and 2 of the study at Universities Council for the Education of Teachers conference.	RQ1, 2, 3, 4 and 5	

A reflexive account of the data collection in Cycle 2

To help me answer RQs 1,2,3, 4 and 5, I met with Teacher Educators B, D and E on 10 December 2013 to discuss and plan Cycle 2. Cook (1998, p.102) draws on Elliott (1991) to illustrate the problematic nature "imposed by the apparent neatness of [action research] models" and quotes McNiff when discussing "the messiness of the action research cycle". The start of Cycle 2 was messy because only one team member who was teaching on the CertEd/PGCE was prepared to be filmed: Teacher Educator E, the new team member. Teacher Educator B was happy to be filmed, though was not teaching on the programme, and Teacher Educator D was happy to be filmed, but they were only teaching on the Level 5 Specialist Diploma in Literacy and said: "It's a very tight structure and I'm also a bit anxious about making sure that they are getting value for money, as it were" (Planning meeting, December 2013), so it was agreed they would not be filmed. Teacher D's comment suggests trainees may see themselves as paying customers, not "student as teacher and learner" (Taylor, 2008, p.78). If this is the case this is disappointing as one of the roles of teacher educators is as a researcher, and was an opportunity to model this role to the trainees (Lunenberg et al., 2014), who themselves might become practitioner researchers. A further point to make is Teacher Educator D was teaching the CertEd/PGCE at another college and we agreed this was not appropriate as we were studying the work of teacher educators specifically at this college. This account of messiness helps answer RQ5.

I suggested that an option would be for us to use Loughran and Berry's (2005) model of peer teaching with debrief with Teacher Educator E teaching their trainees and Teacher Educator B de-briefing the use of modelling in the session. Teacher Educator B

responded: “But, in terms of team teaching...well it’s economic considerations, isn’t it?” (Planning meeting, December 2013). I proposed a way forward: a bid to the Consortium to see if they would fund cover for Teacher Educator B to work with Teacher Educator E and myself to plan the session, deliver it with Teacher Educator E and then review it with them and disseminate the findings to the rest of the team. It was agreed that I would submit a bid to the Consortium, Teacher Educator E would set up a meeting with their trainees on 21 January, 2014 so I could meet them, introduce the study and they could have a “cooling-off” period before the session on 25 February, and we would meet again, assuming the trainees were happy to be involved, on 10 February to plan the session.

The meeting with the trainees on 21 January went well and I left the consent forms with them to sign and pass to Teacher Educator E. All consent forms were signed, and on 31 January the Consortium approved funding up to £5,000 to pay for cover costs and all transcription costs associated with the data collection. I informed my participants of the outcome of the bid and sent them a copy of the Loughran and Berry (2005) to read in preparation for discussion when we met on 10 February.

I wanted the teacher educators to own this class, though there were some things I had not anticipated when we met on 10 February. What happened helped me answer RQ5. Teacher Educator B was very keen to know “how it was set up” (Planning meeting, February 2014) by Loughran and Berry. They wanted clear guidelines for them “to have a model for what we are doing” (ibid.). My initial analysis of this was perhaps they lacked confidence about peer teaching – they had not done this before – though I believe they also did not want to expose Teacher Educator E or let me down. We spent a considerable amount of time discussing options, and agreed that Teacher Educator E would initially plan the session so that they owned it. Then they would meet up prior to the class on 25 February to talk through the lesson plan and finalise their plan for how the debrief of the session. There were two other important decisions made: we agreed one of the trainees would film the class, including the debrief, and after a short break Teacher Educators B and D would hold the focus group, thus I was removing myself from the data collection process and minimising reactivity to the filming (Savage, 2016) and hopefully using the recency of the class as a stimulus for the focus group. We discussed the focus group questions used earlier in the study and agreed some revisions. I undertook to send an updated version to the participants before the class. A copy of these questions is in Appendix 16.

The filming on the day, and the focus group, were trouble-free in terms of data collection, though I was on hand in case of problems. I met again with Teacher Educators B and E to do the SRI the following week. There are four events that helped me answer RQ1, 2 and 5 that I would like to reflect on:

1. During the first part of the SRI when we were watching Teacher Educator E teach, I became aware that Teacher Educator B asked to stop the film as well and would then commentate on Teacher Educator E's practice. As I read this now, I realise that this may have appeared to Teacher Educator E as if they were being observed by their manager, though the language of the commentary was very positive.
2. When watching the debrief neither of the teacher educators asked to stop the film and comment until I stopped the film and pointed out that I had noticed this and wanted to check that they had nothing to say. They were both unaware that this had happened, and we agreed that we would re-wind the film and begin watching again. The consequence of this was that we were unable to complete the SRI on the day we had agreed to and had to meet up later to finish the review.
3. During our planning meeting in February 2014, we had agreed that the two teacher educators would meet up prior to the class and run through the session plan and agree the debrief, though it became apparent during the SRI, and in subsequent discussions with Teacher Educators B and D, that this had not happened because of time limitations, what I refer to as a Type 1 time, which Swennen et al. (2008) identified in their study.
4. Teacher Educator B felt that they had done the "debrief incorrectly" (SRI, March 2014). My view was that it had been done differently to the way Loughran and Berry (2005) had approached it and it was a debrief of the session rather than Teacher Educator B modelling how to ask Teacher Educator E questions about their teaching to get inside their pedagogical thinking and decision-making. Loughran and Berry (2005) emphasised how the debrief is carried out is important. They warned against "telling" (p.197) the trainees what they, the teacher educator, had noticed as "this exacerbates *the gap between words and experience* as it reinforces a sense of 'being told what to notice/learn' and therefore further diminishes the possibilities for genuine learning about teaching" (ibid.). This was the first time we had done peer teaching with debrief and perhaps reflected that these two teacher

educators could “only imitate that which is within [their] developmental level” (Vygotsky, 1978, p.34).

After the SRI, I undertook preliminary analysis of the intervention and presented this to the team at a “Teacher Talk” meeting on 30 April 2014. I invited Teacher Educators B and E to share their experience of the intervention and what had been learned from it. An outcome from this was a discussion about how the other teacher educators were using modelling within their practice and the changes they were making in their practice as a result. This helped me answer RQ1. I felt there was more I wanted to learn about the college, so I arranged to meet the team again for more “teacher talk” at the end of their next meeting on 4 June.

The meeting on 4 June focused on working at the college and the impact this had on their use of modelling; here I was seeking to answer research question 2 about the factors affecting their use of modelling and question 5 in terms of their experience of collaboration. There was a rich discussion and we talked about what might be part of Cycle 3 and our second intervention. We discussed five ideas that we could try out:

1. mapping their use of modelling within the curriculum;
2. my doing an introductory session for the first years on learning to teach and modelling;
3. flipping the classroom to create more time for modelling;
4. developing Burstein’s (2009) professor-in-residence model;
5. rotating tutors so trainees got a richer diet of modelling within their programme (“Teacher Talk” meeting, June 2014), though we had agreed before the meeting started that no decision would be made to proceed with an idea until the start of the new academic year and timetables were settled.

Towards the end of the meeting I reflected back to the team how working with them was giving me an insight into their college and their work, and what I have termed “the double complexity” of being an FE-based teacher educator.

Over the summer of 2014, I reflected on my research questions and my data and felt that it had probably reached “saturation” (Morse et al., 2002, p.9) though I needed one last meeting with the team to ask some questions about the impact of the study on their practice. At the same time, I spotted comments in the film of the peer teaching class about

how two of the trainees had not noticed what the teacher educator was doing until it was pointed out to them. I began to wonder how we might enable these “students of teaching to see into” (Loughran, 2007, p.1) and thus make visible their practice as teacher educators. I then remembered the suggestion from Teacher Educator B about creating a viewing frame in our “Teacher Talk” meeting in September 2013. I contacted Teacher Educator B to tell them what I had noticed and that I would like to develop a viewing frame based on their idea and use it in the session with their new trainees on learning to teach and modelling as we had discussed in June; this was agreed. I developed a viewing frame based on Lunenberg et al.’s (2007) four forms of modelling, which would be presented as four vertical columns and horizontal columns which would reflect the activities in the class. I piloted this with a group of 12 trainees in the session on learning to teach and modelling on October 2014, though at that stage I was unsure if I would use it in my doctorate and so did not collect data from the trainees. Although I did not stop the session to give them time to complete it, as planned, one of the trainees said at the end it did not matter because once they had been introduced to the Frame they knew what to look for in my class. I felt I now had something I wanted to share with the team and invite them to use it as part of the study and in the process answer RQs 1, 2, 3, 4 and 5. Somewhat unconsciously my own first-person practice was being nurtured by my involvement in this piece of second-person research (Chandler and Torbert, 2003), something Tina Cook (pers. comm., November 2012), an experienced action researcher, suggested might happen when I presented my plans for the research at the CARN conference in 2012.

On 26 November 2014 we met as a research group for what I believed would be the last time, and I wanted to hear how they were using modelling in their practice and what their experience was of being involved in the study. Teacher Educator F made the point that:

...the key issue of action research is...the improvement and I think that is always problematic in action research...Improvement assumes that it gets better but we need to know what it was in the first place and so we know whether it got better or not (“Teacher Talk”, November 2014).

This is a fair point, though the “fragmented nature of FE” (Convery, pers. comm., 2014) and participants’ willingness to be filmed meant that no one was filmed more than once, so I realised I would need to establish with participants what changes, if any, being involved in this study had made to their use of modelling. At the end of the meeting I had a chance to share my experience of using the Viewing Frame. The feedback was very positive with Teacher Educators C and D indicating they would like to use it, so I sent the whole team

an e-version of the Frame and asked them to let me know what they thought about it. At this stage I did not produce a pro forma for them to formally feed back to me. I believe I had mentally turned off collecting more data and this was an instance of my own lazy thinking impacting on this study. I missed an opportunity here to more fully answer RQs 1, 2, 3, 4 and 5. I have learned from this.

I now concentrated on data analysis to get ready for another validation event at the English Universities' Council for the Education of Teachers (UCET) conference in November 2015 where I was to present the findings to a group of university-based teacher educators involved in ITE partnerships with FECs, though first I wanted to meet the team for one last meeting to share my findings in relation to the research questions.

We met on 14 October 2015 to look at the findings, consider their experience of being involved in the study, discuss their use of interactive white boards (IWBs), which were seemingly only used to display PowerPoint slides, and the Viewing Frame, as none of the participants had been in touch to tell me they had used the Viewing Frame. Whilst Nunkoosing (2005, p.702) states that sometimes participants intentionally hold back information or explanations from researchers and therefore "not knowing is itself an important stance" for a researcher to adopt, I felt I had to ask the participants about what might become sensitive topics. This led to an agreement that the team would use the Viewing Frame and feedback their and their trainees' experiences of using it as part of Cycle 3.

Three validation groups worked with me at the UCET conference to consider my findings in relation to the study's research questions. They raised six points that helped me write up this study, one of which would require me to go back to speak to my participants:

1. I needed to tell readers about where in the programme of study the teacher educator was using the modelling;
2. I needed to tell the reader more about the sending and receiving context of the study;
3. "What we thought would be nice to see being modelled is fallibility, people actually showing their own fallibility, as teachers are also showing themselves as learners" (UCET validation group, November 2015);
4. It was suggested that people's aversion to being filmed was nothing to do with performativity, rather they may not like having someone else in their classroom

watching them, and videoing would be even worse. This is something Teacher Educator A said in the pilot study. This reflects Garbett and Heap's (2010) feelings about having another teacher educator in the room with them;

5. Because this is a study of in-service FEITE and the trainees in the study were not being taught in subject specialist groups, the teacher educators' use of modelling is restricted to "general core practices" (Grossman, 2016);
6. They felt that the level the trainee was studying at would not impact on the use of modelling.

A copy of the transcript and analysis of this validation meeting is in Appendix 17.

The unintended Cycle 3

The seed of Cycle 3 was a comment by Kari Smith, Professor of Teacher Education at the Norwegian University of Technology and Science, at the ATEE conference in August 2015. She said what distinguished AR from action learning (AL) was it made a contribution to new knowledge that addresses national and international contexts. Adopting Morse et al.'s (2002, p.9) "active analytic stance", I wondered what contribution the findings from my AR would make to the existing knowledge base of teacher education. The following day I presented my paper and, as part of it, shared the Viewing Frame I had developed. I received a very positive response from attendees, almost all of whom were from universities in Europe, so the next day I approached purposively five members of the Professional Development of Teacher Educators' Research Development Community (RDC) to enquire if they would use the Viewing Frame with their trainees. My thinking was that the Viewing Frame could be my knowledge contribution to the national and international context; it would also help answer RQs 3 and 4. Those I approached accepted my invitation and thus Cycle 3 began. Table 5.3 introduces the participants in Cycle 3.

Table 5.3: Teacher educators involved in Cycle 3 of the study

Participant	Role	Involvement in this stage of the study
Teacher Educator B	Team leader	Attended “Teacher Talk” meetings. Interviewed about experience of being involved in the study. Completed out of “segment” modelling pro forma.
Teacher Educator C	0.9 lecturer	Attended “Teacher Talk” meetings. Interviewed about experience of being involved in the study. Used Viewing Frame. Completed out of “segment” modelling pro forma.
Teacher Educator D	HE leader for Skills for Life	Attended “Teacher Talk” meetings. Interviewed about experience of being involved in the study. Completed out of “segment” modelling pro forma.
Teacher Educator E	Curriculum leader	Left the college in August 2015. Interviewed about experience of being involved in the study prior to leaving and again in November 2015.
Teacher Educator F	0.5 lecturer	Attended “Teacher Talk” meetings. Interviewed about experience of being involved in the study. Used Viewing Frame.
Teacher Educator G	0.4 lecturer	Attended “Teacher Talk” meetings. Completed out of “segment” modelling pro forma.
Teacher Educator I	Full-time lecturer	University-based teacher educator in England. Used Viewing Frame and provided feedback on it.
Teacher Educator J	Full-time lecturer	University-based teacher educator in Poland. Used Viewing Frame and provided feedback on it.
Teacher Educator K	Full-time lecturer	University-based teacher educator in the Netherlands. Used Viewing Frame and provided feedback on it.
Teacher Educator L	Full-time lecturer	University-based teacher educator in Israel. Used Viewing Frame and provided feedback on it.
Teacher Educator M	Full-time lecturer	FE-based teacher educator, though not at a Consortium college. Used Viewing Frame and provided feedback on it. Interviewed about experience of using Viewing Frame.

Table 5.4 provides a chronology of the data collection process in Cycle 3 of the study.

Table 5.4: Chronology of the data collection process in Cycle 3: the second intervention (August 2015 – August 2016)

Date	Activity	Links to RQs	Notes and analysis
18 August 2015	Interview with Teacher Educator E about their experience of being involved in the study.	RQ1, 2 and RQ 5	They were leaving the College and I wanted to capture their experiences of being involved in the study.
25 August 2015	Presented a paper on my research at Association of Teacher Educators in Europe (ATEE) conference and distributed a copy of the Viewing Frame as part of it.	RQ1, RQ2, RQ3, RQ4, and RQ5	Purposively invited five members of the ATEE Professional Development of Teacher Educators' Research Development Community (RDC) to join my study and use the Viewing Frame in a session and feed back to me on its value to them and their trainees.
30 September 2015	Emailed five ATEE members with copy of the Viewing Frame, suggestions for how to use it, a pro forma for their feedback and an informed consent form.	RQ1, RQ2, RQ3, RQ4, and RQ5	Completed pro forma and consent forms received from Teacher Educators I, J, K, L and M.
28 November 2015	Interview with Teacher Educator E to discuss findings of study.	RQ1, RQ2, RQ3, RQ4, and RQ5	
10 December 2015	Interview with Teacher Educator F about their work as a teacher educator and experience of being involved in the study.	RQ1, 2 and RQ 5	This was my first interview with this teacher educator.
11 December 2015	Interview with Teacher Educator B about their experience of being involved in the study.	RQ 5	

Date	Activity	Links to RQs	Notes and analysis
12 December 2015	Email from Teacher Educator L to explain their response.	RQ1, RQ2, RQ3, RQ4, and RQ5	
19 February 2016	Interview with Teacher Educator C about their experience of being involved in the study.	RQ 5	
14 March 2016	Interview with Teacher Educator D about their experience of being involved in the study.	RQ 5	
7 July 2016	Presented findings of the study to the team of teacher educators at the college. Invited participants to complete out of segment pro forma to confirm teaching behaviours and form of modelling they were using to model them.	RQ1, RQ2, RQ3, RQ4, and RQ5	Invited them to comment on findings.
8 July 2016	Validation of findings event with three FE-based teacher educators undertaking doctoral level study.	RQ1, RQ2, RQ3, RQ4, and RQ5	Invited them to comment on findings.
12 July 2016	Interview with Teacher Educator M about their use of the Viewing Frame.	RQ1, RQ2, RQ3, RQ4, and RQ5	
23 August 2016	Joint presentation on the Viewing Frame, with university-based colleagues involved in the research, to Professional Development of Teacher Educators RDC at ATEE in Eindhoven.	RQ1, RQ2, RQ3, RQ4, and RQ5	Session chaired by Mieke Lunenberg.

Date	Activity	Links to RQs	Notes and analysis
23 August 2016	Presented findings on teacher educators' use of modelling and the factors affecting its use at ATEE in Eindhoven.	RQ1, RQ2, RQ3, RQ4, and RQ5	Invited them to comment on findings.

Reflective account of data collection in Cycle 3

My primary focus in this cycle was to gather feedback on the use of the Viewing Frame, though the comments from the UCET validation event suggested I needed to go back to my participants for some final questions related to RQ5, and I resolved to interview participants individually. Fortuitously, Teacher Educator F, who had not been interviewed as part of the study, agreed to be interviewed this time. To conclude the study, I set up a final meeting with the participants to share the final findings of the study and invite their comments and a final validation event with a group of three FE-based teacher educators, all of whom were in the early stages of doctoral study.

Not all the FE-based teacher educators returned their feedback on the Viewing Frame. I asked them about this and their responses are encapsulated in the following reflection from Teacher Educator D: "I've really not had any time to...sort of plan it" (Interview, March 2016). This highlights the time pressures teacher educators face (Swennen et al., 2008) as they deliver a "factorised curriculum" (Lawy and Tedder, 2009, p.53) and cope with the "frenetic pace of change...and permanent revolution" (Coffield, 2008, p.10) of the sector.

Two of those that did feed-back on the Viewing Frame seem to have misunderstood what I was looking for and this might be explained by the fact that I was communicating with them by email, though a discussion with a European teacher educator at the end of a presentation on the Viewing Frame to the Professional Development of Teacher Educators' RDC at ATEE in August 2016 suggests something else. Three of their staff had been working with other teacher educators at their university and they started the use of it by explaining to them how the Viewing Frame works, implying that not all teacher educators understand its purpose and how to use it. I assumed that teacher educators would immediately see its purpose and value. Black and Wiliam have stated that:

Teachers will not take up attractive sounding ideas, albeit based on extensive research, if these are presented as general principles which leave entirely to them the task of translating them into everyday practice – their lives are too busy and too fragile for this to be possible for all but an outstanding few. What

they need is a variety of living examples of implementation, by teachers with whom they can identify... (Black and Wiliam, 1998, pp.15-16).

This insight has helped me more fully answer RQ5.

The final piece of data collection was related to RQ1 and my desire to get a more complete data set on the teams out of “segment” modelling. I produced a pro forma that listed the teaching behaviours and values they had expressed, in interviews or “Teacher Talk” meetings, or that they modelled in their practice and emailed this to them, asking them to do three things:

1. Delete any teaching behaviours they did not model;
2. Add any teaching behaviours that were not on the list but that they modelled;
3. Indicate which of Lunenberg et al.’s (2007) four forms of modelling they used to do this.

This was designed to minimise the time it would take to complete the pro forma, though Teacher Educator F pointed out: “Some of these are very complex issues that need unpicking in far more detail rather than as a chart” (Email, 25 August 2016). I can see why they are thinking in this way – they want to tell their “story” – though my focus was to answer research question 1 – To what extent do they use modelling in their practice? – and I had used data from interviews and “Teacher Talk” meetings to inform the pro forma they were asked to complete.

I had collected my data and was now ready to analyse it.

Chapter 6: The “story” of the data analysis

McNiff (2014) argues that you cannot use all the data you have collected to tell your “story”: you have to carefully select data and explain these decisions to demonstrate the validity of your claim(s) in relation to your research questions.

Employing a bricolage approach to data analysis

I have used a “bricolage” approach to data analysis to capture the complexity and texture of this topic. Kincheloe (2004a, p.1) proposes that much educational research which claims to be rigorous is actually reductive, and researchers need to be more resourceful and imaginative in their selection of research tools if they are to rigorously capture complexity and texture, an approach he calls “the bricolage”. He adds that the “bricoleur” researcher demonstrates reflexivity and recognises that research is a “power-driven act” (p.2), so they seek to clarify their own “position in the web of reality...and the ways they shape the production and interpretation of knowledge” (ibid.). Bricoleurs inhabit “the domain of complexity” as they seek to interpret the world and bricolage “is grounded on an epistemology of complexity” (ibid.). I have employed three conceptual and analytical frameworks as a “bricolage” to analyse the data and answer the five research questions in this study. Table 6.1 presents how these are employed.

Table 6.1: Research questions and the conceptual frameworks used in analysing the data

	Research question	Conceptual frameworks
1	To what extent do FE-based teacher educators at one FE college use modelling with their trainees on a university-validated in-service teacher education programme?	Lunenberg et al.'s (2007) four forms of modelling and Kemmis et al.'s (2014a) "sayings, doings and relatings", and the practice architectures of the intersubjective spaces.
2	What factors affect the use of modelling by FE-based teacher educators on a university-validated in-service teacher education programme delivered at a college?	Kemmis et al.'s (2014a) ecologies of practice and the associated "sayings, doings, and the practice architectures of the intersubjective spaces.
3	How are trainee teachers at an FE college learning to teach on a university-validated in-service teacher education programme.	Taylor's (2008) four ways of understanding learning to teach.
4	What are trainee teachers' perceptions of their FE-based teacher educators' use of modelling as a teaching method and does it help learn how to teach?	Lunenberg et al.'s (2007) four forms of modelling and Kemmis et al.'s (2014a) "sayings, doings and relatings", and the practice architectures of the intersubjective spaces.
5	What happens when FE-based teacher educators work collaboratively with a university-based teacher educator to improve the "pedagogy of teacher education"?	Kemmis et al.'s (2014a) "sayings, doings and relatings", and the practice architectures of the intersubjective spaces.

Reflexive account of data analysis

When answering the study's research questions, I was alert to the type of data collected and how it might be analysed. Accounts of how the data was analysed can increase the transparency, rigour and credibility of action research (Heikkinen et al., 2012). There were three forms of data in this study:

1. Audio recordings from the interviews, focus groups and "Teacher Talk" meetings;
2. Written materials from the filmed classes and the completed pro-formas;
3. Visual and audio recordings of the filmed classes.

Altrichter et al. (2008, p.124) note that films are “more complete for the purposes of data analysis and discussion” and I certainly found they helped me more fully answer RQ1, though I found them difficult and time-consuming to analyse because they were so data rich.

Transcription is a contested area between those who believe it is the only way to get inside the black box of data and answer research questions, others argue that it is time-consuming and frustrating (McCracken, 1988). All audio recordings were initially transcribed by an experienced transcriber and then they were checked by me for accuracy. I noticed my transcriber was not transcribing the data verbatim, which was essential, and I had to make corrections myself. I asked that all future transcriptions be verbatim, though I still had to correct the transcriptions. Therefore, I changed to another transcriber.

There is a “politics of transcription” (Bucholz, 2000). There are at least four points to consider when transcribing, or in my case checking and correcting a transcription:

1. There are conventions for analysis. Conversational analysis and video interaction analysis are the two that are relevant and appropriate for this study (Savage, 2016);
2. These conventions stipulate how the analysis is done and this has implications for the transcription. For instance, conversation analysis requires the transcriber to capture and record “every last detail of the interaction... and that even the pauses and hesitations are vital to understanding” (Savage, 2016, p.16), and video interaction analysis stipulates that all non-verbal communication and “relatings” (Kemmis et al., 2014b, p.31) are recorded to increase understanding of what is said (Schubert, 2009);
3. What people say and how they say it are often not grammatically correct and there is a tension between presenting what has been said with the grammatical conventions of speech and punctuation (Savage, 2016). Recognising transcription is “an act of interpretation” (Savage, 2016, p.17), I have followed Bucholz’ s (2000, p.1440) advice that “the responsible practice of transcription...requires the transcriber’s cognizance of her or his own role in the creation of the text and the ideological implications of the resultant product”, and have worked with this by faithfully transcribing what has been said and then inserting words, where appropriate, when drawing on this section of the transcription within this thesis.

What was actually said was more important to me than a neat, tidy and grammatically correct transcription, so I have sought not to alter the participants' voices in any way when transcribing the data;

4. It is important to explain to the reader details of the transcription process. For instance, I looked at the Third International Mathematics and Science Study (TIMSS, 1999) before transcribing the films. This suggested steps for transcribing, and I followed this up to a point, though found the best way to transcribe the films was firstly to get the audio element transcribed by my transcriber. I then checked this for accuracy, effectively step 1 in the transcription process. If I spotted something significant then I added a memo to myself (Maxwell, 2013) in the notes and analysis column. Step 2 was to watch the film again to add the non-verbal detail to the transcription and some of the timings – it was simply too much for me to capture all this detail within step 2. At this point, following Kemmis et al.'s (2014a) advice, I identified the different episodes of the class, which breaks a class down into “segments” based on their distinct purpose. Again I added memos to myself within this step although when watching the film, I found myself concentrating on what was said and I had to remind myself to look for non-verbal communication and actions as well. The third step was to go back and add the remaining timings and add further memos to myself, and the fourth and final stage was to watch the film through again with my transcription and add any final observations. This was very time-consuming, though it was a hermeneutically rich process. “I let...the video suggest ideas to me” (Pirie, 1996, p.5) as part of my slow interpretation of the data; a process based on the idea of “meditative reading” (Jamison, 2006, p.61) of *lectio divina*, a monastic tradition for reading divine texts.

Reissman argues that “analysis cannot be easily distinguished from transcription” (Reissman, 1993, p.60), and it was at this stage of checking of the transcription that my data analysis began. I did this in two ways. First, taking advice from Maxwell (2013), I created an additional column for my transcriptions and wrote notes to myself as I checked the transcription as without this “...you may not remember your important insights when you need them” (p.20). These notes were links to literature or an observation of what was said, how it was said, a doing or relating of significance (Kemmis et al., 2014a). Second, I would begin to start identifying potential “a posteriori codes” for the data (Wellington, 2000, p.142) – the “a priori” (ibid.) codes came from existing literature. I used colour highlighters from the computer to distinguish codes, though I would also add coding words such as

“time” to ensure accuracy of analysis. Therefore, I was able to combine data under provisional headings ready “for a final distillation into major themes” (DiCicco-Bloom and Crabtree, 2006, p.318), although in some instances the data overlapped and might have been categorised under more than one theme (Wellington, 2000). I would wait until I had cut up the data and manually manipulated it under a themed heading before finalising its category.

Once the audio and visual data had been transcribed, I began to look more closely at the films to notice the teaching behaviour being modelled and the form of modelling used when doing this. At the start of the SRI and in order to answer RQ1, I asked the teacher educators to tell me what teaching behaviours they intended to model. Then I employed Lunenberg et al.’s (2007) definition of modelling as an “intentionally displaying certain teaching behaviour” (p.589) to identify its use. My interpretation of teaching behaviour included a teaching strategy or professional value (Boyd, 2014, p.58), though it was only included in my analysis of the class if the teacher educator had told me in the SRI that they were going to model it or there was sufficient evidence that the teacher educator had used modelling as a “spontaneous response” (Lunenberg et al., 2007, p.596) to what was happening in the class. I used the SRI and my professional judgement when reaching a decision on this, though my view was that it should only count if one of the explicit forms of modelling was used as implicit modelling would be simply reflection-in-action (Schön, 1983), and what I would call everyday practice. I found it interesting that the teacher educator did not always spot their use of modelling when we were doing the SRI, though I found it difficult too on occasion. If the teacher educator disagreed with my analysis then I drew on Segall’s (2002) notion of secondary text and included the teacher educator’s alternative interpretation within my transcription. Also the frequency of modelling was captured as Lunenberg et al. (2007, p.590) suggest that the “time and degree of exposure...determine the final effects of implicit modelling”.

Kincheloe’s work (2004b, p.83) argues that the act of “interpretation is far more complex than [sic] assumed, far more a product of social forces than admitted”. I employed three strategies to enhance the rigour and honesty of my analysis:

1. I used member checking to ensure the document is a “highly acceptable” analysis of their “professional conversation” (Kvale and Brinkmann, 2009, p.2), to check that the analysis has formulated an overarching commentary not preferencing one

specific perspective over another, and to allow the teacher educators to redact anything from the transcription before it was analysed (Fitzgerald et al., 2013): Teacher Educators B, C, D and E all took advantage of this process;

2. I invited all of the teacher educators to provide a secondary text alongside my interpretation; Teacher Educators C and D did this. An example of this can be seen in Appendix 12 on page pp278-9;
3. I presented my preliminary findings at a number of conferences to get feedback from the wider research community, including action researchers. The conferences were ECER in Istanbul in 2013; CARN in Tromso in 2013 and Gateshead in 2014; RPCE in Oxford in 2014; ATEE in Braga in 2014, Glasgow in 2015 and Eindhoven in 2016. In preparation for the conferences I wrote papers beforehand and the thinking involved in this was also “part of my analysis” (Gibbs 2010, n.p.).

To ensure I fully answered the study’s research questions, I invested time learning how to analyse Kemmis et al.’s (2014a) ecologies of practices, “sayings, doings and relatings”, and the practice architectures of the intersubjective spaces that make these possible. This ensured I analysed the data in the way Kemmis et al. intended. This meant I did the following:

1. Identified the episodes in each class;
2. Recorded details of the “material-economic arrangements and physical set-ups” of the teaching rooms (pp.224-225).
3. Included references to the “cultural-discursive, material-economic and social-political arrangements” (p.225) that might be shaping the “sayings, doings and relatings” (p.31);
4. The dispositions (habitus) of the participants were considered;
5. The relationships that seemed present within the films, allowing me “to be more adept at seeing the world relationally” (p.227) were considered;
6. Engaged in “reflective conversations with the situation” (Schön, 1983, p.295);
7. Aimed to capture what persisted and endured throughout the study; the “externalities”, such as government policy and awarding body requirements, are an “active force” (Coffield, 2014a, p.83) on the “practice landscape” of the college and the “practice tradition” of FEITE;
8. Dialogically engaged “with a range of evidence [including literature] to arrive at my interpretations of how practices are shaped by practice architectures, and

how different practices [at the site] relate to one another in ecologies of practices” (Kemmis et al., 2014a, p.271).

However, I used my judgement when choosing not to present my analysis of the data in the tables of “invention” that Kemmis et al. (2014a) present, though they do this as “merely a prompt ...for making a reading of [the lesson]. It is the analyst who makes the reading of it” (p.227). The reason for my decision is that effective modelling is predicated on the “sayings, doings and relatings” (p.31) of the teacher educator and the “sayings, doings and relatings” (p.31) of the trainee. I felt it essential that the transcription was holistic and once this was done my analysis could isolate the ecologies of practices, and the practice architectures of the intersubjective spaces within it.

Thus far I have been following the first three stages of Wellington’s (2000) six stages of data analysis to answer my research questions: immersing myself in my data; standing back and reflecting on my data; breaking down my data to analyse it and coding it. To conclude my data analysis, I returned to stages four to six of Wellington’s model. I started stage four by synthesising the data and then used an “a priori” (Wellington, 2000, p.142) code or theme as a heading. If there was no existing code or theme, I created an “a posteriori” (ibid.) code or theme for the data. Sometimes I would actually physically cut up the data and put it out on a table and manipulate it around to find a heading where it fitted best. Almost simultaneously I was making links between data and relevant literature, which is the fifth stage. I was now ready to complete the sixth stage: present the data as a set of findings and answer my research questions.

Chapter 7: Claims and evidence

“Data does not give out its own meaning, finding that meaning is the researchers [sic] art. It is in more than bald facts alone” (Cook, 1998, p.107).

This chapter validates my work by “making claims, examining critically the claims against evidence and [relevant literature], involving others in the validation process” (McNiff et al., 2003, p.28). I have organised my claims and evidence in terms of their significance and in relation to their respective research question. This study’s nine main findings/contributions to knowledge are:

1. That effective learning to teach starts with “learning to look” (RQ3, RQ4 and RQ5);
2. The development of a Viewing Frame to enable trainees to “learn to look” (RQ3, RQ4 and RQ5);
3. Effective modelling is a result of the teacher educators’ and trainees’ “sayings, doing and relatings” (RQ2, RQ4);
4. Identification of the factors that shaped the FE-based teacher educators’ use of modelling at this college (RQ2);
5. An analysis of the teaching behaviours modelled by these FE-based teacher educators within a university-validated in-service ITE programme and how they were modelled (RQ1);
6. A close study of how trainees learn how to teach within a university-validated in-service ITE programme (RQ3)
7. A proposal, building on Taylor’s (2008) work, for a new fifth way of learning to teach;
8. A discussion of the contribution of modelling to how trainees’ learn to teach within a university-validated in-service ITE programme (RQ4);
9. An analysis of what happens when teacher educators collaborate to explore modelling (RQ5).

Contribution 1: Effective learning to teach starts with “learning to look”

The principal contribution of this thesis is that effective trainees’ learning to teach should start with them “learning to look”; however, these trainees were not systematically trained to observe their teacher educators and mentors’ practice and therefore not all of them

noticed their teacher educators' use of modelling. For instance, two trainees said in Cycle 2:

"I'd have thought so but I didn't notice it" (Trainee 2 when asked by Teacher Educator B about Teacher Educator E's use of "wait time" in the filmed class, February 2014).

"I didn't notice it until it was pointed out" (Trainee 4 when asked by Teacher Educator B about Teacher Educator E's use of the modal verbs when discussing the transferability of modelling to their own teaching practice in the filmed class, February 2014).

Lortie (1975, p.61) asserted trainees undertake an "apprenticeship of observation" of about 13,000 hours before they leave school at 18. However, ITE programmes seem to assume that trainees know what to look for in their classes. Munby and Russell noticed that trainees, who were watching Russell teach, were not asking as many questions as they had expected and they concluded that:

they [the student teachers] did not know how to record notes, questions, or even what they were observing... Students need specific training for observation and significant periods of time to adjust to the new perspective on what happens in classrooms (Munby and Russell, 1994, pp.88-89).

David Hockney, the British artist, said: "Teaching people to draw is teaching people to look" (Hockney, 2014). Munby et al. (2001, p.897) claim that "the overwhelming evidence of a decade of research on teacher knowledge is that knowledge of teaching is acquired and developed by the personal experience of teaching". My argument is that learning to teach starts with "learning to look" and noticing the "sayings, doings and relatings" of the teacher or teacher educator teaching, and modelling is an important aspect of that process. Trainees can build on this "personal experience of teaching" by developing their personal knowledge of teaching by teaching. This contribution to knowledge helps answer RQs 3, 4, and 5.

Contribution 2: The development of a Viewing Frame to enable trainees to "learn to look"

The second contribution was the development of a Viewing Frame to enable trainees to "learn to look", a copy of which is in Appendix 25. This contribution helps answers RQs 3, 4, and 5. The Viewing Frame comprises a set of vertical boxes, which capture the activities

taking place in a class, and four horizontal columns, which are a series of questions based on the four forms of modelling identified by Lunenberg et al. (2007). For example, the question “What is David doing?” in column 1 seeks to draw attention to any implicit modelling taking place which some trainees do not see. As I designed it, I envisaged the trainees would fill in the boxes as the lesson unfolded and then would review what had happened with their teacher educator during and at the end of the class. I provided two worked examples to help them see what I was looking for from them. The Viewing Frame has been used by teacher educators representing two of the ITE phases in England - secondary and FE - and from primary and secondary phases in Europe. There were nine findings in relation to their experience of using it:

1. The trainees’ observation skills;
2. High cognitive demand;
3. Making links between theory and practice;
4. A concrete tool for learning to teach;
5. Time implications;
6. “Authority of position”;
7. Resistance to the Viewing Frame: content turn vs pedagogical turn;
8. “Turning on ‘the student as teacher and learner’ lens”;
9. A reflective mirror and CPD tool for teacher educators.

Trainees’ observation skills

The following two teacher educators’ voices provide an insight into their trainees’ ability to observe their practices:

“...they still did not know what was expected from them to write. So, the first frames were almost empty. The most difficult were the two last rows as students were not sure what ‘learning to teach’ and ‘modelling’ might include” (Teacher Educator J, Viewing Frame pro forma, April 2016).

“I’m then saying right, can you fill that out now...what teaching methods have I used? Sometimes people would look blankly at me. So then I’d actually have to say right, this is what we’ve done...it’s amazing how people within a class...will watch something, but not think about what the methods are that people are using (Teacher Educator C, Interview, February 2016).

This is a reminder of the need to show new trainees how to observe teaching before asking them to observe it.

High cognitive demand

Taylor (2008, p.78) suggests that wearing the varifocal lenses of “student as teacher and learner” is cognitively demanding and this is reflected in the feedback from this teacher educator: “I felt that the student teachers found this activity very challenging. They were being pushed to a high level of cognitive ability...” (Teacher Educator I, Viewing Frame pro forma, October 2015). The dual demands on trainees, what Russell (1997) calls the “content turn and pedagogical turn”, place stress and considerable pressure on their “cognitive workbench” (Britton, 1985, p.228), which is the working memory’s ability to process and hold on to new ideas. This can lead to disorientation for trainees and an example of how this feels is verbalised in Hogg and Yates’s study:

it’s so intense and so condensed...you forget that it’s not only learning about behavior [sic] management, you’re learning how it’s being modelled ...for me, I keep focusing on the knowledge side, trying to get as much of the knowledge that I can, but then I’m like, oh, there are other elements that I’m meant to be working on as well (Hogg and Yates, 2013, p.320).

Making links between theory and practice

There are mixed messages in the voices of the FE and university-based teacher educators. The link to relevant theory, an important form of modelling (Lunenberg et al., 2007), is dependent on their own trainees’ level of theoretical knowledge.

“I did find column 4 useful because we have covered some learning theories in the previous week, so it was good to apply that learning in this session” (Teacher Educator I, Viewing Frame pro forma, October 2015).

However, even in the last session the students had problems with finding a good theory that relates to the strategy they observe. It seems quite reasonable, as I use different teaching strategies for teaching adults, but the students do not learn about them...We usually discuss with students only the theories that relate to their own teaching context. Hence, it was the most difficult moment in all the sessions (Teacher Educator J, Viewing Frame pro forma, October 2016).

“...it is a very concrete tool for ...establishing a connection with learning theories” (Teacher Educator K, Viewing Frame pro forma, November 2015).

“They said it is very hard to write anything in column 4, because they started their course 10 weeks ago...” (Teacher Educator K’s trainees, Viewing Frame pro forma, November 2015).

The practice-theory gap is evident in some of these voices (Korthagen, 2016), though not all.

A concrete tool for learning to teach

There was positive feedback about the value of the Viewing Frame in terms of how it assists trainees to learn how to teach:

...it is a very concrete tool for making different levels of modelling explicit: it not only asks about direct observations, but also about the use of those behaviours for one’s own practice, alternative behaviours (indicating that there is no “right way” of doing things) and about establishing a connection with learning theories (Teacher Educator K, Viewing Frame pro forma, November 2015).

“They [the trainees] were very engaged with it and were positive in their comments. ” (Teacher Educator I, Viewing Frame pro forma, October 2015). They added: “It develops their observation skills and deepens student teachers’ engagement with teacher educator’s practice” (ibid).

These quotations suggest that the Viewing Frame develops trainees’ observation skills, allowing them to “see into” teacher educators’ practice (Loughran, 2006, p.5) and at the same time consider Lunenberg et al.’s (2007) four forms of modelling. A teacher educator commented on the benefits to their practice:

“I feel [the] introduction of the whole class discussion gave benefits to students’ learning and my own practice” (Teacher Educator J, Viewing Frame pro forma, April 2016).

Time implications

Time is an issue when using the Viewing Frame:

...there were times in the period I used it, so it was maybe a five-week period in total...there was the odd lesson where... we may have only used it once in the session, just because of the sheer volume of information that I was trying to get across...there's a tight timeframe. So it's...a real battle, that, I find (Teacher Educator M, Interview, July 2016).

The instances here are what I call Type 2 time, which is when the demands of the curriculum put pressure on the pedagogical turn of the teacher educator (Russell, 1997) in a class. What I call Type 1 time is when the teacher educator says they do not have the time to plan for the modelling before their class and so it is not part of their teaching. See Swennen et al. (2008) for an example of this. The foundation of the problem is the curriculum. There are two issues that are particularly relevant to teacher educators working in England. The first is what Eraut (1994, p.11) calls the “notoriously overcrowded” curriculum. This is characterised by its competence-based, standardised and regulated approach to initial teacher training (not education) (Kidd, 2013), as it is known in England. Murray (2012, p.15) calls this the “English exception”. Consequently, time to elaborate on a teacher educator’s use of modelling (Murray, 2012) and explore its “complexity...is denied in an ill-fated quest for certainty and uniformity” (Bullough et al., 2003, p.49). Hogg and Yates (2013), who are teacher educators in New Zealand, expressed their feelings of hurrying through classes to ensure all the content was covered, so perhaps it is no longer an “English exception”.

Authority of position

The following comments from Teacher Educators J, K and M, who represent three European nations, are linked to the teacher educators’ “authority of position” (Munby and Russell, 1994, p.92). Throughout their schooling and higher education, future teachers (and teacher educators) are inculcated into believing the person who is at the front of their class is in charge as a result of their “authority of position” and it is not to be challenged. The impact of this is evident in the teacher educators’ behaviours and how their trainees responses.

“My students were not happy hearing they would be going to observe my teaching. After some time, and after the first session they changed” (Teacher Educator J, Viewing Frame pro forma, April 2016).

I struggled to hand the power over, because, because there's such a tight timeframe that we've got with the learners...I feel my job is to ensure that they get as much knowledge...as possible in the, in the easiest way possible. So when I...have tried things that are more enquiry-based stuff and getting them to...go off on their own or whatever and research, I find that losing that control...sometimes means that they go off in a complete tangent and then I feel I've lost time... (Teacher Educator M, Interview, July 2016).

The written feedback from Teacher Educator I, an experienced university-based teacher educator, suggests that using the Viewing Frame may help to reduce the “authority of position” and create a more democratic ITE classroom, one in which the teacher educator and their trainees form their own community of discovery (Coffield and Williamson, 2011, p.10) and learn together:

I think the fact that I was able to be “experimental” in the session through using the frame, helped them to feel they could critique the teacher strategies objectively without worrying about whether I would be offended. It helped to make us all learners together...” (Teacher Educator I, Viewing Frame pro forma, October 2015).

This mirrors Boyd's (2014, p.70) notion of “a layered pedagogy of teacher education” where a teacher educator models being a learner to their trainees, who can then model being a learner to their own pupils/students. This could be particularly powerful for those teaching apprenticeships and vocational subjects.

Resistance to the Viewing Frame: content turn vs pedagogical turn

“Some students thought it was quite distracting, because they were trying to focus on the content of the session rather than on how it was being presented” (Teacher Educator K's trainees, Viewing Frame pro forma, November 2015).

“Sometimes [trainees] did make comments about it being a chore...” (Teacher Educator M, Viewing Frame pro forma, July 2016).

Some trainees seem to want to be passive receipts of knowledge – the method of learning they may have been socialised into at school and university. These may be examples of trainees wanting to get back to the “content turn” (Russell, 1997) they have been socialised into by the education system, though their desires are in conflict with the “pedagogical turn” that helps them learn how to teach.

“Turning on ‘the student as teacher and learner’ lens”

This feedback focuses on “turning on” Taylor’s (2008) “student as teacher and learner” lens.

“The fact that they were having to put themselves in to the teacher’s shoes made them start to articulate the thinking of a teacher – to try and reason why teaching decisions had been made” (Teacher Educator I’s trainees, Viewing Frame pro forma, October 2015).

The impact I observed is huge...mainly when I [compared]...students’ presentations at the beginning of the research and at the last meeting. They were better prepared for teaching, as they considered...more elements while preparing their [micro-teach]...[an] especially [big] difference was in [their] board-use and transitions between tasks. I also saw huge changes in [their use of]... PPT presentations (Teacher Educator J, Viewing Frame pro forma, April 2016).

“One student indicated that the frame helped her become more aware of how the lesson was structured and what the ideas behind this structure might be” (Teacher Educator I’s trainees, Viewing Frame pro forma, October 2015).

Teacher Educator I’s and J’s feedback suggests that the Viewing Frame can turn on the “student as teacher and learner” (Taylor, 2008, p.78) lens. This is high-order thinking, according to Taylor, though not all trainees are able to do it (Boyd, 2014) as can be seen in this observation from Teacher Educator M:

“Some of the trainees didn’t really...get a lot from it...because they tended to write similar things from week to week” (Interview, July 2016).

There are also aspects of Schön’s (1987, p.50) “Hall of Mirrors”, in which participants can reframe their thinking as a result of experiencing something, in Teacher Educator I’s and J’s comments. These comments endorse Loughran’s (2006) view that trainees need to experience something before they can understand it.

A reflective mirror and CPD tool for teacher educators

Teacher Educator K wrote:

It was interesting to read what [the] students had written afterwards, as I asked them to hand in the frame. One student wrote ‘I find Teacher Educator K’s teaching strategy very structured so you know what to expect each lesson.

They are very much an example to me'. This was a wonderful compliment to read (Viewing Frame pro forma, November 2015).

Teacher Educator J reflected:

I personally benefit[ted] from the discussions and reading the completed frames in two ways: the research gave me much reflection on my own teaching..... discussions of the frames became a part of the lesson...What I mean is that...[during] the discussion with the students I explained a lot of my decisions and strategies and we together decide[d] how they might be used in their own teaching. (Teacher Educator J, Viewing Frame pro forma, April 2016).

Teacher Educator M told me:

It allowed me to consider more about how and why I use teaching strategies...I think I've also learnt...to be more aware of...my style and to try and diversify that...to enable the...learners to draw on things that they might be able to use in their context... (Interview, July 2016).

Three of the teacher educators – J, K and M – felt that using the Viewing Frame has given them feedback about their teaching which they can draw on in the future. This suggests that using the Viewing Frame has potential for teacher educators' CPD.

Planned future use

"How I want to use it now is with beginner teacher educators, when they are observing an experienced teacher educator either through watching a video recording or as a live observation, in order to focus on explicit modelling" (Teacher Educator I, Viewing Frame pro forma, October 2015).

This comment suggests that using the Viewing Frame can be part of a new teacher educator's induction and CPD.

Teacher Educator M said:

[I will] build in set time periods within my session, where they can actually pick out themselves...anything that springs to mind, because at that stage, they won't have any knowledge of theory. They might just be able to reflect...on what they already know...I think what I might do is the first session I have with my group, is to film it and then we...[can] watch it back... and they [can] use the Viewing Frame then and maybe again, watch back that lesson, or a subsequent lesson, to see what else [they see] then...so that we can... [make them aware of the] distance they've...travelled in them noticing (Interview, July 2016).

Teacher Educator J stated: "...if I decide to do it again (and I really wish to), I would start with a kind of 'training in observing/noticing'. I think I might use e.g. a film with a lesson and stop in several places to discuss some teacher's behaviour/skills/ideas..." (Viewing Frame pro forma, April 2016).

These suggestions offer useful advice to other teacher educators planning to use the Viewing Frame.

I invited the teacher educators to suggest amendments they would make to the Viewing Frame and received the following suggestions:

"I made the cells slightly bigger so students would have more space to write; I deleted the reference to Lunenberg et al.'s article" (Teacher Educator K, Viewing Frame pro forma, November 2015).

Teacher Educator I advised:

I might not include column 2 in the frame so we could just focus on how activities are underpinned by learning theories. Then another session I might not include column 4 so that we could examine my modelling and critique the suitability of the activities for the learners. Trying to do all these things together was high challenge for the students (Teacher Educator I, Viewing Frame pro forma, October 2015).

Teacher Educator M recommended: "Column 4 might also include the term 'principles' in addition to theories" (Viewing Frame pro forma, July 2016).

These are useful suggestions. My view is that trainees need to start off by noticing their teacher educators' behaviours. Then they can consider their application for their own teaching. Later, and once they have sufficient teaching experience and theoretical knowledge, the teacher educator can start using the columns that requires the trainee to consider pedagogical options and the theory underpinning the behaviours. My advice would be to concentrate on no more than two columns in any class.

Some concluding thoughts on the Viewing Frame

There would seem to be value in teacher educators using the Viewing Frame to develop their trainees' ability to see into their teacher educators' behaviours. I would suggest that teacher educators consider the following options if they wish to use the Viewing Frame with their trainees:

1. Teach trainees how to observe teaching. A starter activity would be to introduce the purpose of the activity to trainees and then use a short clip of either teaching or a trailer or advertisement from television, which can usually be found on YouTube, to develop their observation skills. I would recommend a film of no more than two minutes as it will need to be re-shown at least once. Ask the trainees to watch the clip and write down what they have noticed. Debrief the activity with the trainees and see what has been noticed. Then, in the spirit of John Berger, ask them to "look again" (John Berger: *The Art of Looking*, 2016) at the clip and see what else they can add to their list. This can then lead into discussion about what they have so far noticed in the teaching and one way they will learn how to teach is by observing teaching. This could be linked to relevant literature on learning to teach.
2. Once trainees have these skills the Viewing Frame can be introduced. Initially, trainees might concentrate on the teaching behaviours observed and then start thinking about how they might apply those teaching behaviours in their own teaching. Eventually, after they have sufficient teaching experience and theoretical knowledge, they can consider the columns about the pedagogical decision-making and the theories underpinning the observed practice. It seems trainees can only cope with two columns at any one time and then only once they are confident in noticing teaching behaviours.
3. A copy of the lesson plan can be used in conjunction with the Viewing Frame. This is useful for trainees to watch how plans and actual actions differ during a class.
4. The Viewing Frame might be considered to be a scaffold for helping trainees develop their observation skills. Once they are competent and confident using

the Viewing Frame they can stop filling it in and concentrate on engaging in discussions about the teaching.

Contribution 3: Effective modelling is a result of teacher educators' and trainees' "sayings, doings and relatings and how they "hang together"

The third key contribution is what underpins the successful modelling. Hogg and Yates (2013, p.324) suggested the "effectiveness of modeling [sic] relates to both what the teacher educators and the student teachers do." My claim in answering research questions 1, 2, 3 and 4 is that it is much more than what they "do"; it is a result of how teacher educators' "sayings, doings and relatings" and trainees' "sayings, doings and relatings...hang together" (Kemmis et al, 2014a p.31).

To embed modelling into a programme requires teacher educators to provide time for trainees to digest the new strategies that have been modelled and then more time to practice them in a safe space, as Hogg and Yates suggest, before they adopt them into their teaching. Mieke Lunenberg, an internationally-renowned teacher educator and authority on learning to teach and modelling, chaired a session I led at ATEE on the development and application of the Viewing Frame, emailed me her thoughts on it. Whilst her observations are about the Viewing Frame, she also reinforces in the second sentence my claim that effective modelling requires teacher educators and trainees to work together to explore its use; its "sayings, doings and relatings":

What your work shows to me (and this is confirmed by other studies) is that teachers (and teacher educators) "don't notice" if we don't offer them some help. Therefore, I feel that the Viewing Frame can be very helpful, because on one hand it stimulates teacher educators to make conscious decisions about their modelling, and about how they plan to explicate and underpin what they do, and on the other hand it helps student teachers to notice. The Viewing Frame offers a practical format for what we call MEUP: Modelling, Explication, Underpinning, (translation to the) Practice of students. (Pers. comm., September 2016).

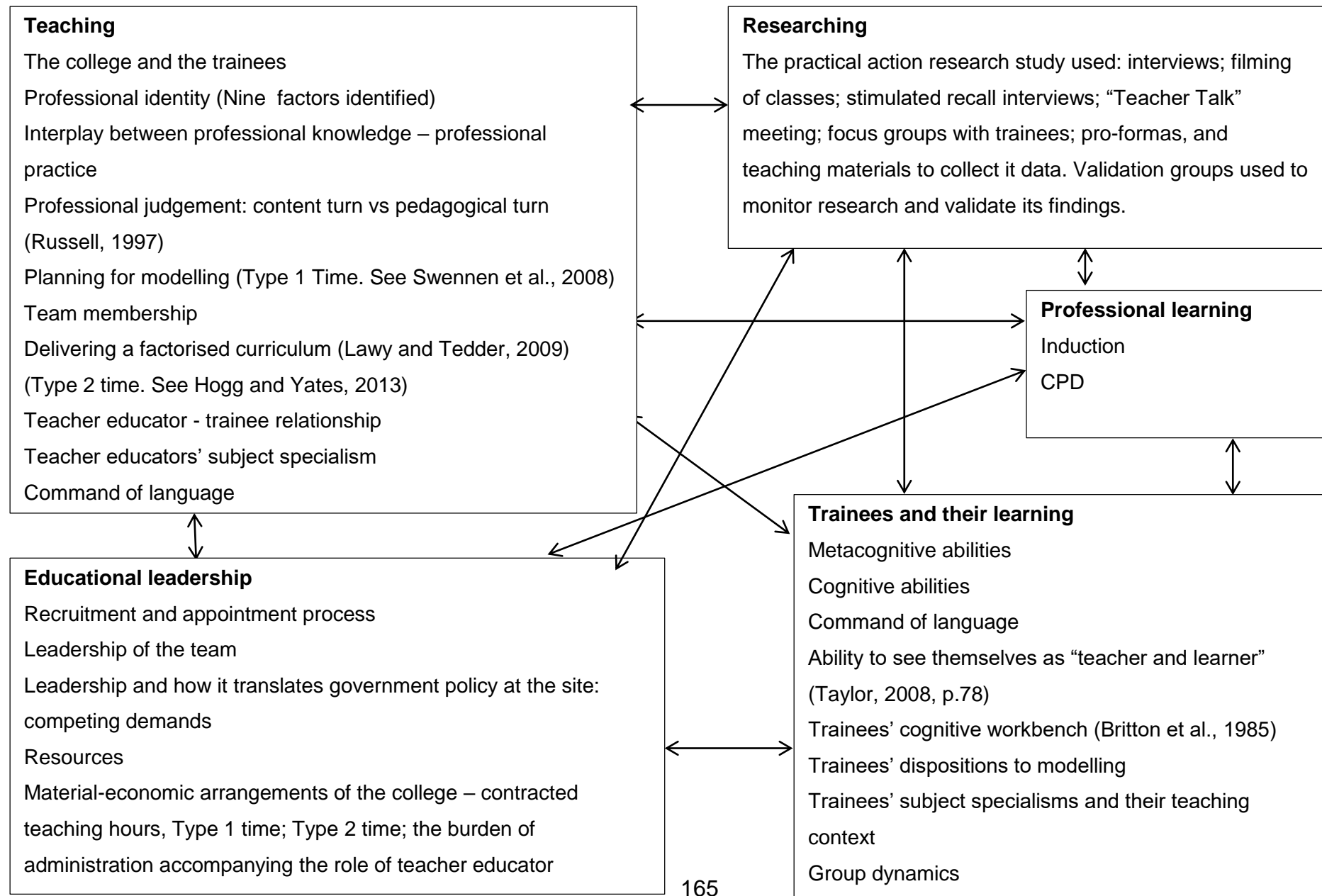
The "elusiveness" of modelling (Hogg and Yates, 2013, p.324) is thus understandable because of its complexity, though it is not insurmountable if you understand its anatomy, i.e. its constituent parts are the "sayings, doings and relatings" of both the teacher educator and trainee and how they "hang together". That is, are they sustaining or suffocating the modelling. This leads to my third finding: what are the factors that affect

FE-based teacher educators' use of modelling within a university-validated in-service ITE programme.

Contribution 4: The identification of the factors shaping these FE-based teacher educators' use of modelling at the college

Kemmis et al.'s (2014a) concepts of ecologies of practices and practice architecture are employed to answer my second research question. A summary of the findings is presented in Figure 7.1.

Figure 7.1: The ecologies of practices shaping teacher educators' use of modelling at the college



This study identified 25 factors that come together to sustain or suffocate the use of modelling by teacher educators. These factors can be bundled together under one of the four practices of Kemmis et al.'s ecologies of practices, though in some instances they could sit under more than one heading. For instance, recruitment and appointment could sit within educational leadership and professional learning. These findings are presented under four of the ecologies of practices:

1. Teaching;
2. Professional learning;
3. Educational leadership;
4. Trainees and their learning;

Teaching

Teacher educators' teaching is shaped by 11 factors:

1. The college and the trainees;
2. Teacher educators' professional judgement and how they negotiate the content turn vs pedagogical turn (Russell, 1997);
3. How they plan for modelling within their teaching – Type 1 time (see Swennen et al., 2008);
4. Their professional identity – there were nine sub-themes identified with this factor;
5. The interplay between their professional knowledge and professional practice;
6. Team membership;
7. The experience of delivering “a factorised curriculum” (Lawy and Tedder, 2009, p.53) and its impact on time to use modelling in class – Type 2 time (see Hogg and Yates, 2013);
8. The teacher educator – trainee relationship (Hattie, 2009);
9. The teacher educators' subject specialisms;
10. The teacher educators' use of and command of language.

The college and the trainees

Murray and Male (2005, p.126) would describe the teacher educators in this study as “second order practitioners... in a first-order setting”, i.e. teacher educators teaching in a college. The conditions at the college – teaching hours, resources and teaching spaces, for instance – are discussed extensively under educational leadership. Another dimension

is that they are teaching in-service trainees from a range of subject specialisms (Crawley, 2014) and any modelling may not necessarily be congruent with the trainees' own teaching (Swennen et al., 2008), i.e. the trainee may not be able to apply what is being modelled by the teacher educator to their own teaching because it does not translate to their practice.

For instance, Teacher F (Team meeting, September 2013) said:

when we are working with trainees it is not really a model of how they can be when they confront disruptive...classes...us talking about it is like a second level, is not like an experiential thing of being in that class with those horrible and difficult people...So the whole idea of modelling – there is a whole problem there like the difference between what we are doing actually when we are having facilitated discussion.

Teacher Educator C (Team meeting, September 2013) provides another example of this:

Like the hairdressers that you teach often teach perhaps only one or two people or perhaps one-to-one in a salon and they find it sometimes very difficult, despite our best efforts, to model different teaching styles, to see how a lot of what we do relates to them.

Teacher Educator E pointed out in a team meeting (June 2014) that teacher educators:

don't really practice what you are preaching because you are not in there and it's all very well...suggesting ways of managing behaviour when you are sat in your tidy teacher education sphere...you run the risk of being out of touch with what 16 and 17 year olds are presenting.

Burstein's (2009) professor-in-residence model would be one way to address this issue of congruence and the mentor is best placed to support them with this.

The professional identity of these teacher educators

...identity is not just something that comes from within because it also can be shaped by the way in which the organisation functions...and how teacher education...and CPD are actually positioned within the organisation and that goes back to the positioning of modelling within teacher education as well and it will all influence how teacher educators practise it and also how the trainees actually see that (Group E, Validation group, January 2014).

The study has given me an insight into the world of the FE-based teacher educators in the study: the "quiet life behind the face" (Father Bede, Pers. comm., July 2008). There are nine sub-themes that may shape their identity:

1. Teaching colleagues;
2. Disposition to being filmed;

3. High expectations of themselves;
4. Ability to manage any feeling of vulnerability;
5. Transition from teacher to teacher educator;
6. The college and performativity;
7. Personal values
8. Previous teaching
9. Embracing modelling.

Teaching colleagues

Teacher B (Interview, March 2013) taught some colleagues who were also their friends and they described this as “difficult”. They added:

...it's a big responsibility... What I found hardest to overcome was something that was quite separate from me which was the fact that a lot of people are mandated to come – if they are colleagues they are mandated – and you feel that you are culpable (Teacher B in interview, April 2013).

Teacher D (Interview, April 2013) also seems to have felt uncomfortable when teaching colleagues:

...that can be difficult in terms of boundaries and in terms of... maybe privacy and stuff like that...I think it's fine to be in the same organisation but it does make it more problematic if you are...in the same room... it can always be a bit uncomfortable sometimes.

These two quotations seem to support the argument put forward by Boyd (2014) that teaching colleagues may affect teacher educators' practice.

Disposition to being filmed

Teacher Educators F and G chose not to be filmed. This is not unusual amongst teacher educators. For instance, Teacher Educator A said: “I'm quite happy now talking to you about all of this, but I don't want to watch myself teach...” (SRI pilot study, June 2012).

The UCET validation group (November, 2015) reiterated the point made by Teacher Educator A, adding:

...we wondered if there was maybe more to it that had nothing to do with either performativity or professional identity, it's just that even in the friendliest context, about having something and someone in your classroom, where there's a video

recorder and whether that was...a factor that maybe needed to be considered a bit more.

Researchers of teacher educators' practice need to be mindful of Segall's (2002, p.171) point that not every teacher educator "would relish the idea of having their practice open to external, critical scrutiny".

High expectations of themselves

Teacher Educator C mentioned: "I've been rewriting all of my materials and it's simply because...I'm finding that whatever I've done the previous year's not good enough" (SRI, February 2013). It is unclear whether this comes from within or is a product of the performative environment prevalent in FECs. This focus on content is likely to impact on their use of the "pedagogical turn" (Russell, 1997) and modelling, which is part of it.

Managing feelings of vulnerability

Modelling is predicated on teacher educators being "prepared to show [their] own vulnerabilities" (Lunenberg et al., 2007, p.590), and it is evident that a tension exists here (Loughran and Berry, 2005) in the words of Teacher Educator E when I asked them about how doing it makes them feel: "I'm okay with it, yeah. You do make yourself very vulnerable. You are giving a lot of yourself and who you are" (Interview, May 2014). Teacher Educator F (Interview, December 2015), when asked about what they find difficult about modelling said: "...how open or not I should be about...my own weaknesses, my own...fears, I suppose...How much you reveal about yourself to people is...interesting, we have debated that in our staffroom..." Perhaps the performative environment adds to this feeling of vulnerability.

Transition from teacher to teacher educator

Eliahoo (2014, p.74), drawing on Clemans et al. (2010), discusses the transition from teacher to teacher educator, describing it as "not straightforward, but complex and messy; dilemmas were not necessarily resolved, but managed; and moving between identities was the significant learning experience (2010, p.225)". This seems to reflect Teacher Educator E's experience who became a teacher educator in September 2013: "...I came from teaching 16 to 19 year olds, to adults...and that actually was a huge challenge for me" (Interview, August 2015). Teacher Educator B, the team leader, also found the transition challenging and stated: "...nothing quite prepares you for the complexity of it" (Interview, April 2013).

The college, performativity and its impact on the “practice tradition” (Kemmis et al., 2014a, p.4)

Teacher Educator E (Interview, August 2015) has worked as a teacher educator in FE and HE and commented that “just in terms of conduct and projection, teacher educators in HE...don’t seem to be so governed by fear... you could see the frustration of teacher educators that were FE-based...” This seems another instance of the impact of performativity.

Personal values

Teacher Educator F (Interview, December 2015) told me:

I don’t do games actually...I won’t model that in my classrooms, mainly because...I just have certain worries about them...I try to create a very adult environment, so I really do not want to infantilise people...because I’m so focused on...individual adult development and their psychological and emotional development...

This seems to be an instance of values shaping practice.

Previous teaching

Teacher Educator B identified “areas that I haven’t had experience in” as ones they were least confident modelling, continuing: “I haven’t had a great deal of experience in managing challenging behaviour or working with trainees who have specific learning differences” (Interview, April 2013). Teacher Educator F (Interview, December 2015) spoke assuredly about their previous experience and how they could use that when working with their trainees: “I could refer to such a vast range of experiences... most people who come in front of me; I’ve usually got some experience of their vocational area”. Teacher Educator F also felt less confident dealing with “new systems and... the ICT actually...” (Interview, December 2015).

These two instances show that teacher educators’ “authority of experience” (Munby and Russell, 1994), knowledge and dispositions (Loughran and Berry, 2005) affect their use of modelling with their trainees and their trainees’ modelling diet.

Embracing modelling

Teacher educators' dispositions are important, though even then modelling remains complicated (Loughran and Berry, 2005, p.194). Teacher Educator C (Interview, February 2016) embraced modelling within their practice:

...I do actually direct a lot of my energy towards...trying to model good practice within the classroom now... I've written a scheme of work whereby...it's like a metathinking built into the scheme of work so that the students can see why I've planned the lessons in the way that I've planned them.

Teacher Educator C seems to be providing opportunities "for [their] students... [to] see into [their] practice" (Loughran, 2007, p.1).

This concludes the discussion of the nine sub-themes shaping identity, I am now continuing with the fifth of the factors shaping teacher educators' teaching.

Professional knowledge (teaching shaping trainees' learning)

Loughran (2006, p.44) adds that at the heart of how trainees learn how to teach is "the relationship between [teacher educators'] professional knowledge and professional practice...". Cochran-Smith and Lytle (1999 cited by Loughran, 2006) suggest that teacher educators need to possess three forms of knowledge: knowledge-for-practice, knowledge-in-practice and knowledge-of-practice.

Knowledge-for-practice

Knowledge-for-practice is "formal knowledge...or the general theories about teaching" (Cochran-Smith and Lytle, 1999, p.254). Teacher Educator D told me: "I need to build up my theoretical knowledge of the generic teacher training sort of theory stuff" (Interview, April 2013). Three years later I asked Teacher Educator D about the development of their theoretical knowledge during the study and they responded: "...it's not exactly comfortable, but I feel more...that I've got that at my disposal..." (Interview, March 2016). They seem more confident now, though there still seems to be an opportunity for some CPD, especially when this teacher educator does not connect their exemplary behaviour to theory (Lunenberg et al., 2007).

Teacher Educator F (Interview, 2015) identified their knowledge of teaching theory as the aspect of their practice they were least confident about when they started as a teacher

educator in 2007: “I wasn’t familiar really with much of the theory of...teaching...Although I had heard Geoff Petty speak several times...I didn’t know really...the whole kind of theoretical framework in any way...”

Likewise, Teacher Educator C said when they started being a teacher educator: “...the difficult thing was the pedagogical knowledge and that is something that only comes with time and application, and I’m still learning... pedagogical knowledge...” (Interview, February 2013).

A year later Teacher Educator C, when discussing theory, said:

I felt confident about that [in February 2013]. I have something to say about the level issue having taught on the M level this year and that makes me aware, as the main tutor of M level, actually I need to know more...you are suddenly aware of where your deficiencies might be and how you need to raise your game again (“Teacher Talk” meeting, April 2014).

Teacher Educator G acknowledged this was something they were least confident about as well during a “Teacher Talk” meeting in April 2014. A teacher educator’s knowledge for practice has an impact on their ability to theorise their modelling, Lunenberg et al.’s (2007) fourth form of modelling, and CPD may be needed to support them with this aspect of their practice.

Knowledge-in-practice

This is also known as “knowledge in action...in teachers’ [educators’] narrative accounts of their practice” (Cochran-Smith and Lytle, 1999, p.262). What Lunenberg and Korthagen (2009) would call interchangeably phronesis, practical wisdom or personal theory with a small “t”.

Teacher Educator D adds an illuminating perspective:

If you’d asked me this before I would probably have said that Year 1 is all about the technical stuff and you can model that. Again, the technical side of it lends itself to overt modelling, doesn’t it? But I think I’ve realised that you can also model curriculum and professionalism because you are talking about boundaries and we can talk about what I do or don’t do (SRI, March 2013).

This assumption about modelling only being suitable in Year 1 reflects Boyd’s (2014) finding from his study with FE-based teacher educators.

They added: “I suppose...the kind of routinised aspects...the structure of the session...the way that you give directions and ask questions...the things that are subconscious a lot of the time...are quite easy to model” (ibid).

Teacher Educator B, having experienced the peer teaching with debrief, reflected:

...I would say...that I think that metacommentary should – and this ties in with the point about the Viewing Frame – it should occur coterminously with the lesson at really key points and we decided that we wouldn't do that. Teacher Educator E was concerned that it would interrupt too much. But to try it differently in that way when it is still fresh in their minds would be quite interesting (SRI, March 2014).

Vygotsky (1978) argued that we work within our zone of proximal development, so teacher educators' knowledge and understanding of modelling translates into their practice. Two of the teacher educators said they were aware of modelling at the start of the study, though their involvement has meant that they know more about it now and are more thoughtful about its application: “When you first did that lecture on the idea of modelling, it set the ball rolling in my head...Actually I am now thinking all the time, how I am modelling? And that was something I wasn't doing before...” (Teacher Educator C, Interview, February 2013).

Teacher F (Interview, December 2015) commented:

I was aware of modelling and I was interested in modelling and I felt a lot that modelling was important...I suppose I wasn't aware of any of the technical aspects of it or the theoretical aspect of it...to be honest with you...Now...I'm more conscious... that what I'm doing is actually affecting everybody in the room...when I act in a certain way, that everybody is looking to me as the model teacher...

I then asked them what “sustains” (Kemmis et al., 2014a, p.50) their use of modelling and they said: “I suppose the fact that we are in this study and...we have this common language between us in the staffroom about it”. Here the “sayings, doings and relatings” (p.31) of this teacher educators highlights the practice architectures present and enabling their dialogue.

On the other hand, the team leader was more aware of modelling at the start of the study, though their involvement in the research seems to have expanded how they think about it:

I'd done some reading around it, realised it's important...and then attending the trainers' course as well, although it [modelling] wasn't made explicit in the course...so being part of the research has given me an insight into other teacher educators' practices and that actually it's not a consistent thing...I know that we don't do it as much as we should, explicitly...and I've understood that a lot of it is implicit...I'm aware of some of the strategies that we can use...I've read some more recent research on it...(Teacher Educator B, Interview, December 2015).

These findings would seem to suggest an introduction to modelling is an important element when inducting new teacher educators, it may also be area for development for existing teacher educators. These findings mirror those in Lunenberg et al. (2007).

Knowledge-of-practice

At the heart of knowledge-of-practice for these teacher educators was “making their classrooms [at their FE college] sites of inquiry...to construct knowledge” (Cochran-Smith and Lytle, 1999, p.273). The findings, conclusions and recommendations from this study will make the contribution to knowledge of these FE-based teacher educators' practices.

Professional practice (aka pedagogy of teacher education skills) (teaching shaping trainees' learning)

There is some evidence from the “sayings, doings and relatings” (Kemmis et al., 2014a, p.31) of the filmed classes that the teacher educators in this study think aloud (Loughran, 1996, p.17) or commentate on their teaching in classes, and this is backed up by their “sayings” in interviews with them. Teacher Educator C (“Teacher Talk” meeting, September 2013) said:

...I try to be very careful to point out that I'm not showing them the only way to do something and I'm not the perfect tutor because there is the fear...when you are discussing modelling that they might be thinking that you are showing them this is how you do it and you need to explain that it is more complicated than that.

Teacher educators' ability to articulate this potentially tacit and implicit aspect of their practice is at the heart of modelling (Swennen et al., 2008). Teacher Educator C's “sayings” also linked to Munby and Russell's (1994, p.92) argument that teacher educators need to share their practice with trainees if the authorities of “reason...and position are to be removed from the teacher education classroom”.

Teacher educators articulating their thinking as part of a class is not something that comes naturally (Swennen et al., 2008) and it may be difficult to do, according to Eraut (1995, p.18), if the “time available for thinking” is diminished because of the situation. Teacher Educator B’s “sayings” highlights the tacit nature of some of their practice: “Sometimes you might know...that something has worked but may not quite be able to articulate and frame that in any specific way or attach it to any professional framework” (Teacher Educator B, Planning meeting for Cycle 2, December 2013). This seems to be an example of doing, not saying nor relating (Kemmis et al., 2014a).

The “sayings” of teacher educators’ “self-conscious narrative”, as Wood and Geddis (1999, p.107) called it, are important for trainees if they are to get inside their teacher educators’ pedagogical thinking, “doings and relatings” (Kemmis et al., 2014a, p.31). Teacher Educator F (Interview, December 2015), when asked if they provide a commentary on their teaching to their trainees, stated: “Sometimes I do use that, but generally I’m not using that particularly at the moment, but I have used that in the past”. This suggests it is present but not consistent in their practice.

Teacher Educator C (Interview, February 2016) explained how professional judgement was important when choosing between implicit and explicit modelling:

...the other thing is that the thing between implicit explicit links together, so whether something is explicit is over a period of time. So there might be one interaction that you look at, where you think that’s implicit or that’s explicit, but... you have to choose what you’re going to model on a particular day and you have to reflect-in-action as well and on-action. You might plan to model something, but you get into the lesson and you realise actually you should be focusing in on something different... It’s about us actually becoming effective enough to know when to model and in...which situations, you know, and to have the confidence to know that whoever comes into our classrooms, we can share our thinking (ibid.).

Another factor that seemed important for Teacher Educator D was the congruence of their practice for their trainees:

I also think...a lot of our learners are in environments where...not in a million years will they ever have an interactive whiteboard. So if we base our practice around something with which they can’t have any access, then actually that’s a very negative form of modelling. So we do have to be aware of the fact that a lot of learners may have, at best, a very small whiteboard and some pens and...I feel that it’s my...duty almost to show them what you can do with very

little, as much as what you can do with very much” (Teacher D, Team meeting, October 2015).

Finally, it is important to recognise that teacher educators find explicit modelling can disrupt the flow of a class:

...I don't necessarily feel like I want to be interrupting the kind of flow all the time, to sort of say “oh now let's reflect on that”. But maybe if we have a framework [the Viewing Frame] that the learners are using, it's almost like as part of their reflection, then they would be doing that automatically... (Teacher D, Interview, March 2016).

This sentiment was echoed at the UCET validation event: “...by interrupting the sessions, to say ‘oh how would you, how would you use that?’ well you've got your own aims for that session, to get through. So perhaps you can't do that all the time” (Group A, Focus group, UCET validation event, November 2015).

Professional judgement: Content turn vs pedagogical turn (teaching shaping trainees' learning)

Russell (1997, p.44) argues that “learning to teach is a two-step process”. The first step, the “content turn”, comes naturally to teacher educators; the “pedagogical turn”, which is the second step, is less well known amongst teacher educators. What I have been interested in is how these FE-based teacher educators combine these two steps in their teaching.

Teacher D (SRI, March 2013) suggested that the “content turn” is very much at the forefront of their mind:

What usually happens is that the curriculum is fairly content driven rather than process driven...I think I'm probably a little bit like them – a bit anxiously focused on the thing that they've got to achieve...and that was sort of stopping me from taking it [modelling] further.

Teacher Educator C provides a different insight into how they see the “content turn”:

...what I'm still trying to work out in my own head is where that balance lies, where that explicit balance lies because in Year 1 there is just so much to get through, there is so much to get through...I could spend 18 months happily doing Year 1 (Interview, February 2013).

The final comment reflects Eraut's (1994, p.11) assessment that the ITE curriculum is "notoriously overcrowded". Later, at a "Teacher Talk" team meeting, they discussed how they plan their teaching and balance the content and pedagogical turns: "Perhaps you do approach the content first but then you are thinking 'how do I teach this?' That's the way it works for me" (Team meeting, April 2014). There was no mention in their "sayings" of the pedagogy of teacher education.

On the other hand, Teacher Educator B seems to combine the content and pedagogical turn:

I do always think of how can they use this in their own practice? And that was something that another teacher educator and I talked long and hard about when we first started working together. How can this be useful for them? So, yeah, that metapedagogical aspect is a key thing in planning; it's a strategy (Interview, March 2013).

When asked about planning their teacher education classes, Teacher E (Interview, May 2014) explained: "It's about: what am I teaching this week and who am I teaching it to and how can I use their backgrounds and something that they can relate to inform what I'm going to deliver?" There was no mention there of pedagogy of teacher education, though it seems implicit in the "backgrounds and something that they can relate to" element of what they said.

Another factor determining teacher educators' approaches is a change in their teaching timetable. For instance, when teacher educators pick up new classes they have to concentrate on new content at the expense of the pedagogical turn (Teacher Educator D, SRI, March 2013). Another similar example would be of a new teacher educator teaching the content for the first time. Teacher Educator E spoke about:

reading up [on theory] perhaps one stage ahead and because it was so fresh and new to you it was there and open to discussion. With the pace of everything it was at times 'gosh I'm trying to get my head around this and I've got this to do and I know which one I want to do but there are other things I have to do as well'" (Interview, May 2014).

Professional judgement lies at the heart of teacher educators' practice and they are aware that they are constantly negotiating the competing demands of content versus the pedagogy of teacher education. For example, Teacher Educator C highlighted the

dilemmas they negotiate in a class: “I could have said, ‘Why have I done that? But there are so many different points within what you could have... It’s very difficult...It’s professional judgement about which bits to do it with’...It’s very difficult to get the balance right” (SRI, February 2013).

In “Teacher Talk” meetings I have frequently come back to the question of how they plan for modelling in their teaching. Teacher Educator D (Team meeting, June 2014) observed: “...some of the challenge of modelling is that sometimes you are not able to put so much attention into the how of what you’re doing because you are thinking more about the what...” The content seems to dominate again. Teacher Educator F, when asked about balancing pedagogy of teacher education with content, stated: “I don’t think I consciously make...those sort of decisions, so I just try to put the content over” (Interview, December 2015). These two accounts appear a consequence of the ITE curriculum becoming “factorised to a set of standards and constructed as a programme of strictly controlled and managed teacher training, with an emphasis on assessment, measurement and accountability” (Lawy and Tedder, 2009, p.53).

Also, sometimes the teacher educators may not see the significance of their practice and the opportunity to model it offers to trainees (Lunenberg et al., 2007). For instance, Teacher Educator E reflected: “There are things that you’ve picked up on that I have just taken for granted or I don’t think they are worthy of comment” (SRI, March 2014). This saying suggests that they may not always articulate their knowledge-in-practice (Cochran-Smith and Lytle, 1999).

Kidd (2013) suggests that the presence of accountability and performativity in FE and ITE shape teacher educators’ practices and this seems evident here in their “sayings, doings and relatings” (Kemmis et al., 2014a, p.31).

Planning for modelling (teaching shaping trainees’ learning)

As part of their “doings”, teacher educators may pre-plan their use of modelling or it may be a “spontaneous response” to what is happening or has happened within a class (Lunenberg et al., 2007, p.596). Teacher Educator C seems to recognise these options are open to them and sought to combine the two in their practice: “...what I am going to get better at doing is that intuitive, knowing when to do it intuitively. Also I also want to get better at the planning” (Interview, February 2013).

Teacher Educator D (Interview, April 2013) adopts a different approach:

I've come to plan more broadly because I've realised that sits more comfortably with the way that I think... so I don't necessarily have individual session plans. Looking at this, I'd say that any modelling is reflection in action rather than proactively planning it into the session.

This seems an example of “spontaneous response” modelling (Lunenberg et al., 2007).

Being a member of this team (teaching shaping teaching)

Two contributions to the literature are relevant here. First, Loughran and Berry (2005, p.194) advise that “...even though it [modelling] may be desirable, it is complex and difficult to do and is particularly difficult to develop alone”. Second, Korthagen (2001, p.8) suggested that “...there is no culture in which it is common for teacher education staff to collaboratively work on the question of how to improve the pedagogy of teacher education”. Therefore, I was interested in how these teacher educators worked together and in particular how they engaged with the study as a team, some of which is more extensively discussed within the section on what happens when teacher educators work together to explore the pedagogy of teacher education. I was particularly interested in the “sayings, doings and relatings” of this team and whether these suffocated or sustained their use of modelling.

Teacher Educator C provides an insider's view of the team, suggesting a trusting, harmonious environment that nurtures collaborative working:

...Teacher Educator F is a wonderful individual...they are very clever...If you have a conversation with them they can see so many different angles...to have contact with...someone like that is amazing... Teacher Educator B, who is the model of perfectionism and brilliance...and trust and belief and then I've got Teacher Educator D, who is more a model of practicality and relationship building...I think one thing I've learned more about is that my sustainability in this sector relies more upon me...building relationships with other teacher educators... (Interview, February 2016).

One of the factors that seems to have contributed to this is that this team has worked and grown together since 2012: “...So we've had the last sort of five years really to kind of get to know each other and to sort of gel and to develop...our collaboration and our sort of trust... that continues to be a source of kind of real strength...” (Teacher Educator D,

Interview, March 2016). The “relatings” aspect of the practice architecture is particularly evident here.

One of the questions I asked was about the type of meetings they have and what they do in those meetings. Teacher Educator C told me:

Well we share ideas at meetings...Teacher Educator B...often acts as a role model in terms of disseminating knowledge...we talk about some of the different ways that we teach and I think we share our practice but I think the majority of it is through looking at each other's materials. I do talk to them but we are all time limited (Interview, February 2013).

Teacher Educator B elaborated on this: “But the time we get to spend together is slightly restricted sometimes cos we can't have as many meetings as we'd like”. Kemmis et al.'s (2014a) physical space-time arrangement seems significant here in terms of their time to meet and discuss modelling. The opportunity to meet and discuss teaching informally was limited for one teacher educator because of the physical space arrangements at the college (Kemmis et al., *ibid.*). Teacher Educator E said: “So I think, physically, we are situated in two different rooms, which has its drawbacks as well because no one is going to make the journey to come and see you unless they need something specifically...it's been a bit isolating in that sense and I don't know if it's because of where the rooms are” (Interview, May 2014).

One of the final areas I explored with the team was how they worked together. During the study there were normally at least two people teaching the same modules. Therefore I asked whether there was any joint planning of sessions. Teacher Educator D's response suggested that working together ended with sharing materials: “We kind of share stuff but we don't in terms of actually planning a session” (Interview, April 2013). Joint planning is something they could explore further.

I have asked these teacher educators if, as a team, they planned their use of modelling across the programme to ensure trainees' experience “a balanced diet” of modelled teaching behaviours, though they have never told me they do this, perhaps reflecting that they do not have time to do this because of the demands on their time.

Impact of a standards-led FEITE curriculum on modelling

Lucas (2007, p.96) argues that “the standards-led approach to [FE] teacher education” has resulted in it becoming very much focused on outcomes. Lawy and Tedder (2009, p.53) posit that this has resulted in FEITE being “strictly controlled and managed” by the government and Ofsted. One consequence of this has been the amount of time allocated to ITE courses. The majority of the team spoke about the impact of these Type 2 time pressures on their teaching:

...time is always of essence. If I think about when I did my CertEd we had a whole day and now we have four hours so that tells you something about the constriction of the curriculum...and, gradually, over the years you have less and less time to do sometimes more because there is more out there (Teacher Educator D, Interview, April 2013).

They continued:

I don't think it is that difficult...to embed the product in the process in the sense of having the content riding on the back of...illustrating a process, but it's having the time to really reflect on a discussion about that process. It's the time for reflection and discussion that I kind of slightly cut out, I feel, “Oh, we don't have time for that, we have got to go onto the next thing” (ibid.).

Eraut's (1994, p.11) “overcrowded” curriculum is again evident in their voice.

Eighteen months later Teacher Educator D (Team meeting, November 2014) returned to the time pressures they face:

I think the pressure on the curriculum in terms of the time allowed has been something that we are being constantly made aware of and we are constantly trying to condense our curriculum...and that is quite a challenge because reflection on modelling requires time, doesn't it, so it's about how we can manage that carefully, I suppose.

These teacher educators could use technology to flip the classroom and create some in-class time, modelling a flipped classroom as part of this (FELTAG, 2014).

Teacher Educator C, who was teaching a Year 1 group when I interviewed them, echoed Teacher Educator D's comments:

I'm also aware of my time limits because there is so much for students to learn in Year 1 and it almost feels like there isn't enough time... there is so much to do...(Teacher Educator C, SRI, February 2013).

Teacher Educator B also felt time was a factor in determining their practice. When asked in the SRI why they had not explicitly modelled something they said: "time". The discussion continued and they added:

It was time because we only have three hours together and you want to keep them focused and the reliance on the fact that: surely they know case studies is best to use for a socio-constructivist technique...and I rely on that fact...but you can't rely on that, that they'll make that connection (SRI, February 2013).

Teacher Educator E (Interview, August 2015) added to the points made by their colleagues: "...time is a constraint, that kind of suffocates...in your own language, what you can do... in terms of modelling and it's always a constraint because there's stuff that you need to get through".

The teacher educators in Swennen et al.'s (2008) study of congruent teaching identified time to plan for modelling, what I call Type 1 time, as a significant factor in determining their use of modelling, though this study seems to suggest that it is the impact of neoliberal policies that is contributing to the FE-based teacher educators' feelings they have insufficient time to unpack their practice (Kidd, 2013).

There is also little scope to do anything other than the curriculum. Teacher Educator D was not able to be involved in Cycle 2 of the study because of concern of the possible impact of it on their trainees' learning. Teacher Educator B adds another dimension about the impact of a standards-led curriculum (Kidd, 2013): "...they [the forms of modelling] are not a mandatory component of the university's ITE curriculum and I, I absolutely believe that until they are made a mandatory component, there won't be any consistency in their usage. If it's not in there...it's not valorised" (Interview, December 2015). The standards-led curriculum and the university, which, as the awarding body, have translated the standards into their curriculum, appear to be "active" forces (Coffield, 2014a, p.83) in creating a congested and content-driven curricula that impacts on the "sayings, doings and relatings" of the teacher educators' practices and in particular their use of modelling. This would make modelling more elusive within this FEITE programme (Hogg and Yates, 2013).

Teacher-trainee relationship (teaching shaping trainees' learning)

Hattie (2009) argues that the ability of a teacher to build a positive relationship with their students is an important factor in their students' achievement, and it seems that teacher educators' ability to establish a constructive relationship with their trainees is significant in their use of modelling:

It's the ability to work with your trainees...and...have a really good relationship with your trainees to enable them to reflect on your practice and unpick it so that they can see the good, the bad and the indifferent and then put it into their practice... some of what you get back from your trainees perhaps in talking about your modelling depends on the power balance within your relationship (Group A, Validation event, January 2014).

Teacher Educator B reflects this when discussing conditions of the college that support modelling:

We are not wanting them to see us in a highly expository, didactic role but we are wanting them to see us as...egalitarians in a dialogic space where each of our viewpoints is validated. So part of modelling and an effective precondition is that we create a space in which everyone is free to express their ideas (Team meeting, April 2014).

What are present in this voice are the arrangements of the semantic space of language, the physical space-time of the classroom and the social space in terms of solidarity and power (Kemmis et al., 2014a). However, trainees' previous experiences of Munby and Russell's (1994) "authority of position" might shape their dispositions and how they respond to these arrangements and approaches. Teacher Educator F (Interview, December 2015) explains how they address this:

I think it's really to inspire...tutors [trainees] to be inspirational to their students actually... we try and model it...in lots of different ways...I've got a very humanistic view basically and I'm really trying to support every single... trainee who is in my class and help them...I feel it's like I've a very powerful influential role, where you're affecting literally hundreds and hundreds of people through what you're just saying in the classroom...you're developing people and you're trying to get them to sort of find themselves so they find their own voice and confidence to become good teachers...

Again, Kemmis et al.'s (2014a) "sayings, doings and relatings" are evident. Teacher Educator F's U-shaped classroom set-up is at the heart of this and their use of name cards

reinforces their relationship. Boyd's (2014) layered pedagogy of teacher education is visible in Teacher Educator F's approach too.

Teacher educators' subject specialism

I asked the team which teaching behaviours they thought were important to model. Teacher Educator C stated: "...use depends upon the qualities and skills of the people within the team..." (Team meeting, October 2015) and this is reflected in the out of "segment" modelling, though it also depends on their subject specialism too, it could be argued (Noel, 2006). Noel added that the clustering of subject specialisms amongst teams and the impact this might have in terms of the trainees' learning. Interestingly, this team are all English specialists.

Teacher educators' command of language

Swennen et al. (2008) highlighted the importance of teacher educators' "sayings", in terms of their command of language, when modelling and how can in turn impact on their "relatings" with the trainees. Teacher educators' practice is based on their "tacit knowledge" and it has been suggested that they may not have the necessary language to explicitly and unequivocally explain their pedagogical decisions. The following two examples show how two different trainees reacted to one of the teacher educators' use language:

"Teacher Educator B uses some very, very long Countdown words but they explain them well" (Trainee 7, Focus group with Teacher Educator B's class, March 2013).

"...when you speak sometimes you use such long words that they go completely over the top of my head and I haven't understood a word that you've said..." (Trainee 3 from filmed class teacher debrief in class involving Teacher Educator E and Teacher Educator B, February 2014).

It seems it is not just the teacher educators' command of language that is important, it is the trainees as well. I will return to this when discussing trainees and their learning later in this chapter.

Professional learning

Three factors seem to contribute to these teacher educators' use of modelling: the appointment process, which is also linked to education leadership; their induction to the role of teacher educator; and their CPD once in the role.

There is some evidence that teacher educators are still identified by others and invited to join the team (Noel, 2006), though both Teacher Educator B (Interview, March 2013) and Teacher Educator F (Interview, December 2015) went through a formal interview. Teacher Educator C (Interview, February 2013) and Teacher Educator E (Interview, May 2014) both wanted to be teacher educators and sought out these posts. Teacher Educator D was initially an advanced practitioner and then appointed to the teacher education team without an interview (Interview, April 2013). The recruitment seems to focus on the pedagogical skills (Teacher Educator B, Interview, April 2013; Teacher Educator C, Interview, February 2013; Teacher Educator E, Interview, May 2016) and managing of people (Teacher Educator E, Interview, May 2014), not the pedagogy of teacher education, i.e. the role of the teacher educator, their expected behaviour and values. This seems significant at two levels. First, Lunenberg et al. (2014, p.22) identify one of the roles of the teacher educator as being a "teacher of teachers" and an important aspect of that is to be knowledgeable about the pedagogy of teacher education. Second, the appointment stage is important because it is an opportunity to identify any initial continuous professional development needs of the new teacher educator.

Teacher Educators B, C, D, E and F told me about their induction to the role and it seems at their college and the university's new tutor training day, an example of which is in Appendix 23, the focus is on the technicalities of the curriculum and the associated assessment requirements of the programme rather than the pedagogy of teacher education (Loughran, 2006). My conclusion is that these FE-based teacher educators' "second phase-induction" (Morberg and Eisenschmidt, 2009) seems overly technical in nature and likely to have been well short of the three-year induction recommended by Boyd et al. (2011). The teacher educators' voices provide the evidence for this claim.

...when I got appointed I was sent the handbooks for the PGCE CertEd Year 1 and 2...and I was told to read them and ask if I had any questions. And I was given lots and lots to read which, at that stage, made no sense as to why I had to read it (Teacher Educator E, Interview, May 2014).

Teacher Educator C (Interview, February 2013) was full of praise for Teacher Educator H, who inducted them, though there was “no explicit mention at all [of modelling]... it was all implicit...” Their induction also included suggested books to read. Teacher Educator B said they explored the pedagogy of teacher education within Teacher Educator E’s induction, though Teacher Educator E did not speak assuredly about this when I asked them about it in their interview in May 2014. Teacher Educator F’s induction might be typical of many FE-based teacher educators:

... nobody told me anything really! Or very, very limited. I got the specs [module specification], I got some PowerPoints, I got some material from the university... I did come along to the new tutor day... I did go for another induction because I was just checking out...what I was to know...” (Teacher Educator F, Interview, 2015).

Teacher Educator B highlights the unintended consequences of this on the teacher educator:

It was a very cursory induction...but nothing quite prepares you for the complexity of it [being a teacher educator]...I found it extremely complex... the induction didn’t include how it would be done...and it’s frightening to teach teachers because it is a big responsibility (Teacher Educator B, Interview, March 2013).

Teacher Educator D, who had a limited induction, in their view, did have one really useful aspect of it:

I sat and watched [another teacher educator teach]...So that was a great start but I certainly wasn’t told [how to be a teacher educator]...nobody showed me. I saw people do it beforehand otherwise I’d have been completely stuck...Of course, I watched how other people did it and either did it like them or adapted it...to suit my area or my style (Interview, April 2013).

This voice reflects Lortie’s (1975) “apprenticeship of observation”.

Drawing on Smith (2003, p.202), my question is “What professional development do FE-based teacher educators undertake?” and I am particularly interested in how this impacts on their teaching. Teacher Educator B, the team leader, explains the tensions that exist for FE-based teacher educators and their CPD:

Yes... time is a problem... I think we tend to prioritise things – as you say, “the urgency of now” – in front of us and, with my new role, I’ve had to do that more

and more and making opportunities for my own professional development seems a luxury...it's a luxury to go to a conference, to go to a seminar but we really want to make that a part of what we do in the college (Interview, March 2013).

One way they have got around this is by exercising some agency (Lawy and Tedder, 2012) and negotiating that the teacher education team focuses on teacher education when the college holds its staff development days. Here they explain what they did:

I wanted to make training specifically about teacher training, so our first staff development day was on ICT because the whole college had to do something on ICT – so I said could I have my team together for the day and so we invited a teacher educator from the university to participate in this discussion on how we could promote ICT-related pedagogies... (Teacher Educator B, Interview, 2013).

It is interesting to note this priority and yet resources and confidence mean that the modelling of ICT varies amongst the team. However, there are other tensions as Teacher Educator D explains:

My slight problem is that because I am an advanced practitioner when it comes to staff development I tend to lead it. Now that doesn't mean that I'm not involved in it. So, in October, we had a staff development day and we all got together and I actually led it because Teacher Educator B wasn't available and so we did a whole thing on developing our practice... At the staff development day in January 2013 I was back to back just delivering stuff and so sometimes I suffer in my own development because I am delivering... I've talked to Teacher Educator B and they've been very supportive about going to conferences and stuff but I've not managed to do it yet (Teacher Educator D, Interview, April 2013).

There seems to be a tension here between developing others, as part of their teacher educator and advanced practitioner roles, and their own development.

There is a peer observation scheme operating at the college for those involved in delivering higher education, though this may be of limited value. Teacher Educator B commented:

I think that it wasn't critical enough. It could have been a bit more critical rather than I did well, I'm going to try that...it was more a cursory overview rather than an analysis. There wasn't much metapedagogical content to the peer review (Interview, April 2013).

When asked why it had not been critical, Teacher Educator B responded: “Do we have the language to articulate it? You know, how do we frame and articulate things?” (ibid.). This illustrates the impact of our “sayings” on our “relatings”. Nevertheless, Teacher Educator C said they would like more formalised peer observations (Interview, February 2013).

Teacher Educator B spoke about a number of CPD events they had attended:

I've done peer review and I'm attending a conference on funding.... We are given the funding to go and the time to go and I've always gone to conferences and the last one I went to was the London Institute of Education last year and that was about the wider benefits of learning. And there was also a conference on professionalism there.... And I've been at the teachers' conference at the university for ICT and that was the last thing I went to (Teacher Educator B, Interview, April 2013).

However, it is noticeable that most of those events were not directly related to ITE and there seem to be limited opportunities for “out of college” CPD on teacher education, according to Teacher Educator B (Interview, April 2013):

I'm always looking out for out of college opportunities to progress and to develop...but things that are specific to teacher education hardly ever come up. If things that were specific to teacher education came up that would be something that would be most welcomed...

One of the CPD foci for the team, according to Teacher Educator B, is developing their research capacity and getting published: “...one of my key priorities...for the team...is to try and develop our research potential...the FE/HE interface is narrowing...[and] we need to operate in a way that is akin to HE if we are operating HE programmes” (Interview, March 2013).

This ambition reflects the researcher role of Lunenberg et al.'s (2014) roles of teacher educators. Teacher Educator F has played a key role in this and this is evident in their publication record during the period of this study. For instance, writing for publication is one of the CPD activities that Teacher Educator D found most valuable to their work as a teacher educator and Teacher Educator F adopted a coaching/mentoring role (Kennedy, 2005) to support them (Teacher Educator D, CPD pro forma, May 2016).

Teacher Educator D identified mentoring one of their trainees as beneficial CPD. They learned from it and became “much more confident...through having worked with Trainee 4 last year – it had a huge impact on my practice actually” (Interview, April 2013).

Teacher Educator B leads by example in terms of CPD. They have undertaken relevant CPD to support their use of modelling ICT in their teaching:

What I've achieved is an understanding... that it is my responsibility to.. make modelling explicit... through things, such as the use of ICT...and now I have the confidence to use ICT and it's my responsibility to learn about that (Interview, December 2015).

Interestingly, their completed out of “segment” modelling pro forma indicated their modelling of ICT is implicit.

To find out more about their CPD, I distributed a short pro forma to the teacher educators and asked them to identify what their top three CPD needs are going forward. A copy of it is in Appendix 24. One suggestion from Teacher Educator C was: “Action research is essential to our role. I think a mentor at the university should be available to new tutors in the Consortium wanting to engage in research” (Teacher Educator C, CPD pro forma, May 2016).

I explored some of the teacher educators' responses with Teacher Educator B at the end of the study. One aspect I was interested in was whether there was any support for the teacher educators to undertake doctoral level study. They stated: “There is actually a great deal of [financial] support for scholarly activity in the college” (Pers. comm., 19 September 2016), though this does not extend to these FE-based teacher educators having time allocated within their workload to undertake their research. This reflects an un-level playing field that exists for FE-based teacher educators delivering university-validated CBHE compared with a university-based teacher educator delivering the same ITE programme; an example of how the “externalities” of the government's funding of FECs impacts on FEITE and the role of the teacher educator (Coffield, 2014a, p.83).

What strikes me when reading these accounts is that the teacher educators are not mentioning the pedagogy of teacher education as part of their professional learning. I asked Teacher Educator B if there was anything that might be “suffocating” their use of

modelling and they replied: “I think another factor is that we don’t have a network of people beyond us that are doing it” (Interview, December 2015). A wider network of FE-based teacher educators might help create the conditions for a more expansive discussion on the pedagogy of teacher education.

Educational leadership

There are five factors within educational leadership shaping the use of modelling:

1. Recruitment and appointment process;
2. Leadership of the team;
3. Leadership of the college;
4. Resources;
5. Material-economic arrangement at the college.

I have already discussed recruitment and appointment within professional learning, so I will start with leadership of the team.

Leadership of the team (leadership shaping teaching)

A factor in teacher educators’ practice is the impact of “leadership” on their teaching (Kemmis et al., 2014a) and here I consider to what extent Teacher Educator B’s leadership “sustains or suffocates”, in Kemmis et al.’s words, the practices of the teacher educators they manage. The first example I have of their leadership comes from an interview with them. When asked about what suffocates their use of modelling Teacher Educator B said:

“Time...that we’ve got to, this is why I mean it’s been built into the modules, in that we have to do it...” (Interview, December 2015). One of the reasons that modelling and metapedagogy have been written into the new ITE curriculum the college is delivering is because of Teacher Educator B’s understanding of the pedagogy of teacher education and their “very good subject knowledge... and an ability to translate that codified knowledge into relevant curricula” (ibid.). A second example is how they harness the skills within the team. Teacher Educator B explained to me that “...one of the first things I did when Teacher Educator F came onto the team, because I didn’t have time to do it, was to say look, let’s set up a working group of researchers ... we want to develop our research capabilities and publication...this is where it’s going, we need to do this” (Interview, December 2015).

Within the resources available Teacher Educator B has also created an HE climate, according to Teacher Educator C: “I believe Teacher Educator B to be an exceptional individual...The culture that they have created is very...HE focused...” (Interview, February 2016). Teacher Educator F adds another dimension to our understanding of Teacher Educator B’s leadership – their humanity:

Teacher Educator B is quite an inspirational leader ...they’re a fantastic manager really because [they are] very, very aware and supportive of every single person in that team actually...I think everybody in the team really appreciates that and tries to look out for each other.

The “voices” of the team suggest that Teacher Educator B is highly respected by their team, provides strong leadership to the team, both personally and pedagogically, and has created and sustained a climate in which teacher educators’ use of modelling is nurtured and developing (Kemmis et al., 2014a).

Leadership and management of the college and the impact on teacher education (leadership shaping teaching)

Teacher Educator B leads this team, and they report to a senior manager from the principalship. Teacher Educator B, when asked about the impact of educational leadership on leading the team, said: “...people trust me to do the job ...I think it’s up to me how I deal with these changing priorities of the organisation” (Interview, December 2015). Teacher Educator B and I discussed two possible initiatives that might support their trainees as they learn to teach – Burstein’s (2009) professor-in-residence model, which could be adapted to FE, and the use of peer teaching (Loughran and Berry, 2005) – and what they said gives us an insight into some of the constraints on FE-based teacher educators as they try to expand their practice: “... it [professor-in-residence] has to be written into the curriculum in order to attain some sort of formal recognition, for it to happen” (Team meeting, June 2014) and “in terms of team teaching...it’s economic considerations, isn’t it?” (Planning meeting for Cycle 2, December 2013). On the other hand, changes in higher education since 2010 mean that many HE teacher educators might find it difficult to introduce similar initiatives.

There is some evidence that “the hyperactivity” (Coffield, 2008, p.9) within colleges resulting from the competing agendas is impacting on these FE-based teacher educators’

abilities to try out new approaches to teaching. When asked why they had not used the Viewing Frame to date the response was: "...because we have so many competing things that we're being asked to produce" (Teacher Educator D, "Teacher Talk" meeting, October 2015).

Resources (leadership shaping teaching)

Analysis of the four films suggested that the interactive whiteboards (IWBs) were solely used for projecting PowerPoint slides. I raised this at the "Teacher Talk" meeting in October 2015 and Teacher Educator C said:

...the boards are different in different rooms...so there isn't a consistency with the type, the way that the boards operate... whether they are going to be working properly...there has been no proper rigorous training on how to use these boards... even if we had the training...it can only be relevant if it can be applied across different classrooms and different settings...and...our students themselves say, oh we've got a different system, so when you're trying to think about modelling ("Teacher Talk" meeting, October 2015).

I shared these comments with Teacher Educator B, who was not at the meeting, and their view is *"that, though this may have been a feature of the legacy site, it is definitely not the case now"* (Pers. comm., September 2016). These two voices seem at odds with each other; it is an example of a "second text" (Segall, 2002, p.8) on the ICT resources and CPD. Teacher Educator D ("Teacher Talk" meeting, October 2015) added:

a lot of our learners are in environments where there's not in a million years will they ever have an interactive whiteboard. So if we base our practice around something with which they can't have any access, then actually that's a very negative form of modelling.

My response was "...you might well have somebody who actually has got the interactive whiteboard, the same type in their classroom and you're the only person who can use it...[and] can show them how to use it [though]".

Subsequently Teacher Educator C emailed me and wrote:

The whiteboard was never properly configured [at the legacy site]. This was reported to IT support and yet when we in the team tried to use it even after it was looked at, the tracking seemed off, making the pen impossible to use. I only mention this as your description [of their classroom] makes it sound like we have an abundance of IT related resources (Pers. comm., October 2015).

Teacher Educator D provided more evidence of this when they spoke of a recent experience of using an IWB:

a couple of times last week...I wanted to...circle things on the interactive whiteboard and it's not configured properly upstairs either and they're never going to fix it...so I don't use it. (Teacher Educator D, Interview, March 2016).

This evidence suggests that the IT infrastructure and support, along with insufficient CPD on the use of IWBs, in the opinion of two of the team, has impacted on their modelling of the use of an IWB within the programme. This has left them frustrated. However, the team leader stated: *"this is not the case [now] at our current site"* (Pers. comm., September 2016).

Material-economic arrangements of the college

There are at least four practices interplaying here: the teacher educators' contracted teaching hours; Type 1 time; which gives teacher educators time to plan for modelling in their teaching (Lunenberg et al., 2007); Type 2 time, which is the amount of in-class time a teacher educator has to cover Russell's (1997) content turn and pedagogical turn; and the administration accompanying the role of teacher educators at the college.

These teacher educators are teaching more than 830 teaching hours for a full-time role (Teacher Educator B, Pers. comm., August 2016); this can be compared with 550 hours for most HE-based teacher educators. This, in turn, is likely to create Type 1 time pressures for these teacher educators as they prepare their classes, though they did not mention it. However, the teacher educators did mention Type 2 time pressures in class to cover their curriculum and this seemed to shape their approaches to teaching. The "sayings" in my interviews with Teacher Educators C, D, E and F placed greater emphasis on their "doings" being about prioritising the content requirements of the course over the pedagogical turn. This is unsurprising in the performative culture that pervades FE (Kidd, 2013) and where, according to Coffield (2015, p.24), it uses "fear to do its dirty work".

When discussing the roles of teacher educators, neither Exley (2010) nor Lunenberg et al. (2014) identified the significant other work teacher educators may be involved in that may have an impact on their practice. Teacher Educator D (Interview, March 2016) provided examples of this other work:

...we have some administration support...but it's very minimal...one of the key things is...I'm the finance officer... I'm the...receptionist...so I do all of those

things. So in some ways, it's nice for the learners because it creates that kind of continuity and a sort of kind of real personalisation. But it means that you're juggling an awful lot of balls...I mean increasingly we're involved in the kind of actual development of courses, but on quite a macro level...So rather than just thinking about...sort of updating my scheme of work, we're kind of thinking about a whole new provision, we're thinking about...marketability, I mean it's much more market sort of driven...there's constant pressure...everything is always being brought forward and...we've always have a period over the summer, where that is the time where you have the time to reflect on your curriculum and to develop it...and I kind of think that is getting eroded, that is worrying actually...

These additional roles may be suffocating these FE-based teacher educators' use of modelling by reducing the amount of Type 1 to plan for it.

Trainees and their learning

There are eight factors shaping how trainees learn how to teach and modelling's role within it:

1. Metacognitive abilities
2. Cognitive abilities
3. Command of language
4. Ability to see themselves as "teacher and learner" (Taylor, 2008, p.78)
5. Trainees' cognitive workbench (Britton et al., 1985)
6. Trainees' dispositions to modelling
7. Trainees' subject specialisms and their teaching context
8. Group dynamics

Trainees' cognitive and metacognitive abilities and their engagement with teacher educators' use of modelling (trainees shaping teaching)

When discussing balancing content, process and pedagogy of teacher education Teacher Educator E commented on trainees' cognitive ability: "There is more time spent on content, obviously, for some students because they need you to go over it again and again and again...Sometimes it feels like unpacking the practice is like a higher level thing..." ("Teacher Talk" meeting, April 2014).

Metacognitive ability is important too. "We felt that the whole idea of their metacognitive ability, their actual ability to notice, either their role or other people's practice, was so, so important and we thought that was a really important area to look at" (Group B at the UCET validation event, Focus group, November 2015). Hogg and Yates (2013) use

trainees' voices to illustrate how difficult this is, though, as the trainee tries to concentrate on both the content and pedagogical turns.

When discussing balancing content and how to teach, Teacher Educator B said: "Well it depends a lot on the trainees' metacognitive awareness...it depends on their ability to see what you're doing and to interpret that...and I think I'm over-relying on that". When I asked how they develop their trainees' metacognition, they replied:

There is nothing in our scheme which talks to them about that and which actually addresses that from day one...I don't know whether we coalesce as a team, whether we all do that, so it's not a strategic thing...that but I certainly do try and do that... (Interview, March 2013).

The team have subsequently included aspects of metacognition within the new ITE programme.

Teacher Educator B and I discussed the trainees' ability to "see into" their teaching (Loughran, 2007, p.1) within the SRI: "Oh they must see it... I'm sure they'll understand that and they'll see" (SRI, March 2013); so we assume there is no need to explain it. A year later I had a similar conversation with Teacher Educators E and B during the SRI for their filmed peer teaching and debrief class. Teacher Educator E commented:

But I guess that is why it is implicit. I thought, on some level, "surely they will be able to see..." But there is subtlety in every moment almost and I think a lot of it sometimes it is not explicit; it's quite subconscious. You know Trainee 4 was saying "I think what you do, Teacher Educator E, rubs off on me actually. I can identify bits of that" (SRI, March 2014).

Teacher Educator B explained their use of implicit modelling within their filmed class in February 2013 as follows:

I teach solely on the Year 2 programme and I don't teach on the Year 1 programme – I did do for a time – and I realised that I did more practical tasks with them and there was more of an explicit focus on modelling there but, with the Year 2, it is more implicit. I would venture a guess that the reason for that is that I believe that they have, at this stage, done a lot of the metapedagogy...or rather that their training has had more of a metapedagogical focus (Interview, April 2013).

Teacher Educator B acknowledged, however, that they may now need to be more explicit in their teaching in Year 2:

I think I've relied too heavily on the students knowing, implicitly, what I am doing, a taken for grantedness, an assumptiveness, oh, they'll know that. They'll know through this introduction that I'm gaining expectancy – raising expectation is Gagne's first phase – they must know. But I'm kinda thinking more recently that they do need to be told what is happening here (Teacher Educator B, Interview, April 2013).

Teacher Educator C suggests that teaching critical thinking would support their metacognition: "Most important for me is modelling critical thinking and being able to think and question and once you start to do that then they can start to actually pick up some of the things you are doing implicitly without you having to model everything" ("Teacher Talk" meeting, April 2014).

Trainees' command of language

Trainees' "sayings" and ability to acquire and use the language of the semantic space arrangement of teaching and learning to teach, what Kemmis et al. (2014a, p.4) would call the language of the "practice tradition", sustains or suffocates their "relatings" with their teacher educator, mentor and other trainees. For instance, Teacher B (Planning meeting for Cycle 2, December 2013) noted that:

Maybe in Year 1 as well they don't have the language to explain the gaps...when you have done an activity and you ask a group of students straight after "why did I do that in that particular way?" nobody can tell you. And is that because they are not thinking about that or is that because they haven't got the language to tell you?

It might be both, or it may be they do not see it (Loughran, 2006). One trainee's literacy impacted on their overall learning, according to Teacher Educator E (Interview, May 2014): "One student has come fresh off of PTLLS and struggled with their literacy and their comprehension and it's really, really hard work". I will return to acquiring the language of learning to teach when discussing the claims related to how trainees learn how to teach.

Ability to see themselves as "teacher and learner"

Teacher Educator D (Planning meeting for Cycle 2, December 2013) makes the point that trainees do not always see themselves as "student as teacher and learner" (Taylor, 2008, p.78): "I think the fear is that they miss the whole thing that you are modelling anything; they become so attached to their own identity as the student and they forget that they have

this dual identity if you like". This is significant because trainees' ability to use their varifocal lenses is at the heart of learning to teach (Boyd, 2014).

Trainees' cognitive workbench (Britton et al., 1985)

When discussing what affects a teacher educator's use of modelling Teacher Educator C stated: "...the actual class that you've got in front of you... does make an impact on how you can model and how effectively you can model and how that modelling is received" ("Teacher Talk" meeting, April 2014). Later, during an interview, Teacher Educator C reflected that: "...What I do still find is a problem with...modelling...even though I make it...explicit, is that there is the issue of information overload...You know, you can only do so much with, depending upon the ability of who comes in front of you" (Interview, February 2016). This reminds us that trainees' "cognitive workbenches", their working memory, affects their learning within a class and that strategies need to be developed to help them with this. I developed the Viewing Frame as a way of "extending" a trainee's "cognitive workbench"

Trainees' dispositions to modelling

Hodkinson et al. (2007) identify learning culture as important in determining students' dispositions to learning and this seems evident in Teacher Educator C's following account:

I think the commercialisation of education makes it harder to do modelling. I remember I once had somebody who expected that I had to do behavioural objectives at the start of every session...but, in the second year, I want to explore different ways of setting objectives...But this particular student didn't like that because she had paid her money and she expected product objectives. She wanted this very structured approach...And if you are forced to follow, through standardisation and take away the element of craft and say that this product is the same because we need to ensure it is the same for quality assurance reasons then I think that stops you actually exploring modelling ("Teacher Talk" meeting, April 2014).

Kidd's (2013) argument of accountability impacting on teachers' practice within a standards-led FEITE curriculum is also audible in this quotation; the marketisation of FE is shaping the "sayings, doings and relatings" of a teacher educator's use of modelling, the trainee's disposition and their own "sayings, doings and relatings".

Trainees' subject specialisms and their teaching context

However, not all of the generic, core practices modelled, even if modelled well, are immediately transferable to trainees' teaching:

And as far as...modelling is concerned some of the things are quite hard for me to use in my own practice because I'm teaching sign language but Teacher Educator B is very good at helping me to think about how I can adapt...what I've seen and what we've used in class and that is still a form of modelling but I am adapting it quite heavily to my setting, because this is more English-based whereas BSL is obviously visual. (Trainee 6, Focus group with Teacher Educator B's class, March 2013).

Trainee 1 felt strongly that what was modelled was not relevant to them: "There have been more weeks than not that I've been sitting here thinking 'what the flipping heck am I doing here?' because I just can't relate to it at all..." (Trainee 1, Focus group with Teacher Educator B's class, March 2013). This is one of the challenges of teaching trainees from any one of over 200 subjects (Crawley, 2014) and it shapes their response to their teacher educators' "sayings, doings and relatings" of modelling.

Group dynamics

The group dynamics impact on the climate of the classroom and the "sayings, doings and relatings" within it. Teacher Educator C ("Teacher Talk" meeting, June 2014) observed that: "their [trainees'] enthusiasm and the extent to which they wish to participate, their motivation and the way that different people within the group relate to each other – the group dynamic – are all elements which impact [on use of modelling]". This instance suggests that the arrangements of "the semantic space", in terms of the language used; "the physical-time space", in terms of activities; and "the social space", in terms of solidarity and power, can all come together in the form of the dynamics of a group of trainees and its "relatings" with the teacher educator.

It is clear that there are a range of factors shaping the teacher educators' use of modelling and this, in turn, informs my next, fourth key finding: how FE-based use modelling within a university-validated in-service ITE programme.

Contribution 5: An analysis of the teaching behaviours modelled by these FE-based teacher educators within a university-validated in-service ITE programme and how they were modelled

The analysis answers research question 1 and is presented in three sections: modelling from cycle 1, modelling within cycle 2, and out of “segment” modelling, which acknowledges that the filmed lesson is a “small segment” (Kemmis et al., 2014a, p.226) of a teacher educator’s teaching and is an attempt to capture their use of modelling in their everyday teaching. The data presented is a summary of data sets that can be found in Appendices 18-21, which themselves are based on the full transcriptions of the four filmed classes, an example of which is Teacher Educator C’s class in Appendix 12, and a completed pro forma, which is in Appendix 22. For the filmed classes initially I analyse individual teacher educators’ use of a teaching behaviour, a teaching strategy or value, in terms of what has been modelled, how often and which one of Lunenberg et al.’s four forms of modelling was employed. I then commentate on this and synthesise them into a table for each cycle. The out of “segment” modelling is presented differently and summarises behaviours being modelled and how they are modelled, and I conclude answering research question 1 with a commentary on that.

Modelling in Cycle 1

Teacher Educator C

They indicated at the start of the SRI that they would be model questioning, group work, recap, critical reflection and critical thinking within the session. There were 144 instances of modelling within this 87-minute class, including three instances of modelling suggested using secondary text by Teacher Educator C. A summary of these are presented in Table 7.1. A full list of teaching behaviours modelled and the form of modelling used is presented in Appendix 18. A full transcription and analysis of this class is in Appendix 12.

Table 7.1: Summary of Teacher Educator C’s use of modelling by teaching behaviour, the form of modelling and the frequency

Teaching behaviour	Implicit	Explicit 1	Explicit 2	Explicit 3
Questioning (various forms)	110	1		
Managing group work	1	3		
Recap	1	1		
Critical reflection and critical thinking	1	7		

Note: Explicit 1 is explicit modelling; Explicit 2 is explicit modelling and facilitating the translation to the trainees’ own practice and Explicit 3 is connecting exemplary behaviour

with theory. These are the three forms of explicit modelling identified by Lunenberg et al. (2007).

Of the four teaching behaviours Teacher Educator C said they intended to model, questioning was modelled implicitly, the recap was modelled implicitly and explicitly, and group work and critical reflection and critical thinking were modelled explicitly. It was also noticeable from the lesson plan and materials that whilst they plan classes carefully they did not in this instance share explicitly with the trainees that they would be modelling these behaviours. This seems significant because the teacher educators' explicit sharing of their intention to use modelling at the start of the class is the first signpost to the trainee that they need to turn on their "modelling lens". There were two instances of explicit modelling and facilitating the translation to the trainees' own practice in the session: mnemonics and role modelling. My conclusion is that at this point early in the study Teacher Educator C's knowledge of modelling was developing and their use of it was uneven. They have told me since that now they used explicit modelling whenever possible in their practice (Interview, February 2016).

Teacher Educator B

They intended to model "the taxonomy of educational objectives, the recap...and textual construction activities" (SRI, March 2013) within their 59-minute class. I counted 89 instances of modelling in this class and a summary is presented in Table 7.2. A full list of teaching behaviours modelled and the form of modelling used is presented in Appendix 19.

Table 7.2: Summary of Teacher Educator B's use of modelling by teaching behaviour, the form of modelling and the frequency

Teaching behaviour	Implicit	Explicit 1	Explicit 2	Explicit 3
Aims and outcomes	1	2	3	
Questions (various forms)	52			
Design and choice of teaching materials	1	4	1	1
Embedding equality and diversity into teaching materials		1		
Professional values		1		

52 of the 89 instances of modelling were forms of questioning related to the teaching behaviours being modelled. Interestingly they modelled explicitly sharing their professional values, and equality and diversity in teaching materials. Importantly they were the only teacher educator to include modelling within the aims of the class: “the tutor will model the use of engaging teaching principles rather than a transmissive approach to encourage metalearning” (Lesson materials, February 2013), though the terms “modelling” or “congruent teaching” were not used in the outcomes. On the other hand, they were, in this cycle, the only teacher educator to make links to theory when modelling explicitly. They had spoken assuredly about engaging with literature on being a teacher educator within their interviews (Interview, April 2013; Interview, December 2015).

Teacher Educator D

They told me within their SRI that they wanted to model active teaching strategies in the class. I counted 34 instances of modelling in their 68 minute class. 24 of the instances were of implicit modelling, with over half being either the use of questioning or managing group work. A summary is presented in Table 7.3. A full list of teaching behaviours modelled and the form of modelling used is presented in Appendix 20.

Table 7.3: Summary of Teacher Educator D’s use of modelling by teaching behaviour, the form of modelling and the frequency

Teaching behaviour	Implicit	Explicit 1	Explicit 2	Explicit 3
Questions (various forms)	11			
Group work, managing of	9	2		
Reviewing an activity	3			

There were ten instances of explicit modelling, nine of which were Explicit 1 and one was Explicit 2. There are two aspects of Teacher Educator D’s use of explicit modelling which are remarkable. First, it seems largely unplanned, what Lunenberg et al. (2007, p.596) call a “spontaneous response”. This reflects Lunenberg et al.’s (2007) finding that the majority of teacher educators in their study did not plan for their use of modelling. It is also important because during teaching, teachers (including teacher educators) have little time to make conscious decisions (Korthagen and Lagerwerf, 2001, p.178) and this is likely to affect their ability to relate their behaviour to theory, as is required when “connecting exemplary behaviour to theory” (Lunenberg et al., 2007). Second, there were instances of them thinking aloud (Loughran, 1996) about the complexity of their own teaching and the

impact of the “factorised curriculum” (Lawy and Tedder, 2009, p.53) on their scheme of work and lesson planning.

I have aggregated the modelling by these three teacher educators in Cycle 1 and compiled them into Table 7.4.

Table 7.4: Summary of frequency and form of teaching behaviour modelled in Cycle 1

What was being modelled	How this was being modelled by type and frequency				
	Total frequency	Implicit	Explicit 1	Explicit 2	Explicit 3
Academic writing	5	0	4	1	0
Aims and learning outcomes, writing of	6	1	2	3	0
Being critical	1	0	1	0	0
Correcting an omission	1	0	1	0	0
Dominant syntax	3	2	1	0	0
Equality and diversity in teaching materials, Embedding of	1	0	1	0	0
Emotional intelligence	1	1*	1	0	0
Emotional management	1	1*	1	0	0
Flipped classroom	1	1	0	0	0
Group work, managing of	16	11	5	0	0
Homework	1	0	1	0	0
Inclusivity	1	1	0	0	0
Late arrival of a student	1	1	0	0	0
Learning to teach	1	0	0	1	0
Lesson planning	1	0	1	0	0
Listening and reflecting back	2	2	0	0	0
Listen and respond	1	1	0	0	0
Literacy skills, embedding of	4	4	0	0	0
Mnemonics	1	0	0	1	0
Non-verbal communication	3	1	2	0	0
Noticing skills	2	0	2	0	0
Role modelling	1	0	0	1	0
Pace of class, picking up	1	0	1	0	0
Professional values	1	0	1	0	0
Question, clarification	7	7	0	0	0
Question, closed	32	32	0	0	0
Question, consequence	1	1	0	0	0
Question and nominate	22	22	0	0	0
	Total frequency	Implicit	Explicit 1	Explicit 2	Explicit 3
Question, overhead	70	70	0	0	0
Question, rationale	1	1	0	0	0
Question, reverse	1	1	0	0	0
Question, Socratic	40	39	1	0	0

What was being modelled	How this was being modelled by type and frequency				
Recap	2	1	1	0	0
Reflective writing, critical	4	0	4	0	0
Reflective, Critically	4	1	3	0	0
Thinking, critical	1	0	1	0	0
Review of an activity	3	3	0	0	0
Scheme of work	1	0	1	0	0
Teaching materials and activities, choice and design of	8	1	5	1	1
Teaching materials, Designed activities related to text	2	0	0	2	0
<i>Vulnerability</i>	1	1	0	0	0
Wait time after a question	5	5	0	0	0
Wipe board, use of	3	3	0	0	0
Total	265	215**	41	10	1

*These are the two instances of secondary text from Teacher Educator C's class where they suggested an alternative to my analysis of the form of modelling being used.

** This column would read 213 without the two secondary text instances from Teacher Educator's class.

Modelling within Cycle 2

There was only one class in this cycle: a peer teaching with debrief session based on Loughran and Berry's work (2005). Teacher Educator E taught the class and Teacher Educator B led the debrief. Teacher Educator E indicated that they wanted to model questioning, a learner-led start to the class, case studies as a teaching strategy and andragogy within the class (SRI, March 2014). Based on this, I counted a total of 96 instances of modelling by Teacher Educator E within this 96-minute class. A summary of the modelling is presented in Table 7.5. Details of when these instances took place within the class are presented in Appendix 21.

Table 7.5: Modelling by Teacher Educator E's frequency and form of teaching behaviours modelled

Teaching behaviour	Implicit	Explicit 1	Explicit 2	Explicit 3
Questioning	56	3		
Non-traditional/learner-led start*	1	1	1	1
Embedding equality and diversity into the case study			2	
Andragogy	1	0		

*This includes an instance of implicit modelling which shortly afterwards became an instance of explicit modelling.

Teacher Educator E is a new teacher educator, so unsurprisingly their use of modelling appears uneven; questioning was almost exclusively modelled implicitly, whereas the learner-led start and use of case studies as a teaching strategy included use of explicit modelling, including a link to theory when discussing the non-traditional/learner-led starter. There seems to have been a missed opportunity with andragogy as this was only modelled implicitly. It is worth pointing out that we discussed sharing modelling as a learning outcome for the session with the trainees when we began the planning for the session and Teacher Educator E (Planning meeting, February 2014) confirmed they would do this. It is noteworthy that, although one of the outcomes in the lesson plan states that “The tutor will model the use of questioning to encourage active enquiry and metalearning” (Lesson plan, February 2014), the learning objectives shared with the trainees during the class made no reference to modelling. Objective 5 does state the trainees will “partake in a debrief session and focus group after the break”, though it might be argued that the use of the phrase “debrief” implies “unpacking” what has happened in the class. This was a missed opportunity to ensure the trainees’ “modelling lens” had been turned fully on.

Teacher Educator B's role was to debrief the class and “unpack” Teacher Educator E's practice, allowing the trainees to “see into” it (Loughran, 2006, p.5). As might be expected, this led to 15 instances of explicit modelling in this episode of the class (Kemmis et al., 2014a), p.223); 11 were Explicit 1 and four were Explicit 2. Examples included non-verbal communication; reflection in action; metacognition; the use of case studies as a teaching strategy; and group work. These behaviours have been included in Table 7.6 that summarises the modelling within the class.

Table 7.6: Summary of frequency and form of teaching behaviours modelled in the class that was Cycle 2

What was being modelled	How this was being modelled by type and frequency				
	Total frequency	Implicit	Explicit 1	Explicit 2	Explicit 3
Andragogy	1	1	0	0	0
Dialogic classroom	4	0	4	0	0
Equality and diversity in teaching materials, embedding of	3	0	0	3	0
Formative assessment	2	2	0	0	0
Group work, managing of	2	1	0	1	0
Late arrival of a student	2	1	1	0	0
Listening and reflecting back	3	3	0	0	0
Metacognition	1	0		1	0
Non-traditional start to class/learner-led	5	1	1	2	1
Non-verbal communication	4	2	2	0	0
Reflection in action	1	0	1	0	0
Starter activity	1	0	0	1	0
Student-teacher relationship	1	0	1	0	0
Teaching materials and activities, choice and design of	2	0	1	1	0
Trainees, use of	1	0	1	0	0
Question, answering a student's question	1	1	0	0	0
Question, clarification	1	1	0	0	0
Question, closed	9	9	0	0	0
Question and nominate	19	19	0	0	0
Question, overhead	11	11	0	0	0
Question, Socratic	19	19	0	0	0
Wait time after a question	4	3	1	0	0
Total	96	74	13	8	1

There are six main conclusions drawn from watching the four films:

1. These four FE-based teacher educators were making some use of explicit forms of modelling to make visible the “pedagogical turn” (Russell, 1997, p.44), though

implicit modelling was overwhelmingly dominant when they used questioning techniques;

2. These teacher educators all demonstrated that they could explicitly model and could quite easily, with minor adjustments to their teaching, have made even greater use of it (Lunenberg et al., 2007);
3. Whilst these teacher educators made some use of theory to explain their practice the findings almost mirror those from Lunenberg et al.'s (2007) study in which none of the 10 teacher educators made theoretical links to their practice. Lunenberg et al. (2007) suggest this might be relatively easy to do, though they assume that each teacher educator has the required knowledge;
4. Vygotsky argued that "a person can only imitate that which is within his or her developmental level" (Vygotsky, 1978, p.34) and it follows that the limited use of theory to explain their practice may reflect a CPD need;
5. When reviewing the films, the teacher educators did not always spot their use of modelling. This may have been because they were anxious when reviewing the film with me (Calderhead, 1981), or it may suggest that their conceptualisation of modelling as a teacher behaviour was relatively underdeveloped when reviewing;
6. These teacher educators knew they were being filmed and chose the session they wanted to be filmed and so what was captured "may...be overly favourable" (Lunenberg et al., 2007, p.598) because of this, though, like the participants in Lunenberg et al.'s study, their awareness of and understanding of modelling has been enhanced considerably by being part of this research ("Teacher Talk" meeting, October 2015).

Out of "segment" modelling

The out of "segment" modelling acknowledges that the filmed lessons were a very "small segment" (Kemmis et al., 2014a), p.226) of these teacher educators' teaching and therefore not necessarily representative. Therefore, I produced an initial list of the teaching behaviours and values they said they modelled, which is in Appendix 22, presented it to the team and invited them to complete a pro forma to indicate three things:

1. Delete any teaching behaviour(s) they do not model;
2. Add any teaching behaviour(s) they model in their teaching which is not on the list;
3. Identify which form of Lunenberg et al.'s (2007) modelling they use to model these behaviours.

This additional perspective on the use of modelling by these teacher educators builds on the data from the four filmed classes and offers perhaps a more rounded view of their practice. There is one major limitation to these findings: what teacher educators say they do and what they actually do are sometimes two different things (Lunenberg et al., 2007), i.e. these claims accept at face-value what the teacher educators reported and as such were not subject to any further validation, though the pro forma was based on examples of modelling the teacher educators told me about in interviews or “teacher talk” meetings. Table 7.7 presents this data.

Table 7.7: Out of “segment” modelling by teaching behaviour, form of modelling and teacher educator

Teaching behaviour modelled	Teacher Educator B	Teacher Educator C	Teacher Educator D	Teacher Educator E	Teacher Educator F	Teacher Educator G	Notes
Assertive questioning					1		
Assessment requirements (module specification)	1	2	2	2	3&4	2	
Checking understanding	-		3	-		-	
Classroom displays	1	2	1	1		1	
Classroom management techniques	-		3	-		-	
Classroom set up/ergonomics	2	3&4	3	2	3	3&4	
Collaborative practices	3	3&4	3	2	3&4	4	
Communication in a class	4	3&4	2	2	3&4	3	
Differentiation	3	3&4	2	1	3	3&4	
Directed activities related to texts (DARTs) embedding the minimum core (literacy, language, numeracy and ICT)	4	4	1	2	3	3	
English as a medium for ESOL learners	-		3	-		-	
Use of emails	1	1	1	1	3	1	
Emotional intelligence	2	3&4	1	1	4	4	

Teaching behaviour modelled	Teacher Educator B	Teacher Educator C	Teacher Educator D	Teacher Educator E	Teacher Educator F	Teacher Educator G	Notes
Emotional resilience	1	3&4	1	2	3&4	4	
Feedback	2	3&4	2	2	3&4	3	
Group work	4	3&4	3	2	3	1	
ICT	1	3&4	3	2	3	1	
Inclusivity	3	3&4	3	2	3&4	3	
Indeterminate future	1	1	-	2	2	2	
Instructions for learning	-		3	-		-	
Lesson planning	3	3&4	2	2	3	4	
Metacognition	4	3&4	2	2	2	3&4	
Passion for teaching	1	3&4	2	1	3	2	
Questioning	3	3&4	3	2	3	4	
Relational resilience	1	3&4	1	1	3	1	
Relationship building	1	3&4	2	1	3	2	
Resistance		1	2	2	2	4	
Role play	2	2	3	2	3	2	
Scaffolding learning	-		2	2		-	
Sharing group learning objectives and framework for session	-		3	-		-	
Socratic questioning	3	3&4	3	2	3	3	
Suggestion circles	3	2		2	3	3	
Teaching materials	2	3&4	3	2	3	3&4	
Thought processes	2	2	3	2	2	3&4	
Unconditional positive regard for learners	-		3	-		-	
Values	2	4	2	2	3	2	
Vulnerability	-	3&4	-	2	3	2	

There are five points to make about the data in this table and how it relates to their practice:

1. I am not surprised that there is such a high proportion of “explicit modelling” and “explicit modelling and facilitating the translation to the trainees’ own practice” in their responses as we had been working together since 2012 and had discussed the importance of teacher educators doing this, though I am surprised by the amount of “connecting exemplary behaviour with theory” by Teacher Educators C, F and G. Lunenberg et al. (2007) identify this as the most difficult form of modelling to use because it requires a deep knowledge of learning theory to operationalise, which three of these teacher educators identified as something they were least confident with (Teacher Educator C, Interview, March 2013; Teacher Educator F, Interview, December 2015; Teacher Educator G, Teacher Talk meeting, April 2014). Eraut (1995) adds that it is difficult to spontaneously respond and explicitly model (Lunenberg et al., 2007) because of the cognitive ability to think in the moment. This is significant because Teacher Educator F (Interview, December 2015) told me that their modelling is usually “more reflection in action”;
2. All but one of these behaviours and values are what might be called generic core practices, not subject specific practices (Zeichner, 2012), which are the practices Ofsted, the government agency which inspects ITE, have said are essential for trainees to acquire if they are to become “outstanding trainees”. This is likely to be because the teacher educators are involved in in-service ITE, though it does pose a question about the modelling used by subject specialist mentors who support FEITE trainees’ subject-specialist pedagogy (Van Velzen, 2013);
3. There is a variation amongst the team in the form of modelling they use to model the teaching behaviour(s) and this has implications for trainees’ learning. What they say they do in terms of modelling suggests that the trainees’ experience, or diet, of explicit modelling will be dependent on who is teaching them. For instance, the modelling of ICT would be implicit for a trainee taught only by Teacher Educators B and G;
4. Only Teacher Educator D indicated that they model the sharing of group learning outcomes with their trainees, yet I filmed Teacher Educator B explicitly sharing their learning outcomes in February 2013 and Teacher Educator E indicated they normally do this when we discussed it at our planning meeting for the peer teaching with debrief in February 2014. These two teacher educators may not have felt it necessary to include this in the out of “segment” list as it was designed to capture modelling which was not filmed. All of the team indicated they explicitly model sharing their lesson plan.

5. The modelling of ICT varies amongst the team. There are two things to comment on here. First, Teacher Educator F, who indicated in my interview with them in December that their use of ICT was one of the things they were less confident modelling, indicated that they use “explicit modelling and facilitating the translation to the trainees’ own practice” in relation to ICT, adding “I model ICT through dialogue via emails and using PowerPoints and other IT-based teaching methodologies. However, I am deeply sceptical of blended learning...” (Out of “segment” pro forma, August 2016). This suggests that their modelling may be limited to straightforward use of email and PowerPoint, and shows the limitations of the use of the pro forma, which Teacher Educator F pointed out. Second, their use of ICT is also affected by their access to resources.

To summarise, the evidence suggests that the majority of the modelling in the filmed classes was implicit. When explicit modelling was used then this was mostly explicit modelling with a small number of instances of translating the explicit modelling to the trainees’ practice and a few instances linking it to the theory underpinning its use. This evidence compares favourably with the studies undertaken by Lunenberg et al. (2007) and Ruys et al. (2013). The out of “segment” modelling data was collected later in the study and suggests that by then there was much more explicit modelling being used within this in-service programme; all three forms of explicit modelling were employed within the team, though not all teacher educators use all three of the forms. For instance, Teacher Educator D does not use connecting exemplary behaviour to theory. The limitation to this evidence is that none of these behaviours have been observed or filmed. Lunenberg et al. (2007, p.599) argue that teams who work together and “who analyse each other’s practices with the help of a protocol can learn a great deal from one another”. The team had been researching modelling together since June 2012, so it is possible that the pro formas were completed accurately and that their practice has been transformed as a result. Teachers talking to one another about their practice is one of the ways they can improve their practice, according to Hopkins (1997), and we engaged in “teacher talk” about modelling for four years. The evidence suggests that these FE-based teacher educators have been using more explicit modelling than most of the other studies of modelling suggest is usual. The type and length of a study is likely to determine its findings, and this, I believe, is the longest study of modelling completed.

So how does this use of modelling contribute to how trainees learn how to teach, and how do trainees learn how to teach within a university-validated in-service ITE programme?

Contribution 6: A close study of how trainees learn how to teach within a university-validated in-service ITE programme

My sixth contribution answers RQ3. Rumpus et al. (2011, p.255) acknowledge that hearing “authentic” student voices can make a valuable contribution to teachers’ professional development and ITE programmes. Therefore, we (the teacher educators at the college and myself) have been “hearing and heeding” (Campbell, 2011, p.266) their trainees’ voices on how they are learning to teach and what “can sustain...or suffocate” it (Kemmis et al., 2014a, p.51) to answer RQ3. Profiles of the trainees can be found in Appendix 31.

Conceptions of how to teach when they started the course

The first aspect of learning to teach we explored was linked to Lortie’s (1975, p.61) “apprenticeship of observation” and Munby and Russell’s (1994) idea of “authority of position”. The voices of the trainees provided an insight into the “sayings, doings and relatings” of their former teachers. The first three comments make visible “the apprenticeship of observation” (Lortie, 1975), although in the first instance it was not a positive experience:

“I think the only things I thought...were that I wouldn’t teach like some of the teachers I had when I was younger. I thought, ‘I’m never going to be like that’” (Trainee 5, Focus group with Teacher Educator D’s class, March 2013).

“Certainly at GCSE and A level I had some amazing teachers, who I identified as amazing teachers...and...I would hope I am as fun and as engaging as they were” (Trainee 3, Focus group with Teacher Educator D’s class, March 2013).

“I repeated how I’d been taught at university” (Trainee 3, Focus group with Teacher B’s class, March 2013). This seems to reflect Lortie’s argument that new teachers imitate their former teacher(s).

Trainee 7's words capture how their former teachers might have modelled "the content turn" (Russell, 1997) as part of their "authority of position" (Munby and Russell, 1994) and this then creates for them a pre-conceived idea of how to teach.

"I saw the role of my teachers as people who gave me information content. They stood there and gave me information and I wrote notes" (Trainee 7, Focus group with Teacher Educator B's class, March 2013).

Trainees' conceptions of teaching and how to teach now

I have used Taylor's (2008) four ways of understanding learning to teach as an amplifier to listen to the trainees' voices on how they are learning to teach at this FEC. The first voice projects Hattie's (2009) view that student-teacher relationships play a significant role in how to teach.

"It's not about imparting information, it's about connection; it's about...developing some kind of bonding process that says you trust the information and the person giving the information" (Trainee 8, Focus group with Teacher Educator B's class, March 2013).

There was no evidence in the transcriptions of the focus groups of teacher educators' "cascading expertise" (Taylor, 2008, p.73) and there was only one example of "enabling students' individual growth as a teacher" (p.76).

"The only thing that has changed in me from my first time teaching to where I am now is...confidence (murmurs of agreement from the group)" (Trainee 1, Focus group with Teacher Educator E's class, February 2014).

The trainees gave a number of examples of how they were developing their teaching as a result of emulating their teacher educator and adapting this to their own teaching, which is one of the key goals for a teacher educator (Lunenberg et al., 2007). Examples of "developing student teaching" (Taylor, 2008, p.77) included:

"From the beginning of the first year and in the first session at the back of my mind was the fact that 'okay, Teacher Educator H is doing it this way so what am I going to take out of this to start my first session?'" (Trainee 2, Focus group with Teacher Educator B's class, March 2013).

At the beginning of the course...I thought that the job of a teacher was to transmit information. I'd been teaching for about...three or four years...but when I started the course I realised that teaching was more than just that...I've picked up things from the tutors during class, they've given me ideas, following observations, in their feedback as to how I can involve the students more (Trainee 10, Focus group with Teacher Educator B's class, March 2013).

I think I've had an extended like experience of that in. In my first year I was lucky enough for my head of faculty to sign it off that I shadow Teacher Educator D – they were my mentor – so I spent the best part of a year, a couple of hours a week, shadowing and team teaching alongside Teacher Educator D, who's an advanced practitioner, so I had a teacher training programme that money couldn't buy and I've been spoilt (Trainee 4 in Focus group with Teacher Educator D's class, March 2013).

Teacher Educator E had modelled a non-traditional start to their class, i.e. they had started with an activity and shared the learning outcomes after the activity had been completed. Teacher Educator E then asked the trainees if they could apply this approach in their own teaching and Trainee 6 replied: "...I would rather do it this way where you set a little bit of a scene of where we are going to go and then say what we are going to do..." (00.33.52, Teacher Educator E's filmed class, February 2014). This backs up the argument that explicit modelling with transference to trainee's own practice can shift trainees' existing assumptions about how to teach (Lunenberg et al., 2007).

Another trainee simply said: "I think a lot of it is copying from you something" (Trainee 8, Focus group with Teacher Educator E's class, February 2014). It would have been good to have heard Teacher Educator E point out to this trainee that actually it is not about copying them but adopting and adapting ideas into their own teaching (Taylor, 2008), though this did not occur. Another trainee seems to apply metacognition when they see a practice they could adopt into their teaching:

...I think "I could do that". I do it instinctively without...coming with the purpose of copying something from you. But there is something that clicks and I think that is something I could use in my class, so I take notes of it. I think that's one of the main [learning points for me] (Trainee 8 in Focus group with Teacher Educator E's class, February 2014).

Trainee 1 from Teacher Educator E's group was the only one to mention their mentor as a role model: "...I'll take a little bit from you and take a little bit from my mentor as well and from my previous... tutors when I was at college becoming a chef and how they styled

themselves” (Focus group with Teacher Educator E’s class, February 2014). Lortie’s work (1975) re-emerges in their words too.

Taylor’s (2008, p.78) fourth way of learning to teach is “student as teacher and learner”. Boyd (2014) points out that this requires the highest level of cognition for a trainee and demands that they wear varifocal lenses, which we know from Hogg and Yates’ (2013) work provides a deep cognitive stretch for the trainee, to switch between their dual identity of teacher and learner. Trainee 6 gives us an example of how they are learning new vocabulary and using it in their own teaching:

“Teacher Educator B shows different ways of how we can use that word as well and...give us ways in how we can use that information” (Trainee 6, Focus group with Teacher Educator B’s class, March 2013).

However, two trainees felt that the opportunity to watch others teaching was missing from the second year of the programme:

...You don’t get any opportunity in the second year to see each other teach either. We did in the first year...and, to be honest, it’s more useful in the second year than it is in the first because, by that time, you are more interested in what other people are doing, or you should be, because that is part of your own personal development (Trainee 12, Focus group with Teacher Educator B’s class, March 2013).

“You don’t really get to observe other people teach until you are already an advanced practitioner or you’re a head of faculty. I always felt that I wanted to do team-teaching and watch other people teaching” (Trainee 5, Focus group with Teacher Educator D’s class, March 2013).

However, not all trainees seem to have the capacity to engage with the higher cognitive demands of “student as teacher and learner”:

“I’m glad of some of the things you [Trainee 4] said because some of the things you [Teacher Educator B] said were just going over my head” (Trainee 1, Focus group with Teacher Educator E and Teacher Educator B, February 2014). Trainee 4 responded to this comment by stating: “You have to come down to our level!” To which Trainee 3 added: “Dumb it down a bit [Teacher Educator B laughed heartily and the group joined in]” (ibid).

The two trainees making these comments were on the CertEd and this captures how teacher educators' "sayings, doings and relatings" impact on the "sayings, doings and relatings" of trainees.

Contribution 7: A proposal, building on Taylor's (2008) work, for a new fifth way of learning to teach

This seventh contribution proposes an additional, fifth way of learning to teach: acquiring the language of learning to teach and modelling. The "sayings, doings and relatings" of trainees are shaped by the semantic arrangements (the language of the classroom); the physical-space arrangements (the activities of the classroom and the time to do them); and the social arrangements (the relationships in the classroom in terms of solidarity and power), according to Kemmis et al. (2014a), and that acquiring the language of the "practice tradition" (p.4) of teaching is essential if the trainees are to acquire the language of the profession and access the higher levels of knowledge that will emancipate them and contribute to their learning to teach. However, this is not easy as can be seen from the different trainees' voices.

On the one hand, some trainees spoke positively about the development of their vocabulary:

"It is as if you wanted to change something you have the vocabulary now to say I'm changing it because of this" (Trainee 9, Focus group with Teacher Educator E's class, February 2014).

And on the other some who are confused by it:

"Remind me again what they are. I'm getting confused between implicit and explicit" (Trainee 10 in Focus group with Teacher Educator D's class, March 2013).

And there are those who seem to relish the challenge of it:

"I agree like some of this is over my head but when there were words that I understood I felt clever because I understood them and I quite like that" (Trainee 2 from filmed class teacher debrief in class involving Teacher Educator E and Teacher Educator B, February 2014).

Swennen et al. (2008) emphasise that acquiring the language of learning to teach (teacher educators' capacity to use the language of learning to teach) is important for trainees as they learn how to teach.

Contribution 8: A discussion of the contribution of modelling to how trainees' learn to teach within a university-validated in-service ITE programme

The eight key contribution relates to RQ4. Modelling is even more than the teaching behaviour that Lunenberg et al. (2007) and Boyd (2014) have written about; it is the teacher educator's "sayings, doings and relatings" of that behaviour (Kemmis et al., 2014a) and how the trainee responds to this in terms of their own "sayings, doings and relatings" (p.31). I focus on that in this section of the claims and evidence.

But don't you think the length of the course affects the modelling? Two years we get with two different people, which is [a] good thing in my view...Teacher Educator B does all of that and more [referring to Lunenberg et al.'s four forms of modelling]. Because the modelling that Teacher Educator B does goes beyond this. I don't know what, including emailing you articles, and they take a personal interest in what you're doing (Trainee 12 in Focus group with Teacher Educator B's class, March 2013).

Clearly Trainee 12 sees Teacher Educator B as a role model, though they are struggling to articulate some of the specifics of the modelling they have experienced.

"I think they actually say it...that this is an activity that you can adapt for your class. I think they kind of signpost it" (Trainee 4, Focus group with Teacher Educator B's class, March 2013). Trainee 4 cites an example of Teacher Educator B's use of "explicit modelling and facilitating the translation to the trainees' own practices" (Lunenberg et al., 2007). Another trainee has noticed the modelling of non-verbal communication: "Teacher Educator B implicitly models a very positive vibe when they walk into the room" (Trainee 2 in Focus group with Teacher Educator B's class, March 2013).

Their approach towards how [they] model studying and research would have been brilliant if it had been in the first year of this course...The fact that Teacher Educator B bothered to put that much thought into it is marvellous, it's inspirational rather than anything else in terms of modelling...you do feel inspired to do the same sort of things that Teacher Educator B does with your own trainees (Trainee 12 in focus group with Teacher Educator B's class, March 2013).

Boyd's (2014) layered pedagogy of teacher education can be heard in the final words of this trainee. Another trainee recognises how their teacher educator is relating to their circumstances when designing tasks for them to do during an evening class:

Teacher Educator D often does activities where we have to move around and they are very interactive because Teacher Educator D knows that we've all come from a hard day's work and we're tired and we're grouchy and hungry and we want to go home, so Teacher Educator D tries to involve as much movement as possible to keep us going – moving things around (Trainee 3, Focus group with Teacher Educator D's class, March 2013).

One problem is that trainees may not always notice the implicit modelling within a class and these two voices reflect this:

"I'd have thought so but I didn't notice it" (Trainee 2 when asked by Teacher Educator B with Teacher Educator E's use of "wait time" in the filmed class in February, 2014. Time 00.29.28* Asterisk denotes after first battery change).

"I didn't notice it until it was pointed out" (Trainee 4 when asked by Teacher Educator B with Teacher Educator E's use of the modal verbs – could, should, might, may – when discussing the transferability of modelling to their own teaching practice in the filmed class in February, 2014. Time 00.34.31* Asterisk denotes after first battery change).

When teacher educators use modelling effectively it is deeply appreciated by many of their trainees; however, the diversity of the sector and the variety of subjects taught mean that there are limited opportunities for subject-specialist modelling either by mentors or subject specialist tutors. This is being addressed in schools-based ITE (DfE, 2016) though needs to be addressed for FEITE. Trainees may not notice their teacher educators' use of modelling and the findings of the research into the Viewing Frame suggest a way forward.

Contribution 9: An analysis of what happens when HE and FE-based teacher educators work collaboratively to improve the "pedagogy of teacher education"

The ninth contribution answers research question 5. It is concerned with this instance of teacher educator collaboration and its contribution to these teacher educators' knowledge of and use of modelling and supporting their trainees' "learning to teach". Lunenberg et al. (2007) point to research by Bal et al. and Menges on the benefits of teacher educator

collaboration, though Korthagen (2001) acknowledges it is not common practice. Drawing on four years of data, the six findings are:

1. “Turning on the modelling lens”: “professional conversation” and “teacher talk” stimulating fresh thinking and practice;
2. Using SRI enabled the teacher educators to “see into” their own practice;
3. Modelling Stenhouse’s teacher as researcher role to new teachers;
4. The modelling of action research by the researcher has supported these FE-based teacher educators’ role of teacher as researcher;
5. Praxis and producing;
6. Supporting trainees to learn how to teach;

Turning on the modelling lens: “professional conversation” and “teacher talk” stimulating fresh thinking and practice

Lahiff (2015) suggests that a dialogue after an observed class is a development opportunity. This study’s use of SRI and “Teacher Talk” (Hardy, 2010, p.131) meetings introduced “a modelling lens” into these FE-based teacher educators’ practices and turned it on by engaging them in a democratic and meaningful “professional conversation” (Kvale and Brinkmann, 2009, p.2) about their use of modelling, leading to new ways of thinking and praxis. Teacher Educator C (SRI, February 2013) said: “what your research has prompted me to think about in terms of developing my own practice is in terms of the explicit modelling”. Teacher Educator E (“Teacher Talk” meeting, June 2014) said: “Just even planning a session I was a lot more conscious about what am I modelling and how am I going to do that and how is it going to come across?”

Teacher Educator D (Pers. comm., July 2016) reflected on their use of modelling after completing the out of “segment” modelling pro forma:

...doing this last task has helped me to realise just how much I do use explicit modelling now – I think when you saw me, I wasn’t really using this as a strategy, but it’s permeated into my practice more and more and it’s something I feel is important for me to keep on developing.

Teacher Educator B (“Teacher Talk” meeting, September 2013) reinforces the message: “that was an interesting experience for...myself...and it made me make explicit what had usually been only implicit – or rather only a small percentage had been explicit”. Being a participant in the research has raised this teacher educator’s awareness of their practice.

...before this research I hadn't...even asked myself the question... I'd thought about it at a basic level of how I was modelling implicit behaviour and I had also thought of telling them about explicit skills but it wasn't... that consciousness raising... (Teacher Educator C, Interview, February 2013).

Eighteen months later they added a further insight into the process:

It was useful to take that time out to go through that metacommentary and...it was like going through guided reflective practice...so it was actually a way for me to talk about some of the things I'm thinking of but actually getting some useful ideas and bouncing ideas between myself and yourself which kind of allowed me to see things sometimes a bit differently and to question myself further (Teacher Educator C, "Teacher Talk" meeting, November 2014).

Their learning has been transferred by Teacher Educator B into their other ITE teaching: "I...am...more conscious of the how [of modelling] with the pre-service especially with mathematics teacher education because I'm interested in how mathematics teachers are prepared" ("Teacher Talk" meeting, November 2014). I was then able to suggest the Wood and Geddes article as an example of modelling in maths teaching.

Teacher Educator E ("Teacher Talk" meeting, November 2014) reflected:

I think I began by thinking it's teaching and learning strategies and the decisions you make and then that's evolved to actually it's your whole conduct and whole identity and how you deal with somebody who is challenging you quite publicly...maybe if I wasn't involved in this study I wouldn't have stopped and thought "okay, hold on, you're the teacher educator what are you doing here?"

Teacher Educator C, at the same meeting, said:

I learnt a lot from working with Teacher Educator F and I became aware of certain values and things that Teacher Educator F embodies as a teacher trainer and the way that they model that and I started to think about it more. Perhaps I would have done that anyway but the very fact that we were talking about modelling and that our focus was on that made me then think about what the people that I work with are doing and what I can learn from that ("Teacher Talk" meeting, November 2014).

These last two quotations emphasise that modelling is more than just teaching strategies; it is modelling what a teacher should be like. Russell (1997, p.32) summarised this into "How I teach IS the message".

These teacher educators are also thinking more about modelling. Teacher Educator B (Interview, December 2015) observed that they are more aware of modelling, how it is used within the team and strategies they can use "...so being part of the research has given me an insight into other teacher educators' practices..." And Teacher Educator C ("Teacher Talk" meeting, November 2014) echoes this: "...you've got me to think more about modelling..." And Teacher Educator D:

...I'm more aware of modelling in different circumstances...[and] in a way [a] more holistic view of modelling...it's the whole of how you are and in a sense as teacher educators, you're modelling how you behave as a professional in the sector...I'm trying to model to learners, erm, a way of them becoming more empowered...[and] I've started explicitly talking to trainees about resistance and it's almost like modelling to them the fact that it's okay sometimes to say that that's not okay or that's too much for me or I'm not ready to do that yet or whatever it is and actually that's okay and I think that is actually part of modelling...it's a big thing, you know, it's not a small thing and it encompasses all aspects of your practice (Interview, March 2016).

Looking at the table that summarised the modelling used in the classes and considering the modelling they used in their class, Teacher Educator D had a "gestalt" (Houston, 1982) moment:

I'm just thinking about...what looks like a bit of a lack of balance... quite a lot of dependence on certain things above others...I'm kind of thinking well how do I...communicate the delivery aspect of this and actually I probably do it almost entirely through just doing it [DP implicit?].... I want to review how I'm delivering, to make sure that I'm covering a range of models, to provide them with that range of inputs... because I suspect that's a much more effective (Interview, March 2016).

To conclude this section, I present two examples from the team. Teacher Educator C (Pers. comm., March 2016), responding to my analysis of their use of modelling in the film of their class:

As a result of your work with me, I think much more about how I am modelling different behaviours. I do now build in explicit modelling of this practice. Although, not always in every lesson! Doesn't this whole experience show how little a normal teaching observation can uncover? This whole experience of the transcript and stimulated recall discussion uncovers a lot more.

In response to an invitation to comment on their experience of being in the study, Teacher Educator F ("Teacher Talk" meeting, November 2014) reflected: "...the word "model" actually occurs more amongst us because it's around and we do think about and it does

come up". Modelling has become part of their "teacher talk"; it has become part of the "sayings, doings and relatings" of the team.

Use of SRI enabled the teacher educators to "see into" their own practice

Calderhead (1981, p.211) suggests that SRI is an "interactive" process that enables "access to the thoughts and decision-making" of teacher educators. Teacher Educator B's words confirm this: "...there was lots of feedback from yourself but not in a kind of dominant sense that you were drawing out things that maybe I hadn't thought of ("Teacher Talk" meeting, September 2013). And it is a powerful tool too: "I think watching the video and doing the commentary on the playback of my class was really interesting... a really powerful tool for reflection actually..." (Teacher Educator D, "Teacher Talk" meeting, September 2013). It acts as a prompt and learning tool to promote participants' "own cognitive processes" (Savage, 2016, p.15) and thinking about their teaching: "It also highlighted for me... to remember to keep flagging that up to the students to think about the process as well as the product: to think about the way they were doing things and why in the classroom" (Teacher Educator D, "Teacher Talk" meeting, September 2013).

A recent paper by Endacott (2016) suggests that SRI could be used with trainees to promote deeper and more meaningful reflection and this is something I return to in the conclusions. The SRI process was one of critical friendship, according to Teacher Educator D (Team meeting, November 2014):

I found it personally very illuminating and very helpful to have you there. I felt very safe with you and I felt very engaged with the process and therefore I just felt you were a critical friend in the best way to help me to explore my practice and to spend a little bit of time thinking...

Modelling Stenhouse's teacher as researcher role to new teachers

One of the unintended consequences of this collaboration was that we modelled the role of teacher as researcher (Stenhouse, 1981, p.104) to the trainees:

...it also was interesting for the students and helpful for them to see that we were consciously looking at our practice and also we were engaging in action research ourselves. And they were interested to see this being modelled to them... (Teacher Educator B, "Teacher Talk" meeting, September 2013).

As part of this, they were able to see "respectful and critical dialogue between two professionals" (Kluth and Straut, 2003, p.237).

Modelling of action research by the researcher has supported these FE-based teacher educators' role of teacher educator as researcher (Lunenberg et al., 2014)

The voices of these FE-based teacher educators suggest that being involved in this research supported their research goals. Teacher Educator C ("Teacher Talk" meeting, June 2014) said: "...being involved with you, has, again, been a motivator in terms of me thinking about my own research". Teacher Educator D reflected that "...you were modelling the importance of research and also of emancipatory relationships with colleagues... I felt empowered by being involved in your research because it felt it was another way of being part of something rather than just reacting..." ("Teacher Talk" meeting, November 2014). Teacher Educator C, discussing the impact of the study on their own research, added: "...it's linked me with the research community...I have seen the way that you're working, as a researcher...I feel now involved in a research community, which has allowed me then to work on publishing work" (Interview, February 2016).

Praxis and producing

The research has resulted in praxis (Hardy, 2010). Teacher Educator B, discussing the Loughran and Berry (2005) paper, remarked:

I read it a long time ago and I remember giving this out for a meeting a couple of years ago and we talked about modelling and then people were interested in it and everything but it is the actual doing of it that hasn't happened. ("Teacher Talk" meeting, June 2014).

They added that:

...making it [modelling] part of the culture of our team and making that even clearer at induction is the type of activity that we will be engaging in...[it] should become part of what we do normally... (ibid.).

Later Teacher Educator B, discussing an outcome of the peer teaching with debrief intervention, stated:

...the leitmotif that keeps reappearing is that the research has contributed to a more expansive rather than a restrictive working environment so what we found is that it has contributed to cross college working in terms of our COPPs – communities of professional practice – and it's developed into team teaching so it is beginning...to contribute to cross college working and team teaching ("Teacher Talk" meeting, November 2014).

As a result of the suggestion by Teacher Educator B in our “Teacher Talk” meeting in September 2013 to develop a Viewing Frame, I produced one, revised it and shared it with the team, at the UCET conference in 2015, at ATEE in 2015 and with the Professional Development of Teacher Educators’ RDC at ATEE’s 2016 conference. Quinta Kools, one of the chairs of the RDC who is based at Fontys University, evaluated the Viewing Frame and its contribution to her team’s work:

This Viewing Frame inspired us very much, as we are also struggling with our task as teacher educator in being a role model... Three members of my research group have since then applied the Viewing Frame in their work. One of them applied it with her students and asked them to use it. This certainly was not easy for the students, they used it to evaluate the lesson instead of trying to see what their educator was doing. So this helped my colleague to become aware of the difficult task of modelling. Two other colleagues have used the Viewing Frame as a starting point in a group of teacher educators, who are focusing in their role as role model... We will certainly continue using it in our practice! (Pers. comm., September 2016).

Supporting trainees as they learn how to teach

Teacher Educator B, talking about the peer teaching with debrief intervention, observed:

...when we talked about humanist orientation...one of them said that’s the way Teacher Educator E teaches and they have a very humanist approach... This project, perhaps, has given the students a language to articulate what is latent (“Teacher Talk” meeting, April 2014).

Teacher Educator E added:

I found that what happened afterwards in subsequent weeks is, to recap things, I would say “do you remember we did an activity on such and such; what was my approach?” and “what am I doing when you come in and you sit down and you are ready to look at the objectives?” ...And I found that I was doing that more and more after that session and with my other teaching as well and that was really useful because it then started to get them thinking about activities and the way they are designed and which approach I’m using... (“Teacher Talk” meeting, April 2014).

Teacher Educator E (Interview, August 2015) uses the structure of the Viewing Frame to ask their trainees five questions: “What have I just done? The first two tasks today, how are they designed? How do they make you feel? Do you think you could use something like that? Is it right for your practice and your context?” This is an example of Lunenberg et al.’s (2007) explicit modelling and facilitating the translation to the trainees’ own practice.

They continued: "...the group that have been involved, who know it's about modelling, it's made them more conscious about what they model to their students in terms of their personas, their personalities..." (op.cit.). Again, this is an example of what Boyd (2014) calls the layered pedagogy of teacher education.

Teacher Educator B reported that:

The pre-service trainees said at the first student panel that "they are modelling themselves on our practice in their own classrooms... They used the term... we've built it into the educational aims of the entire programme, it is an aim...and we built it into the induction...and...we were really pleased to have that feedback (Interview, December 2015).

These trainees are starting to use the language of learning to teach and the layered pedagogy of teacher education (Boyd, 2014).

Some concluding thoughts on the evidence and claims

This study's nine main findings/contributions have:

1. Illuminated our understanding of how trainees learn how to teach and that the process starts with "learning to look".
2. Resulted in the development of a Viewing Frame as a teaching resource to support trainees' "looking" and observational skills.
3. Proposed "a new way of looking" (Berger, 2009) at what constitutes effective modelling and suggests that it is based on the practices – the "sayings, doings and relatings" - of the trainees and the teacher educators and how they "hang together".
4. Employed Kemmis' et al.'s ecologies of practices to identify 25 different factors that shape teacher educators' use of modelling and how these "hang together" to "sustain or suffocate" teacher educators' use of modelling with this college's ecologies of practices.
5. Identified 61 generic, core teaching behaviours modelled by these FE-based teacher educators. These behaviours were generic, core practices. At the start of the study the modelling of these behaviours was mostly implicit, though later on there was greater use of explicit modelling as the teacher educators became familiar with it as a concept and its "sayings, doings and relatings".
6. Identified that trainees still draw on their experience of being taught to inform their teaching as they learn how to teach. Three of Taylor's (2008) four ways of learning

to teach were evident in the “sayings” of the focus groups held with the trainees; the one that was not mentioned was “cascading expertise”.

7. Suggested that trainees would benefit from acquiring the language of “learning to teach” as they seek to understand and articulate how they have been learning to teach within their ITE programme. This is a fifth way of lea;
8. Suggested the majority of the trainees valued their teacher educators’ use of modelling, though there were two instances of trainees who felt that the modelling of the generic, core practices was not always helping them learn how to teach.
9. Posited this collaborative study has “turned on the modelling lens” for these FE-based teacher educators, enabling them to “see into” their own and others’ practice and learn from it. They have become role models for their trainees, which the trainees acknowledge, and changed their practice as a result of being involved in the study. It has also contributed to their professional learning as researchers.

Chapter 8: Reflections and looking forward to new FEITE practices

As the CARN 2013 conference drew to a close on Saturday 9 November, one of the delegates stated that action research is different from other research methodologies in that “it is not a one-night stand”. This study has been about building a research relationship with a team of FE-based teacher educators and by September 2016 we had been together over four years. Despite some difficulties, we have sustained the relationship because it has been mutually beneficial; we have all, teacher educators and trainees, learned from each other. Revisiting the research questions from Chapter One, this final chapter considers what has been learned about FE-based teacher educators’ use of modelling and how these new bricks (Wellington, 2000) add to the wall of knowledge on the practices of FE-based teacher educators. It concludes by suggesting changes that might make FEITE and FE-based teacher educators’ practices even more effective.

All teacher educators’ “sayings, doings and relatings” potentially model a teaching behaviour to their trainees and implicit modelling may be an example of excellent teaching behaviour (or poor teaching behaviour) that could be valuably discussed with trainees to support their learning how to teach. On initial investigation of the FE-based teacher educators’ use of modelling I found that implicit modelling predominated, though there were examples of all three forms of explicit modelling used too. Where explicit forms of modelling were used, it was Lunenberg et al.’s (2007) “explicit modelling” that was most frequently employed by these teacher educators. However, by the end of the study there seemed to have been a significant shift towards much greater use of all three forms of explicit modelling, though this was not uniform across all of the teacher educators in the study. A compilation of the teaching behaviours modelled during the study, the forms of modelling used, and who used them, are captured in Table 8.1.

Table 8.1: Summary of the six FE-based teacher educators' use of modelling during the study by behaviour and form

Notes: Implicit modelling = 1; Explicit modelling = 2; Explicit modelling and facilitating the translation to the trainees' own practice = 3; Connecting exemplary behaviour with theory = 4.

Teaching behaviour modelled	Forms of modelling	By whom
Academic writing	Explicit 1 & 2	Teacher Educators B, C, D, E, F & G
Andragogy	Implicit	Teacher Educator E
Assessment requirements (module specification)	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Assessment (formative)	Implicit, Explicit	Teacher Educators C & E
Being critical	Explicit 1	Teacher Educator C
Checking understanding	Explicit 2	Teacher Educator D
Classroom displays	Implicit & Explicit 1	Teacher Educators B, C, D, E & G
Classroom management techniques	Explicit 2	Teacher Educator F & D
Classroom set-up/ergonomics	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Collaborative practices	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Communication in a class	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Curriculum planning	Explicit 1	Teacher Educator D
Differentiation	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Directed activities related to texts embedding the minimum core (literacy, language, numeracy and ICT)	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Dominant syntax of teaching	Implicit, Explicit 1	Teacher Educators B & E
English as a medium for ESOL learners	Explicit 2	Teacher Educator D
Use of emails	Implicit, Explicit 2	Teacher Educators B, C, D, E, F & G
Emotional intelligence	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Emotional resilience	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Equality and diversity	Explicit 1	Teacher Educator B
Feedback	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Flipped classroom	Implicit	Teacher Educator B
Group work	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
ICT	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Inclusivity	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Indeterminate future	Implicit & Explicit 1	Teacher Educators B, C, E, F & G
Instructions for learning	Explicit 2	Teacher Educator D
Late arrival of a student	Implicit & explicit	Teacher Educators C & E
Lesson planning	Explicit 1, 2 & 3	Teacher Educators B, C, E, F & G
Listening skills (when trainee responds to a question)	Implicit	Teacher Educator E
Literacy, embedding of skills	Implicit	Teacher Educators B, C, D, E, F & G

Teaching behaviour modelled	Forms of modelling	By whom
Managing an activity	Implicit	Teacher Educators C & E
Metacognition	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Mnemonics	Explicit 3	Teacher Educator C
Non-traditional start to class	Implicit	Teacher Educator E
Non-verbal communication	Implicit	Teacher Educator E
Noticing	Implicit & Explicit 1	Teacher Educators C & E
Paralinguistic behaviours	Implicit & Explicit 1	Teacher Educator B, C & E
Passion for teaching	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Pedagogical decision-making	Explicit 1, 2 & 3	Teacher Educators B, C, D & E
Questioning	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Recap	Implicit	Teacher Educator C
Reflection, critical	Explicit 1	Teacher Educator C
Reflection in action	Explicit 1	Teacher Educator E
Reflecting back (after a question)	Implicit	Teacher Educator C
Relational resilience	Implicit, Explicit 2 & 3	Teacher Educators B, C, D, E, F & G
Relationship building	Implicit, Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Resistance	Implicit, Explicit 1, & 3	Teacher Educators C, D, E, F & G
Review of an activity	Implicit	Teacher Educator C
Role play	Implicit, Explicit 1 & 2	Teacher Educators B, C, D, E, F & G
Scaffolding learning	Explicit 1	Teacher Educator D
Sharing group learning objectives and framework for session	Implicit, Explicit 1 & 3	Teacher Educators B, D & E
Suggestion circles	Explicit 1 & 2	Teacher Educators B, C, E, F & G
Teaching activity, design of	Implicit, Explicit 1, 2 & 3	Teacher Educators C, D & E
Teaching materials	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F, G
Teaching materials, embedding of equality and diversity	Explicit 2	Teacher Educator E
Thought processes	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Unconditional positive regard for learners	Explicit 1	Teacher Educator D
Values	Explicit 1, 2 & 3	Teacher Educators B, C, D, E, F & G
Vulnerability	Explicit 1, 2 & 3	Teacher Educators C, E, F & G
Wipe board	Implicit	Teacher Educator B, C & D

The findings suggest the 61 teaching behaviours modelled within this in-service programme were generic, core practices (Zeichner, 2012). This means that the trainees needed their mentors to model the subject specific core practices to support them with that aspect of their ITE. Only three trainees mentioned they were learning how to teach from their mentor and this would suggest that the mentors' role in how FE trainees learn how to

teach, including their use of modelling, needs to be further researched. This also highlights that there could be even more explicit modelling of sharing learning aims and outcomes, especially when this would seem like an opportunity to signpost the upcoming use of modelling in the class. There is an opportunity to turn on the modelling lens for all trainees to maximise learning from the start.

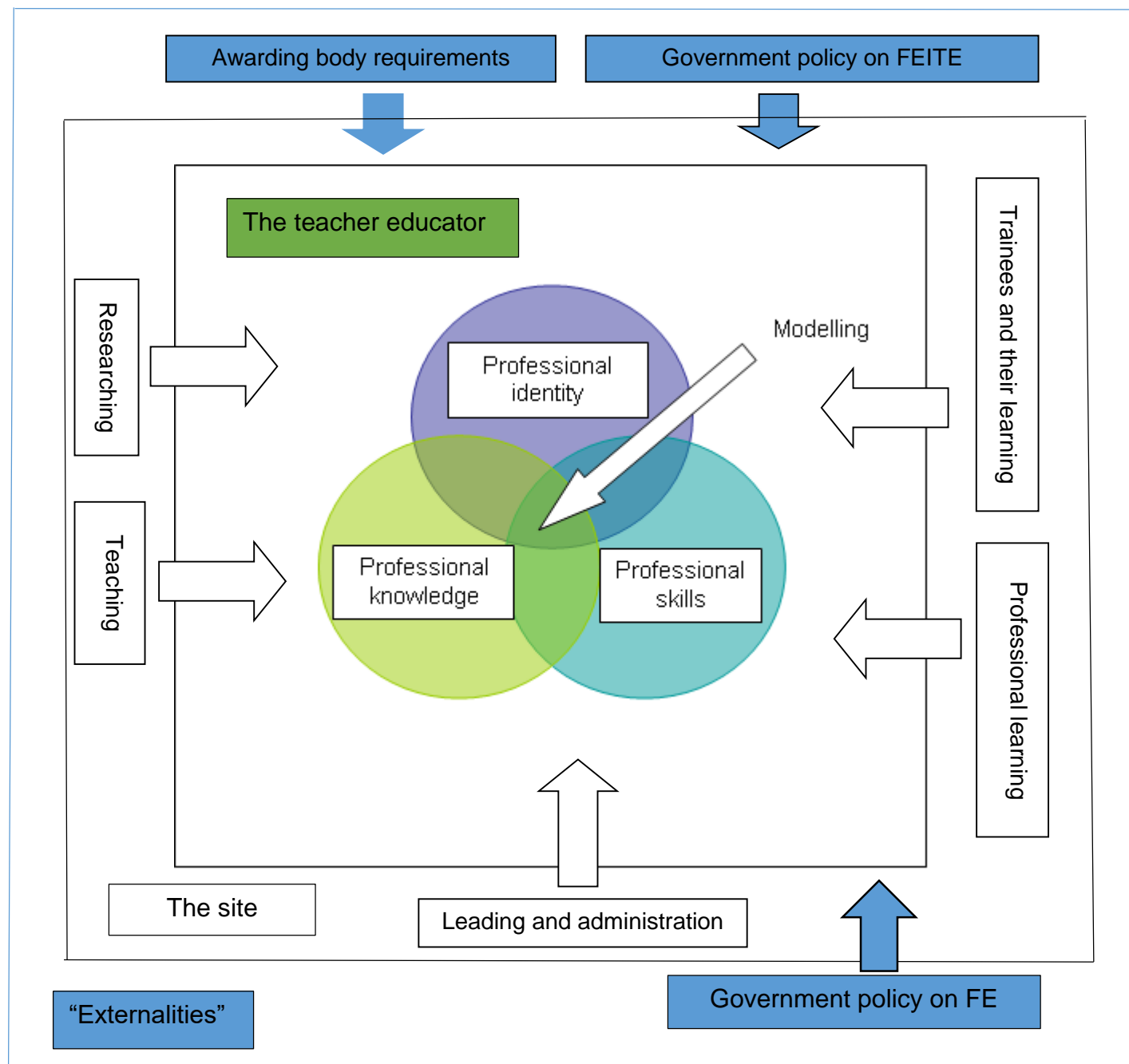
33 of the behaviours in the table are not yet “connecting exemplary behaviour to theory” (Lunenberg et al., 2007, p.592) and this could suggest a CPD need around the theory underpinning that teaching behaviour, for instance, the use of suggestion circles, which five team members use. There are some behaviours which may not be modelled by all the team; for example, Teacher Educator B’s response suggests they are not modelling their vulnerability. I would have thought that this might be modelled implicitly at least. Nevertheless, there is still a considerable amount of explicit modelling which is now part of these teacher educators’ practices.

There are two main factors contributing to change in their practice. First, the length and architecture of the study meant these teacher educators have been immersed in modelling, its language and its literature for four years and as a result have a much deeper understanding of it. This has sustained the second factor: the study’s team-based approach, including an intervention and extensive “teacher talk”, which created a “community of discovery” for all participants. This enabled the teacher educators to develop, over time, a more considered and expansive approach to their practice. Hopkins (1997) claims that teachers talking about their practice contributes to improved practice, and Lunenberg et al. (2007, p.599), drawing on Bal et al. (2002) and Menges (1994), argue that teacher educators who collaborate to “analyse each other’s practices...can learn a great deal from one another”.

Effective modelling is more than just doing, as Hogg and Yates (2013) suggest, it is about the “sayings, doings and relatings” of the teacher educator and trainees and therefore it is important to recognise what shapes teacher educators’ modelling. The data suggests that effective modelling happens at the intersection of a teacher educator’s skills as a practitioner, including their command of language and ability to explain unambiguously their teaching; their professional knowledge, which combines their knowledge of the initial teacher education curriculum with what Shulman (1986, p.9) calls “pedagogical content knowledge”, which includes knowledge of “the subject matter” and the “pedagogy of

teacher education” (Loughran, 2007, p.1); and professional identity, which includes personality, the range of experiences in a teaching career to date and subject specialism, the role of the teacher educator at their college and their disposition towards its different facets. Additionally, there is the “organizational field” and “organization as field” (Bourdieu and Wacquant, 1992 quoted in Emirbayer and Johnson, 2008, p.3 and p.22). This is all enacted within the wider “context” (Coffield, 2014, p.82) of the five other practices of the college’s ecology – professional learning, teaching, leading, researching, trainees’ learning – and what Coffield, referring to Ball et al.’s work, calls “externalities” (p.83), which are government policies towards FEITE specifically and FE generally, and awarding body requirements. All of these are interacting with and influencing the teacher educator and their practice. Building on Boyd’s (2014, p.62) sociocultural perspective of teacher knowledge, this is represented in Figure 8.1.

Figure 8.1: Factors affecting FE-based teacher educators' use of modelling



More specifically, the curriculum these teacher educators were delivering a university-written curriculum, which seemed, in the words of Eraut, “overcrowded” with “all the knowledge required for a lifetime in the profession, almost regardless of students’ ability to digest and use [it]” (1994, p.11). More recently, Pritzkow and Snoek (2016), in relation to schools’ ITE, asserted the curriculum is expected to equip teachers with what they need to know for a lifelong career in teaching. The current FEITE curriculum is a product of the reviews and reforms since 2000 (Kidd, 2013) and has been “factorised” (Lawy and Tedder, 2009, p.53) by the introduction of FE teacher standards, all of which sits within the “active

force” (Coffield, 2014a, p.83) of a sector undergoing “permanent revolution” (Coffield, 2008, p.9). This is encapsulated in the words of Teacher Educator C: “there is so much for students to learn in Year 1 and it almost feels like there isn’t enough time... there is so much to do...” (SRI, February 2013). This, in turn, creates dilemmas for the teacher educator as they try to balance Russell’s (1997) content turn and the pedagogical turn, which is where modelling sits. This is not a uniquely English problem either. Heap and Garbett (2011) concluded that their New Zealand ITE primary curriculum had too much content and needed to be reduced before they could increase the pedagogy of teacher education within the course.

The “sayings, doings and relatings” of these teacher educators’ professional learning interplayed with their teaching practices. The induction of new teacher educators in this context was the joint responsibility of the college and the university, though where the balance lies seems unwritten and unspoken. Based on the voices of the teacher educators and a review of the university’s new tutor development day, which I would assert is an induction programme in all but name, my conclusion is that these teacher educators’ induction seems brief and exclusively concentrates on the technicalities of the curriculum and assessment and the university’s systems and being signposted to key textbooks for teaching, all of which are essential. This could be added to by exploring the pedagogy of teacher education and its literature, including the concept of modelling, which are essential knowledge for new teacher educators. The induction process and activities these teacher educators have completed seem uneven and uninformed by Boyd et al.’s (2011) guidelines for inducting new teacher educators, which are aimed at HE and FE-based teacher educators and recommended to last up to three years. This leads me to conclude that their inductions were short, a year at most, unlikely to fully prepare them for the role of being an FE-based teacher educator and, as I see it, equip them with the knowledge, attitudes, skills and habits to fulfil it. These were inductions for teacher trainers, not teacher educators. This suggests to me that further work needs to be done to set out what might constitute an appropriate induction for an FE-based teacher educator, its duration and who might be responsible for each activity. I have suggested an induction programme in Appendix 27.

Research on CPD has tended to focus on teachers, not teacher educators, though this has begun to be addressed by Bates et al. (2011); however, the 23 chapters in their book focus exclusively on HE-based teacher educators and their case studies from across the

world. Scales et al. (2011) discuss CPD for teachers working in the FES sector but not teacher educators, so we have to turn to Noel (2006, 2011), Harkin (2008), which was never published, Crawley (2014) and Eliahoo (2014) for what we know about FE-based teacher educators' CPD needs, and all of these studies were relatively small scale for a sector that might have almost 2,500 FE-based teacher educators, according to Eliahoo (2014, p.51). This study adds some bricks to the existing wall of what is known about their CPD needs and activities. The finding that some of the explicit modelling is not "connecting exemplary behaviour with theory" (Lunenberg et al., 2007, p.592) suggests a possible CPD need. There is evidence from my interviews with Teacher Educators C, D and F that they are engaged in writing and publishing papers on their practice and thus fulfilling the researcher role of the teacher educator identified by Lunenberg et al. (2014), though there seems to be a need for mentoring for new researchers who have completed a masters but are not yet ready for doctoral study. At present this is being effectively provided by Teacher Educator F, an experienced author, though Teacher Educator C suggested this is something the university could offer (Interview, February 2016). Teacher Educator B highlighted that there is limited external CPD on the teacher of teachers' role (Lunenberg et al., *ibid.*) for the team and this is something that they would like.

The "material-economic arrangements" (Kemmis et al., 2014a, p.32) of the college in terms of contracted teaching hours, the fractional nature of some of their posts, and the location of offices seem to have meant that there is little time to meet and jointly plan classes where there is more than one-year group. There seems to be no strategic level planning yet of mapping the use of modelling within their programmes. This is important as the frequency of the modelling of a behaviour, particularly when it is being done implicitly, affects trainees' perception and recognition of it (Hogg and Yates, 2013). At a more practical level, the teacher educators had different ways of formalising modelling into their teaching. Teacher Educator B ("Teacher Talk" meeting, November 2014): "I teach with accompanying notes always because... I really try to get everything across that I wish to relate and my accompanying notes will say 'ask the trainees why this is being used' – it's that level of detail". Whereas Teacher Educator D said: "I don't think I write it explicitly into my planning it's more I have it as a teacher's note in my head" (*ibid.*). Modelling should be articulated within lesson plans and aims and outcomes, and shared with trainees, though it is not happening consistently, according to these teacher educators and their planning materials. Once the class begins there is evidence that the diverse types of trainee in the class – some will have doctorates and others a Level 3 in their subject specialism – and

the level they are studying at seem to impact on how these teacher educators approach their teaching and modelling.

The data suggests that the alchemy of modelling starts with the “sayings, doings and relatings” of teacher educators and is realised when they positively interact with the trainees’ “sayings, doings and relatings”. Boyd (2014, p.52) argues that ITE in universities has “an added complexity” because trainees have served Lortie’s (1975) “apprenticeship of observation” and it requires them to see themselves both as “teacher and learner” (Taylor, 2008, p.78). If this is the case, FEITE trainees experience a double or triple complexity when learning to teach because of the assumptions FE-based teacher educators make about ITE, i.e. trainees need to know about the content of the course, not how they will learn how to teach, the standardisation and regulation of their curriculum, and the “blunder upon blunder” (Coffield, 2015, p.23) of the Coalition and Conservative governments whose policy imperatives since 2010 have been austerity and reform. This has created “a period of uncertainty” for many teachers and teacher educators in the FES sector (Powell, 2016b, p.3).

Specifically, this data suggests that more time and attention could be given to introducing trainees to how they will learn to teach and acquiring its language when they start their programme. This College team re-designed their trainee induction in September 2013, though there was evidence from trainees’ voices (Focus group with Teacher Educator E’s class, February 2014) that they were not familiar with, or using, the language of learning to teach at that stage. This is important because these “sayings” allow teacher educators and trainees to engage in a “productive dialogue” (Coffield, 2014a, p.86) about learning to teach. Since then the team have re-designed their programme and written modelling into it and Teacher Educator B (Interview, December 2015) told me that their trainees talked about their teacher educators’ use of modelling in a recent student panel.

Lortie’s (1975, p.61) “apprenticeship of observation” is often cited, by Boyd (2014) for instance, as being influential in how trainees learn how to teach. However, there seems to be a flaw in its argument because it assumes that the trainees who have completed their 13,000 hours of “apprenticeship of observation” have been shown how to observe their teacher and they have not, according to Munby and Russell (1994). This would partially explain why some trainees said they did not notice the teaching behaviours being modelled (Focus group with Teacher Educator E’s trainees, February 2014). Another

factor is trainees are trying to attend to two things in their classes – the content and the pedagogy – and trainees find this difficult (Hogg and Yates, 2013). This all places demands on trainees’ cognitive and metacognitive abilities and their ability to see themselves as “teacher and learner” (Taylor, 2008, p.78), which is the most cognitively demanding of the four ways a trainee learns how to teach (Boyd, 2014). The cumulative effect of this is that it affects their ability to engage with their teacher educators’ use of modelling and this conclusion was validated by the UCET validation group (November, 2015). The development of the Viewing Frame is a response to this and begins to address these challenges.

Another dimension to the complexity is that these in-service trainees are not, excepting an online component and a two day conference equating to ten credits or 12% of their course, taught in subject specialist groups, unlike some pre-service trainees and most of schools-based ITE. This means that the modelling of generic, core practices (Zeichner, 2012) predominates within in-service programmes and even then this may not seem applicable to all the trainees. There were two instances where the trainees did not find their teacher educators’ use of modelling relevant to their own teaching. The first was a British Sign Language teacher and the other a teacher of practical sports. Teacher Educator F (Pers. comm., September 2016) argues that it is examples like this that make modelling “*problematic*” within FEITE, though my view is that this is an issue of congruent teaching (Boyd, 2014), not modelling, and it emphasises that it is not the sole responsibility of teacher educators to teach their trainees how to teach. The trainee’s mentor plays an important role too because of the expectation that they support the development of the trainee’s subject specialist pedagogy and they should be doing this using a range of techniques, including modelling. However, only three trainees in this study spoke about their mentors’ role in how they were learning to teach – all of them favourably – and this suggests the recognised challenges of securing high quality mentoring for all trainees remains within FEITE (Ofsted, 2003; Ofsted, 2009).

There seem to be five “leadership and administration” practices that shape teacher educators’ use of modelling:

1. Because of the experience and knowledge of those involved in recruiting new teacher educators, the appointment process for these teacher educators appears to have focused on the technical aspects of a teacher educator’s role and not the

pedagogical. This means that the roles of a teacher educator, including making oneself vulnerable when modelling behaviours and values (Lunenberg et al., 2007), have not been fully explored and explained as part of the process and before they decide whether they want the job of teacher educator. This is then compounded by their overly technical induction.

2. The leadership of this team seems to be supporting their practices and their use of modelling in particular. This is evident in two ways. First, the team hold Teacher Educator B, their manager, in very high regard. Teacher Educator C described them as “an exceptional individual” (Interview, February 2016) and Teacher Educator F described them as an “inspirational leader...a fantastic...manager...” (Interview, December 2015). This seems to foster an environment of high expectations and collaborative approaches, both of which appear to sustain the exploration and expansion of these teacher educators’ thinking and practices. Second, Teacher Educator B’s belief in this research meant I had their full, on-going co-operation and support for this study and this sustained it until its completion.
3. The college’s “leadership”, which Teacher Educator B has described as very supportive, are keen to support expansive teacher educators’ practices and have “accorded teacher education a strategic role in the development of the organisation’s staff” (Teacher Educator B, Pers. comm., September 2016), though practices, such as Loughran and Berry’s (2005) peer teaching with debrief, need to be justified and set out as mandatory within the course specifications for there to be guaranteed financial support. This potentially impacts on these teacher educators and their trainees because it places limits on the “sayings, doings and relatings” of the modelling within the programme.
4. There was some evidence that the ICT resources, specifically IWBs, may have affected the modelling of ICT by two members of the team during the study. “*The whiteboard was never properly configured*”, according to Teacher Educator C (Secondary text comments on SRI, February 2013), and Teacher Educator D spoke in March 2016 of problems with the IWB the previous week (Interview, March 2016). Teacher Educator B states that the problems of the “the IT infrastructure and support” have been resolved now (Pers. comm., September 2016), though these improvements were after the study had concluded. There is one other point that

relates to the use of IWBs. Teacher Educator D pointed out that modelling the use of IWBs may not be congruent teaching for many trainees as the most they “*may have, at best, a very small whiteboard and some pens*” in their classrooms (“Teacher Talk” meeting, October 2015). This captures the “untidy world” (Segall, 2002, p.170) of FEITE and provides a secondary text to FELTAG’s narrative on the need for greater use of technology in ITE and teaching.

5. The “material-economic arrangements” at the college seem to influence these teacher educators’ use of modelling. There are at least four practices interplaying here: the teacher educators’ contracted teaching hours; Type 1 time, which gives teacher educators time to plan for modelling in their teaching (Lunenberget al., 2007); Type 2 time, which is the amount of in-class time a teacher educator has to cover Russell’s (1997) content turn and pedagogical turn; and the administration accompanying the role of teacher educators at the college. These teacher educators are teaching more than 830 teaching hours for a full-time role (Teacher Educator B, Pers. comm., August 2016); this can be compared with 550 hours for most HE-based teacher educators. This, in turn, is likely to create Type 1 time pressures for these teacher educators as they prepare their classes, though they did not mention it. However, the teacher educators did mention Type 2 time pressures in class to cover their curriculum and this seemed to shape their approaches to teaching. The “sayings” in my interviews with Teacher Educators C, D, E and F placed greater emphasis on their “doings” being about prioritising the content requirements of the course over the pedagogical turn. This is unsurprising in the performative culture that pervades FE (Kidd, 2013) and where, according to Coffield (2015, p.24), it uses “fear to do its dirty work”. This can create a tension between the “sayings, doings and relatings” of the teacher educator and the trainee who reduces education to a business transaction in which they see themselves, as some others in education do, as a customer who can dictate what they learn and how their teacher educator should behave, as Teacher Educator C explained.

The researching of these teacher educators’ practices in this study is part of “researching practice from within practice traditions” (Kemmis, 2012, p.885), with the ultimate aim being informed action. Using a wide range of data collection instruments, this extended study opened the classroom door on FE-based teacher educators’ use of modelling in terms of its “sayings, doings and relatings”. The teacher educators’ own “sayings” suggest that this

study has contributed to team building; allowed them to “see into” their own practice (Loughran, 2007, p.1) when participating in the SRI; given them an overview of modelling within the team when considering the data; created space for “Teacher Talk” meetings that have enabled them to explore modelling and further their understanding of it; listen to their own trainees’ voices; and developed their own research capacity. Most importantly, it would seem that the study has also resulted in praxis around their use of modelling and their “sayings” suggest they are using modelling more often in their teaching and when they do this it is now more likely to be one of the explicit forms of modelling they use (“doings” and “relatings”).

Kemmis et al. (2014a, p.50) describe sites, in this case an FEC, as symbiotic ecosystems in which their five practices are interdependent; the five practices at this college are not yet sustaining each other to fully support the teacher educators’ use of modelling. The “externalities” (Coffield, 2014a, p.83) of government policy on FEITE, in terms of the premature de-regulation of ITE as a result of the Lingfield Review, and five successive years of funding cuts for the FES sector, as a result of the Coalition government’s “austerity measures”, have not supported these ecologies of practices either. This is best illustrated by the significant reduction in the number of teacher educators in the team (from 13 to five) during the period of the study.

My research was not designed to be generalisable; it adopted a view that to change FE-based teacher educators’ practices the first need is for them to understand the ecologies of practices and “the arrangements of the intersubjective spaces” (Kemmis et al., 2014a, p.5) at the college where they work. Second, make the necessary changes to the practices and “arrangements in the intersubjective spaces” based on what they learn. Therefore, if the reader is an FE-based teacher educator, they cannot generalise from the findings but they can begin a dialogue with text by asking questions about the practices that exist at their college. They could use the model of this study to undertake similar research with colleagues and trainees. Finally, this type of collaboration and its findings might contribute to “the research base and theorization of the pedagogic practices in relation to the sector” (Loo, 2014, p.338).

How has my methodology (or the “sayings, doings and relatings” of the study) helped me to tell this “story”?

This practical, second-person practice action research study has employed Kemmis et al.’s conceptual framework of ecologies of practices and practice architectures to tell its “story”. It has moved beyond the describing of the case studies of Lunenberg et al. (2007), Ruys et al. (2013) and Boyd (2014) to analyse the practices at a FEC, in particular the teacher educators’ use of modelling, and then used a collaborative approach, based on “teacher talk”, to agree praxis that would further explore the potentialities of modelling within an in-service programme. AR, as a methodology, has created this opportunity because it is a democratic, “practice-changing practice” (Kemmis et al., 2014b, p.4) and I have harnessed its affordances to the full, including its recognition of mess. The methodology and conceptual framework have equipped me with the language and the knowledge to map the FE-based teacher educator practices at this FEC, in terms of their “sayings, doings and relatings”, and the practices that are shaping them, including the “sayings, doings and relatings” of their trainees, as well as develop a Viewing Frame that can be used by other teacher educators. AR requires its researchers to validate their claims by subjecting them to “the scrutiny of your critical friends and validation groups” (McNiff, 2014, p.152). This has been one of the most valuable processes in the study as I have had feedback from university-based colleagues based in Huddersfield; from FE-based teacher educators; from those who attended my workshop at the UCET Annual conference in 2015. This feedback began in June 2011 and ended in July 2016. It informed the design of my study, enabled me to reflect on the data I had collected, confirmed some of my findings and asked me to think again about others. Because of the rigour of this on-going validation process, this “story” contributes to the “history” of FEITE (Kemmis, 2010, p.417).

How trustworthy and truthful are these claims?

First, I return to Bradbury’s (2015, p.8) seven criteria for good action research from the methodology chapter and invite you, as the reader, to judge to what extent I honoured them whilst conducting the study. I believe I have, though I set out the seven criteria again for you to decide.

1. The research objectives are clearly articulated;
2. The study is based on “partnership and participation” (ibid.);
3. The research adds to our existing knowledge of FE-based teacher educators’ classroom practice;

4. There is congruence between the research objectives, data collection instruments and data collection;
5. Any new practice(s) is/are actionable in other FE colleges or ITE settings;
6. The account is reflexive;
7. The research has significance beyond its setting.

This study has not been solely about answering my research questions or meeting Bradbury's criteria for good AR. I also want to address one final set of questions before I present my recommendations for changing CBHE ITE practices, changing FEITE. I am revisiting Kinsler's (2010) three criticisms of action research to do this. The criticisms are:

1. Much educational AR in industrialised nations is seemingly preoccupied with solving practical teaching problems at the expense of addressing issues of social justice and democracy;
2. The "practical" approach appears to be driven by teachers feeling that any research they do should focus on responding to government policy and initiative;
3. The methodology has become "an institutionalized [sic] mode of in-service teacher education" (Kinsler, 2010, p.172) by universities and schools. She claims that there is now a gap between the research and action elements of the methodology and as such there is insufficient focus on the "practical outcomes" (Kinsler, 2010, p.172) of the research that has been carried out, adding that there is limited evidence of the impact of the AR too.

This study has inhabited the "swampy lowland" (Schön, 1983, p.42) of FE-based teacher educators' practices for four years and in doing so mapped the "ecologies of practices" and "cultural-discursive arrangements...material-economic arrangements...[and] socio-political arrangements" that "sustain or suffocate" them. I may not have set out to do this but as the study has unfolded I have become more agitated about the state of FE and particularly the "material-economic arrangements" that seem to be shaping the practices of its teacher educators. This is the sector my father served for 30 years and it is the sector I serve and love. Orr (2015, p.176) claims "writing is a form of resistance" and as such this study seeks to contribute to the creation of a new map about what is happening within FEITE and how this is affecting FE-based teacher educators, their practices and their trainees. I am challenging the "dominant, damaging ideas about [FEITE]" (ibid.) and proposing alternative, more democratic maps and models for FEITE so that FE-based teacher educators' practices can change and become even more effective. It is not my

intention that the teacher educators will be the sole beneficiaries of these changes; I want their trainees to benefit as well. Whilst AR should contribute to make an original contribution to knowledge in the field of the research, it should also make a contribution “to history” (Kemmis, 2010, p.417). My intention is that this study should not just add “another brick in the wall” (Wellington, 2000, p.137) but make an important contribution to the future story of FEITE. A sustainable story, I hope.

Changing CBHE ITE practices, changing FEITE

Adapting the title of Kemmis et al.’s (2014a) book on ecologies of practices and practice architectures, this final section of the chapter looks forward and makes suggested changes to CBHE ITE practices for FE-based teacher educators and their managers to consider and then sets out suggested changes to FEITE. This is not intended to be an exhaustive list but a starting point and invitation for others to join a “conversation” (Kemmis et al., 2014a, p.8), in an open “communicative space”, about how we might change FEITE for the better. These proposed changes have been structured under the six headings; the first five are the practices of Kemmis et al.’s ecologies of practices and the sixth is for the “externalities” (Coffield, 2014, p.83), including awarding bodies and the ETF.

Professional learning practices

Informed by Boyd et al.’s (2011) guidelines for inducting new teacher educators, FE-based teacher educators’ inductions should last for up to three years and be based on Lunenberg et al.’s (2014) six roles of a teacher educator. Colleges should communicate their induction programmes at interview to potential applicants so they understand what is involved in becoming and being a teacher educator. The first year is about supporting their transition into the “teacher of teacher” role and should concentrate on the technicalities of delivering the curriculum and its associated assessment requirements, though there should be an introduction to the pedagogy of teacher education and modelling as well. An important and essential activity is the opportunity for the new teacher educator to observe a more experienced teacher educator teach.

Years 2 and 3 of the induction should then explore the other five roles as well as building their knowledge of the pedagogy of teacher education. A day’s workshop on modelling should be part of this. They should undertake a master’s level qualification if they have not already done so to support the “researcher” role. Doctoral research should be encouraged once they are established in their post.

There is a need for better CPD for FE-based teacher educators. There are two initial suggestions: first, sessions on the use of IWBs and other technologies to support their modelling of the digital skills and techniques to model FELTAG's ambition for a digitised learning culture; second, setting up peer observations for the teacher education team (or with colleges close by for lone teacher educators or small teams) to learn from watching other teacher educators teach, some of these sessions could have a focus on modelling. Some of these sessions may be part of the new teacher educators' extended induction. Trainees and former trainees need a comprehensive CPD programme to support their lifelong learning as teachers, according to the European Commission (2015). This will build on their knowledge, attitudes, skills and habits they have developed as a result of the FEITE and equip them for the demands of a career in teaching.

Teacher educators' practices

I have nine suggested changes for consideration:

1. Using flipped learning to create Type 2 time for modelling within ITE classes. This would be a double form of modelling as it would show to trainees how flipped learning might be used with their own trainees and create time for in-class modelling.
2. Introduce the trainees to the language of learning to teach, including modelling, as part of their induction to the course and then revisit it frequently during the course. The value of trainees knowing how they learn to teach might be emphasised by a final assignment that requires them to write their own "personal story" (Russell, 1997, p.32) of how they have learned to teach, which is what Russell did.
3. Trainees also need to be made aware that they have served an "apprenticeship of observation" (Lortie, 1975, p.61) but that this may have reinforced some unhelpful message for their teaching career. They need to be introduced to how to observe their teacher educator so they can start to notice their teaching behaviours and values. It is important this is done at the start of the programme as learning to teach starts with trainees learning how to look. This would be the point at which I introduce the Viewing Frame for the first time. Other important ideas to consider alongside this are Munby and Russell's "authority of position" and "authority of experience" and how this sustains or suffocates how trainees learn to teach.

4. Use a technology like VideoScribe© to model to trainees how to prepare lesson plans and learning materials. This example of “sayings, doings and relatings” could save time and provide an opportunity for modelling.
5. Teacher educators to issue their trainees with lesson plans early on in the course so they can see how they are enacted and adapted as a result of the “immediate decisions” (Lunenberg and Korthagen, 2009, p.228 quoting Dolk, 1997) taken in the class, and the teacher educator can think aloud (Loughran, 1997) as they do this.
6. Teacher educators to review their current scheme of work and identify the balance between the content turn and the pedagogical turn (Russell, 1997), then consider how they can ensure there is sufficient pedagogical turn within their classes to support trainees as they learn how to teach. They might even want to analyse this with their trainees as an example of how to review the curriculum to balance product and process.
7. Teams of teacher educators to map their use of modelling by behaviour and form within the programme to identify gaps.
8. Using Teacher Educator M’s suggestion, teacher educators should film themselves teaching next year and then invite their trainees to re-watch the class using the Viewing Frame and notice what they can see in terms of their teacher educator’s teaching behaviours. Again, this could be done as a flipped activity and discussed the following week. This apparently straightforward task would create significant cognitive demands on the trainees and they need to understand that “disciplined noticing is really about making that effort” (Mason, 2002, p.31).
9. Teacher educators need to work even more closely with their trainees’ mentors to ensure that appropriate core subject specific teaching practices are modelled by them alongside the generic, core practices modelled by their teacher educator (Zeichner, 2012). Carter (2015, p.41), writing about school-based ITE, stated that “effective mentors are strong role models”. Carter (ibid.) briefly discusses experts being explicit about their “practical wisdom” (p.21), though this is seemingly presented as unproblematic and makes no mention of Polanyi’s (1976, p.4) claim that “we know more than we can tell”. Therefore, it is likely that there will be CPD implications for many mentors as they may not know about the literature and forms of modelling that accompany it. It is important they acquire knowledge of modelling and the vocabulary that accompanies it if they are to effectively support their trainees to learn how to teach. One way they might do this is once the trainees have been trained to observe their teacher educator they could then observe their mentor

teaching and perhaps even jointly plan sessions together in the spirit of Burstein's (2009) professor-in-residence. This practice-based approach to teacher education is recognised as valuable but may be considered too costly in an era when funding is tight (Zeichner, 2012).

Trainees' practices

A trainee's disposition to their FEITE is likely to shape and impact on their learning (James et al., 2007). The formation of a community of discovery (Coffield and Williamson, 2011) between trainees and teacher educators so that they can learn together about what it means to learn to teach and how to be a lifelong teacher in the 21st century would be productive. Trainees could then model this learning partnership to their own students (Boyd, 2014). On a more practical level, trainees may need to address specific professional development needs, such as numeracy and literacy, and digital skills, as they learn how to teach and they will need to see themselves as both "teacher and learner" (Taylor, 2008, p.78) when they do this. I would like to see trainees acquiring and using the "dominant syntax" (Freire, 1996) of learning to teach as part of FEITE programmes; this would equip trainees with the words and language for even more deep and meaningful "conversations" about "the sayings, doings and relatings" of their ITE and own classrooms.

Leadership and administration practices

There are four suggested changes for these practices:

1. Give further thought to the recruitment and appointment process of teacher educators. Their practical teaching skills are important, though their knowledge of the pedagogy of teacher education, their disposition to being filmed and opening their practice up to discussion and debate are also important considerations when making an appointment. For teacher educators showing vulnerabilities is an important quality and without this modelling can become "problematic" (Lunenberg et al., 2007, p.590), though it is important to emphasise that a precondition for being vulnerable with trainees is a non-threatening management culture at a college.
2. The resourcing of a professor-in-residence style model based on Burstein's (2009) work, though for in-service trainees it would need to be the mentor who adopted this role, not the teacher educator. There are resource implications for this, I know, though it is worth piloting first.

3. To find resources to double-staff some ITE classes so that interventions, such as Loughran and Berry's (2005) peer teaching with debrief, might be used to model teaching behaviours and give trainees a deeper insight into practice.
4. Leaders to review the existing "sayings, doings and relatings" of the "arrangements" in the three "intersubjective spaces" of the college. As they do this they are invited to ask themselves: to what extent do the arrangements of the "semantic space", in terms of language; "physical space-time", in terms of activities and time; and "social space", in terms of the "power and solidarity" in relationships sustain or suffocate the other practices of teacher education at this college?

Researching practices

Teacher education as "a profession [is] increasingly in the public eye" (European Commission, 2013, p.6) as politicians recognise the contribution "teacher quality... [makes] to student outcomes" (Musset, 2010, p.3) and the role teacher educators and teacher education play in their development. Yet Ellis and McNicholl (2015, p.39) stated that "internationally, there is little research that focuses on what HEI-based teacher educators actually do – their practical activities and the material conditions in which they labour". Returning to the metaphor of mapping the swamp of FEITE, if this is the case then the "sayings, doings and relatings" of the classroom practices of FE-based teacher educators is the metaphorical equivalence of the blank, white space on the map, that is, nothing or very relatively little is known about it yet.

To remedy this, I invite teacher educators, their managers and trainees to support two types of practitioner research within FEITE – self-study and action research – that will enable teacher educators to write about their work, as a form of resistance, and contribute to the map of FEITE at the same time (Petrie, 2015). I have a preference for these two forms of research over other forms of research because they are more than simply describing and analysing a situation; they move beyond this to collaborative praxis based on researching "the sayings, doings and relatings" of the ITE classroom. There is a link here to the professional learning of teacher educators, of course, and the "researcher" role of teacher educators, as set out by Lunenberg et al. (2014), so first there is a need to develop understandings of practitioner research and then the capacity to undertake it.

“Externalities” practices

I recommend a review of the ITE curriculum, especially at Level 5 and above. Pritzkow and Snoek (2016) have highlighted the fallacy of cramming all the knowledge needed for a lifelong career in teaching into ITE programmes. This has resulted in the “notoriously overcrowded syllabi” (Eraut, 1994, p.11) we now have, so I would ask that AWBs work in partnership with employers, teacher educators and researchers to do two things: first, review their qualifications and identify the essential knowledge and skills for the ITE curriculum for “the content turn”, and second identify “the pedagogical turn” that might be used to deliver it. This task will be made easier by the fact that the ETF’s 2014 professional standards for teachers and trainers, which replaced the detailed LLUK’s standards of 2006, are less prescriptive and can be presented on an A4 sheet of paper. The non-essential knowledge can then be offered through college-based CPD, AWB training sessions, the Society for Education and Training, and commercial CPD programmes. I would urge a re-think of the place of theory in ITE. I am not anti-theory and recognise its role in teacher expertise (Hattie 2003), though there is consistent research which says that it can get in the way of trainees’ learning to teach (Harkin et al., 2002; Lunenberg and Korthagen, 2009; Korthagen, 2016). Smith (2015b), speaking at the ATEE Annual Conference, asked the teacher educators present: whose theories do we teach? The ones the trainees experience in their classrooms or workshops or the ones teacher educators believe are important but may have no relevance to the trainee? She advocates that they start with the phronetic knowledge of practical wisdom (ibid.), and this seems to validate their “authority of experience” (Munby and Russell, 1997), it seems to me, and gives them confidence to teach. Once they have acquired this, Korthagen (2016) says they can build the link from their practical knowledge to engage with capital “T” theory, refining their conceptualisation of their teaching as they confront any “inconvenient truths” (p.1).

There is a need to address the knowledge gap about FE-based teacher educators and their work and undertake further study to find out how many there are, their subject specialisms and their CPD needs. The formation of a professional association for FE-based teacher educators, along the lines of the voluntary Dutch teacher educators’ association VELON, to bring them together and explore the practices and roles of being an FE-based teacher educator is an urgent need. Finally, the establishment of a set of professional standards for FE-based teacher educators, along the lines of those the Dutch teacher educators have written, would have the potential to both enhance the status and effectiveness of their work. Dengerink (2016), talking about teacher educators’

competencies at the ATEE Annual Conference, stated that whilst we need to be “attentive to context when developing professional competencies” for teacher educators, it is “important to have a frame of reference and framework when the terrain is contested”.

To conclude this study, I want to do two things: first, present a final case for my study and second, acknowledge the work of these FE-based teacher educators. Teacher Educator C, discussing their involvement in the study, said:

...I think that this model that we have done of...actually recording practice and analysing and discussing it...should be rolled out...with other teacher educators...I think that the metathinking and the...actual commentary and the discussion of...the inner life and planning of a tutor has been exposed by your study...and that is invaluable because it raises the level of conscious competence... it enables you as well to question yourself, to second question yourself...and I think everybody should do it. I actually don't feel observations themselves as they stand are an effective... method of evaluating a teacher [educator's] work...But I do feel this, I know it's time intensive, but this type of collaborative work is actually a way of people improving their practice (Interview, February 2016).

Macguire claimed that being an HEI-based teacher educator is an “impossible job”. What then of the job of FE-based teacher educator? It is not an impossible job – I have witnessed that – though it is one that consists of long days and endless “relationship maintenance” (Ellis and McNicholl, 2015, p.105). The privilege of undertaking this study means that “I will never again take for granted the skills, expertise and knowledge required to be an [FE-based] teacher educator” (Ritter, 2007, p.107). I conclude this study with the words of Teacher Educator B (Interview, December 2015), the team's leader, who described their work as an FE-based teacher educator as follows: “...hugely turbulent...emotionally demanding... demanding on your time ... unpredictable... challenging...exhausting...but really good stuff as well...”

Coda

“But I leave you now with the man I used to be” Ernesto ‘Che’ Guevara (2004, p.32)

I started this study with the words of Frank Coffield who, for me, is a modern day educational revolutionary. To conclude, I turn to Che Guevara, one of my heroes, and to his 12 words quoted above. I look back at “the man I used to be” when I started this study in 2009; I barely recognise him. I had been a “teacher educator” since 2005 but I knew so little about teacher education; I was a teacher trainer. I knew the content of the curriculum and could use my “tips and tricks” to edu-tain, though I did not know who John Loughran was, nor Tom Russell, or Mieke Lunenberg. It was by accident that I came across Mieke’s work with Fred Korthagen and Anja Swennen on modelling and that was the start of this study’s “story”, though I could not have imagined the personal transformation that would result as a consequence of it. Tina Cook, an action researcher, advised me after at the CARN conference in 2012 that my study would not end up being second-person practice; it would be about my first-person practice too. She was right. This study has been an extended journey into becoming and being a teacher educator. I have met Mieke, Tom and Anja and they have modelled to me what it means to be a teacher educator; they have, though they may not know it, acted as informal mentors to me. Now I know about the role, the pedagogy of teacher education, modelling and the research that surrounds my work, and I am aware that it is my duty to contribute to it. I have also learned that there is much work to be done in FEITE. I hope the work in this thesis may contribute to starting a new and purposeful “conversation” about changing FEITE and supporting its teacher educators’ practices.

Appendices

Appendix 1: Pen portraits of the teacher educators in this study

Teacher Educator A started as a part-time teacher in the early 1990s and has been a teacher educator since 1997. They work at the University and were involved in the pilot study.

Teacher Educator B started their FE teaching career teaching GCSE English and became a full-time teacher educator in 2004. They have an English language and literature degree and a postgraduate degree in literature.

Teacher Educator C started off as part-time lecturer in the late 1990s, they became full-time in 2002. They have worked at more than one college. They have been a full-time teacher educator since 2010. They are an English literature graduate with a master's level qualification.

Teacher Educator D has been teaching in FE since 1997. Before that they taught overseas and at a university before that. They are an Advanced Practitioner and English language and literature teacher with a dual teaching role: teacher educator for general ITE and Level 5 Literacy courses. Teacher Educator has been a teacher educator since 2012. They have a master's level qualification.

Teacher Educator E started teaching in FE in 1999 and became a full-time teacher educator in September 2013. They are an English language graduate and have a master's level qualification.

Teacher Educator F has been teaching in FE for over 30. They have considerable experience of delivering CBHE and became a teacher educator in 2007. They are an English graduate and have a master's level qualification.

Teacher Educator G is an English graduate and has a master's level qualification. They have been working as a teacher educator for more than five years.

Teacher Educator H was the Team Leader prior to the study commencing.

Appendix 2: A short autobiography about David Powell and how he became a teacher educator

The following autobiography was printed in a booklet called Life and work of teacher educators, a project involving teacher educators from ATEE's Professional Development of Teacher Educators' RDC, which was edited by two Dutch teacher educators, Anja Swennen and Peter Lorist. The booklet was generously funded by Dick De Wolff, Dean, Faculty of Education, HU University of Applied Sciences. The full reference appears in the references.

My father taught graphic design at Stafford College from 1964 and even before I had graduated from my degree in Leisure, Recreation and the Environment I was offered some part-time teaching at Stafford College. I had not thought of becoming a teacher at that stage. So I was something of a reluctant teacher, I suppose. I taught for 18 months on a part-time basis, and my father paid for me to do a M.Soc.Sci in Leisure and Tourism Services alongside this (my father, who himself never went to university, was quite visionary in realising that professional capital would be important in my career). In 1988 I secured my first full-time job as a teacher of a Business, Travel and Tourism at Tamworth College.

Over a period of 15 years I moved colleges and became a senior manager at two colleges; however, I found the management work unfulfilling and demoralising in the emerging performative culture. So, in 2003, I stepped down from my senior manager role to become the staff development officer at Calderdale College. I wanted a quieter and less stressful life, though someone else had other plans. Jennie Coates, the head of the teacher education team, asked me if I would teach an introductory initial teacher education course for them at the start of 2004. I said, "No, though thank you for asking", thinking that would be the last of it. However, she knew what she wanted and came back to me a week later to say that there was no one else to teach the class, and would I do it? "Okay", I said. This was my first reluctant step to becoming a teacher educator.

In April 2005 I successfully applied for a "teacher trainer" post at Craven College. It was this job that gave me the identity of a teacher educator as I became involved in delivering the University of Huddersfield's in-service Certificate in Education and PGCE (Lifelong Learning). To help me in my new role, I was allocated an experienced teacher educator as

a mentor. We met once. The only thing I can recall being told in that meeting was that my role was “to model” how to teach to the trainees; my mentor did not explain how to do this. It was another five years - October 2010 - before I read an article on modelling and understood what I should have been doing for the past five years. However, I was not without support in my first year as a full-time teacher educator. The weekly team meetings of the teacher education team - there were five of us – were helpful in talking through any questions I had. One other important event happened in my first year at Craven. Linda Burgin invited me to join her team of subject specialist teachers who contributed to the University's Summer School. For this work I would be employed by the University, which was significant, and this introduced me to a wider group of University staff including Ian Findlay, who would become influential in the next phase of my career.

In 2008 I was offered (and accepted) the post of Senior Lecturer in Teacher Education (Lifelong Learning) at the University of Huddersfield; a new beginning for me and an opportunity that would transform me and my career. One of the things that excited me most about this new post was the requirement to undertake research and by September 2009 I was enrolled on an EdD (professional doctorate). My professional identity as a teacher educator was transformed by two things: reading the work of other teacher educators about the pedagogy of teacher education and attending conferences and meeting teacher educators from other countries, particularly the Dutch teacher educators. I had now joined a much larger, better connected, and international network of like-minded and generous professionals. What a privileged life I have.

Alongside my research, I immersed myself in my work as a teacher educator. Four years after I joined the staff at the University I became the Deputy Director of The Education and Training Consortium, an initial teacher education partnership between the University of Huddersfield and twenty partner FECs, and a year later became its Director.

As I look back at my story, what strikes me is that it is the people we spend time connecting with who transform us and our careers as teacher educators, though we need to invest time to establish and nurture those connections. And I now know I have a responsibility to support and give generously of my own time to nurture new teacher educators as they complete the messy and complex transition from classroom teacher to teacher educator.

Appendix 3: Noel's (2006) and Harkin et al.'s (2008) research on CPD needs of FE-based teacher educators

Noel's work identifies fourteen areas for support needed by new teacher educators and was based on a 5 point Likert scale, where 1 = not important 5 = very important.

The table rank orders the support based on the mean score.

Types of support most valued initially by new teacher educators—evidence from the questionnaire survey (n = 78)

	Type of support	Score
1	Joint moderation of students' work	4.79
2	Induction to the role	4.66
3	Detailed guidance in relation to the curriculum	4.64
4	Shared teaching resources	4.58
5	Regular team meetings	4.53
6	Observation of teaching practice assessment	4.49
7	CPD course attendance	4.46
8	A teacher educator mentor	4.36
9	Joint curriculum development opportunities	4.00
10	Regular email contact with other teacher educators	3.99
11	Observation of others teaching ITE	3.95
12	Opportunities to team teach	3.86
13	Work-shadowing of experienced ITE staff	3.85
14	Support with research and scholarly activity	3.84

(Source: Noel, 2006, p.166)

My analysis of this table suggests that these types of support are what Boyd et al. (2011) set out in the first year of an induction for new teacher educators. They are technical, how do I and what do I need to do types of support. They do not seem to include elements of the pedagogy of teacher education (Loughran, 2006) types of support that move the teacher educator from the “content-turn” to the “pedagogical turn” (Russell, 1997, p.44). Where does that occur?

Relevant knowledge on entry

N = 95

Relevant knowledge on entry	Very confident	Some gaps in my knowledge	Need for development
The sector, its history and development	12.4%	68%	19.6%
Pedagogy – theoretical and procedural knowledge of teaching, including the psychology and sociology of teaching	20.6%	64.9%	14.4%
The concept and practice of Reflective Practice as an organising principle of most education courses for teachers	34.1%	48.5%	16.5%
Ways of working with adults, including coaching and mentoring	51.5%	43.3%	5.2%
Equal opportunities, ethnicity and multi-culturalism within education	47.4%	45.4%	7.2%
The ability to model good practice in teaching	79.2%	18.8%	2%
The ability to embed the delivery of functional skills in your teaching	26.9%	52.7%	20.4%
The ability to relate the taught elements of ITE to a wide diversity of workplace settings	31.3%	49%	19.8%
Blended learning – a combination of technology-based materials and face-to-face learning sessions	20%	46.3%	33.7%
Observing and giving feedback on teaching	52.6%	34%	13.4%

(Source: Harkin et al., 2008, p.30)

What is noteworthy is that 79.2% of the respondents stated they were very confident in their “ability to model good practice in teaching”; however, as this was a survey there was no further of what they meant by modelling. What is also interesting is that almost 65% of respondents indicated that they had “Some gaps in my knowledge” about pedagogy and a further 14.4% identified this as an area for development. This is significant as the ability to link explicit modelling of teaching strategies to relevant theory is one of the four forms of modelling (Lunenberg et al., 2014, p.592). Having analysed this data, Harkin et al. (2008, p.31) state that it would be valuable to set out “the skills, knowledge and attributes needed

by teacher educators, in order to inform preparation for, recruitment to, and professional development within the role of teacher educator.”

Types of CPD undertaken since becoming a teacher educator

N=95

Activity	Responses	Percentage
Attendance at in-house staff development events	86	88.70%
Attendance at conferences or consultation events.	86	88.70%
Reading and research	83	85.60%
Attendance at staff development events facilitated by outside trainers	80	82.50%
Networking with other teacher educators	80	82.50%
Teacher education team staff development events	73	75.30%
Gaining or working towards further relevant qualifications	64	66%
Undertaking systematic action research	23	23.70%
None	0	0%

(Source: Harkin, et al., 2008, p.34)

The data suggests that these teacher educators were able to access a range of CPD, though Harkin et al. (2008) identify three important issues related to accessing it. The first is related to the fact that 89.5% of the teacher educators surveyed indicated that they are invited to run CPD sessions and this means that they cannot access CPD that is being offered at the same time. Second, those who are in a part-time teacher educator role have the same knowledge and skills requirements as the full-time teacher educators and so must have equal entitlement and access to CPD. This has resource implications and therefore needs support from line managers and this may not happen. For instance, one participant stated: “I am employed on a part time hourly rate and I am not given extra hours to accommodate the CPD I would dearly love to take on.” (Harkin et al., 2008, p.35). The third, unsurprisingly, is the time to undertake the CPD. However, there is evidence that suggests that some of these needs are being met.

Appendix 4: An account of data collection at a conference in June 2011

In preparation for the event I drafted a short questionnaire and piloted this with three colleagues. One of the comments was around my choice of wording in the informed consent section I had prepared. For example, one colleague advised, "I think people could be scared off by the observation bit and being 'chosen' or 'not chosen' to work with. So maybe think about the wording a bit. Also, I would be worried that is there is right and a wrong way to model, and I could be doing it wrong etc. so maybe some reassurance about that." I considered these comments and made some revisions to the wording in my informed consent form.

As part of the introduction to my workshop, I explained to all the attendees that I was planning to carry out research into how teacher educators used modelling in their practice, and that I wanted to collect some data from them about my proposed research. I emphasised, however, that this would be a voluntary activity from which they could opt out. I spent the first twenty minutes of the workshop explaining some of the issues around modelling which I had identified from the literature whilst being careful not to define or explain what it is at this stage as one of the purposes of the questionnaire was to explore their own conceptualisation of modelling.

I distributed the informed consent form and gave the attendees five minutes to read through it and decide whether they would sign it. All 23 attendees signed the informed consent form. On reflection, I wonder whether five minutes was sufficient time for each person to read the participation information sheet and decide whether they really wanted to be involved. Hart and Bond (1995, p.199 cited by Bell, 2005, p.46) suggest that: "In our view it would be better to give the respondent time to read and re-read the protocol for himself or herself at his or her own pace, and to negotiate any additions or changes to it with the researcher.

Certainly I could have sent out the participation information sheet before the event as I had the names of the participants and this is something I might do if the situation arose again. Having signed the consent forms, I asked the "participants" to complete the short questionnaire I had prepared for them. This actually took a lot longer than I had anticipated, with some people taking up to 15 minutes to complete theirs. I collected the completed questionnaires in, explained that I would be in touch with each of them when I

had reviewed their responses and then continued with the workshop by providing a definition of modelling and describing the four types of modelling categorised by Lunenberg et al.

What CPD needs have been addressed since becoming a teacher educator?

N= 95

Activity	Responses	Percentage
Review and development of my practice in teaching observation and giving feedback	84	86.60%
Knowledge of developments in the sector, including the development of the Qualifications and Credit Framework and APL	79	81.40%
The development of my own practice through systematic reflection	75	77.30%
Keeping up to date with developments in pedagogy	73	75.30%
Ensuring that my teaching experience in the sector (other than teacher education or staff development) is up to date and relevant to my role	69	71.10%
The use of Individual Learning Plans	64	66%
My ability to embed the delivery of functional skills, literacy, numeracy and ICT in my teaching	61	62.90%
Techniques of Coaching and Mentoring	59	60.80%
Techniques for enabling teachers in training to understand Reflective Practice and facilitate their journey to deeper levels of understanding of their practices	59	60.80%
My ability to link the taught elements of ITE to a wide diversity of workplace settings	52	53.60%
My ability to use Blended learning - a combination of technology-based materials and face-to-face sessions	43	44.30%
Please add other categories and/or brief comments	6	6.20%

(Adapted from Harkin et al., 2008, pp.36-7)

Harkin et al. (2008, p.37) does qualify this data by stating that only a deeper, case study approach...would be able to go some way to substantiate these claims.

Appendix 5: University of Huddersfield Participation Information sheet and informed consent form

1. Invitation to participate:

You are being invited to take part my Doctor of Education research. Before you decide it is important for you to understand why this research is being done and what it will involve. Please take time to read the following information and discuss it with others if you wish. Ask if there is anything that is not clear or if you would like more information.

2. British Educational Research Association (BERA) ethical guidelines

This research will carried out in line with BERA's 2004 guidelines for educational research. I am happy to provide you with a copy of these guidelines if you wish to read them before agreeing to participate in the research

3. The research project and its title

The aim of the research is to examine how teacher trainers use modelling in their practice with their trainees. I am seeking to work collaboratively with teacher educators from the lifelong learning sector to jointly explore modelling as a teaching method. My working title for the research is 'A study of how teacher trainers use modelling in their practice with their trainees'.

4. What is the purpose of the project

I am studying for a Doctorate in Education and the research is being completed as part of this research.

5. Why have I been chosen?

I have approached you because you have expressed an interest in finding out about modelling in teacher training, i.e. you have booked onto my workshop today, and I am interested in speaking to and working with teachers who are keen to jointly explore the concept in their own practice, as I think you will be best placed to inform this research.

6. Do I have to take part?

No. Your participation is entirely voluntary and you may withdraw from the research at any time, and for any reason. If you feel unable to be involved for any reason, I fully understand.

7. What do I have to do?

Complete the questionnaire I have distributed to you. This will give me an idea of what you already know about modelling and how you use it in your practice. I will then invite a sample of you to video record one of your class and then jointly review it with myself to discuss how you have used modelling in the session. I plan to follow this up with a semi-structured interview to further discuss your use of modelling in your practice. I intend to repeat the video observation and interview about 12 months later. The video observation would be for about an hour and the interview will last about 30 minutes or so. The observations and interviews will take place at a time convenient to you. I plan to tape your interviews.

8. Are there any disadvantages to taking part?

I foresee no disadvantages to participating in this study.

9. Will all my details be kept confidential?

In line with the Data Protection Act, the consent form, video recordings and taped interviews will be securely stored by me during the research. You may access the material I collect from you at any time during the research. To ensure your anonymity, I will ask you to choose a pseudonym so that when I make any reference to you in the research your identity will be protected.

10. What will happen to the results of the research project?

I will write up the research and it will be presented to meet the assessment requirement of my Doctorate in Education. I will securely dispose of the video recordings, interview tapes and my research notes after the conclusion of the research.

Consent:

I agree to participate in this research

I agree that my contribution including verbatim quotations may be used, as long as it protects anonymity/confidentiality

Name

Signed

Date

Contact address: David Powell, CEG/08, School of Education and Professional Development, University of Huddersfield, Queensgate, Huddersfield. HD1 3DH

Tel: 01484 478124

email: d.powell@hud.ac.uk

Appendix 6: Copy of the letter sent to the Principal of the college

Friday, 12th August 2011

Dear Principal,

Proposal regarding working with some of your staff as part of my EdD (Doctorate in Education) research

I am a Senior Lecturer in Education (Post Compulsory) at the University of Huddersfield and currently undertaking an EdD into teacher educators' use of modelling in their practice. This letter is an official request for institutional consent to work collaboratively with four teacher educators from your institution as part of my research. Last month my School's Research Committee gave its approval to my research proposal which is based on working with four teacher educators you're your college who have expressed an interest in working with me: they have all signed informed consent forms to confirm this. I have mentioned my plans to their line manager, and XXXX was very keen on my proposals, though I need your permission to undertake the work in your institution with these staff, and probably some of their trainees. I have written to XXXXXX, as well, to ask for XXXXX permission to work with her team.

I enclose a copy of an extract from the research proposal that the Research Committee approved which sets out what I would like to do and the background/ context to my research. The research has been designed in such a way that it will offer numerous benefits to those who volunteer to be involved, as well as for your institution, though please have a look at the proposal and do get back to me with any questions about what I am planning to do. My work number is 01484 478124 or you can email me at d.powell@hud.ac.uk . A further point of information is that I am submitting a bid to the Consortium for funds to support the research. As part of the bid I will be proposing that some of the money is used to support participants' involvement in the research by paying any cover costs so that they are available to attend the meetings and proposed training events, for example.

Finally, I'd like to provide the following assurances to you, your staff and your institution about the way I will conduct the research:

1. I will seek to protect and maintain the anonymity of the institution throughout the research process and when disseminating my findings;
2. I will seek to protect and maintain the anonymity of the participants throughout the research process and when disseminating my findings;
3. The institution has the right to withdraw from the research at any stage;
4. The participants have the right to withdraw from the research at any stage;
5. I will make available a copy of the thesis after I have completed the EdD.

Please will you consider my request to undertake the research in your institution and complete and return the attached consent form to me by Monday, 5th September. Thank you. A stamp addressed envelope is included for you.

Yours sincerely,

David Powell

Appendix 7: Account of the pilot study with Teacher Educator A

There were three reasons for piloting these data collection instruments. The first was I wanted to establish their validity for the research (Bell, 2005); secondly, I wanted to familiarise myself with the data collection process around the use of SRI and focus group and thirdly, I wanted to determine whether I would need to make any revisions to the interview and focus group questions I planned to use (Blaxter et al., 2006). What follows is an account of my piloting of the stimulated recall interview, the semi-structured interview and the focus group.

Pilot of the stimulated recall interview (June 2012)

I initially approached Teacher Educator A at the end of March 2012 and they agreed to work with me to pilot my data collection instruments. I have known them since 2003 and they have been a teacher educator since 1997, and we both now work together at the same University. What was interesting when I first approached Teacher Educator A was that they seemed anxious about what the videoing of their class might involve, and they were very clear they did not want to have to review the class with her own trainees present. I reassured them that this was not part of what a stimulated recall interview entailed, though it was the first time I had really become aware of how fellow teacher educators might feel about their class being filmed. It would not be the last either. We agreed that I would record one hour of a session, though it would not be with their usual teaching group. Again, I was not concerned about this because I was reviewing the data collection instrument and process, not her use of modelling.

I met up with Teacher Educator A just over a month later on 7th June to review the recording. Paterson and Graham (2000) met the teachers in their study five minutes after the session to review the class with them, however, due to both of us having busy schedules we had not been able to meet up any earlier. Pirie (1996, p.8) discusses how difficult it can be to arrange a time to review a film with your participant and suggests that up to seven days afterwards is considered to provide “reasonably reliable data”, though warns against leaving it “weeks and months.” The review took place in a tutorial room in our place of work, and I had not reviewed the recording before we meet. Interestingly, and after I had completed the SRI with Teacher Educator A, Anja Swennen (personal communication, 29 June 2012) told me that, when she had used this data collection

instrument, she had reviewed the film before she met up with the teachers to review the recording of the class.

Calderhead (1981) posits that how you prepare a participant for SRI influences their account, so I explained to Teacher Educator A that I wanted them to watch the class, to stop the film when they identified instances of modelling they had used and then to “think aloud” (Paterson and Graham, 2000, n.p.) about their pedagogical decision making, emphasising that I would only ask questions related to what they said or wanted to discuss. The SRI lasted sixty-two minutes, and the recording was copied on to a CD, which I reviewed on 27th August 2012. I spent almost ten hours reviewing, reflecting on and reflexively writing up the SRI. Payne and Payne (2004, p.191) argue, “Reflexivity is about maintaining high professional standards of investigation...[and] the researcher is the only person who can ensure this happens”, so what follows next is a summary of my reflexive account of the review of the stimulated recall interview process and what I have learned from it and how this will inform the future use of this instrument in the thesis.

Reflexive account of pilot study of SRI

It seems to me that a SRI is a well-suited data collection instrument for this research and now I am very much more familiar with its features as a method of collecting data and confident that I can competently use it in my study. The main actions I have resolved to take when using this data collection instrument in the thesis are to run a session for all the participants before the observations begin to consider and explore the different types of modelling; to ensure I have all the trainees’ permission to film a class before we agree on which class will be observed and to ask again at the start of the chosen class that they are still happy for the filming to go ahead; to use a fixed filming position that is discussed and agreed with the participant before the class starts. The aim will be to record the “wholeness” of the class (Goldman, 2009, p.30) including the classroom set up and space, though the camera’s focus will be on the teacher educator; to endeavour to sit down with the participant as soon as possible after the class, normally within 24 hours, to review it, though I do not expect I will always be able to sit down “within five minutes of the conclusion” as Paterson and Graham (2000, p.8) did because the classes being observed are normally three hours long and sometimes take place in an evening from 18.15 onwards; to allow the participant to turn the digital tape recorder on when they want to talk, as suggested by Paterson and Graham (2000), and to make a note of what time the video recording is stopped; and to keep notes of the participants’ responses during the SRI to

capture non-verbal communication. One other adjustment I will seek to make when I do this as part of my study is to use the first 30 minutes of the class which will be filmed to explain the research I am undertaking to my participant's trainees so that they are clear about the focus of my research when I hold the focus group with them later.

Pilot of the semi-structured interview: June 2012

The interview took place shortly after we had concluded the SRI on 7th June. I had prepared an interview schedule and gave Teacher Educator A a copy of it so we could discuss what I wanted to cover before I started the semi-structured interview. Again I want to re-iterate that the purpose of this pilot was to review the validity and reliability of the data collection instrument, not to begin to collect data.

To ensure its methodological rigour, Briggs (1986 in Roulston, 2010, p.201) emphasises the importance of working through a series of 'phases' when planning and designing your interview. It is suggested that the first of these 'phases' should concentrate on the researcher learning "how to ask questions in ways that may be understood by participants", adding that it is essential the researcher appreciates "the cultural and linguistic norms used in the community" (Roulston, 2010, p.201). I have been a teacher educator since 2005, but I do not want to assume that I understand the language of teacher education. Therefore one of the aims of this pilot was to discover how Teacher A interpreted the questions I planned to use and to establish to what the extent the wording was clear and unambiguous, and thus a valid instrument that could facilitate a "professional conversation" (Kvale and Brinkmann, 2009, p.2) with the participants about their teaching career, their professional knowledge and practice. I was also interested in any additional questions or topics that Teacher Educator A felt might be included as a result of answering my questions.

Another important dimension of the interview I wanted to review was my own interviewing skills, because I am aware that the validity of an interview as a method is predicated on the quality of the dynamic and relationship that exists between the interviewer and interviewee, and that an account of this enables the reader to "judge the quality" of my research (Hall and Callery, 2001, p.263).

Reflexive account of the pilot semi-structured interview

I played the interview tape through once and made notes on three things: the suitability of each question; the clarity and validity of each question; and the 'professional conversation' with Teacher Educator A. I was particularly interested in the way in which I 'opened-up' the interview to enable them to relax and discuss their teaching career, how I listened and responded to what they said and then introduced additional probing questions to sustain and deepen our "professional conversation", and how I made use of silence to allow their "voice" to be heard (Sparkes, 1995).

My first reflection on the pilot interview is that the 19 questions I asked are clear and unambiguous and promoted the 'professional conversation' I wanted, though it did longer than I had expected – 55 minutes and seven seconds – to conduct. This is a significant time demand on anyone, and here I am acutely aware and particularly mindful of the burden this might place on the participants (Baumfield et al., 2008), especially as the senior manager at the College where the research will take place stipulated on the informed consent form, "I do want you to ensure that this research impacts as little as possible on the day to day activities" (Senior manager, personal communication, 25th August 2011).

One of the most influential segments of any interview is the way in which the interviewer begins the "professional conversation" with their interviewee, because it will be here where the tone for the interview is set and the trust so central to a productive and open dialogue is initially forged. Di-Cicco-Bloom and Crabtree (2006, p.316) advise researchers that, "The first question should be broad and open-ended, should reflect the nature of the research and be non-threatening". Therefore, I purposely had chosen a non-threatening question about how they had become a teacher to open the interview. It was evident from the way in which Teacher Educator A effusively responded to it that they felt comfortable with the question and its direction, and it gave them a chance to tell me their "story".

Kvale and Brinkmann (2009, p.260) claim that researchers need to be able to display their skilfulness as interviewers for their work to have credibility, adding that the "quality of this craftsmanship results in products with knowledge claims that are so powerful and convincing in their own right that they...carry the validation with them, like a strong piece of art". The particular skills I wanted to review in this pilot study were those of listening, clarifying, probing and patience. As part of this I noticed that in the second question, about when they became a teacher educator, I allowed Teacher Educator A to suggest one date

when, having listened carefully to their account, they actually seemed to start in the January of the following year. This is understandable with academic years crossing over calendar years; however, I could have used a clarifying question there to check their account. .

Later in question 6 I could hear evidence of how I employed a clarifying question to establish what Teacher Educator A meant by using the word “productive”; and again in question 7 there is evidence of me listening carefully and picking up that they had not fully answered the question. Also in question 7, I noticed I reflected back to Teacher Educator A what they had just said, perhaps showing to them that I was listening and at the same time checking I had heard them correctly. Again in question 14, I asked Teacher Educator A to clarify their use of the word “systematic”, though I noticed that later on in their answer I interrupted as they finished a sentence. I did not notice this when listening to the “conversations” in other questions; however, this is something I need to be aware of when interviewing participants as it may stop them giving a “full answer”. On the other hand, I was aware and Teacher Educator A confirmed this after the interview that I patiently waited for them to respond to each question, sometimes using extended periods of silence as part of this approach, and this seemed to allow them to think about what they wanted to say and then build on an initial answer if they wanted.

To summarise my reflections on the pilot of the interview, the questions and the wording used in them seem to provide me with the type of dialogue I am looking for with the participants. My interview skills seem well developed, and I am able to quickly develop and build a “professional conversation”, though I will need to be alert to the fact that occasionally I interrupt or talk over my interviewee.

Account of the pilot of the focus group: November 2012

I conducted a 30 minute, pilot focus group with Teacher Educator’s trainees in November 2012. I had initially met the group to tell them about my research on modelling earlier in the month – I needed to do this for them to understand the questions I would ask them in the focus group - and I returned two weeks later to pilot the focus group questions with them. Then the following week I returned once more to the group and used a questionnaire to get some feedback on the questions I had used and the way in which I had conducted the focus group. I adopted what Liamputtong (2011, p.2) calls a “structured approach”, commonly used by market research companies, to ask the group four “set

questions". This was the first time I had used a focus group approach and so I did two things to try and get some feedback about my use of this data collection instrument. First, during the focus group, I made a note of which trainees responded to the questions to give me an idea of who spoke and how frequently they spoke to consider how effectively I included the 16 trainees, and secondly, I asked five questions about their perception of my conduct of the focus group. I am aware that, as the researcher, I am not going to be "neutral" when moderating the focus group, so here I was seeking feedback to help me reflexively consider my skills as the moderator of a focus group (Liamputtong, 2011). The questions I asked were:

What was your idea of teaching and how to teach before you started this course?

What are your ideas of teaching and how to teach now? Explore any perceived changes in terms of what has changed, how has it changed, why has it changed?

How are you learning to teach with Teacher Educator A?

I have explained the four forms of modelling to you. I would now like to ask you about each type. Does Teacher Educator A use this type of modelling? If yes, how is it used? How does she spend exploring this type of modelling? What is the value of this type of modelling to you?

Is there anything you would like to feedback to Teacher Educator A about their use of modelling?

Evaluation of the effectiveness of the Focus Group held on Tuesday 27th November

I handed out a brief questionnaire to get feedback on how I had run the focus group. I got 13 responses from the 16 trainees present. My analysis of these responses suggests that the focus group lasted for about the right length of time for most trainees (9 ex 13 responses); the questions I asked were clear to some trainees (7 ex 13) but some of them were unclear and might need to be repeated or re-phrased to ensure they are understood by others (5 ex 13); the majority of trainees felt that they had enough time to think and respond to the questions I asked (10 ex 13), with only one student saying they had too much time; and all trainees (13 ex 13) felt that I had created a comfortable atmosphere in which they could participate if they wanted to.

My other analysis showed that 14 of the 16 present responded to at least one of the four questions I had asked; 12 responded to 2 or more questions; 6 responded to 3 or more questions and 2 responded to all four questions I asked. One of the trainees who did not

respond at all during the focus group came up to me afterwards and shared her thoughts with me.

A reflexive account of the pilot of the focus group

The trainees' feedback was useful, though I now realise that I could have asked them some further questions, based on Liamputtong's (2011, p.60) "characteristics of an effective moderator", and I might have learned more about my "listening skills", the "respect" I had for the participants, the "patience" with which I listened to their responses and how I responded to their answers. I have one other reflection and confession about the conduct of the focus group. I had chosen to audio record the focus group as I would not have a note taker in the meetings; however, I did not get a recording of the focus group because I did not press the record button twice. A silly and painful mistake but one I have learnt from.

Appendix 8: Copy of briefing sheet and consent form for teacher educators

University of Huddersfield

Participant information sheet

Invitation to participate:

You are being invited to take part in my Doctor of Education research. Before you decide, it is important for you to understand why this research is being done and what it will involve. Please take time to read the following information and discuss it with others if you wish. Ask if there is anything that is not clear or if you would like more information.

British Educational Research Association (BERA) ethical guidelines

This research will be carried out in line with BERA's 2011 guidelines for educational research. I am happy to provide you with a copy of these guidelines if you wish to read them before agreeing to participate in the research.

The research project and its title

My research aim is to work collaboratively with a team of teacher educators from a further education college based in England to explore their use of modelling in their practice with their in-service trainees, many of whom work in post-compulsory education and training. Its working title is Lifelong Learning Teacher Educators, Modelling and their Practice: an Action Research Study.

Why have I been chosen?

I have approached you because you have expressed an interest in modelling, and I am interested in speaking to and working with teachers who are keen to jointly explore the concept in their own practice, as I think you will be best placed to inform this research.

Do I have to take part?

No. Your participation is entirely voluntary and you may withdraw from the research at any time and without giving a reason. If you feel unable to be involved for any reason, this is totally acceptable and I will fully understand.

What do I have to do?

Firstly, to identify one of your classes you are happy to be filmed and indicate the teaching value(s) you will seek to model in the session and then allow this class to be filmed by one

of your trainees or myself. Afterwards participate in a stimulated recall interview in which you will explain and discuss your pedagogical decision making that session. Secondly, allow me to lead a focus group with your own trainees about your use modelling and how this has contributed to their development as a teacher. Thirdly, participate in an interview about how you became a teacher educator, your role as a teacher educator and how you work within a teacher educator team. Fourthly, attend meetings and any development activities linked to the research.

Are there any disadvantages to taking part?

I foresee no disadvantages to participating in this study.

Will all my details be kept confidential?

In line with the Data Protection Act, the consent form, video recordings and taped interviews will be securely stored by me during the research. You may access the material I collect from you at any time during the research. To ensure your anonymity, I will ask you to choose a pseudonym so that when I make any reference to you in the research your identity will be protected.

What will happen to the results of the research project?

I will write up the research and it will be presented to meet the assessment requirement of my Doctorate in Education. I will securely dispose of the video recordings, interview tapes and my research notes after the conclusion of the research.

Contact address: David Powell, CEG/08, School of Education and Professional Development, University of Huddersfield, Queensgate, Huddersfield. HD1 3DH

Tel: 01484 478124

email: d.powell@hud.ac.uk

David Powell

February 2013

CONSENT FORM

‘Lifelong Learning Teacher Educators, Modelling and their Practice: an action research study.’

David Powell, School of Education and Professional Development, University of
Huddersfield

	Please tick
I have been fully informed of the nature and aims of the research and consent to taking part in it.	
I understand that I have the right to withdraw from the research at any time without giving a reason, and a right to withdraw my data if I wish up to one month after the event.	
I give permission to be quoted (by use of a pseudonym) and understand that direct quotes from the pro forma may be used in the research, future publications and conference presentations and for teaching / training purposes.	
I understand that no person other than the researcher and their supervisors will have access to the pro-forma and any lesson materials. I understand that only the researcher, their supervisors and a transcriber will have access to the film, stimulated recall interview, interview and meeting recordings	
I understand that my identity will be protected by the use of a code or pseudonym	
I understand that the consent form, your pro-forma and the recording of the interview will be securely stored by David Powell during the research and then disposed after the conclusion of the research	

Name of participant:

My preferred pseudonym or code is:

Signature:

Date:

Name of researcher:

Signature:

Date:

Two copies of this consent form should be completed. One copy is to be retained by the participant and one copy to be retained by the researcher.

Contact address: David Powell, Lockside LS2/29, School of Education and Professional Development, University of Huddersfield, Queensgate, Huddersfield. HD1 3DH

Tel: 01484 478124 email: d.powell@hud.ac.uk

Appendix 9: Copy of the participant briefing sheet and consent form for trainees

University of Huddersfield

Participant Information sheet and informed consent form

Invitation to participate:

You are being invited to take part in my Doctor of Education research. Before you decide, it is important for you to understand why this research is being done and what it will involve. Please take time to read the following information and discuss it with others if you wish. Ask if there is anything that is not clear or if you would like more information.

British Educational Research Association (BERA) ethical guidelines

This research will be carried out in line with BERA's 2011 guidelines for educational research. I am happy to provide you with a copy of these guidelines if you wish to read them before agreeing to participate in the research.

The research project and its title

The aim of the research is to examine how teacher educators use modelling in their practice with their trainees. I am seeking to work collaboratively with teacher educators from the lifelong learning sector to jointly explore modelling as a teaching method. My working title for the research is 'A study of how teacher trainers use modelling in their practice with their trainees'.

Why have I been chosen?

I have approached you because your tutor has agreed to participate in my study and one of the things we are interested in is trainees' perceptions of their tutor's use of modelling in a filmed class.

Do I have to take part?

No. Your participation is entirely voluntary and you may withdraw from the research at any time, and for any reason. If you feel unable to be involved for any reason, this is totally acceptable and I will fully understand.

What do I have to do?

Participate in a focus group to discuss your tutor's use of modelling in the filmed class.

Are there any disadvantages to taking part?

I foresee no disadvantages to participating in this study.

Will all my details be kept confidential?

In line with the Data Protection Act, the consent form, video recordings and taped interviews will be securely stored by me during the research. You may access the material I collect from you at any time during the research. To ensure your anonymity, I will ask you to choose a pseudonym so that when I make any reference to you in the research your identity will be protected.

What will happen to the results of the research project?

I will write up the research and it will be presented to meet the assessment requirement of my Doctorate in Education. I will securely dispose of the audio recording of the focus group and my research notes after the conclusion of the research.

Consent:

I agree to participate in this research

I agree that my contribution including verbatim quotations may be used, as long as it protects anonymity/confidentiality

Name

Signed

Date

My preferred pseudonym for this research is

*Contact address: David Powell, CEG/08, School of Education and Professional Development, University of Huddersfield, Queensgate, Huddersfield. HD1 3DH
Tel: 01484 478124*

email: d.powell@hud.ac.uk

David Powell

February 2013

CONSENT FORM

‘Lifelong Learning Teacher Educators, Modelling and their Practice: an action research study.’

David Powell, School of Education and Professional Development, University of
Huddersfield

	Please tick
I have been fully informed of the nature and aims of the research and consent to taking part in it.	
I understand that I have the right to withdraw from the research at any time without giving a reason, and a right to withdraw my data if I wish up to one month after the event.	
I give permission to be quoted (by use of a pseudonym) and understand that direct quotes from the transcription of the focus group may be used in the research, future publications and conference presentations and for teaching / training purposes.	
I understand that only the researcher, their supervisors and a transcriber will have access to the focus group recordings.	
I understand that my identity will be protected by the use of a code or pseudonym	
I understand that the consent form, your pro forma and the recording of the interview will be securely stored by David Powell during the research and then disposed after the conclusion of the research	

Name of participant:.....

My preferred pseudonym or code is:

Signature:

Date:

Name of researcher:

Signature:

Date:

Two copies of this consent form should be completed. One copy is to be retained by the participant and one copy to be retained by the researcher.

Contact address: David Powell, Lockside LS2/29, School of Education and Professional Development, University of Huddersfield, Queensgate, Huddersfield. HD1 3DH

Tel: 01484 478124 email: d.powell@hud.ac.uk

Appendix 10: Copy of the interview schedule for the teacher educators at the start of their involvement in the study

Interview schedule

Provide brief summary of the research project and that data is being used for EdD.

Explain that I will be using a digital recording system and the expected length of the interview. Check the interviewee is happy for me to record the interview. Explain the interviewee can control, switch on and off the recorder.

If not, take notes.

Remind the participant that they can withdraw from the interview at any time.

Professional identity

When did you start teaching?

When did you become a teacher educator?

How did you become a teacher educator? How were you appointed?

Tell me about your induction when you started your role as a teacher educator

What other roles do you have alongside that of being a teacher educator? How do the two roles sit alongside each other? What impact do they have on each other?

Are you part of a team of teacher educators? If yes, how many in your team?

How do you work alongside the other teacher educators in your team? Discussions? Joint planning of sessions? Sharing materials? Resources?

Professional knowledge

When you first started as a teacher educator, which aspects of the job were you most confident/less confident about?

What made you feel confident/less confident?

Which aspects of the role do you feel least confident about now? Why? Language, theory?

Are you involved in team teaching, shadowing and observation of peers? How does this inform your practice?

What professional development have you recently undertaken? How does this support your practice?

Professional Practice

Who are your trainees?

Do you work with any of them? If yes, how do you feel about teaching a colleague how to teach?

How do you approach planning your teaching with your trainees?

What do you understand by the term “modelling” when used in the context of teacher education?

How do you use modelling in your own practice? Please give examples of how you do this and what is involved – the richer the description the better.

How do you do/plan for this? When do you demonstrate these values? Specific modules?

How “natural” is modelling as part of your practice? Is it something you have to be “consciously competent” of to ensure it happens?

When demonstrating your values, what do you find easy/difficult? How do you explore your practice with your trainees? How does that feel?

How do you balance the need to teach “content/subject knowledge” alongside “how to teach” when planning your teaching?

Do you have any other points you wish to make that have not been covered in the interview?

Conclusion

Thank the participant

Appendix 11: Copy of the focus group questions for the trainees

Questions for focus group

Introduction

Provide brief summary of the research project and the purpose of the study within EdD.

Explain tape recording system and the expected length of the interview.

Remind the participants that they can withdraw from the interview at any time.

Ask if the participants have any questions

Interview questions

What was your idea of teaching and how to teach before you started this course?

What are your ideas of teaching and how to teach now? Explore any perceived changes in terms of what has changed, how has it changed, why has it changed?

How have you been learning to teach on this course? How have you been learning to teach with x?

I explained the four forms of modelling to you when I visited your class on xxxxxxxxxx. I would now like to ask you to consider which of the four forms of modelling you thought were used by xxxxx in the session on xxxxx. If a form is identified, ask how it was used? How did she/he explore this type of modelling? What is the value of this type of modelling to you?

Is there anything you would like to add about how you are learning to teach, the use of modelling in the course and the support you are receiving as you learn to teach?

Conclusion

Thank the trainees.

Appendix 12: Copy of the full transcription and analysis of Teacher Educator C's filmed class from 12th February, 2013

Date of filming 12th February, 2013

Year 1 class on critical reflection and reflective practice. Teacher Educator C (TEC) has been a full-time teacher educator since 2010, is an English literature graduate with a master's conversion to IT. 11 trainees present at the filming. Film duration is 87 minutes and I have identified 4 episodes in this class.

TEC identified at the start of the stimulated recall interview (SRI) that they would be seeking to model questioning, group work, recap, critical reflection, and critical thinking within this session. TEC did not refer to modelling in the aims and objectives of their class, though the trainees had been briefed by myself before the class of the purpose of my study.

Description of the room set up, teacher movement and film is based on the view from where I was filming, which was at my own table by the windows on the right hand side of the room and outside the U.

Transcription coding

› Abandoned utterance

// overlapping

= 'Latching' which is two utterances that follow one another without any perceptible pause where the second utterance develops a different idea.

(???????) Inaudible utterance

Timings: 00.00.01 = 1 second; 00.01.01 = 1 minute and 1 second; 01.01.01 = 1 hour, 1 minute and 1 second. Batteries are changed once and there is then a break. This explains the lack of continuity in the timings

Italicised secondary text used by Teacher Educator C in this transcript.

Time	Speaker	Transcription	Analysis and comments
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		<p>This class took place in their 'flagship' teaching room on a Tuesday evening. It is a large teaching room, which is set up in a U shape for the class, and has an interactive smart board, desktop computer, which is to the left of the interactive smart board, a trolley with laptop computers in it, again on the left of the interactive smart board, and a mobile wipe board on the right hand side of the interactive smart board.</p> <p>TEC has set up their resources a table, with the hand outs, pens and their session plan, at the end of the U on the left hand side of the room. A briefing about my study took place before the class started in which I explained that I was looking at teacher educators' use of modelling, how I was interested in their voices and how I was undertaking collaborative research with TEC and the team their team. Class starts with a re-cap of the last class.</p>	<p>TEC responded to my analysis that I'd only seen IWBs used as projection screens: <i>"This is interesting to note, but also it is worth mentioning the laptops which the PGCE Centre Manager at the time (Teacher H) advised me not to use as they were notoriously unreliable and many switched themselves off if they did start after a short working time. The whiteboard was never properly configured. This was reported to IT support and yet when we in the team tried to use it even after it was looked at, the tracking seemed off, making the pen impossible to use. I only mention this as your description makes it sound like we have an abundance of IT related resources. However, I did teach to this teaching group how to create a Moodle site and how to setup forums and quiz entries as well as setting assignments and uploading content. Remember Google</i></p>
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			<p><i>classroom at this time was not the latest technology. Moodle was being heralded by some as a critical electronic teaching resource. I also accompanied my teaching with lessons on E-pedagogy e.g. reference to Gilly Salmon's model of e-learning. I don't think a lot of teachers at the time were explicitly teaching these web skills within the Consortium. Therefore, we are ahead in this sense with modelling technology. Reminds me it is only a segment.</i></p>
00.00.01	TEC	<p>[TEC is stood on the left hand side of the room next to the computer] At the end of last lesson I said to you 'what was the muddiest point of that session? What was the bit that you felt most confused by?' And people said to me the Jean Lave video; Piaget's Stages of Development; how the different theories relate to each other. And one person commented it was hard to relate the theories to the practice. Now I'm going to return to this, these issues the week after next when we are actually going to have a look at some of that in more detail and discuss the contexts which will help illuminate the work of Lave and Piaget.</p>	<p>Episode 1 begins. Implicit modelling of the recap begins TEC is implicitly modelling using overhead questioning at the start of the recap. Did TEC ask the trainees to notice what their "sayings, doings and relatings" during the recap?</p>

		So thank you for your feedback on that. [TEC turns to change the slide being displayed] Um, it is interesting that nobody commented on Albert Bandura. Can somebody remind me what were the four types of role model that Albert Bandura identified?	
00.01.11	T	Something to do with TV characters.[At this stage TEC begins to walk across the room from left to right, past the interactive smart board]	
00.01.13	TEC	Something to do with TV characters. Thank you.	
00.01.16	T	Peers	
01.17	T	Teachers	
00.01.18	TEC	[TEC writes TV characters on the wipe board]. TV characters. Peers [and then writes the word Peers on the wipe board]. Yeah, you're right so if I put 'parents; guardians'. [TEC turns around from writing on the board and asks] And what was the fourth one?	Implicit modelling of overhead question
00.01.34	T	Teachers	
00.01.35	TEC	[Turns back to the wipe board and begins to write again] Teachers. Us. Yes. [TEC then puts a dash in front of the four points on the wipe board. They then begin to walk back across the room to stand in front of the computer] That's quite interesting because it ties into our thinking about how we model behaviour for our learners as well. With the Jean Lave video last week we discussed functional skills in the work place and the discussion started from a talk regarding how Lave observed that women could do maths when comparison shopping but that they	Implicit overhead question

		couldn't do it in a classroom. Does anyone remember what the type of learning that is Lave identified is called? ... Beginning with an S [TEC begins to walk back across the room and towards the wipe board].	
00.02.34	T	Social?	
00.02.36	TEC	[TEC turns round on hearing the answer] Um, Well that's a good go; a good try. [Upon reaching the wipe board TEC begins to wipe off the existing writing on it]	
00.02.45	T	Selective?	
00.02.46	TEC	Selective? [TEC walks back to their resources table on the left hand side of the U] I'm not liking the look of that pen. [Looks for a new pen, picks one up and returns to the wipe board]. Ok.	
00.03.00	TEC	[TEC writes the letter S on the wipe board and follows this with ten dashes. TEC turns round a smiles.]. Okay. I'm just doing a bit of hangman here. [TEC then writes a letter T above the second of the dashes] There's a T there.	<p>TEC's comments</p> <p><i>This sort of activity can actually be done on the electronic whiteboard, but in terms of functionality there would actually be no difference. I have talked in our recent meeting about studies that look into the over-reliance of technology in the classroom situation. I have also seen some lessons and departments where the teachers appear to be adopting the same teaching style approach for every lesson using google</i></p>

			<p><i>classroom. I think this could be a dangerous trend as although the technology can be used to create effective lessons, it should be used as part of a repertoire of different teaching methods depending on the context and situation. We should not “throw the baby out with the bath water”.</i></p> <p><i>I would need to decide whether to use the technology if it supports the curriculum, or the objectives of a particular class. This is a judgement call with regard to your curriculum planning. In this instance, even If I had an electronic whiteboard that functions, I don’t think it would add anything and that would be my thinking behind this decision not to use it.</i></p>
0.03.18	Ss	Situational.	
00.03.19	TEC	<p>Situational! Thank you. [TEC walks back to stand just in front of the computer on the left hand side of the U] I’m very pleased we didn’t get further into the hang man there! [Turns to the computer and then turns round</p>	<p>Implicit modelling of overhead question</p>

		to face the group] Okay. We're going to return to these concepts because I talked a bit about spiral curriculum as well last week. Does anyone remember what spiral curriculum was?	
00.03.43	T2	It's building on previous knowledge; it's similar to scaffolding.	
00.03.47	TEC	Building on previous knowledge; similar to scaffolding. So the idea behind it is so that we can introduce concepts and then revisit them at a later time and build on our knowledge and understanding. With that in mind we are starting at a base level where nobody has heard about any of these theories; we're starting from the lowest point of the scaffold really when last week we discussed cognitivism, um, and social learning theory. But what is a community of practice? [Waits for 2 seconds] What is a community of practice?	Implicit modelling of overhead question TEC's comments: Wait time is an interesting concept here. There is the potential argument that I should wait longer before answering the student in this specific instance. I would argue that with this particular class and in that moment I was maintaining the pace of the class by not waiting too long. An example of how this issue is contentious. Is that one student in this lesson you asked a question to after the lesson actually complained to me after your visit. His complaint was that you left him waiting too long after asking a question and that he actually as a result felt very stupid and interrogated me regarding who you were and the purpose of your

			visit. I had actually explained the purpose of your visit and also you explained it, but he appeared to have forgotten. This shows that actually wait time also relies on your knowledge of a class and particular trainees and their interactions and confidence levels.
00.04.25	Ss	Is it the places where you use the skills? So if you were doing an electrician course in the work place where you'd use it?	
00.04.35	TEC	<p>Yes. [Moves into the middle of the U and stands in front of the interactive smart board] Another example could be you all coming together this evening because you are all part of the community in that you are all studying the same thing; you're all going towards the same goal. So in Student 2's electrician class everybody is studying to be an electrician. Part of the learning is about the fact that everybody in the classroom is training to be an electrician and that has a different dimension to his classroom... because that is part of that community of practice. If you think, Student 3, about the fact that people are all training to be = what sort of aspirations do the people who come your class have, Student 3?</p>	<p>Implicit modelling of question and nominate</p> <p>TEC's comments: Here it is important to note how I am using the personal experiences of individual trainees to make the learning more relevant and meaningful. A basic principle of constructivism. I find latching can be one of the side effects of continual attempts to take abstract concepts and relate these to the context of my individual learners so they can understand them. Although, I pre-plan many of these, some of them also occur as part</p>

			<p><i>of reflecting in-action in the classroom as I am continually trying to provide connections that learners will value and understand. This reflection in action is spontaneous and will occasionally result in a change of direction. I am trying to use Krathwohl taxonomy in that I want learners to understand and value what I am teaching. They cannot value it if they don't first understand it in relation to their own teaching area. I think this reflection in action is a critical part of teaching in addition to the planned lesson.</i></p>
00.05.24	T3	<p>Um, With the evening classes it can vary from just, err, brushing up skills for vocational purposes or with a view to entering higher education the following year. Or we have got one student who is there because she actually worked in the industry but her employers sent her to brush up on her pattern and making skills because she works predominantly on the computer. Others are more hands on, so it is for a variety of reasons for why they come.</p>	

05.53	TEC	Do you find that the students are picking things up from each other as well as from yourself?	Implicit modelling of Socratic question
00.05.59	T3	Yeah, I mean you can't go around everybody all the time, so you'll get one person who particularly grasps the idea fairly quickly and they will kind of help the person who is struggling at the side of them [TEC nods in agreement at this point and murmurs umm].	
00.06.17	TEC	Well thank you for your point, we are going to revisit this. We talked a little bit about it last week but we will revisit it. I'll give some examples: Student 4, what would happen if you didn't teach hairdressing within your salon? [TEC turns towards the interactive smart board as he continues speaking] If it was in a different environment. This is thinking about situational learning here and Jean Lave. Do you think that the situation of the salon makes a difference// to your teaching?	Implicit modelling of question and nominate
00.06.43	T4	//Yeah, definitely, because they can feel like they are actually in a workplace, they are more mature and they have got the mirrors in front of them.	
00.06.52	TEC	What difference = I remember I think it was yourself said to me that when clients come in that makes a real difference to your learners. What is that difference?	I only spotted this on my third watch – there is so much to notice,
00.07.05	T4	They become more mature. Um, they do tend to be quite immature mess about in class but when a client comes	

		it's a professional environment then, they seem more ›	
00.07.19	TEC	So somehow, in that situation, they actually see that they are going to be a hairdresser. It imitates a real salon environment somehow that takes them into another zone. Do you think it moves them from being a child to an adult almost?	Implicit modelling of Socratic question
00.07.37	T4	I think it moves them from being a learner into a hairdresser. They are a stylist when the client comes through, you know	TEC's comments <i>Some real thinking here. I think some of the success of this lesson shows learners making real connections in the class.</i>
00.07.45	TEC	Right. That's interesting.	
00.07.49	T	I've got another example: something as simple as an interview. I arranged mock interview in an office within the city centre with one of my colleagues, and the difference between that mock interview in a classroom and actually in a workplace was huge.	
00.08.07	TEC	Very interesting.	
00.08.08	T	The difference was massively huge.	
00.08.11	TEC	Was it the attitude, do you think?	Implicit modelling of closed question
00.08.13	T	Yeah. Because they actually had to find where it is; they had to dress appropriately and (? ? ? ? ? ? ? ? ? ?) because you were being interviewed by somebody else.	
00.08.27	TEC	Were they wearing a suit on the day that they did that as well? Has anybody noticed when you put on a suit how you feel about yourself, how	Implicit modelling of closed question, followed by an overhead question

		you hold yourself and how you talk to people?	
00.08.30	T	Yeah.	
00.08.31	TEC	It does actually make a difference to how you feel about yourself and how you hold yourself when you are standing and how you talk to people. You might become more formal; the suit becomes a part of your apparatus for that situation and that impacts on your behaviour. It is part of the situation. We are talking about situation. Um, I wanted to ask Student 2 what difference it makes to your teaching as you teach electricians within a centre rather than within a school.	Implicit use of question and nominate
00.09.12	T2	Just the same difference that once they've left school they treat them like adults more; they act more like they are on a work placement rather than they are at school.	
00.09.25	TEC	Right. Okay, okay. And you said to me that you have to teach the equivalent of A Level maths to your learners who had previously been seen = I think you might have used words to the effect of that they haven't succeeded in academic contexts but then you have to help these people, who want to be electricians, to learn the equivalent of A Level maths. What difference do you think the situation makes to that ›	Implicit modelling of Socratic question
00.09.56	T2	They know that = when they are at school they felt that they weren't able to do A Level maths and physics but now they know to be an electrician they've got to be able to do A level	

		maths and physics. They can see a light at the end of the tunnel and they know that they have to learn it.	
00.10.13	TEC	And do you think that if somebody came in and said 'right I'm going to be your maths teacher' it would be a different //	Implicit modelling off Socratic question
00.10.22	T2	Yeah, they just see them as a teacher rather than an electrician, like they wanna be.	
00.10.24	TEC	<p>Yeah. An interesting argument for embedding the functional skills and there are some interesting, um, articles written about that. Should a plasterer teach maths? I'll forward you that article via email. That's interesting. But let's just move on and Student 5 isn't here but I was going to ask them about their work because they only teach a few hours a week. Does anyone here teach only a few hours a week?</p> <p>Student 6. Do you think it makes a difference to your practice the fact that you only teach a few hours a week?</p> <p>[TEC still stood in the same place]</p>	<p>Implicit modelling of overhead question, followed with implicit use of question and nominate</p> <p>TEC's comments</p> <p><i>I have told the group previously about the importance of questioning and both on the spot questioning reflecting in action, but also pre-planned questions. These particular questions are pre-planned differentiated questions. The value of these is that you can think prior to the lesson what question will have the most impact and relevance for which student and engage them in higher level thinking skills. What is the relevance of this? Do you think I should be moving position?</i> No. I'm</p>

			trying to create a visual picture for anyone else who reviews the transcription.
00.11.07	T6	It does for me but not my learners because they've got a teacher that teaches them on Monday, Tuesday and I teach and assist on Monday in the afternoon.	
00.11.20	TEC	But you see you're a learner as well; you've got that dual identity where you are a teacher but you are also a learner as well. You are learning to teach, so my question is: does it make a difference the fact that you've only got a couple of hours a week within that community as a teacher? Do you feel that you would be more confident if you were doing more teaching?	Link to Taylor's (2008) student as teacher and learner here. Implicit modelling of Socratic question
00.11.43	T6	Yes, definitely because then I miss out on that second day that they are in the class and I go back a week later and I've got to start to catch up with what they are doing, what they did on the previous week.	
00.11.58	TEC	Are you still surrounded by other teachers?	Implicit modelling of closed question
00.12.02	T6	Just the one.	
00.12.05	TEC	Yeah, I need to talk to you about that at another point, um, in tutorial but thank you for that.	
00.12.14	T7	Can I just say butt in? I teach a lot, and I've just started teaching a group of girls, who I've never taught before, through SILC [Specialist Inclusive Learning Centre]. Um, and it's totally new to me. They have two, err, behaviour classroom assistants with	

		<p>them, who know them really well, and I've been relying on them and they've been relying on me and it's been a tremendous learning curve because... they expected me to walk in knowing what I was doing and, basically, I didn't. Although I could go into a classroom and teach on, you know, my specialist subject but going in and doing something totally new with a group of people that have different //</p>	
00.13.15	TEC	//Teaching a new subject?	Implicit modelling of a closed question
00.13.17	T7	Teaching a new subject...it is quite basic but it's with a new outlook.	
00.13.19	TEC	<p>That's very, very interesting you say that because we are going to be looking at some of these issues this evening about the transference of skills that David was talking about earlier [moves to table to look at their papers on the table and continues to talk]: about transferring skills and about how you can = it's dangerous imitating behaviour but we don't want you to imitate behaviours we want you to adapt them to your own situation. [TEC steps away from their papers] and obviously the way I teach you as learners is different to the way that you teach your learners in your context. And in your new subject area, Student 7, you need to start thinking about different approaches to that specialist area and that is something that we will be discussing this evening. So we will hold that thought because we are going to come back to that. Um, last</p>	<p>TEC's comments</p> <p><i>Part of this is about the value of the moment and exploiting every resource available to the learning. David Powell is actually a learning resource in the sense that any way I can use his presence to enhance learning I will also exploit!</i></p> <p>Link to learning to teach here, though it is brief and could have been unpacked further. Has implications for modelling. Need to be explicit from the start about how they are going to learn how to teach. They then have that lens. This can be</p>

		<p>week we also looked at the information processing model and short term and long term memory. What was the type of learning called that Student 8 and Student 9 used [T turns to look at IWB at this stage], do you remember? We did that exercise where you made a story so what was that called? It begins with an M.</p>	<p>linked to theory to make that link as well.</p> <p>Implicit modelling of an overhead question</p>
00.14.48	T	Mnemonics.	
00.14.19	TEC	<p>Mnemonics. Yes, [T walks from left to write, in front of the whiteboard and up to the wipe board] we were discussing the cognitive model of learning and we were thinking about some of the things which can actually help your learners in your situations and one of the things we talked about was mnemonics.</p> <p>Student 6 can you share that one that you had?</p>	Implicit modelling of question and nominate
00.15.13	T6	<p>It was Corny Lucy's granny spins great records and it stands for (? ? ? ? ? ? ? ? ? ?).</p>	
00.15.28	TEC	<p>Yes, yes. Thank you very much for that. And some of you might remember using them. I remember them when I was learning to play the piano that I used to remember the keys on the right hand side of the piano as 'every green bus drives fast' and I still remember it.</p>	
00.15.48	T6	<p>Do you want me to tell you how to remember because? Big elephants can't always use small exits.</p>	
00.16.01	TEC	<p>And do you remember the one I told you for Every Learner Matters?</p>	Implicit modelling of closed questioning
00.16.08	Ss	SHEEP	

00.16.10	TEC	<p>Yes. Safe; healthy; enjoy and achieve; economic well-being; positive contribution. So we've been looking [moves back to computer to move onto next slide] at some interesting stuff and we also discussed, when we were thinking about the sorts of things you do with your learners, we were looking at some techniques and we looked at mnemonics. I don't want to teach you tricks of the trade but I do want to get you to try and understand how the cognitive model can impact on you in the classroom. I want you to understand some of the things that you can do so you can see how you can use it in your own teaching. One of the things besides mnemonics I discussed with you was the primacy and recency effect. What is the primacy and recency effect?</p>	<p>Explicit modelling of applying mnemonics into their own teaching.</p> <p>Implicit modelling of overhead questioning. Would it have been possible to explicitly model wait time here?</p>
00.17.08	T	Where you remember the first and the last.	
00.17.10	TEC	<p>Yes, where you remember the first and the last thing. I gave you the example of at Christmas and a game I played with my family with all the kids and brothers and sisters and things, and we all have a story and we went round the room and we said 'I went to the shops and I bought this and that', and it got more and more silly as we went through the long list. What I found was that I could remember the beginning of the list and the end of the list but I got lost in the middle. But it did help me to remember because I would never have been able to remember all that</p>	

		nonsense otherwise, so it is very useful. When we are thinking about the information processing model what role does rehearsal play in regards short term and long term memory?	Implicit modelling of overhead question
00.18.01	T	It moves it from the short term and long term.	
00.18.03	TEC	Yes, yes. Very interesting. And does anybody remember there are two different types of ways...two different types of practice and one is when...well can anyone remember those two different types of practice? ... One is called 'massed practice' so what's that?	Implicit modelling of overhead question
00.18.32	T	Doing it a lot of times.	
00.18.35	TEC	Yes, concentrated practice. So if you are trying to remember something if you do it in a concentrated way consistently. The way some people revise for their GCSE exams. Some learners might not have done anything for weeks and weeks and then the week before the exam every day they look at that work. Massed practice. So what would be the opposite of massed practice?	Implicit modelling of overhead question
00.19.08	T	Spreading it out.	
00.19.12	TEC	Spreading it out. That is distributive practice and that is another way of doing it and using different contexts. You don't necessarily do the same thing; you teach the same thing perhaps but in different ways. [Turns to computer to move slide on] So these are some of the things that we looked at last week: [holds right hand up to	I'm learning something from you here.

		their chin as they ask the question] why is humour useful and important?	Implicit modelling of overhead question
00.19.36	T	Much more accessible.	
00.19.38	TEC	Yes and it helps us to remember. With Gagne's instructional events model does anyone remember what the first stage of the model was? What is the first thing I need to get from learners in order for them to learn?	Implicit modelling of overhead question Opportunity to model 'wait time' here?
00.19.58	T	Attention.	
00.20.01	TEC	Attention. Thank you. Ideally I don't want to go to a classroom where I see somebody talking at the front and nobody listening. You wait until you've got your learner's attention first and then start to teach. So that is the first stage of the model and we can revisit that. So that was my recap. Does anybody have any questions on that? You're ok. I want to also recap how we went over Socratic questioning last week and where I said to you that the work to do with the cognitive theory is to do with your second assignment what is Socratic questioning to do with? Why am I teaching Socratic questioning? What is Socratic questioning? [Pauses for two seconds] What is the relevance of it? [Pauses again and then says] Student 4?	Number of questions here. Implicit overhead question. Opportunity to link to explicit modelling of questioning in the session? Implicit modelling of Socratic questioning and question and nominate Opportunity to talk about wait time here?
00.21.05	T4	It's a question that leads to another question.	
00.21.08	TEC	It can be, yeah. Now this is going to be a tough one but does anybody remember the different types of question that we looked at last week? [Walks backwards from left hand side of the room to the wipe board on the	Implicit modelling of overhead question. Assertive questioning opportunity?

		right, disappears off screen and then suddenly appears from right into the centre of the U. TEC is laughing]	
00.21.30	T3	Open questions.	
00.21.32	TEC	[Turns round and walks back towards wipe board as they say]Open questions and closed questions [TEC writes something on wipe board and then moves back towards their table]. You can look at your hand out, if you like, um, but what types of questions [looks down] did we look at? [Pauses for 4 seconds] I asked you last week a question and I said to you, Student 2, 'how do you use this type of question' so do you remember what type of question it was?	Implicit modelling of question and nominate
00.22.05	T2	I think it was a Socratic question.	
00.22.09	TEC	Yes, it was but which one did I ask you do you remember? ... I said to you 'how do you use questions about questions?' So how do you use questions about questions	
00.22.16	T2	So...just to help the learner get the answer themselves	
00.22.20	TEC	Why do you question the learner about their questions to you?	Implicit modelling of Socratic questioning.
00.22.28	T2	So that they can show that they've understood it. They will understand it better if they are answering their own question.	
00.22.35	TEC	So sometimes, when they ask you questions, you put it back to them rather than >	
00.22.40	T2	Yeah, so you are not doing it all for them. They just need it wording differently	

00.22.44	TEC	<p>Yeah. Because you don't always want to fill the bucket for them; you want them to sometimes fill their own bucket at their own pail. Um, [holds right hand up to their chin and walks in front of the IWB and across to the wipe board]</p> <p>Let me just write down some of the different types of [T has back to the students as they do this. Writes Assumptions, Perspectives, Consequences, Clarifications and Rationale on wipe board and then walks back in front of the wipe board to stand in front of their resources desk. Looks at wipe board and seems to realise that something has been missed off, so walks back across the room to the wipe board. Back is turned away from the trainees as TEC speaks] ... Ok so I have written down questions about questions [Back is turned away from the trainees as TEC speaks, then adds questions about questions to wipe board. Then TEC walks back to the computer and begins to speak with back to the trainees] ... Right, when we are looking at this; when we are looking at some of my questions here... what sort of category do you think that question is? What is the type of learning that Lave identified called? Is it a clarification question? A question about a question? Consequence question or assumption question?</p>	<p>I didn't know about these types of question when I read them. Implicit modelling of overhead, clarification question</p>
00.24.12	T	A clarification question.	
00.24.13	TEC	It's a clarification question, yes. [T begins to walk towards the wipe board	<p>Implicit modelling of consequence question</p>

		and seems to change their mind and returns to stand near the computer so they can change their PP slide] What about the question: what difference does it make, Student 2, to you because you teach electricians within your centre rather than your school? What sort of question is that?	
00.24.31	T2	A consequence question.	
00.24.33	TEC	It's a question to do with consequences, that's correct. And [T moves PP slide on to next point. There is then a pause of 5 seconds before the T continues] why is it important to make learning meaningful rather than memorise information? What sort of question is that?	Implicit modelling of a rationale question
00.25.01	T3	Rationale.	
00.25.02	TEC	Yes, yes, questioning the rationale behind it [T holds up left hand and points a finger toward the IWB]. Why is it more important to make learning meaningful rather than memorising information?	Implicit modelling of Socratic question
00.25.14	T3?	It sticks.	
00.25.16	TEC	Stickability. [Smiles. A big smile.]It is going to stick if it means something to you, you can use this in your practice. So we've got some different types of questions up here: so what about [pause of 4 seconds] = um, does anyone have any questions? Questions about questions! [T laughs] So when I come to observe your teaching – just to recap – I want to see some of these different types of questioning methods being used where relevant simply because = how	Implicit modelling of overhead question. Not explicit modelling, though. This is linked to assessment. Implicit modelling of overhead question.

		does it help teaching? How does questioning help teaching?	
00.26.05	T	Because you learn what the students are getting, what they really understand //	
00.26.09	TEC	//So formative assessment; you know what they know. What else does it do?	Implicit modelling of Socratic question
00.26.14	T	It confirms what learning has taken place	
00.26.17	TEC	Yeah, coming back to formative assessment. Does it help people to make connections with their learning as well?	Implicit modelling of Socratic question
00.26.24	T3	Hmm, it's their involvement.	
00.26.27	TEC	It's their involvement; helping them to make it meaningful. Remember that scaffolding that we were talking about earlier; building on existing knowledge; you are helping them do that with the questioning method. [Turns to IWB and seems to read it to themselves before T continues] You know, we've talked about open and closed questions but we've talked as well about Socratic questioning which is a particular type of questioning. What about nominated and overhead questions; what is, Student 3, an overhead question, do you think?	Implicit modelling of question and nominate
00.27.10	T3	Something that you don't know.	
00.27.12	TEC	No, If I said //	
00.27.14	T	Open to the group.	
00.27.15	TEC	Open to the group, yeah. So the question I just did was nominated to Student 3: what's the benefit of doing a nominated question rather than a closed one?	Explicit modelling of Socratic question
00.27.29	T	It stops anybody answering.	

00.27.31	TEC	Yes. Sometimes you get the same people answering questions in classrooms, how do you encourage participation? What is the danger of using nominated questions?	Explicit modelling continues and moves onto implicit modelling of a Socratic question
00.27.45	T	Making somebody feel stupid when they don't know.	
00.27.47	TEC	Making somebody feel stupid. Self-esteem is a very important to motivation. We talked about motivation before.	
00.27.58	T	I know that you now notice when I don't know, so you don't ask me.	
00.28.01	TEC	<p>That's right. That's another thing you've got to do as a teacher is to try and pick up on that so you are not making people feel small but you are building them up. You are trying to build people up. So thank you very much for that and that's my recap [End of episode 1. Turns to computer to change slide. Slide says Critical reflection using models of reflective practice. Beginning of episode 2].</p> <p>What I want us to look at this week is about critical reflection. Now I was very interested by David's presentation and I want to link it with my teaching because I like everything to flow from one thing to another. I want to make it more meaningful to my teaching today: if a presentation comes before my teaching therefore I want to make a connection with that to make it more meaningful for you. One of the things that I was just taking some notes as he was teaching and he was talking about connecting [teaching] behaviour with</p>	<p>Long re-cap. How long would trainees normally have to re-cap in their own teaching?</p> <p>Role modelling and 'Thinking aloud'/explicit modelling and transference to student teachers' own practice</p> <p>TEC's comments</p> <p><i>One of the issues to do with modelling is that in some ways there is the assumption that much of the practice can be transferred. The trainees need to understand the way in</i></p>

	<p>theory and that is what my lesson is going to be about today. We are going to be thinking about the connection of behaviour to putting theory into practice. I don't want you to imitate me; I want you to adapt to your situation; adapt whatever I do to your situation those things that are relevant to you.</p> <p>Or be creative and imaginative enough to think how you can transfer different skills. I asked you last week = I gave you a homework activity to read a critical account and the reason I did this as homework is that the last time I taught this I got some feedback from students and they said that it was a lot of words to read in one go and, therefore, I wanted you to take it home and read it, digest it and engage with it. When you come into class you're not going to be confronted by so many words. I also asked you to = any words that were difficult to look them up in a dictionary. Some of you weren't here last week and I asked that you look at the four activities that Brookfield identified as central to critical reflection. So on this hand out here I asked that you looked at those four activities. At the end of the last session because some of the language is quite difficult I talked through what teaching context actually meant, so just to recap because some people weren't here [Walks across to wipe board and cleans it before T writes on it] = I used this machine on this board to make it clean and it seems to be doing</p>	<p><i>which the teaching style and methods suit the situational context is key. This reminds me of a recent conversation with a trainee who teaches in a prison who said to me if I taught like you are doing now with our class to my young offenders, they would walk all over you. This then led to an interesting conversation about the relationship between teaching style and teaching method. The trainee hadn't actually, before this conversation, thought much about how context influences teaching method.</i></p> <p>Modelling has emerged from schools-based ITE and its assumptions are based on that, including congruent teaching. FEITE is the outlier. Homework 'Thinking aloud' explicit modelling about pedagogical thinking and decision linked. Is there an opportunity to link this to their practice?</p> <p>Recap and 'Thinking aloud' explicit modelling</p>
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		something very odd. Okay, what does contextual awareness mean?	about pedagogical thinking and decision Implicit modelling of overhead question
00.31.34	T8	It's where you look at your teaching in its context.	
00.31.36	T	What is your teaching context, Student 8?	Implicit modelling of question and nominate
00.31.43	T8	Working with challenging young people.	
00.31.45	T	Challenging young people, yes. So you are working with challenging young people [T turns and writes this on wipe board then asks with back to group, so speaking to wipe board] Are they NEETs?	Implicit modelling listening to response and confirming back what has been said to you. Are you aware that you do this when you are writing on the wipe board and what it is modelling? TEC's response: <i>I take your point; however, I have been involved in amateur dramatics in my life and project my voice very loudly. I occasionally speak at the same time as writing brief/short key words on the board to help maintain the pace of the session. The reason this lesson was so 'punchy' was to do with the pace and keeping the class engaged. I come from a background of teaching young people and learnt at an early stage that it is key to keep the pace of</i>

			<i>the lesson going. I don't think this creates any negative impact. But, I will think again about this practice as a result of your comment.</i>
00.31.54	T8	Some of them are but not all of them are NEETs	
00.31.58	TEC	[T turns to face group and walks to stand behind their resources desk] Can you explain what the acronym NEETs means, Student 8?	Implicit modelling of question and nominate with overhead question Have you ever pointed out your resources desk, by the way?
00.32.01	T8	Not in education or employment - so they have dropped out of school or college and are not doing anything.	
00.32.08	TEC	Not in education, training or employment [T then moves to stand by wipe board again]	
00.32.13	T8	So, with those factors, they are more likely to get in trouble with the police and stuff because they have got a lot of spare time on their hands	
00.32.21	TEC	So your learners themselves, their social and economic backgrounds perhaps?	Implicit modelling of Socratic question
00.32.28	T8	Well it varies. Some come from comfortable families and they've got everything they need but they just don't have the drive to want to work or get their grades and they mess around in school. And you've got some that come from quite difficult backgrounds where their parents might not work; there are no positive role models and they get drawn to the wrong crowd.	

00.32.47	TEC	Okay, okay. And what about the context of the building and the people you work with?	Implicit modelling of Socratic question
00.32.55	T8	The building is nice; the rooms are designed to not be too much like a school classroom.[T turns to write this on the wipe board] The tables are spaced out like this room. We try to make it not like a school; we give them rules and guidelines but not too concrete so they feel they are not in school. Because if you do that they feel like they are in school.	
00.33.33	TEC	[T moves to left hand side of U and walks forwards and backwards as they speak] It does make a difference, doesn't it? The first thing I thought when they sent me back into school after I hadn't been for a long time – I went back into teaching the diploma and I was suddenly aware that everybody was wearing a suit and tie and I had to be Mr TEC, I'm not TEC anymore, and it makes you feel very strange – and you have got a totally different environment. That context changes the shape of your practice. And it talks about things having specific historical and cultural contexts: so recognising time at which something happens in the context it was in. Um, what is an assumption? Assumption analysis that I've talked about.	Implicit modelling of overhead question
00.34.36	T	Thinking that because something has worked in the past it is automatically going to work again whatever the situation is.	

00.34.45	TEC	[T is on right hand side of the room and outside the U when they start speaking]Yes, and we'll have a look at some examples of that and maybe this will become more meaningful. What does the work 'speculation' mean, what is 'imaginative speculation'?	Implicit modelling of overhead question Implicit modelling of "wait-time".
00.35.02	T8	Where you are communicating to yourself how to do something differently after it's actually happened. So you've had a lesson and you've done something and in your reflection you've thought how if you had the time you would have done this differently or these differently.	
00.35.21	TEC	Yes, you are engaging the creative side of your brain in thinking about how you could do something differently: [TEC looks at their notes and seems to be reading from them] different ways of doing things because we've talked about there being so many different ways. Thinking outside of the box; different ways of teaching the same thing. The last one talks about 'reflective scepticism' so what is 'scepticism'?	Implicit modelling of overhead question. I noticed TEC's use of his pre-prepared questions on his post-it notes after he pointed it out to me. They did not mention this in their SRI, by the way.
00.35.55	T3	Whatever you believe and what you did in the past you put on hold in order to think if there could be a better way.	
00.36.04	TEC	Yes.	
00.36.05	T3	It's open to new ideas.	
00.36.12	TEC	Yes, yes, um...challenging your own beliefs, [T looks down at their notes again and then looks up and speaks] having an open mind; umm, questioning the truth of the situation. Now I gave you some assessment	End of episode 2 and the start of episode 3

	<p>question and what I'd like you to do = hopefully you've completed this - I am aware that some of you will have completed the homework and some of you won't, I'm not going to name and shame. I'd love people to do homework every week but if you haven't managed to complete this, or if you've found it too difficult, the purpose of this activity is to go into pairs or groups of three and discuss these questions and just compare the responses that you've got with the other people in the group. As you're doing this I shall just come round and observe you to see how we're doing and we'll feedback the answers to the rest of the group. You also need a little bit of time – five minutes perhaps – to read this account again. There are two accounts, in fact; there are two accounts here. The first one is very simple and then the second one is more detailed. I'm asking you to think about...of these two accounts do they involve critical reflection? What does critical reflection mean? Brookfield defined those four activities as central to critical reflection and so that kind of gives you a working definition for the moment. So I'd like you to read both and I don't want you just to read the first account but I want you to read the second account as well. So I'll give you those five minutes to do that and then I would like you to go into groups - let's see how many we have got - of three and I would like you to sit in a way that</p>	<p>Group work. Example of Thinking aloud explicit modelling of how to use group work to work around a situation if students haven't done homework</p> <p>Thinking aloud about pedagogical thinking and decision to observe the group</p> <p>How have you modelled critical reflection here? The writing? Is it implicit or explicit?</p> <p>TEC's response: <i>The activity requires that they spoof assess my own critically reflective account using the criteria Brookfield identifies as key to critical reflection. This makes it an explicit model of reflection in my view.</i></p> <p>DP response: Implicit then. If you'd 'Thought out loud' and commented on using the writing as example of reflective writing, that would have made it explicit for me. Or asked them about using spoof</p>
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		<p>you are facing each other and so some of you will need to move your chair around so that you are all facing each other as you are discussing this. In fact we can do it away from the table – once you've had a read of this = I'll give you a few moments to have a read of it and you can come away from the table and sit in a circle with each other and then discuss what you have found and I will come around and see how you are getting on. Does anyone have any questions about that so far? ... Ok. ... While you are sorting yourselves out I am also going to share with you some introductory information that I wanted to do right at the beginning really before we start getting into this. The aim of this session is to introduce you to critical reflection [T puts great verbal emphasis on this word and physically moves their body too] the different models of reflective practice. What is this relevant to? What do you have to write that this is relevant to?</p>	<p>assessment with their own trainees.</p> <p>Implicit modelling of how to organise group work. Though did you debrief this after I left?</p> <p>TEC's response: <i>Thank you for this. I did a lot of modelling regarding group work at the start of the course. But, in this instance I didn't and I didn't after this session also. I wanted them to focus on several key areas and group work was not one of them. Sharing the aim of the session and the outcomes. Have you mentioned that modelling was an aim/outcome of the session?</i></p> <p>Explicit link to assessment requirement of reflective journal and need for critical reflection</p>
00.40.24	T	Our reflective journal.	
00.40.26	TEC	<p>Your reflective journal, yes. It's very interesting because in the training that I've been doing up at the University they talk about how the reflective journals are often too restrictive and not critically reflective and so I thought to myself how can I make these journals more critically reflective //</p>	<p>Explicit link to assessment requirement of reflective journal</p>
00.40.43	T	Do you want our TP3s to be along the same lines?	

00.40.47	TEC	To be critically reflective? Yes, definitely. When you are looking back over your session, absolutely.	
00.40.54	T	And do you want citations in there as well?	
00.40.57	TEC	Um, ideally. You don't have to but if you think a citation is relevant to what you are discussing then I would say put the citation in. It is not compulsory but over the course of = the evidence gathering that you do I do need to see that integration of theory and practice. It certainly needs to be in the reflective journals and, where relevant, in your teaching practice TP3. Any other questions on that? [T approaches computer and changes the slide] This is what we are actually going to be doing today: we are going to be looking at critical reflection for a spoof assessment exercise. What is a spoof assessment exercise?	Implicit modelling of overhead question
00.41.49	T	A pretend one.	
00.41.50	TEC	Pretend, yeah. So what I've written is = I didn't write it when I was doing my PGCE I'm afraid to say. I'd loved it if I had have done but I didn't keep the records of when I did my PGCE twelve years ago – I wish I could have done – um, but I've written it retrospectively, um, as if it was my reflective journal one. I'm going to get you to complete Brookfield's critical instance questionnaire. Do you remember last week we did the muddiest point at the end of the session? What was the purpose of that?	Thinking aloud about reflective writing Implicit modelling of Socratic question
00.42.37	T	For your reflection	

00.42.39	TEC	<p>Yeah, for me to improve. Again this is another method of improving; of gathering data to improve my teaching.</p> <p>I've put some learners will apply a model of reflection to their own experience and relate that to the class. These outcomes are very much behavioural. We've been talking about that in terms of our lesson planning and you don't see a lot of understanding in this, so why have I not said that you have to understand critical reflection?</p>	<p>Explicit about pedagogical thinking and decision making linked to improving your practice.</p> <p>Seems to be responding to situation rather than pre-planned.</p> <p>Implicit modelling of Socratic question.</p>
00.43.12	T	Too vague.	
00.43.13	TEC	<p>Too vague; you can't quantify it and you can't measure it. Okay, um [pauses for 4 seconds and then continues] links to professional standards. I need to make you aware that these standards have been revoked. However, I still think that they are relevant and we are waiting to see what actually happens with that. This is a wider discussion that we look at in Year 2 regarding professionalism and standards but these are the links to the professional standards that have been in place. So I'll let you have a read of that. [Pauses for 4 seconds] How do you define the term 'reflective practice'?</p>	Implicit modelling of overhead question
00.44.11	T	Think about what you've done; what went well and what didn't go so well and how can you improve it next time.	
00.44.18	TEC	<p>Yes. What is the name of that model? It begins with a G. [Question seems to be targeted at student who answered previous question. T pauses for 3</p>	<p>Implicit modelling of overhead question and use of wait time</p>

		<p>seconds and then responds] What you are describing is very similar to Gibbs' model which we introduce you to first.</p> <p>But there are lots of different dimensions to reflective practice and we are going to look at those today.</p> <p>Hello Student 5, we are looking at reflective practice and we are just about to review the homework exercise. You can sit there if you like. We are just discussing what reflective practice means. These are some definitions of reflective practice: [T turns to IWB and reads from it] Moon describes reflective practice as a set of abilities and skills to indicate the taking of a critical stance or orientation to problem solving or a state of mind. This encapsulates a wide range of activities associated with thinking about your learning. Cowan suggests that learners are reflecting in an educational sense when they analyse or evaluate one or more personal experience and attempts to generalise from that thinking. So these are some definitions of reflective practice but there are lots. I'm not going to talk to you about all of the definitions today. Biggs has pointed out that the reflection in the mirror is an exact replica of what is in front of it but reflection is not that: it's giving back what might be an improvement on the original. [T turns to group and asks] What are these called? Why do I put these in my presentation?</p>	<p>Implicit modelling of Student 5's late arrival.</p> <p>This is not something you would explicitly model this, I would argue, because of the danger of upsetting the trainee</p> <p>TEC's response:</p> <p><i>As a result of your work with me, I think much more about how I am modelling different behaviours. I do now build in explicit modelling of this practice. Although, not always in every lesson!</i> Evidence of impact of working together?</p> <p>Beginning of explicit modelling of referencing with implicit use of overhead question</p>
00.46.39	T	Citations.	

00.46.42	TEC	Citations, yes. Why do I put these in my presentation?	Implicit modelling of overhead question
00.46.43	Ss	(?????) to avoid plagiarism?	
00.46.47	TEC	Yes. Can you think of another reason in terms of modelling that David was talking about earlier? How is that relevant to what David was talking about? How is that relevant?	Implicit modelling of Socratic question
00.47.00	Ss	Showing how it should be done.	
00.47.01	TEC	I hope so! It's because you've got to do Harvard referencing and we've been talking about it, haven't we, and various people have been struggling with Harvard referencing, so how am I going to ask you to do that if I am not doing it myself? So that is my reasoning behind showing you that and including references at the end of my slides. You'll notice, if you look back at all of my lectures, that I include this sort of information. [TEC changes slide and then begins to read from the board] 'Reflection in action is the teacher thinking on his or her feet; being spontaneous, creative and unique.' [TEC moves into the centre of the U] Does anybody change their lesson sometimes after they've planned it: they go in and it doesn't work and so you've just changed what you've done? Has that ever happened?	Implicit modelling of overhead question
00.47.54	T	I've changed lesson plans within 30 seconds of walking into the room.	
00.47.58	TEC	Why was that?	Implicit Socratic question
00.48.00	T	Something might have happened before the class that needs dealing with – an incident in the coffee bar	

00.48.15	TEC	<p>One of the quotes I shared with you earlier was about imagination – the Albert Einstein quote: imagination is more important than knowledge, um, that I shared with you when we looked at lesson planning. Because you can know a lot about lesson planning but still not have an imaginative lesson. In the same way, when you plan something, a better lesson can sometimes divert from plan and the trick of an expert tutor is in knowing when that is appropriate. S has been describing how he’s recognised that himself. You are going to get into your groups and going to look at the first reflective account and then the second one and I want you to have a think about those four different questions and what you got from your homework and to share and discuss and I shall come round and do a formative assessment and watch what you are doing. Have you noticed how I use these terms when I am teaching? I’ve talked to you about how I’ve used, for example, observation. When I come round and I’m observing you have you noticed how I say that I’m coming round to watch what you are doing now. Not in a horrible way but the reason I’m doing it is to make you aware of what David was talking about earlier – the modelling. To make you aware of how you need to know what is going on in your learners’ heads and what they understand. And that is what I am trying to do when I watch what</p>	<p>Thinking aloud/Explicit modelling of managing group work through formative assessment and observation Explicit modelling of technical language TEC’s response: Yes and modelling of formative assessment through, for example, observation. DP response: This comment helped me as I’ve re-reviewed the film</p>
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		you are doing in your small group situations. So can you try and get into your situations. You can be away from your desks but I don't want to see three people in a line, as I want people facing each other.	
00.50.47		[The trainees organise themselves into groups. TEC bobs up and down on the spot by the resources table, then walks from there in front of the IWB and around the outside of the U to stand behind a group who are sat on the right hand side of the U. TEC looks over their shoulders]	
00.51.37	TEC	[TEC seems to move on to the next group, though then notices the first group are talking and comes back to them] Have you all had a chance to read it?	Implicit modelling of overhead question.
00.51.56	T	I've read it at home. [Reassured TEC moves away from the group and walks around the outside to the third group, who are sat on the left hand side of the U, near the door to the classroom. TEC stands and looks over their shoulders]	
00.52.21		[TEC walks back anti-clockwise towards the first group again, then walks back to the third group].	
00.53.30		[TEC walks back to first group]	
00.53.56	TEC	What did you think S [name used], in terms of the assumptions?	Implicit modelling of Socratic question
00.53.58	T	I think you make assumptions about your groups when you are teaching and, obviously, that is when you will have to evaluate what you are going to do to make the right decisions for that group. So you have to think about that.	

00.54.29	TEC	Anything else? Did I make assumptions about my own skills or abilities?	TEC has identified this as an example of implicit modelling of their own vulnerability. I have this down as an example of implicit modelling of Socratic question, though I can see their point.
00.54.36	T	I think you assumed your teaching was good enough to engage with all the students.	
00.54.53	TEC	So the subject specialist area and the different types of students?	Closed question
00.54.57	T	Yeah	
00.54.58	TEC	I hadn't thought about that, that's a very good point. Thank you [recording stops for me to change the battery]	
00.00.00	T	It wasn't obviously correct because you were teaching and you had to evaluate what you were going to do. You had to think about that	
00.00.27	TEC	That's very good. Anything else? Did I make any assumptions about my own skills?	Implicit modelling of Socratic question
00.00.35	T	I think you assumed your teaching were good enough and would engage all students regardless	
00.00.55	TEC	I hadn't thought of that, it's a very good point. Okay. Carry on. [T walks back towards the third group] What have we got so far?	Implicit modelling of overhead question to a group
00.01.21	T	(???????) All learners learn in the same way. (?????????????????)	
00.02.27	TEC	So we need to think about how we teach in different contexts and we need to know how to teach in different contexts [there is a group talking close	

		to the camera and it is difficult to discern the conversation between the T and the third group]	
00.03.38		[Teacher moves to the second group, who are at the bottom of the U. There is a group talking close to the camera and it is difficult to discern the conversation between the T and the second group]	
00.03.52	TEC	That's a very interesting point. I was teaching IT students, a very different kind of group. Some of them did respond to a authority-driven type model. What else have you got?	Implicit modelling of overhead question to the group
00.04.20	T	(????????????????)	
00.04.46	TEC	Do I explicitly discuss it there? (??????) Have I discussed why?	
00.05.11	T	(??????????????)	
00.05.54	TEC	Are there any assumptions there?	Implicit modelling of Socratic question to a group
00.05.56	S	(????????????????)	
00.07.00	TEC	Why do you think I would have thought that?	Implicit use of Socratic question.
00.07.12	T	(??????????????)	
00.07.55	TEC	I do need you to feedback though I am aware that David has had a problem with his camera	
00.08.00	David	I've picked another recorder up TEC, so let the session run naturally.	
00.08.05	TEC	Okay, so we'll carry on.	
00.08.20	TEC	[TEC speaking directly to group one] I'm aware that there has been lots of talking here, so I hope you have got a lot to share with the others. [TEC then walks around to group three]	Think aloud about what they have noticed, though not explained what they have done. Implicit modelling

00.08.33	TEC	Another couple of minutes. Let's pick up the pace a bit here...[Walks towards group two] because you can stagnate if you are not careful [TEC turns back to be with group three]...as I want to get through all of the questions.	Picking up the pace. Thinking aloud explicit modelling of teaching intentions. Are you aware how you distributed your time between groups?
00.09.00		[TEC turns and walks past group two, T glances at what they are doing, and continues to briefly stand by group one again. T then walks back to the front of the class]	
00.09.21	TEC	I'm hearing a natural lull in the classroom and do you know what I think when I hear that lull >	Thinking aloud explicit modelling of reading paralanguage
00.09.25	Ss	Coffee!	
00.09.27	TEC	I think it's either coffee time or time to feedback. Actually, it's both. After coffee, I'm tempted to continue the lesson and do the feedback because I'd like in a way for that to be filmed as well. However, I'm aware that you are tired and need that coffee break, so I'm going to do what's best for you and give you that coffee break. And when you come back we'll feedback and discuss. Thank you very much...I hope you've enjoyed it so far, it's been useful, and I'll see you when some of you get back from coffee. And if some of you want to see me or discuss anything with David, please do. I suggest what we do is, I normally give you a 15 minute break but to allow you time to chat with David I'll allow you a 20 minute break. [End of Episode 3 at 00.10.04]	TEC's comments: <i>This is implicit modelling of emotional intelligence and the value of reading paralanguage. I am also using humour which is also important to use in a cognitivist classroom and from a humanist perspective.</i> DP response: Added to summary of modelling as a result of discussion about this, though my assessment is that it is Thinking aloud explicit modelling

00.00.00	TEC	[Beginning of Episode 4] I'm sorry to be the sort of authoritative tutor but I just want to say can you please come back on time. [TEC turns to IWB and reads from it] The point of this exercise has been: how have I used theory to develop my practice and that is really what we are looking at. [T turns back to face the group] Can somebody answer that question? In this group assessment how have I used theory to develop my practice?	Implicit modelling of question and nominate
00.00.36	T3	We looked at the theorists.	
00.00.39	TEC	Absolutely. Because theory is often about practice and there is not necessarily a disparity between theory and practice: theory informs practice. And that is what I want you to be thinking about and that is why I want you to build a relationship with theory and understand how it can be useful to you and what you do in your work. [TEC approaches resources table] Now looking at these questions what sort of assumptions have I analysed?	Explicit modelling of critical thinking in relation to their practice. Implicit modelling of Socratic question
00.01.12	T	The methods you used with the IT students would also work with the Skills for Life students. [TEC turns and walks to the wipe board]	
00.01.20	TEC	Okay, [TEC begins to write on wipe board and speaks whilst writing on it – their back is turned away from the Ss] so an assumption regarding methods. [TEC writes methods on the wipe board]	
00.01.33	T	Teaching strategies	
00.01.34	TEC	Teaching strategies [TEC then writes teaching strategies on the wipe board]	

00.01.39	S	Competencies	
00.01.41	TEC	In particular?	Implicit modelling of Clarification question
00.01.43	T	You consider you are competent about that in your own situation. [TEC writes competency? on the wipe board]	
00.01.56	TEC	<p>[T turns away from writing on the wipe board, holds their right hand up to their chin and begins to speak again] So not being at that time a teacher educator and being an IT lecturer, I was very tied to my experience of only teaching one thing and it hadn't perhaps occurred to me to think what sort of difference it would make moving into a different area, what skills would be transferable but I have perhaps assumed that some of those skills =</p> <p>David was talking earlier about imitation and the dangers of imitation and you can't imitate my practice because it's [not] relevant to your specialist area and I couldn't replicate my practice in IT because it's a different subject specialist area, it requires different skills. Anything else?</p>	<p>TEC is visibly thinking here. Thinking aloud explicit modelling of critical reflection. Implicit modelling of overhead question</p> <p>TEC's response: <i>It is very important to me to make use of the moment within my teaching. Those moments that bring coherence are sometimes in the classroom and happen spontaneously. They are in addition to the thinking and intensive planning that goes in before class. I want to make use of both. This is a useful article that discusses some of this:</i> http://journals.lww.com/academicmedicine/Fulltext/2012/09000/The_Importance_of_Teaching_and_Learning_Moments.1.aspx</p>
00.02.52	T	You assume that the students are responding in the same way.	
00.02.55	TEC	Yes [TEC writes student responses on wipe board].	

00.03.07	T	You also assume that one method of controlling one group of students would work with another group [TEC writes behaviour management on wipe board].	
00.03.15	TEC	Behaviour management strategies. When I moved into Skills for Life the manager sat down with me and he said 'I know you'll be interesting in moving into Skills for Life, I've got to tell you that these students are very different to the types of students that you've taught before'. And I said 'Oh yes, I know about teaching young people; I teach sixteen to nineteen pupils all the time'. And he said 'but not these students; you haven't taught these students before I can tell you'. And that was my experience: teaching bricklayers, hairdressers Level 1; plumbers. They were very different students and I needed very different skills. Was there anything else?	Thinking aloud explicit modelling of critical reflection Implicit modelling of overhead question
00.04.01	T	Because it says what assumptions are analysed here, I assumed your manager would assume you were competent in your new role.	
00.04.07	TEC	That's very interesting [TEC turns and writes management on the wipe board]. And what theory do I connect with that? [TEC turns from the board and walks into the centre of the U and then returns to the wipe board and stands on the left hand side of it] There is a theory towards the end where I discuss //	Implicit modelling of overhead question
00.04.33	T	Is it Hersey and Blanchard?	

00.04.35	TEC	<p>Thank you, S [TEC uses S's name]. I would like you all to research Hersey and Blanchard for next week. I'll write that up at the end of the lesson...I'll just put that up here for you. [Writes Hersey and Blanchard on the right hand side of the wipe board, away from the list on the left] Basically this theory talks about sorts of types of management that you should have depending upon your skills sets. Because I was a skilled tutor means that the type of way I should be managed is different to if I was totally new. Because I'd taught before it makes a difference to the way that my manager should treat me. But do I still need support in that new area?</p>	Implicit modelling of closed question
00.05.33	T	Yeah.	
00.05.34	TEC	<p>What I need is coaching - I need coaching. We'll talk about this theory next week but it identifies different types of management that you can have; different types of support from your manager. Coaching is relevant where the person is skilled but not in that particular area. So I was skilled as a teacher but not teaching skills for life so I should be coached. So my reflections here have been emancipatory. What do I mean by that?</p>	Implicit modelling of overhead question
00.06.14	T	It empowers you.	
00.06.15	TEC	<p>[TEC moves into the centre of the U] It gives me a eureka moment in that I have thought that I need to approach my manager and have a professional discussion and say to them that I need</p>	<p>TEC comment: I am actually explicitly talking now about these epiphany moments.</p>

		<p>this additional support because you, as tutors, are not working in isolation of your cultural context and your situation and so you need the support within that situation. Um, is there anything else you've got on assumptions or are we done on assumptions? [TEC moves back to the wipe board and wipes off the list, leaving just the Hersey and Blanchard reference on the wipe board]. Okay, contextual awareness?</p>	<p>DP response: Agree. Thinking aloud explicit modelling of critical reflection.</p> <p>Implicit modelling of overhead question</p>
00.07.03	T	<p>There is contextual awareness in reflective account because a teaching method didn't work on two different groups of learners so you enrol on an OCR subject literacy course for teaching literacy to 16-19 year old learners.</p>	
00.07.22	TEC	<p>You've identified that I was aware that the teaching and learning methods weren't acting so I took action to take a course in subject specialist pedagogy. What does the word 'pedagogy' mean?</p>	<p>Implicit modelling of overhead question</p>
00.07.38	T	<p>Is it to do with teaching?</p>	
00.07.39	TEC	<p>The science of teaching. So I've got to understand that teaching literacy = I've got two degrees: one is a degree in IT and one is in English but my experience, at that point, was in teaching IT, I had no experience of teaching literacy although I had experience in literacy; I was literate and I had literacy skills but I didn't know how to pass my knowledge on. Like that model of conscious competence, um, we discussed before and it is discussed in here. What's the</p>	<p>Implicit modelling of overhead question</p>

		<p>model of conscious competence?</p> <p>Reynold's model of conscious competence – what's he getting at? If you learn ></p>	
00.08.40	T	Doing it without really thinking about it.	
00.08.42	TEC	<p>Doing it without thinking about it. We need to make people aware of why they are doing certain things. This is about what this modelling is getting at – raising your awareness of what is happening and of why I do things in a certain way and why you do things in a certain way. You are making your clients [TEC then realises what they have said and re-phrases it to trainees] aware of what they are doing.</p> <p>Increasing their level of awareness about their actions. How do you drive a car? Do you think 'right now I've got to press this'. You just do it, don't you? If a chef bakes a cake, a hairdresser cuts hair do they think about what they are doing each time and what is good and what not so good and what the alternatives are? Um...so, returning to where we were, [T reads from their notes here] the contextual awareness = what are the two teaching contexts?</p>	Implicit modelling of overhead question
00.10.09	T	There is the context where the IT students are compliant and it is quite comfortable but whereas we are teaching the bricklayers where they were quite hostile and they are tense with you all the time.	
00.10.26	TEC	IT students and Bricklayers (T writes these words on the wipe board as they say them) So two different subject areas and two different specialisms [T	Implicit modelling of listening and responding to answer

		turns away from the wipe board and speaks to the group] and you mentioned about not just their specialism but their attitudes, haven't you?	
00.10.39	T	I said IT students are more compliant and quite happy to be there [T writes attitudes on wipe board] whereas the bricklayers were volatile and potentially hostile.	
00.10.54	TEC	Yeah, yeah, they were more combative. So there was an awareness of = is there any other context to awareness there?	Implicit modelling of overhead question
00.11.05	T	Yeah, the IT students then came to the studies and they were under eighteen years of age but with parental guidance and support and there was an authority based learning environment.	
00.11.18	TEC	Yeah, background [TEC writes the word background as they say it on the wipe board], so parental support makes a difference. Do I mention anything else about the learners?	Implicit modelling of overhead question
00.11.30	T	The bricklayers were disengaged; some had a criminal record and were on probation; low GCSE grades or none at all.	
00.11.44	TEC	What were the different levels? What level did I teach IT at and what level did I teach Skills for Life? What level were the bricklayers?	Implicit modelling of three closed overhead questions
00.11.53	T	Level 1.	
00.11.57	TEC	What level were the IT students?	Repeating earlier question
00.12.03	T	Level 2 and 3.	

00.12.05	TEC	Level 2 and 3, thank you [and uses S's name]. [T pauses for 5 seconds] What do I not mention in my account that is relevant to context? [T pauses for 3 seconds] What could I have mentioned?	Implicit modelling of overhead question
00.12.34	S	You could have mentioned the actual room itself.	
00.12.37	T	I haven't mentioned things like the room. Anything else?	Implicit modelling of overhead question
00.12.45	S	How many were in the group.	
00.12.47	T	<p>Yeah. The list really is endless. Let's move on to this one: a realisation that assumptions are socially and personally constructed. I don't think there is much of this but you might prove me wrong. Is there a realisation that assumptions are socially and personally created in a specific historical and cultural context? Go on, [T uses S's name]</p>	<p>Implicit modelling of question and nominate.</p> <p>Were you aware of which trainees spoke the most in the class/who you targeted your questions at?</p> <p>TEC's response:</p> <p><i>My questions were written down and differentiated. I had pre-written questions targeted according to my understanding of trainee tutor contexts, experience, disposition to learn and prior cognitive ability. I ensured that these questions were addressed to each of these trainees. This question you ask shows that you don't entirely understand what I was doing. I think that is ok though, as it really</i></p>

			<p><i>shows that an observer really cannot get into the head of the teacher he or she is watching very easily. Perhaps this sort of questioning is needed to fully understand the lesson.</i></p> <p><i>Doesn't this whole experience show how little a normal teaching observation can uncover? This whole experience of the transcript and stimulated recall discussion uncovers a-lot more.</i></p>
00.13.15	T3	By asking yourself if you'd been too strict with these bricklayers (? ? ? ? ? ? ? ?)	
00.13.30	TEC	Yes. <i>Is it implicit or explicit? Student 6, what do you think?</i>	Implicit modelling of closed question and nominate
00.13.44	T3	Implicit.	
00.13.45	TEC	Why do you think that?	Implicit modelling of Socratic question
00.13.47	T3	Because you discussed it with me [TEC laughs].	
00.13.57	TEC	It's implicit, I'll explain this. When we are thinking about assumptions being socially and personally constructed do you think, reading from here, that I was saying that I was a good teacher?	Implicit modelling of closed question to nominated student
00.14.15	T3	Yes because you said 'I realised I had been an excellent subject specialist teacher in ICT.	
00.14.27	TEC	How do you think I came to believe that?	Implicit modelling of Socratic question

00.14.33	T3	You had a lot of success with your IT students.	
00.14.35	TEC	Yeah, so I would have had success with them in terms of achievement rates. What else suggests that my belief was personally created? How else would I have felt that I was successful?	Implicit modelling of Socratic question
00.14.50	T	You had good feedback.	
00.14.51	TEC	Good feedback from whom?	Implicit modelling of Socratic question
00.14.52	T	From your peers.	
00.14.53	TEC	Yes.	
00.14.55	T	And from your students.	
00.14.56	TEC	And that leads on quite nicely to what I am going to talk about soon about Brookfield but, yes, I would have had feedback from both my peers and from the students saying...anyone else I might have had feedback from that led me to believe that I was a good tutor?	Implicit modelling of open overhead question
00.15.17	T	What they went on to do afterwards? Their progression?	
00.15.25	T	The parents.	
00.15.27	TEC	Yes, parents, thank you. Anyone else? Who else at work tells you when you've done well?	Implicit modelling of open overhead question
00.15.36	T	Colleagues.	
00.15.37	TEC	Colleagues.	
00.15.39	T	Managers.	
00.15.40	TEC	Managers as well. So for all those reasons I believed that I was good at my job. Now I haven't discussed something here but I could have done about getting to awareness of assumptions being personally constructed in a social environment.	Implicit modelling of closed question to nominated student

		The social environment was those people telling me – those peers, parents and students – at a particular time in a particular historical context. Is there imaginative speculation? What do you think, Student 8?	
00.16.36	T	Yes, because you are enrolled on the OCR subject specialist course and realise that your excellent IT students want to learn and do well, but the Skills for Life students and bricklayers might be there for other reasons.[IT screen goes blank at this stage]	
00.17.02	TEC	So I've speculated that perhaps this course might have helped and that might have been the reason I didn't have the subject specialist knowledge. Is there any other type of speculation there?	Implicit modelling of open overhead question
00.17.17	T	You also said that 'I needed to be more emotionally resilient' and show I didn't raise my voice with students.	
00.17.23	TEC	Thank you, S's name used, because teaching is very visceral and by that I mean very cutting. Why is it cutting sometimes being a tutor?	Implicit modelling of open overhead question
00.17.35	T	Because one week can be successful and another week you might have a problem.	
00.17.44	TEC	Rudyard Kipling said 'treat those two imposters the same – success and failure' – in that keep a level head - because teaching – if you care about what you do and if something goes wrong and if somebody says that to you - it can really make you feel awful. It can make you feel crushed because you put your heart in the job that you	TEC comment: <i>Modelling emotional management. This is really important for teachers. It is implicit modelling because as I have said to you before implicit modelling is embedded everywhere</i>

		<p>are doing. What about reflective scepticism? When I was reading this I thought 'I think the students are going to find this one a bit more difficult because the question itself is quite hard'. What is 'reflective scepticism'?</p>	<p><i>in my practice, but the explicit stuff I have to pick and choose which I am going to highlight each week. If you concentrate on too many at once, I think it loses its value.</i></p> <p>DP response: I agree that you are discussing emotional management, though how are you implicitly modelling it here? You seem to be revealing something of yourself by thinking aloud and so it seems explicit to me.</p>
00.18.45	T	You are open to new possibilities.	
00.18.46	TEC	Thank you. And it talks about patterns of interaction. Has anyone got anything that they would like to share?	Implicit modelling of open overhead question
00.18.56	T	In the first one you realise that not being as strict is more successful than having concrete guidelines with your IT students.	
00.19.12	TEC	Yeah.	
00.19.14	T	In the last bit of the final paragraph where your class size is reduced, your discussion with your manager and coaching bringing in a little bit of your comfort zone, bringing in computers probably all had a bearing on that.	
00.19.31	TEC	So really it is not one angle but looking at patterns; all the different information together and fitting it together; putting different pieces together in order to consider the true course of action. Now	

		<p>this reflective journal account is within a ten percent tolerance of the recommended, umm, word count for a reflective journal and I have referred to six separate sessions and I actually identified the dates of those sessions. Six separate sessions is what you are recommended to refer to but I am interested in critical reflection and we'll talk more about that. We're gonna look at technical, critical, practical reflection.</p>	
00.20.38	T	Is that six over the year?	
00.20.39	TEC	<p>Well it's your reflective journal and you need ideally to refer to six. I wouldn't refer to more because the more you refer to – but it's up to you – the more you refer to the more likely it is that your descriptions will be less critically reflective. You won't be able to consider the implications and the consequences and the assumption analyses there; the emancipatory elements as well because we were talking about that earlier. To step outside of the box and you've got a certain word count. It can be quite difficult but we will look at all of that.</p> <p>Are there any other questions you would like to bring up? I think we'll ask David to stop filming at this point.[End of episode 4 at 00.21.33]</p>	Implicit modelling of open overhead question

Appendix 13: Transcript and analysis of “Teacher Talk” meeting held on 4 September, 2013

The transcription convention used by my transcribers for interviews and focus groups

Instances	Symbol and example
Abandoned utterance	>
End of turn	//
Guess at unclear word	(learning)
Interrupted utterance	^
Latching	=
Overlapping utterances	[]
Untimed Pauses	.. less than half a second ...half a second to a secondmore than a second
Unclear word(s)	()
Vocalisations that are not easy to spell out	((trainees laugh))

Discussion led by: David Powell

Team members present were Teacher Educators B, C, D, E, F and G at the College

Speaker	Dialogue	Analysis and notes
DP	This is a meeting with the team at The College and the purpose of this is to review the research so far, particularly an opportunity for people to share their experiences of the research so far so that people who might be involved and who have an idea about what it might entail can consider some initial findings and to validate and evaluate those and then, finally, to think about what we might do next and how we might move on the research, umm, in terms of the next stage. So, to start off with then, what have your experiences been so far of the research, umm, in terms of the process? What's worked well; what might I need to think about?	
TB	Well I've been observed once by yourself //	

DP	Thank you Teacher B.	
TB	<p>And that was an interesting experience for both myself and the students and it made me make explicit what had usually been only implicit – or rather only a small percentage had been explicit.</p> <p>So that was interesting for myself and the students and it also was interesting for the students and helpful for them to see that we were consciously looking at our practice and also we were engaging in action research ourselves. And they were interested to see this being modelled to them because that's another thing that is being modelled. So teachers are more and more becoming researchers; teachers are researchers. As Barton, in his article 'Teachers As Researchers' says, 'that we are constantly trying out new things in the classroom and that's what makes our role similar to researchers'. So it was good for the students seeing that being modelled. The feedback after was interesting because there was lots of feedback from yourself but not in a kind of dominant sense that you were drawing out things that maybe I hadn't thought of. Yes, so it was a positive experience.</p>	<p>Being part of the study had shaped what they did in the filmed session.</p> <p>Modelling role of teacher educator as researcher</p> <p>Seeing into their own practice</p>
DP	Thank you Teacher B. Who would like to add to that?	
TD	<p>Yeah I think it was very similar to me. I think like Teacher B was saying it was making things that were implicit explicit and helping me to focus on that aspect of my practice but also, I think, watching the video and doing the commentary on the playback of my class was really interesting because I was kind of = when I looked at it I thought 'oh yeah that's why I do that' and I could conjure up the rationale that I had but, you know, you're not thinking about that in that kind of explicit way when you are in action; you're not consciously making decisions like 'oh well I'll do</p>	

	<p>this because of that' but, looking back at it with you, that was a really powerful tool for reflection actually and I think I said, when we were doing it, that it would be really useful to get similar processes = I kind of felt that the whole process of talking back through the video was a really, really helpful way to link practice to theory and maybe that is something that we can do with our students. It also highlighted for me the fact that to kind of needed to remembered to keep flagging that up to the students to think about the process as well as the product: to think about the way they were doing things and why in the classroom.</p> <p>So maybe keeping that on the boil as a kind of background question: why are we doing it like this? I think I talked about the fact that time was a bit of an issue in terms of always stopping and analysing every single time you've done an activity but maybe encouraging that as a kind of theme throughout = that's kind of there in the reflective journals and so on but just to keep making sure that learners have got that question in their minds or that perspective to kind of think about why are we doing things in the teacher ed sessions in that certain way and what might the implications be of that? So, yeah, I found it useful to unpack some of the stuff that I am unconsciously doing and I agree with Teacher B that these things have to be unconscious processes really, don't they, because you have to be very fluent and you have to be very responsive and so, you know, you are doing most things unconsciously. So, I think, that, for me, was the key thing really.</p>	
DP	Thank you Teacher D. Did your trainees make any comments at all?	
TD	No, I think they took it in their stride and I think that I didn't flag up the whole action research in	

	<p>the same way that Teacher B did and so I talked more about the teaching processes but I could see that would be a really useful thing to do. I think it was useful for them to see maybe as well different kinds of observations because what they are conscious of and what we are conscious of is the kind of Ofsted style or we've got our own internal quality policy audit – to see that observations can be used for different purposes and that's really much richer for us.</p>	
TB	<p>That's really key because, again, within the whole process, our willingness to be observed. I felt very vulnerable with it; it's a very interesting experience watching yourself on video. I look like Ronny Corbett! [Teacher D laughs] I look horrible! But what can you do – it's me! And I put them through that every week. But I think they appreciated that, erm, but it was hard for them to get used to the fact that it wasn't a judgemental process. And that Hawthorne effect happens, doesn't it?</p>	
TF	<p>That was what I was quite concerned about the surveillance culture that we are so much involved in. We are being judged all the time, people change as a result of being judged. You act differently because [noise interference on recording] however neutral it is purported to be there is always underlying judgement. We carry our values with us.</p>	
DP	<p>Without a doubt and what's been interesting – and I'll bring Teacher C in in a moment – but I've been trying to do some other work with some primary teachers and the people who were involved in doing this research were talking about whether we would actually film and what was agreed for this cycle was that the trainees in the group did the filming. Now I hadn't thought of that when = so just thinking about it is that something</p>	

	<p>that could happen in the next cycle and what would be the value of that in terms of shifting it from the judgement stuff that, actually, the trainees are starting to own the process and you are co-collaborators in it – or multi-collaboration actually – with my role more as a facilitator in helping you explore in an interview sort of way we know about the issues around interviews but they are really good for this type of data collection because you have to somehow make explicit – you’ve got to verbalise your thinking = I’m pleased that you’ve just mentioned that Teacher F about the Hawthorne effect although we couldn’t do it with this. I have no problem; action research is flexible, you know, it responds to what you are trying to do. What you are trying to do at the end of the day is to get to the essence of what is going on.</p>	
TB	<p>There is a brilliant quote and it says: ‘when we observe we watch through tinted spectacles of our own value system and culture both societal and organisational’ and, you know, that is really interesting because we may have conflicting ideas about teaching and teacher education and work practices and we are in a very different context to the University so there are different organisations involved there and it’s important that the research, if I may say so, reflects that context.</p>	<p>Link to Tave Springbett’s work on FE teacher educators</p>
DP	<p>Thank you Teacher B.</p>	
TF	<p>It’s quite interesting that, if you remember, we had some training sessions which I was leading and one of the sessions was to do with behaviour and I was exactly in that facilitative role that David is talking about. However we were talking about bad behaviour but the problem is what happens in like a university or college session when we are working with trainees is not really a</p>	<p>Links to being second order practitioners in a first order setting, though not teaching a class like Tom Russell did with 351</p>

	<p>model of how they can be when they confront disruptive and horrible classes where = us talking about it is like a second level, is not like an experiential thing of being in that class with those horrible and difficult people. Do you understand? So the whole idea of modelling – there is a whole problem there like the difference between what we are doing actually when we are having facilitated discussion with those but the student teachers are actually experiencing their classes. We can talk about it because that's quite a tame, civilized thing compared to the actual aggression that they are up against.</p>	
DP	<p>Can we come back to that point? I'll make a note of it and the key thing there is the concept of professor in residence. We'll come back to that in a bit. Teacher C has patiently listened there. Is there anything you want to add to this?</p>	
TC	<p>I enjoyed being part of it, umm, it was undoubtedly the same as Teacher B and other people have said about you do feel vulnerable and there is an element of stress with regard to that vulnerability. It brought up all sorts of interesting things in my mind because partly the balance between a teacher as somebody who is creative – are you a creative practitioner; are you a craftsman in terms of standardisation? Because, umm, what we were saying earlier about to what extent are your values as a practitioner important, umm, and it made me think as well about the nature of observation because I kind of felt that while we were reviewing the film footage I kind of realised in my mind, when I was looking at the students, I've got a lot of past experience with these students in terms of empathy and relationships and connections and you can't capture that in an hour's sort of observation and I was trying to</p>	<p>Vulnerability</p> <p>Problem of watching only a segment?</p>

	<p>think 'how much can you actually see in an hour?' Can you see, umm, I think somebody who is perceptive, like yourself, can see a lot of stuff but there are a lot of things that I think – because of past experience, empathy and relationships – you kind of build up an understanding of their abilities that I think it can be quite difficult to capture and when I was looking at the video I was trying to say 'oh but there are this and this and this' because you fear that some of that could be missed and you worry. Umm, but my worries were unfounded; it was an exchange of views; it wasn't dictatorial or anything like that. It also made me think as well about power relationships because you're from the awarding body and so, obviously, I felt = it makes you feel a bit worried from that point of view. And also power relationships with students as well. We had one student in that group who is not as nice as = I normally have a lovely group of students but I had one student who was quite an awkward lady and I was interested to see that she actually wanted to use the power relationship of having somebody observing me and that kind of linked in, in my mind, with the quality assurance side of things and the regulation. So it threw up more questions than answers.</p>	
DP	<p>That's really useful Teacher C because what you've raised are things that I think are part of this research and the messiness of research. I mean there is a joke about research about the life of cats and the power relationships and things like. Actually here, what I've tried to do is to listen to your account and not challenge it. I might have asked a question but the question was to help my understanding of your account, not necessarily to judge your work. Because, actually, who am I to come in and say to you 'you're doing this or that'.</p>	

	<p>What I'm hoping is that this is a lens that helps you explore your practice and that's why this research is about jointly exploring. Someone might be able to engage in a discussion with you to Socratically talk about options that might be available because I think it seems to me that that's come out of this research and that is when I talk about being privileged because I realise that. And there is that delicate line between asking questions and respect for people's practice and you are absolutely right, Teacher C, that what I have observed is an hour or you talking about an hour of practice which has to be within a wider context of actual relationships and all that goes with that. I suppose what I was trying to give, umm, as an insight there to Teacher F and Teacher E was how Teacher B, Teacher C and Teacher D might say 'well actually David there were times when you seemed to be judgemental' or I know that when I looked at these transcriptions there were times when I ended up having a discussion with you about teaching, actually, about how we teach and ideas and that was interesting.</p>	
TC	<p>I don't remember you ever saying anything negative about -</p>	
DP	<p>Who am I to judge? That's not the purpose of this research; the purpose of the research is for us to explore the use of modelling and what that might or might not be because I think some of the earlier papers that you might have seen seem to me that there was a degree of judgement in there and by saying what people do and don't do = perhaps I need to account for that. At the end of the day they're missing the point actually which is the complexity of the teacher educator's practice or shall we say the double complexity of the teacher educator's practice with working in the</p>	

	lifelong learning sector because of the context of that work and how it's not work in the university.	
TF	I think one of the real problems was your initial meeting with us David	
DP	Thank you. That's ok.	
TF	And I think you'd got permission really, if you remember	
DP	Oh yes.	
TF	Do you remember you said you were going to pass the information back to the Vice Principal and I think there was a real problem of trust and that was really questioned at that point by some of us in our minds because that felt as if the surveillance was going to have repercussions. I know you went back on it but I think that was still in my mind anyway.	Regress of trust and surveillance
DP	And I was naïve there. Naïve in the sense that = when I teach research method I know that you need to get organisational permission but I think what I was naïve enough to offer was, or rather I was so keen to get permission to do the research that I hadn't thought beyond -	
TF	The implications of what that might mean to the people who were going to be here.	
DP	Yeah and it was only = you're right: that meeting in June 2012 was an absolute Gestalt moment for me. And I had to go back and think about what to do next.	
TB	You were doing the right thing. Basic components of a research cycle is, first of all, it's the ethics of it; the deontology of research – so you were doing the right thing there but you weren't to know how that would be received.	
TF	But there are ethical implications	BERA do no harm to the participants
TB	There are ethical implications	
TF	There are several different levels of ethics to do with research: some of them are to do with the	

	institution; some of them are to do with the participants and how you approach those participants and you have, like, an ethical responsibility to them.	
DP	Without doubt...I've tried to navigate that through discussions with Roy about who we might work this but it was my assumption that actually this wouldn't be problematic but it comes back to my not understanding – even though I've been in the FE sector – the surveillance culture. And you'll see it a little bit here when I talk about some of the challenges because I do think that that is a very important part of the work here: how do you find out about people's practice in an, umm, increasingly performative and managerial environment? And you might even say that in HE because it is becoming that. I had quite a big review meeting recently and they are saying that that is a piece of the work that they are very interested in and about the impact of this on people and that. And thank you for telling me that and sharing that because I can now – whilst I would have written about it - I can //	
TF	It's a Stephen Ball that you have to look at, of course. He's one of the main writers on performativity and understanding these sort of implications.	
DP	Well this organisational field is the Bourdieuan concept of field and the impact of field. But coming back to the ethics that is something that I would like to find a way forward and we can agree how if, eventually I do pass this information = and we are talking time scale as well. I mean I've got another year's data collection and then another year to write it up so it could be 2016 before this sees the light of day or be available for anybody else to disseminate.	

TD	Presumably though what we were talking about earlier – and you raised this earlier Teacher D – about the fact that you will anonymise everything in here, won't you?	
DP	Absolutely.	
TD	So, in that sense, we're not going to have a report saying that Teacher D on this date did that so I'm presuming that there is that level of = I mean, obviously, to some extent if you know this is the context you can recognise things but //	
DP	I suppose the significant thing for me – and it's almost leading into the findings - is that, actually, that judgement = I say very simply on here – I think it is on slide seventeen and eighteen = I start talking about what people are doing. So, on page nine, there is a list there of the types of modelling that people are using but, actually, if you look at it, these other slides are much more about people's context and the challenges rather than saying that this person is a good teacher educator. It's much more I've been pulled more to the impact of the field and what I hope is that we are going to move well beyond this judgement into some really exciting stuff that if it was disseminated or managed they would think that, gosh, I've got the best team here possible. I'm going to increase their pay!	
TB	This is the way I'm viewing it. I'm very, very proud of this team – very proud.	
DP	Good. Quite rightly so.	
TB	And that is the key thing that I think this research will show above and beyond our willingness to participate in it in all manner of ways. But I think that is what is going to come through. I'm an optimist.	
DP	And it's good that we've got this discussion, isn't it? Would it be ok then just to = I mean I'm conscious that I've not really had much chance to	The site and the sector and starting to look for my theoretical framework

	<p>talk to Teacher E about the research but if I could just lead you into looking at these slides and I'm going to give you a few minutes then to look at them before we have a discussion around them. If I went to looking at page four of the PowerPoint slides and slide seven this complexity. This is some of the language that has been used by people who have participated so far and Loughran talks about it and it seems to me = I'm talking about double complexity but what</p> <p>Loughran has got there is a very practice based concept and we're talking about this other side which is the concept of where your practice takes place because the majority of research so far has been university teacher educators or this concept of professional in residence where somebody who was working in a university in the States also did some teaching in a high school, that was where some of the modelling was taking place that you were talking about there and particularly around behaviour and joint planning of classes and things. So I wanted, I suppose, to mention that. There is a bit, I suppose, if we just go onto page five and slide nine you might have seen, very early on when I had been talking about the research and it talked about three dimensions: the professional practice i.e. how you teach; the professional identity and that is who you are and how you become a teacher educators and how that shapes and influences your practice and your professional knowledge as well as teacher educators. Those are the sorts of things that, I suppose, I was initially interested in when I started my research because that was what the literature was telling me was really interesting: Noel's work about identity – the secret life of teacher educators – and Lunenberg, Swennen, Loughran and Barry – all that work about</p>	
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	<p>knowledge and professional practice and what shapes and influences. But it was the meeting last year that made me start thinking about organisational field and the impact of that and how that has to be part of all of us and, in fact, it is the backdrop and the landscape in which all the practice takes place. And then there is the practicalities of the thing. So I suppose = I will get on to give you a chance to look at these findings in a moment. One thing I'd like to raise – not for an answer immediately but to consider – on page six slide twelve I'm working with two research questions at the moment. Two research questions: how do teacher educators from the further education sector actually use modelling with their student teachers? Because, actually, people do want to hear that. But what factors affect and influence the use of modelling, okay, by teacher educators? I'm pretty sure that this was part of the discussion I've had with the participants so far. There are these factors, these considerations, that shape the practice and you can't just see it at face value. It is the tip of the iceberg and it is the underneath bit that is significant for me as well. But are there other things that we would want to add as a research question that we might want to answer ourselves?</p>	
TF	<p>Personally I'm using modelling in a kind of more dynamic way in that it's, like, dependent on the actual situations. So, for example, I've got an ESOL teacher in my class and, after observing her, I realised that she wasn't actually making the connections and carrying out ESOL teaching in the way I would have wanted her to so that the students could have best benefitted from. So I went into = because I'd been an ESOL teacher so I started drilling the class in an ESOL way. So</p>	<p>Congruent teaching</p>

	<p>what you are talking about is exact modelling in that situation. Another situation was – because I got people to drill each other right round the class as if they were all ESOL teachers which they are not although some of them are. The other thing is modelling role play so when difficult //</p>	
DP	Can we just stop a moment because //	
TF	<p>I'm not being censored! [laughter] [There is then a pause whilst I change the batteries in the tape recorder] What I'm quite interested doing is role plays in the class: so I put a student into the role of a difficult student and then I become the teacher and then like reversals. So that is actually modelling of situations that they are having in other contexts and then I'm doing it in the class in front of everybody. So that is the nearest to modelling that I can think of that actually could take place in a class for teacher education.</p>	
TB	<p>And Teacher F has talked to me about their approach many times and it made me take that and put it in the induction which the team won't see until Monday but Teacher F also relies heavily upon Franzak's third type of CFG (Critical Friend Group) protocol which is the problem solving protocol. So you often, umm start your sessions with a problem or a question //</p>	
TF	A case study where people have to //	
TB	Which the others work together to solve.	
TF	<p>Or sometimes if an individual has got a problem then everybody else's job is to solve that problem. And the reason I do that is because it actually builds up the class rapport, so everybody is on side because they know that they are all helping each other to help that one person because then, when they are in the hot seat - I think you witnessed this when I was doing this.</p>	

	So it does a lot of things but one of the things it does is it builds a cohesion within the class.	
TB	Like a critical friendship grouping and that could be a third question David: how it has impacted upon our collaboration; how we have learnt from one another because we have very different styles.	
DP	So what impact has working together //	
TB	What impact has the research into pedagogic practice, umm, had on the, umm, collaborative dimension within the team?	
TF	I wrote about it. I did a session about this in = I've got an article called War & Peace in the Classroom which in a Lifelong Learning journal in Huddersfield.	
TB	But that's a key sort of thing. Maybe an accidental outcome of it all.	
DP	And that fits in entirely within the action research approach, doesn't it, and we can sharpen that as we go through, can't we? Is that alright? I'll just move on, if I can, to one final slide and then I'll give you ten minutes or so to read through the comments; to have a look at the findings and see what I've been drawing out because what I've had to distil is probably somewhere around thirty thousand words because that is what you've got here. Thirty thousand words of comments and discussion most of which is you speaking and me listening. I wanted to capture = you might say that that is why I've got OCD because that, in fact, is the way people speak and you can even see the thinking and I've got some notes which I've taken out and you can see people thinking because you can hear it on the tape if that is not a tautology: you can hear people thinking as they pause. That I why I mean it's been a privilege. I don't mind spending hours listening to this stuff. Silence as people think. So slide fifteen and the	

	<p>bit on there = I think the point that you've raised but I had to go back = and it's very hard really in, I suppose, trying to build up this trust, umm, and there are theories about being observed and I know that because at least two people immediately said that they weren't interested and that vulnerability, umm, is an important part of being a teacher educator. When I say that it's actually part of being a teacher educator because it is part of your practice and there is an inevitability about vulnerability but it is also a strength when we can work with that vulnerability to open up our practice and actually I think that is what I've been seeing: that vulnerability and, in a sense, riding the fear with it to actually because at the heart of it is what you want is the best for your trainees. I need to recognise that. So performativity and managerialism are there, I think, and when I've been talking about this when I've been presenting it at some conferences people have been very interested in that side of things. Be assured I've been extremely careful about what I've said but what I've tried to emphasise is the fact of the humanness of the teacher educators. Yes we want them to be great but this is really going right up into people's attic space, rummaging around = you know what you keep up in your attic is not on show in your house because you don't want it to be on show in your house. So //</p>	
TB	<p>But performativity has another meaning as well, doesn't it? You're using it in the sense of the audit side, umm, but there is also Stillwaggon's performativity, which is, umm, performing for the students.</p>	<p>Stillwaggon, J., Performing for the Students: Teaching Identity and the Pedagogical Relationship. <i>Journal of Philosophy of Education</i> Volume 42, Issue 1, pages 67–83, February 2008</p>
TF	<p>It's like the entertainment aspect</p>	

DP	Ah, I see what you are getting at now. That's interesting.	
TB	So the role is already there for you before you even step into the classroom.	
TF	And, actually, to do with those vulnerability aspects, of course, it is the students who are trainees really, they feel incredibly vulnerable because, you know, they have got to go through the same thing and they've got to go in front of classes and we've got to actually build up their confidence so I almost like sometimes expose my vulnerability to them so that they understand that everybody has to go through this. I don't know how other people feel about that.	Modelling vulnerability
TD	Yeah, I mean that is what I was trying to do with David's visit was to expose my vulnerability. I don't think I realised, until the day, how I was trying to be, on the day, oh yes here's my vulnerability. But, on the day, I felt much more vulnerable than I thought I would be. I kind of felt like I had walked in with no clothes [laughs to themselves] on but, actually, it was very, very interesting and, yes, I was trying to think of the name - Stillwaggon - that thing about how important your own values are in terms of the class and whether there is that role for you and whether all those values are predetermined and standardised or whether you have some creative input yourself.	
TB	It's also whether the students care about that and whether that even comes into the teacher/student relationship. Pedagogical content knowledge that is what they are interested in, that's what Stillwaggon was saying, not you as a person: you are a conduit to the curriculum.	
TF	I don't necessarily agree with that.	
TD	But there is a difference.	

TB	You see Teacher E is from a media/drama background so that might come in handy.	
TD	Can I come back actually to something somebody said much earlier on? I think it was Teacher D and I think you were using the word 'craft' actually and we had this whole debate at the University and I'm really on the opposite side of the craft version of FE for several reasons. Firstly because most people have degrees who work in FE. Secondly, most of them have professional qualifications – PGCE or CertEd - and, thirdly, because the word 'craft' has always been associated, in an earlier stage, with Level 1 or Level 2. And it's almost like I felt, in that whole debate, it was like a diminishing of people who were in FE because people like Teacher B who have a doctorate and people like me who have things published and have got much higher qualifications than loads of people at the university and it seems, you know, quite an imbalance and I was quite against that and I'm glad you brought it up.	
TB	That's very interesting Teacher F because Jay Derrick talks about teaching as craftsmanship and he says that he takes that word and says it is very similar to teaching craft. He uses it in the term of, umm, something that is honed over time and it's a very precious thing. It's like violin making. He went to a conference where he spoke and he showed a video of violin making and said that this is very similar to teaching.	Master glass blower of Venice?
TF	As I said that day, actually, we're involved in the intellectual side and you notice how the example comes exactly from working with the hands rather than with the mind, you see. So I'm definitely on that side of the debate, I'm afraid.	
DP	It reminds me of Eskimos who have so many different words for ice. Well there is a sort of use	

of 'craft' in a particular way and there are multiple interpretations here, aren't they? The final thing I wanted to say and it emerged around this approach of dilemma analysis and I have to say, Teacher F, that I intended to re-send you a paper by Winter about dilemma analysis but that is a tool I'm trying to bring in to talk about this research and instead of just going in and using a thematic analysis, which Winter says is very judgemental because the researcher brings his or her coding and imposes it. Winter says it is much more complicated than that and what often you've got is a dialectic, tensions between two things and, actually, even that might be oversimplifying it but what he is arguing here is that what I want to try and capture is this systematic complexity of the situation which those concerned have to adopt provisionally as a strategy. How interesting isn't it that Loughran is using the word 'complexity' and others are using the word 'complexity' or 'dilemmas'. Similar vocabulary sits alongside it and that's one of the reasons why I'm interested in this dilemma analysis. Now I don't think it is necessarily going to get rid of any or eradicate any thematic analysis because I think you've got to look for things but I want to foreground it and in a sense what I'm going to try and do is map this complexity if that is possible. So I'll probably need to send that paper out for those that are interested. And I'm going to go to Tromsø in Norway to talk about resurrecting it. You know one of these '80s bands? That's going to be me. One person has used it in their doctorate, which I've still got a copy of, and there is this paper and that's it. But I think it is just aligned with what we are trying to do and if you are talking about this

	being well...congruent really and it just seems right. It intuitively seems right.	
TF	We assume always that the academic has to be more complex but actually, in life, you are always looking for simplicity.	
DP	Well you are trying to simplify it.	
	If somebody came to me with a dilemma and I'm trying to go more and more into the complexity of it they wouldn't thank me for it but if I were trying to sort of help them get to the next stage you would try to look at the solutions, wouldn't you?	
D P	Yeah.	
TF	It's only in the academic world that you are trying to make things more complicated.	
DP	I think that is what Teacher C was saying earlier, wasn't it, that, actually, you're looking at an hour here but what you are not looking at is what is around it and that all that which is around it and the complexity here, I suppose, is to help us understand people's decision making because, actually, the person who makes the decision is the teacher educator and it's putting more detail into the practice and painting that picture around it. So what I was going to suggest was to give you maybe ten minutes or so to look through these slides.	Only a segment of a course.
	[Recording stopped for people to read through the slides and have a comfort break]	
DP	Alright Teacher C if you want to start talking.	
TC	Looking at slide twenty-three the bit I could have said 'why have I done this, for example, because there are so many different points within that which you could have used your professional judgement about which students to do it with'. To pick up on that really because when you are thinking about modelling if you wanted to model everything within a particular lesson that you should there wouldn't be time to do the lesson.	So how and when do you do this?

	<p>Say you did aims and objectives: now why have I done these aims and objectives; why have I done this formative questioning; why have I done this – so it's working out why have I asked you this question in this way. You can do that sort of deconstruction but there has to be limits to each class. So you have to, as a tutor, make a professional judgement about what they are going to model over the course of the year. When you looking at one lesson it would be easy to say 'could you have modelled that there?' 'Yes but then I may have modelled that in a different lesson'. So you have to decide which things you are going to draw their attention to at any one moment, if you see what I mean.</p>	
TB	<p>And a way of getting around that, I suppose, is handing out your lesson plan at the start with that meta-theoretical evaluation running alongside? So do we need a lesson plan that's different?</p>	<p>Interesting. Link to viewing frame</p>
DP	<p>I can come back to that in a moment as Teacher D has to go and if you had anything burning that you wanted to pick up it would be useful to capture that.</p>	
TD	<p>I guess what I thought, when I was going through it, is I suppose I'm not sure what is next in terms of if you've got another year of research and you are coming back in and the impact of this research on our practice – because, obviously, if you come back and observe this year, you are going to see something different because we've all been thinking quite actively about modelling //</p>	
DP	<p>Isn't that ok?</p>	
TD	<p>That's fine but that's going to be something moving forward. [noise interference on recording] And also the kind of dilemma analysis. This is us thinking about further areas really. This might be us thinking more about dilemma analysis and us thinking of this as a tool or a question. What are</p>	

	<p>the dilemmas? And a lot of those elements, that you've already said, relate to maybe some of the constraints of the context that we work in. So those are the things really. I think in terms of the data that you've got here I didn't really have anything particularly to comment on. It seemed okay. My thoughts are more about moving forward around the impact of the research in a positive way – on the practice – and that might be something that is going to be part of what you're going to be writing about, aren't you, and you sort of reporting back on.</p>	
DP	<p>One thing I've written down almost like as a last question here is that if we make a bid for things that we could do to support this type of work because what we know is that we are working in a financially constrained environment and I know it is difficult to release people but there might be some scope to do, in terms of things, something to help us – it might be to meet or to go away, I don't know, but all I know is that money can sometimes move things forward. I'm entirely comfortable with that within this research because I would account for it. This is action research; this is not a case study where we are just looking at what is going on. What we are trying to do is emancipatory because that is what action research is about: emancipating environments and trying to remove some of the barriers. But I think there is also the case for emancipation of teacher educators in the Lifelong Learning sector to try and level the playing field to enable things to happen. So that might be part of my dreaming or our dreaming?</p>	
TB	<p>What about people like Escalate or TLRP because they are always running</p>	
DP	<p>Yes that's right and we might even bid to the Consortium for pockets of money if we thought</p>	

	we could do some things and we might not even come up with them today. Thank you Teacher D.	
TD	Sorry I've got to leave you.	
DP	That's ok.	
TB	If you are coming back to observe people again because you will be, won't you?	
DP	Well I think so if that is what you feel will be valuable. Or we could film it in the way that I suggested and maybe we can get one of your trainees to do the filming?	
TB	We've got different classes and different groups this year.	
DP	Well that raises issues because a lot of the research has been done with people who work on pre-service programmes – not in-service – working with a group over the year so how do you do this within your setting? What can you do and what can't you do? Again I'm much more open minded now I've lived it with you. I can see what options are open now //	Useful reflexive comment.
TB	So when you say 'filmed' do you mean that somebody else would film it without you being there?	
DP	Well I might come in and set it up and I also might do my introduction to set the scene, if that scene is a valuable part of the process for the trainees to hear what we are trying to do and about what modelling is. But there are other strategies and, in that sense, I would be wanting to just = what we need to be confident of is that the recording goes as well as it can so it may be that I would be away from it because as soon as the film is finished what I need to do, as quickly as possible, is to download it onto a laptop and then I can sit down and do the stimulated recall because it is more difficult if you have a pause. It's not impossible because you've got the visual stimulus	

TF	So it's talking through and reflecting on it?	
DP	That's right.	
TD	<p>Can I just say that I've always felt that when you have a camera in the corner of the room people often feel quite concerned about having a camera but I find a camera much less intrusive than a person because once it is set up you don't even notice that it is there. The other thing is that what you've got then is a record because if someone is taking notes what you've got then is a record of their perspective of the class but if you have a film there is much more co-ownership because you've got a record of what actually happened. So it's almost like you've got proof of what there was there, it's not like scrutiny//</p>	<p>Comments made to me at RPCE</p>
TF	Remember there was that film about Gove giving a talk at a private grammar school and he is talking about his vision and then the camera moves off him to all the students who look half asleep. [laughter]	
DP	<p>You can put a camera in a room there and it can be focusing on the board but actually what you do is move and sometimes what is really valuable – and I know it had a bit of a Blair Witch effect some of my filming when changing batteries - but what I'm keen to try and do is to explore alternatives and that might be that even one of the trainees got involved.</p>	<p>Open to different ways of doing this.</p>
TC	<p>I have just been thinking as you have been talking about when I said to you that one of the things that I thought had been useful was I wondered about talking to the students, but the other problem with that is that because you are from the University it kind of brings different power relationships into things. I just wondered to myself what about, for example, if we filmed us talking to students about the lesson afterwards to find out what they've picked up. You know when</p>	<p>I listened to this and this is what happened in the second cycle</p>

	<p>we are thinking about modelling and what they understand from what we've done in the lesson. One way could be that instead of yourself asking questions – or you could give us the questions if you wanted to – but we could actually ask those questions because we've built up a rapport with the students.</p>	
TB	<p>They were very afraid to – not that you made them afraid – but they are very protective of us as their tutors.</p>	
DP	<p>And that's a good point and there is something else I would like to think about which is this: How do you know we will get any different account by you doing it and what would they say to you that they wouldn't say to me?</p>	
TF	<p>Did you use those forms, Teacher C, for Brookfield's lens?</p>	
TC	<p>Yes I've use the critical lens many times and the students come back with critical comment. I think that they do because I wouldn't get people like Student 1 saying to me after you'd left because he said to me 'what exactly was the purpose of David's research?' And I thought well David has just explained it in very clear terms and I explained it the week before and he's coming in and sitting down and saying to me that he didn't understand why you were here. And I'm thinking that if he had felt comfortable with you he would have asked you that question but he asked me the question afterwards and that is why I was thinking that there was a difference, if you see what I mean.</p>	<p>Note this for reflection on what happened with Teacher C's group</p>
DP	<p>That's an important point about relationships, isn't it, and how the fact is that often I would arrive just at the start or slightly before when all the people would be arriving. So would that be alright for me to think about?</p>	<p>I'm recognising the issue here, it seems.</p>

TC	And if you wanted it to be a particular set of questions or give us some ideas that we could make use of in terms of our rapport with the students.	
DP	That's very helpful. What I've got to do is weigh it up and talk about it with my supervisor, Roy, because I don't make significant decisions without talking them through with Roy. What is important is how we get the trainees collaboration. As much as we tried with your particular group, Teacher C, for some reason there was a reluctance to be involved and yet they might be working with a teacher educator this year who wants to be filmed //	
TF	Did they sign in the end?	
TC	They were very reluctant. I have to say I tried very hard to encourage them but as soon as I said that of course it was their option about what they wanted to do only a couple wanted to do it.	
DP	So maybe what we've got to think about because maybe Teacher B will be teaching that group?	
TB	It will be Teacher G.	
DP	Teacher G would have to be involved in the research to be involved in the process and if they choose not to be then that group remain as they are and so it is just thinking it through really. If it would help, if we think we are going to get a more accurate account – and that might be that there is a value in me still being involved in some way in meeting the group to set the scene - I'm thinking more and more about this Hawthorne effect. Anyway somehow I've got to find a way forward on that.	
TF	It changes things definitely.	
DP	Well it does.	
TF	Could I bring up another issue actually? I find it very interesting that the assumption is that the teacher trainer gives the perfect lesson and that	

	the trainees are less good at teaching than the teacher educator. I've definitely got some people in my class who are brilliant teachers who can put it over better than anything I've seen at the Uni...better than I give.	
TC	They are working in contexts that we don't work in.	
TB	Exactly.	
TC	I mentioned in my interview with David that I had one student in my Year 1 class and the assumption is that maybe students start off satisfactory and then they move on and then they are on their journey to Year 2 and then they are outstanding. But I had one person that I observed who, in their vocational setting, used Socratic questioning perfectly every time yet they didn't know what the term meant. But they instinctively used each of the Socratic questions and I was able to pick up on each of them in my observation. I was amazed that this instinctive tacit knowledge was there, and I was able to grade them as outstanding.	
TB	Isn't that about our role to articulate and explain what we see?	
TF	Our role, I believe, is to facilitate them to become as good as they can be. The modelling is not necessarily taking place because = well I use a certain model but it wouldn't necessarily be appropriate //	Our teaching is not always congruent.
TC	For them to empathise with you. Like the hairdressers that you teach often teach perhaps only one or two people or perhaps 1 to 1 in a salon and they find it sometimes very difficult, despite our best efforts, to model different teaching styles, to see how a lot of what we do relates to them.	Our teaching is not always congruent.
DP	And some of that, it seems to me, links to the organisational field dimension which requires	

	<p>people to have a certain type of qualification. I think those points you are making, Teacher F, are absolutely valid. I suppose what I wanted to come back to just before = because we are starting to elide into what we do next. Is there anything else about these initial findings that strike you as 'gosh David I don't know how you came up with that because it is just not the world I live in' or is there anything where you feel that 'actually David what you said there is the world I live in and you seem to be capturing the world I live in'.</p>	
TB	Well I recognise my bits and they are authentic enough.	Validation/member checking
DP	Do you recognise some of the other points that others are making as things that are part of the teacher educator's life even though you might not have said them yourself?	
TB	That's an interesting question.	
DP	Because you can look back and think 'oh I wish I had said that'.	
TB	<p>This bit about induction and that's the key thing that we've changed and that was a legacy thing and we are trying to address that more with Teacher E about role modelling and given them an article to read on role modelling //</p>	Would this have happened if you'd not been involved in this study?
TE	Right from the outset giving them scholarly articles and getting them to engage with Ken Robinson//	
TB	But giving Teacher E articles on teacher educators.	
DP	So we are talking here not about the trainee but the induction of new teacher educators, aren't we?	
TB	This is the first time I'm managing someone who is brand new so what I've tried to do from the start is to sort of give Teacher E reading material articles on pre-service trainees because Teacher	

	E is going to be with pre-service trainees and I don't know how useful those articles are. And the role modelling of teacher educators that pdf.	
TE	It's really interesting reading all that and then going into something where – but trying not to carry that with you too much. And how might I look at that differently this time next year.	
TC	That's a large part of being here because someone comments about how the materials are rewritten each year because we look at things so differently as each year comes.	
DP	And one of the things that I supposed I raise or I've been thinking about is how we induct our trainees into the programme and to what extent we are explaining = because in the student handbook it talks about modelling and I think it is something that is more implicit in our programme but at what stage do we introduce the idea of modelling. So is that something you might want to try and run with for those people who are starting Year 1 or even starting with Year 2 and saying this is something that is, umm, part of my practice – and, again, I'm making an assumption here that you don't. But it was a question I had in my own mind: how are trainees introduced to the idea of modelling and your use of modelling? Or are they reading between the lines and thinking 'I like what Teacher G is doing; I'm going to do a bit more of that' as the really alert ones will but other's might need = as I needed today a sign to find the road into The College.	
TB	And certainly for the eleventh of September we decided to bring all our first years together and what we're addressing, umm, is motivations to become teachers and so we are looking at undergraduates, who see teaching as a career choice, and we're looking at altruistic reasons, intrinsic reasons, extrinsic reasons for students	A product of being involved in the study?

	<p>becoming teachers. We're asking them to share their personal history and we're also asking them to = we're doing an ice breaker so we're asking them to = we're applying meta-pedagogy to that task so: why did we ask them to do it in pairs? What are the dangers of working in pairs? Why ice breakers – possible pit falls. Then we're looking at strategies for training sessions. So we've made explicit that one of the strategies will be often your tutor will apply meta-analytic commentary to the activity that they use to draw your attention to the rationale behind this. So we're making it a key part of the induction process.</p>	
DP	<p>That will be interesting – that learning how to teach or learning to teach bit: how can you learn how to teach? Or how might you learn how to teach on this programme? What are the different ways?</p>	
TB	<p>And there is a brilliant article by Hughes et al. in Reflect. It was in 2005 called 'Theory, Practice & Professionalism in Teacher Education' and the quote that we are going to give to the students is that 'a teacher education course provides opportunities for the productive exchange of ideas enabling us to scrutinise perceived wisdom and consider our response'. So that's a key thing that we are going to ask them to look at from the start.</p>	
DP	<p>Lovely quotation.</p>	
TC	<p>Because they do have that idea of the tutor as somebody who fills them up, you know, the empty vessel that is filled up.</p>	<p>Authority of position?</p>
TF	<p>There is a presumption of passivity.</p>	
TC	<p>And the other thing, when discussing modelling, I try to be very careful to point out that I'm not showing them the only way to do something and I'm not the perfect tutor because there is the fear,</p>	

	<p>as teacher educators, when you are discussing modelling that they might be thinking that you are showing them this is how you do it and you need to explain that it is more complicated than that.</p> <p>I'm not setting myself up as the perfect tutor because I'm far from that. That level of analysis and understanding is what we are trying to get.</p>	
TF	<p>I work as an external for PTLLS and I go round loads and loads of different centres trying to help people first of all setting up in the first place and, secondly, you know, check it as needs be afterwards. But, interestingly, I saw some people using a method of doing the micro teach by getting people to talk for a minute on a subject. So going round and talking for a minute and so, in other words, the question is: how do you move from being a learner to a teacher? And that struck me as being a very interesting way of doing it. So, in other words, to begin to get that confidence of being the source of information rather than being the receiver of information. That could be a model for us to think about.</p>	<p>Link to Taylor's work on student as teacher and learner.</p>
TC	<p>That's a nice question to ask and I'll need to actually remember that phrase because in the second week of PTLLS I get students to do presentations where they look up legislation and some of them might think 'oh that's a bit much for a second week' but, actually, they are not talking about pedagogical knowledge; they are talking about facts here to do with legislation such as the Health & Safety Act and so on. One of our previous curriculum team leaders – Teacher N – made the comment that this is a teaching course so we need to get people used to the idea of teaching straight away if possible. So they are actually teaching and feeling comfortable standing up in front of the group.</p>	

TF	It's truly an existential thing: you're beingness as a teacher in a class and how do you become that from being a recipient; always being schooled throughout your life?	
TB	That's Stillwaggon's idea that it exists for them already, they just have to step into it. It's simple.	
DP	Well it's not, of course, is it in the sense that how they translate that, umm, and Taylor's work on training teachers – this is pre-service again – unpacks some of those complexities. And the learning to teach bit and the translation is often problematic for all sorts of reasons. I suppose the strategies that we are talking about are absolutely the sort of things that are going to help them do that. There were two things that came to mind, one of which is: do you think it would be valuable for the trainees, early on, to hear the language of modelling? i.e. 'there will be times when I will do something implicitly and what I mean by that is you'll see me do it but because of time constraints I don't have time to explain it or I might have done it before'. Would that be something that would be valuable to give the trainees that insight?	
TB	Definitely	
DP	It's like Brookfield's lenses: it sharpens the prescription of it, doesn't it? And, talking about examples, something that I've mentioned to Teacher C about the Feuerstein's questions: what processes have I been through or what have we just done and how might I apply this? Now that is the concept of bridging, which I think modelling is about actually, and I've not seen a lot of literature = it's about the ability to translate it into your own setting or a version of it. So those are the things that I'm wondering whether and if they were introduced would the trainees see any	

	value in it and is that something that we would want to explore with them?	
TF	The useful thing might be to allow students to ask us why we are doing what we are doing. And it could be the other way round: rather than, like, telling them we're doing this, this and this they could ask us why are you doing it like that?	This is what Loughran and Berry did, isn't it. This became the second cycle of our study
TB	I've never been asked that.	
TF	I have sometimes asked people to ask me that question. Yeah I remember with Teacher K and I would sometimes team teach with them and we had some particularly difficult students who were continually asking me these types of questions but I was actually quite comfortable with that – I don't get phased by that.	We're they asking these questions because the practice may not have seemed congruent to them?
DP	Well it links to that vulnerability and us and being able to explore our practice.	
TF	They think they can somehow dent my armour or something but, actually, it's about my flexibility and just treating it as part of the dialectic that we are involved in because that is actually what we are about so 'thank you for asking that'.	
TG	Yes	
TC	I was going to say to what extent, when the question is asked, is it to do with the genuine concerns or understanding of why a certain method has been chosen or is it, in fact, somebody questioning your competence? Because there are two different motivations and if it is the first then that is what we want to encourage but we don't want to encourage the second.	
DP	It comes back to the question about how do people learn to teach or how do people learn, isn't it, which is a really useful discussion at the start of any programme. And part of that is by asking questions or being asked questions actually.	

TB	Does modelling have different levels? Because this is our first year for teaching the M Level so does modelling have any levels?	
DP	Well I would argue that it's our ability to link to theory and probably their ability to recognise that complexity. It's not so much about what we do but the Mness tends to be how we explain it to them and dissect it.	
TB	No pressure [laughter]	
DP	It links back to the professional knowledge bit. I mean you're citing the work of a number of people whose work I haven't read. Jay Derrick, for example.	
TB	Wonderful writer.	
DP	Actually people read different things, don't they, and I think that is very important because we can only read a certain amount and what we have to do then is = there'll be people I cite quite assuredly and there will be some things that I will just work on. And then I'll read something else and, suddenly, that becomes part of my repertoire. But I suppose when we've got trainees who are saying to us 'that is something you might like to take a look at' – but we can't read everything. It's about our security in being able to explain our practices using relevant theory to do it and to help them to interrogate their own practice using relevant theories. And that is something that happens over time, it's not something where you just turn the switch on. Unfortunately, when you are picking up a group of trainees that is in fact what happens: you have to press the switch because you are teaching them. And until you operationalise that teaching quite often you can't draw on that literature, or that literature is there until you can draw on it.	
TB	At our induction Teacher F is leading on this section – you don't know this yet - and this is	Out of segment modelling

	<p>what I've been thinking about a lot ever since I started teacher training and that is Krathwohls' Affective Domain. We may not know everything – we don't know everything – but, umm, it was something that came into a conversation with you, Teacher E, about it – about affectivity and how we model affectivity. And it's not just how we model pedagogic decision making; it's about how we model, umm, sensitivity, patience. And that is what the team, in my opinion, is extremely good at. So we've made it a formal part of the induction and we said that we don't expect them to operate only the first level, which is receiving, and rather our sessions seek to explore attitudinal outcomes and our instructional objectives fall into the top three categories.</p>	
DP	<p>What was interesting, umm, was how one of the participants said to me that it's not about just modelling routinised practice; it's actually about modelling other things. And that includes answering emails and how we respond to that; how we deal with professional conversations on the corridor; how we negotiate curriculum. And much of the literature, it seems to me, has been concentrating about pedagogical practice and, actually, it seems that the wider = well I think there are opportunities to explore that more widely and one of the things that we talked about = I don't want to name people because the interviews were confidential. I've disseminated it here but I'm protecting people's identities but what I would be saying is that that came out of 'well what's possible in Year 2?' Well perhaps there are things that are possible but it's different from Year 1 and the question I had in my head was: if we are going to model how do we decide what we are going to model? When do we do it and who does it? Because, as you said, if I come</p>	<p>A useful question and conclusion?</p>

	in and film a session you might be thinking about me 'well maybe he thinks I don't do this'. Well, actually, it's got to be in a wider context and what I'm interested in – and I might be completely wrong – is: how do we develop people? They're on a two year programme: they work with Teacher C in Year 1 and Teacher G in Year 2. Two different teaching styles //	
TB	That's an important decision in itself that you change the tutor.	
DP	And I think there is value in that. But how do you get that continuity? How do you know what is being modelled? Is it important to do that when you have a team? Is that something = I don't want it to be NVQ modelling, by the way, but what bits can be modelled, what bits are not heavily contextualised and what bits might need a professional in residence setting where actually some of you are going to come and watch me teach or are going to co-teach with me. I'm not saying that this will be some time this year but certainly a colleague is now going to be doing some teaching in primary schools so the trainees can watch them teach in that setting.	
TB	Excellent.	
TF	Lou Owen used to go out and teach really tough classes. Everybody kind of admired him a lot for doing that. But that's much better – it's credibility.	
DP	But, actually, it's about the trainees seeing the modelling in their own setting.	
TF	Actually, it's a sort of answer to what the government is saying which is that all teacher training should happen in schools and in colleges. In other words not like universities.	
DP	Well it's both and.	
TF	I think there is a need for both the theoretical and the practical.	

DP	But they don't have to do all of it. They need to be able to see it.	
TB	It's the importance of theory but theory not replacing fact.	
TF	Well it's the interrelation of how does theory criticise fact and how does fact criticise theory.	Interplay between theory and practical wisdom.
DP	I'm conscious of time and extremely valuable as these discussions are we do have time constraints. We started talking about what next a bit. Is there anything that anyone else wants to say about the findings? Or you could email me, I suppose, in your own time. Nothing is going to be concrete for weeks. Months actually; maybe years.	
TG	Can I just say that I can hear my voice in some of these comments and I found that really interesting.	This seems significant because Teacher G did not want to be part of the study. They were happy to attend meetings and listened attentively, though rarely spoke.
TB	Oh yes it's authentic.	
TG	To say I wasn't part of it I can still hear my voice.	
DP	That's interesting, isn't it?	
TF	That's very good.	
DP	So if we are talking about what next and I'm not talking about a plan now because we might have another twenty minutes or so if that. I'm not going to say to anybody today 'are you up for the second cycle?' You can just contact me and let me know and then we'll take it from there. But once we can confirm what the second cycle might look like then we can decide how we get involved. So shall I make some suggestions? It would seem to me that we should try to do some filming earlier this year rather than later. I mean we didn't start filming until February = and that was a lot to do with my work but my work role is	Impact of my change of role on the study?

	going to change a bit and I'll tell you about that in a minute. That means I'm aiming to have a lot more time and flexibility. I've got a few specialist conference briefings and things like that to do but I could come out much earlier to set up the filming. And I might not be filming: we might either just put a camera in there or a student doing the filming. So we could do that. And what else might happen? What would you like to do? What would be valuable to you?	
TF	You know what I think would really help your research would be, actually, if we went round asking our students how far they were being modelled by us or not. So if we started questioning them about which aspects of what we are doing that they did actually take on and which bits they rejected.	Why didn't we
DP	That would be interesting.	
TF	I think that would actually go to the nub of a lot of it. I bet if you asked a lot of the students what they actually model their teaching on it would be teachers they had when they were back in school. They are continuing with some vision of what they had in school. I'm sure that is what it's to do with.	
DP	It's Wubbels work done in the Netherlands	And also Lortie's claim around the apprenticeship of observation and Pajares (1992)
TF	But they didn't carry on with it //	
DP	Well it does shift once they start working with their classes//	It doesn't actually, according to Munby and Russell, and that's why Loughran and others have developed the work on modelling.
TB	There is a fascinating book on that. I ordered it for the team meeting on Monday. Probably the team knows the book: Moore's book the Good	

	Teacher. And it talks about dominant discourses of teaching and it goes through the whole = like charismatic subject is a major, major dominant discourse in the media and then you go into different types.	
DP	I've not come across that work.	
TB	Oh my God that book is pivotal.	
DP	It's not in my EdD at the moment! But I think it will be now.	
TB	Send us all to Finland! Pay for us all to go to Finland!	
DP	Or Holland. So maybe trainees doing the filming. Certainly speaking to the trainees about what they are taking from the sessions //	
TF	What I think you need to do is write a very brief questionnaire for us to give out to our students.	
DP	Questionnaire or focus group?	
TC	I wondered about talking to them because I'm just aware of my first year group and how much work was needed for their levels of meta-cognition and that, you know, you introduce new vocabulary and you do forms of assessment on it and so on and the students would still not get it. The only way of getting out of them whether they do understand it or if they've forgotten it would be through Socratic questioning. So that's why I think that, actually, whilst they might have forgotten the long word they understand the meaning of the thing. Do you see what I mean?	
TF	The problem with a focus group is you have to film it in order to get the evidence //	
DP	You can record it. That's what we did in the first cycle: we recorded it and that worked ok. I still haven't unpacked those transcripts yet. I might have tried it a slightly different way; I might have got them to talk in groups a little bit more but, hey-ho, that's me learning as a researcher. That would give them the chance to co-construct	

	some answers. So you pose a question and give them some time to explore that and then you can use your own Socratic questions or assertive questioning to tease out their responses//	
TB	What about writing a viewing frame that you hand out when you start = it's like a reading frame or a writing frame. So a viewing frame and sort of say = or observation frame and ask them at certain points = just to get to structure it in view of removing that scaffold.	The first mention of the viewing frame.
DP	Are we thinking about this as part of the filming?	
TB	No just part of general ways of teaching. Do you know what we tried to do last year: we put posters up saying things like: what makes a good question.	
TF	Very good. Excellent. I made copies of them and gave them out to the students.	
TB	Did they like that?	
TF	They liked it very much. I thought that was excellent.	
TB	I was trying to get them to do it surreptitiously so that they had articles on the wall //	
TF	They wouldn't read the articles directly but when I took them off and photocopied them //	
DP	So what were you actually doing there?	
TB	Making the room look nice!	
DP	But as well as making the room look nice – modelling classroom displays.	
TB	Ah yes, I was doing that. But also, surreptitiously, getting them to look at the meta-pedagogical aspects.	
DP	It's interesting that you mentioned about that meta-cognitive and, of course, we are talking about levels and that what's distinguishes levels. We said that on slide nineteen: 'it depends a lot on the trainees' meta-cognitive awareness and their ability to see what they are doing and to interpret that and I think I'm over relying on that'.	

	<p>And I think the person who was saying that was saying that they were assuming that they have it. So, again, it's this tension between content – 'I've got to cover all of this but where's the process? When am I giving them time to think or to give them an ability to think?' So it's increasing those gears so that they've got that ability to either process information more quickly or link ideas. It's that tension in terms of curriculum design, isn't it?</p>	
TB	Product and process	
DP	<p>And also the pedagogic teacher education and how is that gluing it together? This sounds valuable from my point of view. I might be able to take more of a lighter touch in terms of the filming but I still think that I'd want to be there to collect the film at the end and would it still be valuable for me to introduce the research?</p>	
TB	Oh yes.	
DP	<p>So what is going to happen now = well, one, it would give them the vocabulary but it would also explain what you're doing. I could even show how we co-constructed this but then I'll leave and say that somebody else is going to film this session for me. It will just be a press button camera. These are fairly straightforward filming techniques: you just press the button and it runs for about fifty minutes or so.</p>	
TF	Who does it film – the teacher or the students?	
DP	The teacher. We are concentrating on the teacher.	
TF	So you didn't film the students.	
DP	<p>Well the only time I filmed the trainees was when the teacher was working with the trainees. And why? Because, actually, what the focus is on is modelling and the use of modelling.</p>	
TF	In one of the IfL magazines they had an article - I think it was Petty plus his mate who did this	

	filming of teachers using goggles and it was almost like going into their consciousness almost.	
DP	Let me think about that. It's a secondary thing, isn't it, and I suppose what I wouldn't see = let me have a word with our technical people.	
TB	Tomorrow night that Educating Yorkshire is starting. How did they film that?	
TF	Apparently one was the worst school and then this guy had done a complete transformation to turn it around.	
TC	There was a clip there where he talks about figures and I thought that was awful. Did you see the clip where he says 'oh if you don't do very well we'll just find some way of taking you out of the figures'. Or something where he mentions figures and I just thought 'oh dear'//	
TF	All these people became graduates at their local college	
DP	I'll tell you one thing that seems to me to be valuable is when you film from the back of the room you do get not just that bit of you but because the other person, hopefully, captures what is going on around it as well = whichever way it's about what we think might be most valuable.	
TF	In America they put cameras in classes to check up on what's going on but it's filmed from the point of view of disruption in classes.	
DP	Which is surveillance?	
TB	That's Foucault's panopticon, isn't it?	
DP	It is.	
TC	It's also for their protection because I remember when I was watching Educating Essex there were some student that had made comments to the deputy head that so and so had touched her but upon reviewing the footage, umm, they found that he hadn't. I suppose it's a sad indictment of our society that we need that level of surveillance	

	in order to protect people. And there are people who make these accusations and the teacher's career is on the line just because of some ignorant person's = in that case it was an ignorant person because it was totally made up.	
DP	Shall we call a full stop there and to thank you again for your time. It seems to me that we are keen to go forward; we've got some ideas of how we might go forward. We might want to apply for some support but we are not absolutely sure yet what sort of support that might be. I know what I'd like but that is not what this is about; this might be us going away and doing things such as peer teaching = whether there will be some value in exploring that more systematically because looking at Wood and Geddes's work and Loughran & Berry that is how they unpack some of their practice actually.	
TC	I think some of that informally so that we don't feel that kind of pressure on us. I've seen, for example, Teacher F modelling his questioning approach and I found that fascinating in a recent peer observation. It's very interesting to see how they do this type of questioning where they get everybody involved and talking and I could see me working with them in the classroom but I wouldn't want that filmed. I would want it as more of an informal thing which didn't feel like pressure on you.	
TF	I'm quite used to doing peer teaching and I've done that really from the beginning of my career so I'm happy to work with anybody in any classroom.	
DP	Good. Better than good really.	
TF	It's been an interesting discussion.	
DP	Hopefully helpful	
TB	Totally helpful.	
TF	Helpful for all of us.	

DP	I'll stop that now and I'll //	
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[recording ends]

Appendix 14: Transcript of validation event on 17th January, 2014

There were thirty-five FE-based teacher educators at this event. I split them into five groups. Group A looked at Professional Practice findings; Group B looked at Professional Knowledge findings; Group C looked at professional identity; Group D looked at Organisational Field; Group E looked at Organisational Field.

Speaker	Dialogue	Comments and analysis
DP	Could I have some feedback from the group on the findings under the professional practice theme	
Group A	We said that it's difficult; sometimes this word 'exemplary' can't be used because sometimes we have to model not very good practice so that we can slip it back. And then we started to talk about you as a person and being able to reflect and have the, if you like, personality to be able to stand up and have your work scrutinised because that is what we are really essentially doing and sometimes teacher education is put on a pedestal: we are the masters; we should know everything and, as a result of that, our practice should be up there with the best. But that doesn't always happen because we are human and we have lots of human factors that affect us and so our modelling can be both but I think it's the ability to work with your students and you have to have a really good relationship with your students to enable them to reflect on your practice and unpick it so that they can see the good, the bad and the indifferent and then put it into their practice.	Vulnerability
DP	Ok. Thank you. So you've talked about your own experiences but what about the findings that I've presented to you? That was what I was interested in particularly.	
Group A	Yeah, again, we said that, yes, the implicit modelling is there all the time. We do that in the	Some validating of the data.

	<p>way that we organise it and we leave it up to the students to then interpret what we're doing. But what we were saying is to try and take it one step further and actually build it into your sessions as a reflection at the end and introduce it as part of one of the outcomes of the session. So you are actually reflecting on what is going on in the session. We also talked about the fact that if you do start to do that, when you go out and do observations, you can refer back to what has happened in the session and say 'ah do you remember when it did – have you tried and thought about it and do it like I did or not like I did'.</p>	
DP	<p>Thank you. Is there anything else you want to add?</p>	
Group A	<p>We wanted to say, David, that some of what you get back from your trainees perhaps in talking about your modelling depends on the power balance within your relationship. So it could be skewed if they feel you have any power potentially over their future, for example, and they might give a different response. So you might actually have to try and triangulate a bit.</p>	
DP	<p>Mediate all of it – sure. Thank you. Who were the group that had a look at professional knowledge then? What were your comments about the credibility of the claims that are made there or what I seem to be finding?</p>	
Group B	<p>I think we've really struggled with this, David, because of the responses made in terms of they don't really – all three of them didn't really understand about the theory behind it. They said that they don't feel confident in delivering theory.</p>	
DP	<p>Well that's the key word, isn't it, 'confidence'.</p>	

Group B	So this is not representative of, we'd say, other teacher educators.	
DP	That's interesting	
Group B	It looks as though the sample were all like brand new teacher educators which didn't quite make it a valid sample, did it? All the comments seem to come from a lack of pedagogical knowledge and that doesn't ring true, does it?	
DP	That's interesting.	
Group B	But that's certainly true that we are confident about some areas of theory but there are always new areas of theory and we have varying levels of theory with varying theories. Somebody might mention something new to us and we'll think 'oh God I don't know about that' and your confidence might dip a bit.	
DP	That's right. I mean I'm still struggling with this – that's theory - and I'm trying to make sense of it. I wouldn't describe myself as confident; I'm exploring it. Was there anything else you wanted to add to that?	
Group B	Not really. We had a lot of conversations about pedagogy, David.	
DP	So we're on to this group here then who were considering professional identity. What do you want to say about professional identity?	
Group C	Well firstly we read the comments and we felt, umm, that there is often an assumption that a good teacher makes a good teacher educator and so we had to have a discussion around that, didn't we, and we always said that = we were talking about, umm, a mentor and perhaps that the mentors aren't necessarily well trained and so that sort of sits in with the comment there about mentoring including suggesting books to read. We agreed with the constant reflection and improvement because, as teacher educators, that's what we do. And maybe the	

	comment that you can't necessarily train to be a teacher educator because whereas you can train to be an English teacher you can't necessarily be trained to be a teacher educator.	
DP	So there wouldn't be any value in putting on a programme which supported people through what the role is and things like that.	
Group C	Well it was quite interesting because you've got two people who are appointed and one, an advanced practitioner, was invited and what we sort of found is that a lot of people sort of drift into teacher education and also there is an assumption, particularly at my college, that 'oh you've got some spare hours in your teaching timetable so go into teacher education' . So it is not necessarily = I'm speaking too much.	
DP	And you've made some comments – good.	
Group C	I've just wrote the summary of what we were talking about.	
DP	Thank you very much. So we are going to listen to this group who have talked about organisational field and then we'll have another group who have been looking at organisational fields.	
Group D	We thought that the findings were valid and we strongly identified with the things that came out of them – limits on time to be able to engage in modelling and then unpick what you've just done and discuss it and that is something that is getting worse. The curriculum is becoming more and more time limited. We recognised the comments about CPD and its relative usefulness and opportunities to engage with peers in staffrooms and discuss your practice and that, again, is becoming more and more squeezed. So all of it seems valid but there was something that we thought was missing in that at least one of us felt that modelling can	Links to Loughran and Berry's work and the viewing frame?

	<p>become part of the culture of the teacher educator classroom and, therefore, even when it is not being made explicit if you can get them into the habit of looking and unpicking and discussing your practice they'll see it even when you don't point to it. So that, I think, is talking about influencing the organisational field; you have changed it somewhat by explicitly modelling and making it a conscious thing and that shifts the culture and so, therefore, it is possible within the time constraint. We agreed with this and then thought 'but there is something else'.</p>	
DP	Thank you.	
Group D	At the bottom there we were talking about how modelling is developed within a programme and how that connects with the things that you might be modelling and how do you follow that through throughout the course and between the different classes that those students might be going to.	
DP	That is something that I was picking up from the data: if you are looking at the overall development of someone – they work with one tutor in Year 1; they work maybe with another tutor for another module perhaps in Year 1 and then another tutor = how's that overall development? Where are we modelling? Or am I just being a bit too systematic? But how do we plan the development of a broad range of teaching strategies? Who does that? How does the team work together to consider that? Or is it actually really incremental?	
Group B	We've made the effort for the last three years to work very collaboratively and to actually put modelling at the heart of what we do and we are constantly reviewing that and it is having an impact on the learners.	

DP	Good.	
Group D	But you have to make time to do that and that is always the difficulty because there is the temptation to be doing lots of other things and being given lots of other tasks.	
DP	Thank you for that. So just one final group and then I'll just draw this to a close. So comments from this group.	
Group E	<p>One thing that we thought about we may be focused more on the 'field' part of organisational field. You mentioned that you got the idea from Bourdieu and maybe some of the Bourdieu's ideas aren't coming through. Obviously because of the way that you've written this it's a set of quotations but maybe things about issues of dominance, subordination and so on – powers in the field – could maybe be brought up through some of these points. It's interesting because you are going back to the idea of professional identity but identity is not just something that comes from within because it also can be shaped by the way in which the organisation functions and things like how teacher education and how CPD are actually positioned within the organisation and that goes back to the positioning of modelling within teacher education as well and it will all influence how teacher educators practice it and also how the trainees actually see that. Because if the organisation's central focus is teaching and learning surely the role of teacher educators and staff development should be part of that central focus and not inviting people to participate in teacher education simply because they've got a few hours spare.</p>	
DP	Thanks very much.	

Appendix 15: Information sheet and informed consent form for validation group on 17 January, 2014.

University of Huddersfield Participation Information sheet

Invitation to participate:

You are being invited to take part my Doctor of Education research. Before you decide it is important for you to understand why this research is being done and what it will involve. Please take time to read the following information and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information.

British Educational Research Association (BERA) ethical guidelines

This research will carried out in line with BERA's 2011 guidelines for educational research. I am happy to provide you with a copy of these guidelines if you wish to read them before agreeing to participate in the research.

The research project and its title

My research aim is to work collaboratively with a team of teacher educators from a further education college based in England to explore their use of modelling in their practice with their in-service trainees, many of whom work in post-compulsory education and training. Its working title is Lifelong Learning Teacher Educators, Modelling and their Practice: an Action Research Study

What is the purpose of the project

I am studying for a Doctorate in Education and the research is being completed as part of this research.

Why have I been chosen?

I have approached you because, as a teacher educator, you are well positioned to consider the initial findings from my first round of data collection and help me in their validation.

Do I have to take part?

No. Your participation is entirely voluntary and you may withdraw from the research at any time without giving a reason. If you feel unable to be involved for any reason, I fully understand.

What do I have to do?

Participate in the focus group discussion about my preliminary findings and contribute to your group's feedback: oral and written. I will ask for volunteers from each group to keep some notes and provide some oral feedback to the meeting. You are free to volunteer for these tasks if you wish, though you are under no obligation to do so. I plan to digitally record the oral feedback and collect in the feedback sheets at the end of the meeting.

Are there any disadvantages to taking part?

I foresee no disadvantages to participating in this study.

Will all my details be kept confidential?

In line with the Data Protection Act, the consent form, video recordings and taped interviews will be securely stored by me during the research. You may access the material I collect from you at any time during the research. To ensure your anonymity, I will ask you to choose a pseudonym so that if I make any reference to you in the research your identity will be protected.

What will happen to the results of the research project?

I will write up the research and it will be presented to meet the assessment requirement of my Doctorate in Education. I will securely dispose of the video recordings, interview tapes and my research notes after the conclusion of the research.

Contact address: David Powell, CEG/08, School of Education and Professional Development, University of Huddersfield, Queensgate, Huddersfield. HD1 3DH

Tel: 01484 478124

email: d.powell@hud.ac.uk

University of Huddersfield

School of Education and Professional Development

Participant Consent Form (E4)

Title of Research Study: Lifelong Learning Teacher Educators, Modelling and their Practice: an Action Research Study

Name of Researcher: David Powell

☐

I confirm that I have read and understood the participant Information sheet related to this research, and have had the opportunity to ask questions.

☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.

☐

I agree that my contribution, including verbatim quotations, may be used as long as my responses are anonymised.

☐

I give permission for members of the research team to have access to my anonymised responses.

☐

I agree to take part in the above study

Name of Participant:

Signature of Participant:

Date:

Preferred pseudonym:.....

Name of Researcher: David Powell

Signature of Researcher: 

Date: 17.1.14

Appendix 16: Copy of the focus group questions for peer teaching with debrief session with Teacher Educator E's trainees

Introduction

David to provide brief summary of the research project and the purpose of the study within EdD.

Explain tape recording system and the expected length of the focus group.

Remind the participants that they can withdraw from the study at any time.

Ask if the participants have any questions

David to leave the room.

Interview questions

1. Teacher Educator E: What was your idea of teaching and how to teach before you started this course?
2. Teacher Educator E: What are your ideas of teaching and how to teach now? Explore any perceived changes in terms of what has changed, how has it changed, why has it changed?
3. Teacher Educator B: How are you learning to teach with Teacher Educator E ?
4. Teacher Educator E and B: David explained the four forms of modelling to you when he visited our class last month. I would now like to ask you to consider which of the four forms of modelling you thought were used by me in today' session. If a form is identified, ask how it was used? How did I explore this type of modelling? What is the value of this type of modelling to you?
5. Teacher Educator B: I provided a debrief of some of Teacher Educator E's teaching today. This is the first time we have tried this strategy and we are interested in your views of how it was used. So, how did you find that as a strategy for learning about how to teach? What was helpful about it? Or what was unhelpful about it? Ask them for examples to illustrate the points they are making.
6. Teacher Educator B: Is there anything you would like to feedback to us about the use of modelling in this or other sessions?

Conclusion

Thank the trainees.

Appendix 17: Copy of the transcript and analysis from the validation meeting at the UCET conference in November 2015

Eleven teacher educators attended a session at UCET's 2015 Annual Conference where I shared my study and some provisional findings to research questions 1, 2 and 3 from the doctorate. I split the attendees into three groups and allocated to a group the findings from one of the research questions and asked them the question: what do you make of these findings?

Speaker	Dialogue	Notes & Analysis
DP:	Are we okay to try and do a little bit of feedback? I mean the, what the plan is, just to listen to you, probably for two to three minutes each group and then bearing the time, I will just talk very briefly about the Viewing Frame that we've developed, which really links to the pedagogy of teacher education and then I've got a final slide which I'd like to share with you, you know, and see what you think. But thank you for being involved, because hopefully it's been a different type of session, in a sense. I wanted to share that, how I'd approached it, because otherwise you're just looking at this, you know, in a very straightforward way and perhaps missing some of what I've been trying to do. So what I'm going to do is if we start off perhaps talking to the group who have been looking at what's been modelled and how it's been modelled and when I mean how, I mean, you know, which form of modelling is being used, using the definitions. So I'm just going to try and put that there, I'm just going to check that it's recording and that looks okay to me. Would someone like to just feedback and tell me what you've noticed in that data?	
FG1:	Erm, ok, erm, and people can jump in as well. But the first thing I, erm, noted, was there was, err, a good deal of explicit modelling , Explicit One, so that was just the explicit modelling of a particular activity or an action, erm, across both, err, year groups and	This group looked at RQ1 on use of modelling in sessions

	a reduced number of Explicit Two, where they located in their own practice and then Explicit Three, I've forgotten what's Explicit Three..	
DP:	Okay, which is theory, the link to theory.	
FG1:	A link into the theory.	
DP:	Sorry to cut across you.	
FG1:	<p>Yeah, link into the theory, I'd forgotten. Erm, and at first, I kind of identified that as being oh that's a bit strange because you're explicitly, err, modelling, but you're now allowing time for the students, the trainee students, to take on board how they might apply it themselves. The discussion however that we started to have there was well it probably depends on the stage at which the trainee is at, because at some point, you do need to model and link theory and you need to model and link it to their own practice, certainly when they're new to that particular situation. As they progress, perhaps, they take ownership for that development, err, and again one of the points was, err, that by interrupting the sessions, to say oh how would you, how would you use that, well you've got your own aims for that session, to get through. So perhaps you can't do that all the time. One of the things we thought would be nice to see being modelled is fallibility, people actually showing their own fallibility, as teachers are also showing themselves as learners.</p>	Need to provide detailed information about each of the sessions for that sending and receiving context.
DP:	<p>Yeah, okay, actually if I just say that one of the interesting things, before we go to Group Two, is that Teacher Educator E, the new Teacher Educator was, felt that they were modelling to their students how to be a researcher. But that wasn't necessarily captured as part of the session. But it was an example of how you are continually, you're owning your own professional development and that's been captured in another piece of data. If there's anything else you want to add or, you know, briefly, because I will, I'm conscious of the time.</p>	

	Otherwise if you would email, I'd be delighted to have an email from you. Sorry.	
FG1:	I think, I think it's Teacher Educators here thought, they're swamped by all the things they have to do, that's..	
DP:	Well I'll come back to that, we'll talking about the Viewing Frame, but if you look at the factors and we might hear it in the factors, okay, what's going on, excuse me as I lean over and I attempt to model explicitly to you how to lean over using a recording tool, okay, thank you!	
FG2:	Okay, I think it's me, erm, we jumped around on this, we noted a couple of the factors. Erm, the, I suppose the first thing, we thought of the, you put under the heading of Professional Identity some of this reluctance to be videoed and we wondered if there was maybe more to it that had nothing to do with either performativity or professional identity, it's just that even in the friendliest context, about having something and someone in your classroom, where there's a video recorder and whether that was, that was a more, a factor that maybe needed to be considered a bit more and I know there were two cases where the teacher said it was because they didn't, the video was going to be viewed by a senior manager. But I think there are sort of other issues as well, that maybe...	
DP:	Can I just be clear, the video wasn't going to be viewed, it's the end report [FG2: oh right ok], that's right, those videos [FG2: yeah] are only held by the teachers [FG2: right ok] and myself, okay. They, the managers wanted to have a look at the report at the end and for some people, you know, that would be an issue.	
FG2:	I just thought that the description seemed to suggest that the main issue about not being videoed was the performativity of managers and I just thought maybe it wasn't. For example, I hate	

	being videoed and it's not about performativity or anything else.	Make sure I ask Team about this
DP:	Yeah, I think that's a useful point and I need to capture that. Perhaps in the instances, I was fairly secure in making the claim based on some of the data that I have got access to and I need to be explicit about that.	
FG2:	<p>Okay. The, the issue around the, erm, non-subject specialism, the range of subjects in FE, erm, and as we were reading it, we were wondering what would happen, how this would relate to other contexts, for example secondary, where there are subject specialisms and I come from a subject specialist background, erm, and we thought that was one of the most interesting points about whether in a generic programme, modelling, I think it is possible, but it is, you mentioned about it being restricted and whether it, you mentioned it was restricted, we thought that was, err, really interesting to look at.</p> <p>Erm, the levelness that you mentioned, erm, We felt that our experience was that people can come into that multi-level classroom situation and whether they're at Level Five, Six, or Seven, or anecdotally, we felt that that wasn't the deciding factor in their ability to analyse what they were doing in their teaching or for the Teacher Educator to engage with that. But it, so it was interesting to us that that might be a factor. Erm, but we don't have any hard data, it's just we felt, in our experience, that wasn't the case.</p>	FG looked at the factors affecting teacher educators' use of modelling.
DP:	And that's exactly why I've asked you, because I need to get your perspectives, you know, I'm living this, okay, you know, but sometimes you get lost in the woods and somebody has to pull you out and say you're going to go over a cliff if you're not careful.	

FG3:	Not having read that bit, but listening to what you say now, I would agree with that as well [I: yeah], that's certainly my experience, it's not the level.	
FG2:	Yeah, it's not to detract and on some, and in some occasions, it's almost, it's the inverse.	
FG3:	It's the other way round, yeah, it can be the other way round.	
FG2:	Yeah.	
DP:	Maybe we could talk a bit more about that at some stage, that's interesting [FG3: yeah].	
FG3:	Yeah and just the final one was about, I mean again, we felt that the whole idea of their metacognitive ability, their actual ability to notice, either their role or other people's practice, was so, so important and we thought that was a really important area to look at.	
DP:	Yes and we do that in the Viewing Frame, which I'll share shortly. Thank you for that, that's great. So we'll go over to Group Three and I'll just, who's going to feed back in Group Three? I'll just put that hopefully close to you and if you'd like..	
FG3:	I'll speak up, is that okay?	
DP:	It looks like it's being picked up, okay.	
FG3:	Yeah, okay, erm, so we were looking at student voice, but I think what we found difficult was trying to look at that out of context, with not having the time to look at the whole article beforehand. We could see where things were coming through in terms of perceptions around identity and the powerful, erm, aspects within the discourse and some of the things, erm, top of page twenty, there was a comment 'yeah, it relates to me more than I thought it would and that's what I didn't really get, I thought it would just be what counts to the learning, not what counts for them getting there'. So they were starting to make the connections between what they were seeing and the impact on practice and the top of page twenty one, there was a	Focus group 3 were looking at what the trainees said about how they were learning to teach and modelling's role within that

	<p>comment, 'when you speak sometimes, you use such long words that they go completely over the top of my head and I haven't understood a word that you've said'. So we could see where you were trying to dig down into the data and to make those themes and the frameworks and concepts explicit, that you were looking at. Where we struggled and I think, and you said it yourself, that you're living this, is that you are so close to the data because its action research. You are living it, you're eating it, you're breathing it, you know it inside out and I think where we struggled and do pitch in folks, was knowing who was who within the data that you were talking about and where this section started. So we needed a bit more signposting and [I: very good] context around who was who and what did those voices represent.</p>	<p>Sending and receiving contexts</p>
DP:	Yeah, that's a really helpful point and you know...	
FG3:	<p>And you took, well, it took us a while, it certainly took me a while to realise that you'd, you'd showed, shown the student teachers the, erm, implicit, explicit [I: yeah, we did it], the model [DP: we did it ,yeah] for them to reflect on.</p>	
DP:	Yeah, they needed to see it, we wanted them to be able to...	
FG3:	<p>Because that didn't, that just wasn't obvious, to me at least. That list that they looked at would have been helpful for us to look at, to know what this bit... To know what we're talking about, because in isolation, it's very hard to do that joined up thinking. I think you ought to think about coding the different roles as well, erm, because it was very difficult sometimes to know who's speaking and, erm, of course, what we've got is multi-layered practice here. We've got university teacher educators, teacher educators, we've got college teacher educators, and we've got the students who are also</p>	

	teachers with their own students, so it's very complex.	
DP:	Well yes, yeah, I mean the ones, the student voices, all student teachers working at this particular site with college based FE teachers, okay, but you're right and whilst I did a little bit of profiling, if you'd had a look at the film stuff, you would have seen a little bit about who they were and which group.	
FG3:	I mean it's difficult, I think it's the, it's the signposting that we needed as we were coming into this, so why is this particular voice relevant, how is it tied back to the theory and the practice that you're looking at? So just making that a bit more explicit. And reading transcript verbatim is, I think, quite challenging, anyway, you know, its, it, yeah.	
DP:	I mean just a bit of a back story, its, obviously I wanted to get here, desperately keen to get people to look at this work and those of you who are trying to finish a doctorate, or have done it, will know what it's like and sort of the cutting and pasting and there were a few typos and things, but you know, it's really important. I mean this needs to get edited down, but you've got the first sight of what this data looks like, okay, and what, and what I do think, there's, and I can't remember which pages, but there's an example of an exchanged between a teacher educator, teacher educator B, who's a linguist specialist, postgrad and uses the word 'chronemics', okay and 'proxemics', okay, in a class where you've got CertEd. Exactly, PGCE students, so it's not just the command of the teacher educator's language, it's the student's language that I'm getting to.	
FG3:	We were interested in the manipulative, so we had to actually google 'manipulative'.	
DP:	Well that, you know, that's the pedagogy...	

FG3:	That interfered with our moving on because we were all trying to decide what manipulative was.	Need to explain this in my doctorate
DP:	<p>You know, that's, you know, that sort of, but all that sort of language is the language and sometimes I would have talked about that as modelling the dominant syntax. But I wouldn't have done that with your chronemics and proxemics because that was an issue that became very visible, okay, that sometimes actually there's a gap and I don't know, I think it was, for those who had a look at the, who had a look at the teacher educators and the factors, one of which is the relationship between the trainees and the teacher educator, is central to modelling, absolutely heart of it, that relationship, the (<i>unclear</i>) work on relationships, you know, that and to be fair, the teacher educator knew immediately using the word chronemics, laughs at themselves and he often laughs at themselves in the films and if you looked on the transcript, you would see that and a very very gracious teacher educator, very clever actually. But his choice of language is very very significant, I think, when we're talking about, you know. So, we'll just stop the recording, if that's okay, and I want to just show you finally, if I can, [the Viewing Frame].</p>	
	[END]	

Appendix 18: List of behaviours and forms of modelling in Teacher Educator C's filmed class

Background information on class

Date of class	12th February 2013
Time of class	1800-2100
Duration of filming	87 minutes
Location	College classroom
Year of the course	1
Number of trainees	11
Topic	Critical reflection and reflective practice
Teaching behaviours being modelled	"questioning, group work, recap, critical reflection, and critical thinking" (SRI, February 2013)
Number of episodes	Four
Notes	Teacher Educator C did not refer to modelling in the aims and objectives of their class, though the trainees had been briefed by myself before the class of the purpose of my study. Any italicisation of a behaviour or form of modelling represents Teacher Educator C's secondary text. There were three instances of secondary text in this analysis. Two of these are differences of opinion in the form of modelling used and so these have been counted as one instance each. The other – instances 92 and 93 – was where we saw different behaviours being modelled and so this has been counted as two instances. Towards the end of the class at 11.44 three closed questions were asked one after another, I have counted theses as three instances.

Timings: 00.00.01 = 1 second; 00.01.01 = 1 minute and 1 second; 01.01.01 = 1 hour, 1 minute and 1 second.

*Batteries in video recorder stopped and so this explains the lack of continuity in timings

**The class has resumed after a break. This explains the lack of continuity in timing

Time	Teaching behaviour being modelled	Form of modelling	Instance
00.00.01	Recap	Implicit	1
00.01.02	Overhead question	Implicit	2
00.01.32	Overhead question	Implicit	3
00.02.19	Overhead question	Implicit	4
00.03.38	Overhead question	Implicit	5
00.04.17	Overhead question	Implicit	6
00.05.20	Question and nominate	Implicit	7
00.05.53	Socratic question	Implicit	8
00.06.27	Question and nominate	Implicit	9
00.06.52	Socratic question	Implicit	10
00.07.34	Socratic question	Implicit	11
00.08.11	Closed question	Implicit	12
00.08.27	Closed question	Implicit	13
00.08.29	Overhead question	Implicit	14
00.09.05	Question and nominate	Implicit	15
00.09.51	Socratic question	Implicit	16
00.10.13	Socratic question	Implicit	17
00.10.57	Overhead question	Implicit	18
00.11.00	Question and nominate	Implicit	19
00.11.31	Socratic question	Implicit	20
00.11.58	Closed question	Implicit	21
00.13.15	Closed question	Implicit	22
00.14.24	Overhead question	Implicit	23
00.15.08	Question and nominate	Implicit	24
00.16.01	Closed question	Implicit	25
00.16.42	Mnemonics	Explicit with transference to students' own teaching	26
00.17.06	Overhead question	Implicit	27
00.17.50	Overhead question	Implicit	28
00.18.06	Overhead question	Implicit	29
00.18.28	Overhead question	Implicit	30
00.19.04	Overhead question	Implicit	31
00.19.28	Overhead question	Implicit	32
00.19.49	Overhead question	Implicit	33
00.20.27	Overhead question	Implicit	34
00.20.53	Question and nominate	Implicit	35
00.21.16	Overhead question	Implicit	36
00.21.49	Question and nominate	Implicit	37
00.22.14	Socratic question	Implicit	38
00.22.20	Socratic question	Implicit	39
00.22.35	Socratic question	Implicit	40
00.22.53	Use of wipe board as part of the recap	Implicit	41
00.23.57	Clarification question	Implicit	42
00.24.19	Consequence question	Implicit	43
00.24.49	Rationale question	Implicit	44
00.25.08	Socratic question	Implicit	45
00.25.37	Overhead question	Implicit	46
00.26.03	Overhead question	Implicit	47
00.26.11	Socratic question	Implicit	48
00.26.20	Socratic question	Implicit	49

00.27.00	Question and nominate	Implicit	50
00.27.19	Socratic question	Explicit	51
00.27.31	Socratic question	Implicit	52
00.28.33	Role modelling and 'thinking aloud' about their pedagogical thinking and decisions (Loughran, 1996, p.17)	Explicit and transference to trainees' own practice	53
00.29.52	Homework and 'thinking aloud' about pedagogical thinking and decision making	Explicit	54
00.31.03	Recap and 'thinking aloud' about trainees who had missed previous session	Explicit	55
00.31.28	Overhead question	Implicit	56
00.31.38	Question and nominate	Implicit	57
00.31.46	Listening and reflecting back what has been said	Implicit	58
00.31.51	Closed question	Implicit	59
00.31.58	Question and nominate	Implicit	60
00.32.21	Socratic question	Implicit	61
00.32.49	Socratic question	Implicit	62
00.34.25	Overhead question	Implicit	63
00.34.51	Overhead question	Implicit	64
00.35.02	Use of "wait time" after a question	Implicit	65
00.35.46	Overhead question	Implicit	66
00.36.44	Managing Group work. Thinking aloud about pedagogical thinking and decisions if students haven't done their homework and using group work to overcome that situation. Values visible too.	Explicit	67
00.37.11	Managing group work. Thinking aloud about pedagogic thinking and decision to observe group work	Explicit	68
00.37.30	Written critical reflection	Implicit	69
00.38.26	Managing group work	Implicit	70
00.39.24	Overhead question	Implicit	71
00.40.22	Linking session to assessment requirements and the need for the reflective journal to be critically reflective	Explicit	72
00.40.41	Reflective journal. Thinking aloud about pedagogic thinking and decision making related to assessment requirements for critical reflective writing	Explicit	73
00.41.42	Overhead question	Implicit	74
00.42.20	Example of critically reflective writing	Explicit	75
00.42.26	Socratic question	Implicit	76
00.42.41	Critical reflective writing. Thinking aloud about the value of reflection and links to improving your practice	Explicit	77
00.43.09	Socratic question	Implicit	78
00.44.06	Overhead question	Implicit	79
00.44.19	Use of wait time after an overhead question	Implicit	80
00.45.01	Dealing with the late arrival of a student. Captured because unlikely to explicitly model this.	Implicit	81
00.46.33	Overhead question	Implicit	82
00.46.40	Overhead question	Implicit	83
00.46.47	Academic writing skills: using literature to support writing and Harvard referencing	Explicit	84
00.46.48	Socratic question	Implicit	85
00.47.46	Overhead question	Implicit	86

00.47.58	Socratic question	Implicit	87
00.49.27	Thinking aloud about managing group work through formative assessment and observation	Explicit	88
00.49.31	Use of dominant syntax/technical language	Explicit	89
00.51.55	Overhead question to a group	Implicit	90
00.53.54	Question and nominate	Implicit	91
00.54.29	Socratic question/vulnerability	Implicit	92-93
00.54.53	Closed question	Implicit	94
00.00.28	Socratic question	Implicit	95
00.01.20	Overhead question to a group	Implicit	96
00.04.18	Overhead question	Implicit	97
00.05.54	Socratic question to a group	Implicit	98
00.08.33	Picking up the pace of the class. Thinking aloud about pedagogic thinking and decisions related to teaching intentions	Explicit	99
00.09.21	Thinking aloud about reading of non-verbal communication	Explicit	100
00.09.27	Emotional intelligence	Explicit/implicit	101
	Break		
00.00.25	Overhead question	Implicit	102
00.00.46	Critical thinking using theory to interrogate practice	Explicit	103
00.01.08	Socratic question	Implicit	104
00.01.41	Clarification question	Implicit	105
00.02.23	Thinking aloud and being critically reflective	Explicit	106
00.02.51	Overhead question	Implicit	107
00.03.15	Thinking aloud and being critically reflective	Explicit	108
00.03.59	Overhead question	Implicit	109
00.04.11	Overhead question	Implicit	110
00.05.31	Closed question	Implicit	111
00.06.12	Overhead question	Implicit	112
00.06.15	Thinking aloud and being critically reflective	Explicit	113
00.06.45	Overhead question	Implicit	114
00.07.01	Overhead question	Implicit	115
00.07.34	Overhead question	Implicit	116
00.08.27	Overhead question	Implicit	117
00.10.02	Overhead question	Implicit	118
00.10.39	Listening and responding to answer	Implicit	119
00.11.02	Overhead question	Implicit	120
00.11.26	Overhead question	Implicit	121
00.11.44	Three closed, overhead questions together	Implicit	122-124
00.12.30	Overhead question	Implicit	125
00.12.38	Overhead question	Implicit	126
00.13.03	Question and nominate	Implicit	127
00.13.31	Closed question using question and nominate	Implicit	128
00.13.45	Socratic question	Implicit	129
00.14.08	Closed question	Implicit	130
00.14.27	Socratic question	Implicit	131
00.14.38	Socratic question	Implicit	132
00.14.51	Socratic question	Implicit	133
00.15.12	Overhead question	Implicit	134
00.15.29	Overhead question	Implicit	135
00.16.24	Closed question to nominated trainee	Implicit	136
00.17.14	Overhead question	Implicit	137
00.17.33	Overhead question	Implicit	138
00.17.44	Emotional management	Explicit/implicit	139

00.18.20	Overhead question	Implicit	140
00.18.54	Overhead question	Implicit	142
00.21.31	Overhead question	Implicit	126

Appendix 19: List of behaviours and forms of modelling in Teacher Educator B's filmed class

Background information on class

Date of class	25 February 2013
Time of class	1330-1445
Duration of filming	59 minutes
Location	College classroom
Year	2
Number of trainees present	11
Topic	Lingfield report and professionalism
Teaching behaviours being modelled	"the taxonomy of educational objectives, the recap...and very, very clearly textual construction activities."
Number of episodes	Two
Notes	<p>A copy of the session plan, PowerPoint slides and reading materials were provided at the start of the class. Aims of session articulate that "participants will examine the pedagogical reasoning that underpins some forms of practice"; that "the tutor will in the spirit of reciprocal discovery, create opportunities for learning that will be meaningful for participants in their own professional development and growth" and "the tutor will model the use of engaging teaching principles rather than a transmissive approach to encourage meta-learning." However, modelling is implicit in the specific learning outcomes, e.g. "Outcome 5 Appraise areas of practice to be developed in the light of recent sectoral developments and forecast priorities for development" and "Outcome 6 Use at least one of the learner-centered methods deployed in the session in their own c/rooms", though the terms "modelling" or "congruent teaching" were not used in the outcomes.</p> <p>Room set up in a horseshoe, with a resources table inside the U at the top, right hand side of the U. I sat at a table on the left as you walk in the door. Room seems small and tight. Room has a computer, interactive whiteboard on the back wall, a wipe board on the right hand wall, a flipchart stand on the left and outside windows on the left hand side of the room. There is a filing</p>

	cabinet next to the computer. An outline of the session is written on the wipe board. The class took place on a Monday afternoon and I briefed the trainees about my study before the class started. NB This is the same room that Teacher Educator D taught their class in.
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Timings: 00.00.01 = 1 second; 00.01.01 = 1 minute and 1 second; 01.01.01 = 1 hour, 1 minute and 1 second.

*Batteries in video recorder stopped and so this explains the lack of continuity in timings.

Time in class	Teaching behaviour being modelled	Form of modelling	Instance
00.00.00	Use of image in teaching materials to stimulate interest	Implicit	1
00.00.18	Overhead question	Implicit	2
00.00.49	Clarification question	Implicit	3
00.01.02	Overhead question	Implicit	4
00.01.11	Question and nominate	Implicit	5
00.01.39	Overhead question	Implicit	6
00.01.48	Clarification question	Implicit	7
00.01.53	Wait-time after a question	Implicit	8
00.02.03	Non-verbal communication. Noticing of trainee's nodding of their head.	Explicit	9
00.03.10	Overhead question	Implicit	10
00.01.15*	Overhead question	Implicit	11
00.01.42	Closed question	Implicit	12
00.01.45	Socratic question	Implicit	13
00.00.00*	Closed question	Implicit	14
00.00.45	Procedure related verbs in learning outcomes . Thinking aloud about pedagogical thinking	Explicit and facilitating the translation to the trainees' own practice	15
00.01.00	Writing of aims and outcomes	Explicit and facilitating the translation to the trainees' own practice	16
00.01.27	Reflecting back and empathetic listening	Implicit	17
00.02.14	Closed question	Implicit	18
00.03.08	Embedding literacy. Noticing skills of Trainee 6's choice of word	Implicit	19
00.03.13	Use of dominant syntax and technical language	Implicit	20
00.03.17	Closed question	Implicit	21
00.03.49	Differentiation in writing learning outcomes	Explicit	22
00.04.42	Closed question	Implicit	23
00.04.47	Clarification question	Implicit	24
00.04.51	Overhead question	Implicit	25
00.06.07	Differentiation in writing learning outcomes Thinking aloud about pedagogical thinking and decision making	Explicit and discussed in relation to a student's context	26
00.07.19	Question & nominate	Implicit	27
00.08.17	Writing of learning outcomes . More thinking aloud	Explicit	28
00.09.17	Closed question	Implicit	29

00.09.21	Use of scaffolding to support academic writing . Thinking aloud about pedagogical thinking and decision making	Explicit and facilitating the translation to the trainees' own practice	30
00.12.53	Question & nominate	Implicit	31
00.13.09	Socratic question	Implicit	32
00.14.15	Closed question	Implicit	33
00.15.37	Quotation and academic writing . Thinking aloud	Explicit.	34
00.16.07	Reverse question	Implicit	35
00.16.34	Overhead question	Implicit	36
00.16.34	Closed question		37
00.16.43	Overhead question	Implicit	38
00.17.06	Overhead question	Implicit	39
00.17.53	Noticing skills linked to question and nominate	Explicit	40
00.18.18	Closed question	Implicit	41
00.18.52	Closed question	Implicit	42
00.18.53	Wait time after a question	Implicit	43
00.19.19	Closed question	Implicit	44
00.19.33	Socratic question	Implicit	45
00.19.42	Wait-time after a question	Implicit	46
00.20.19	' Dominant syntax ' (Freire's term for language of a [teaching] profession/group) and checking students understand its meaning	Implicit	47
00.20.48	Overhead question	Implicit	48
00.21.00	Question & nominate	Implicit	49
00.21.23	'Thinking aloud' about noticing skills of trainee's non-verbal behaviour to nominate a respondent	Explicit	50
00.21.47	Socratic question	Implicit	51
00.24.59	Thinking aloud about their professional values and vocation	Explicit	52
00.27.02	Inviting trainees to add to the learning outcomes for the class	Implicit	53
00.27.08	Flipped classroom	Implicit	54
00.28.55	Thinking aloud about design of a teaching activity	Explicit	55
00.00.00	Managing group work	Implicit	56
00.01.19	Embedding literacy skills	Implicit	57
00.01.47	Question and nominate	Implicit	58
00.02.18	Overhead question	Implicit	59
00.08.43	Thinking aloud about noticing skills trainees' response to the design of the teaching activity	Explicit.	60
00.08.56	Question and nominate	Implicit	61
00.09.19	Inclusivity . Involving a hearing impaired student in a discussion	Implicit	62
00.09.47	Thinking aloud about the choice of an activity	Explicit and facilitating the translation to the trainees' own practice.	63
00.10.27	Overhead question	Implicit	64
00.10.47	Closed question	Implicit	65
00.11.09	Question and nominate question	Implicit	66
00.11.16	Closed question	Implicit	67
00.12.17	Closed question	Implicit	68

00.12.19	Socratic question	Implicit	69
00.12.39	Question and nominate	Implicit	70
00.12.42	Socratic question	Implicit	71
00.13.22	Overhead question	Implicit	72
00.13.37	Thinking aloud about activity design and DART	Explicit and facilitating the translation to the trainees' own practice	73
00.14.27	Embedding literacy	Implicit	74
00.14.50	Closed question	Implicit	75
00.14.52	Embedding literacy	Implicit	76
00.14.53	Modelling use of the of wipe board when discussing obfuscate	Implicit (as part of explicit discussion of key word]	77
00.15.01	Thinking aloud about choice of teaching material	Explicit	78
00.16.12	Overhead question	Implicit	79
00.16.32	Overhead question	Implicit	80
00.16.47	Thinking aloud about embedding equality and diversity into the design of teaching materials	Explicit	81
00.17.02	Closed question	Implicit	82
00.19.33	Thinking aloud about choice of activity and material	Explicit	83
00.19.39	Question and nominate	Implicit	84
00.19.49	Socratic question	Implicit	85
00.20.40	Thinking aloud about using images when designing teaching material and linking it to theory.	Explicit with link to theory	86
00.21.18	Non-verbal communication cues when introducing an activity	Implicit	87
00.21.55	Closed question	Implicit	88
00.22.32	Thinking aloud about the design of DARTs	Explicit and facilitating the translation to the trainees' own practice	89

Appendix 20: List of behaviours and forms of modelling in Teacher Educator D's filmed class

Background information on class

Date of class	Thursday 07 March 2013
Time of class	1800-2100
Duration of filming	68 minutes
Location	College classroom
Year	2
Number of trainees	10
Topic	Lingfield and Professionalism
Teaching behaviours being modelled	"a more active approach to learning what maybe seems like quite a dry subject" (SRI, March 2013)
Number of episodes	5
Notes	<p>Room set up in a horseshoe, with a resources table inside the U at the top, right hand side of the U. I sat at a table at the bottom left hand edge of the horse shoe. Room seems small and tight. Room has a computer, interactive whiteboard on the back wall, a wipe board on the right hand wall, a flipchart stand on the left and outside windows on the left hand side of the room. There is a filing cabinet next to the computer. An outline of the session is written on the wipe board. The class took place on a Thursday evening and I briefed the trainees about my study before the class started. Teacher Educator C also taught in this room.</p> <p>I have been unable to find a lesson plan if this was given to me, though film does indicate a schedule for the session was written on the wipe board. The aims and outcomes shared did not mention modelling.</p>

Timings: 00.00.01 = 1 second; 00.01.01 = 1 minute and 1 second; 01.01.01 = 1 hour, 1 minute and 1 second.

*Batteries in video recorder stopped and so this explains the lack of continuity in timings.

Time in class	Teaching behaviour being modelled	Form of modelling	Instance
00.00.43	Learning to teach. Reflecting on my presentation about the study and how it might be applied to the specialist conference paper they would be delivering. 'Thinking aloud' (Loughran, 1996, p.17)	Explicit and facilitating the translation to the trainees' own practice	1
00.01.45	Scheme of work. Thinking aloud about pedagogical thinking and decisions arising from the impact of factorised curriculum (Lawy and Tedder, 2009) on teaching schedule	Explicit	2
00.02.31	Lesson planning. Thinking aloud about pedagogical thinking and decisions	Explicit	3
00.03.17	Managing groups	Implicit	4
00.05.13	Closed question	Implicit	5
00.08.29	Managing group work. Noticing the group needs help.	Implicit	6
00.09.27	Managing group work	Implicit	7
00.10.05	Managing group work	Implicit	8
00.12.35	Writing frame. Thinking aloud about the use and design of a writing frame. Academic writing	Explicit	9
00.12.46	Overhead question	Implicit	10
00.13.12	The writing frame. Thinking aloud further. Academic writing	Explicit	11
00.14.08	Question and nominate	Implicit	12
00.15.26	Design of activity. Thinking aloud about pedagogical thinking and decisions involved	Explicit	13
00.27.00	Managing group work. Thinking aloud about organisation of group work.	Explicit	14
00.28.01	Asking trainees to move around and change groups. Thinking aloud about pedagogical thinking and decision making related to managing group work and being active in a class	Explicit	15
00.00.00*	Managing group work	Implicit	16
00.04.14	Managing group work	Implicit	17
00.08.52	Managing group work. Asks a trainee if they are okay.	Implicit	18
00.12.18	Socratic question	Implicit	19
00.12.23	Socratic question	Implicit	20
00.12.50	Socratic question	Implicit	21
00.13.18	Socratic question	Implicit	22
00.13.52	Socratic question	Implicit	23
00.15.11	Managing group work.	Implicit	24
00.15.40	Clarification question	Implicit	25
00.16.20	Managing group work	Implicit	26
00.00.00**	Review of an activity	Implicit	27
00.06.13	Use of the wipe board	Implicit	28
00.08.50	Correcting and omission. Thinking aloud about not including the chapter reference on a hand out and explaining they will right it on the board	Explicit	29
00.09.52	Clarification question	Implicit	30
00.12.30	Overhead question	Implicit	31
00.12.39	Review of activity. Drawing on a trainee's earlier comment during group work	Implicit	32
00.12.48	Review of an activity	Implicit	33

00.18.16	Being critical.	Thinking aloud	Explicit	34
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Appendix 21: List of behaviours and forms of modelling in Teacher E and Teacher B filmed peer-teaching with debrief class

Background information on the class

Date of class	Tuesday 25 February 2014
Time of class	1300-1600
Duration of filming	96 minute
Location	College classroom
Year of the course	1
Number of trainees	9
Topic	Andragogy
Teaching behaviours being modelled	“use of questioning...more kind of learner led in terms of them drawing off their own experiences...case studies...because it was about adult learning and they are all adult learners” (SRI, March 2014)
Number of episodes	Six
Notes	<p>Room set up in u-shape with 12 desks and chairs, there is an interactive whiteboard on the wall and to the right of the IWB is a computer, with a table next to it. Computer set up means that the teacher has to stand in front of the IWB when using it. There is a data projector for the computer and this is used to project a title slide onto the IWB, which doubles as a projection screen. There is a small wipe board on the right hand side of the board with some writing from a previous class.</p> <p>One of the outcomes from Teacher E’s lesson plan states that “The tutor will model the use of questioning to encourage active enquiry and meta-learning” (Lesson plan provided by Teacher E); however, the learning objectives shared with the trainees during the class made no reference to modelling. Objective 5 does tell them they will “partake in a debrief session and focus group after the break”, though it might be argued that the use of a debrief implies ‘unpacking’ what has happened in the class.</p> <p>This session was filmed by one of Teacher Educators E’s trainees, not myself. This was negotiated with me and the teachers involved and their trainees.</p>

Timings: 00.00.01 = 1 second; 00.01.01 = 1 minute and 1 second; 01.01.01 = 1 hour, 1 minute and 1 second.

*Batteries in video recorder stopped and so this explains the lack of continuity in timings.

Time in class	Teaching behaviour being modelled	Form of modelling	Instance
00.00.03	Non-traditional start/learner-led activity, i.e. activity used to start session, not sharing aims and outcomes	Implicit (though becomes explicit at 00.29.57)	1
00.00.55	Responding to question during activity	Implicit	2
00.03.54	Managing group during activity	Implicit	3
00.06.42	Question and nominate	Implicit	4
00.07.02	Socratic question	Implicit	5
00.07.36	Overhead question	Implicit	6
00.07.52	Question and nominate	Implicit	7
00.08.02	Socratic question	Implicit	8
00.08.08	Socratic question	Implicit	9
00.08.22	Listening and reflecting back what has been said	Implicit	10
00.08.39	Question and nominate.	Implicit	11
00.09.05	Listening and reflecting back what has been said	Implicit	12
00.09.29-00.18.29	Case study activity that embeds equality and diversity through challenging stereotypes.	Explicit and facilitating the translation to the trainees' own practice	13
00.10.43	Question and nominate.	Implicit	14
00.12.52	Socratic question	Implicit	15
00.12.58	Question and nominate.	Implicit	16
00.13.15	Socratic question	Implicit	17
00.13.30	Question and nominate.	Implicit	18
00.15.29	Overhead question	Implicit	19
00.16.06	Suggesting trainee could use the case study in their own context to embed equality and diversity	Explicit modelling and facilitating the translation to the trainees' own practice	20
00.17.20	Question and nominate.	Implicit	21
00.17.39	Question and nominate. 'Thinking aloud' (Loughran, 1996, p.17) about pedagogical thinking and decisions when checking they have asked the student a question already.	Explicit	22
00.17.47	Question and nominate.	Explicit	23
00.19.03	Posture/non-verbal communication during group work	Implicit	24
00.21.56	Question and nominate 'Thinking aloud' (Loughran, 1996, p.17) about pedagogical thinking and decisions when asking a student a question	Explicit	25
00.23.00	Socratic question	Implicit	26
00.23.20	Closed question	Implicit	27
00.23.24	Overhead question	Implicit	28
00.25.16	Non-verbal communication to manage a discussion and the classroom	Implicit	29
00.27.10	Overhead question	Implicit	30

00.27.29	Listening and reflecting back what has been said	Implicit	31
00.28.11	Closed question	Implicit	32
00.29.18	Non-traditional start/learner-led. Thinking aloud about pedagogical thinking and decision making around start of the class.	Explicit modelling	33
00. 29.37	Overhead question	Implicit	34
00.29.40	Socratic question	Implicit	35
00.29.57	Non-traditional start/learner-led. Thinking aloud about pedagogical thinking and decision making and linking it to theory	Explicit modelling and connecting exemplary behaviour with theory;	36
00.30.42	Use of wait time after a question	Implicit	37
00.30.45	Overhead question	Implicit	38
00.31.48	Closed question	Implicit	39
00.31.59	Closed question	Implicit	40
00.32.04	Question and nominate	Implicit	41
00.32.56	Socratic question.	Implicit	42
00.33.03	Wait time after a question	Implicit	43
00.33.02	Socratic question	Implicit	44
00.33.16	Non-traditional starter/learner-led with a Constructivist approach	Explicit modelling and facilitating the translation to the trainees' own practice	45
00.33.53	Overhead question	Implicit	46
00.35.19	Starter activities. 'Thinking aloud' (Loughran, 1996, p.17) about pedagogical thinking and decisions and starter activities	Explicit modelling and facilitating the translation to the trainees' own practice	47
00.38.46	Clarification question	Implicit	48
00.39.35	Closed question	Implicit	49
00.39.43	Closed question	Implicit	50
00.39.51	Closed question	Implicit	51
00.40.16	Socratic question	Implicit	52
00.40.33	Socratic question	Implicit	53
00.40.58	Overhead question	Implicit	54
00.42.34	Differentiated use of question and nominate	Implicit	55
00.44.27-00.16.01*	Activity on Andragogy	Implicit	56
00.50.51	Question and nominate	Implicit	57
00.51.25	Question and nominate	Implicit	58
00.52.48	Question and nominate	Implicit	59
00.53.08	Socratic question	Implicit	60
00.53.25	Question and nominate	Implicit	61
00.54.19	Managing the late arrival of a trainee	Implicit	62
00.54.45	Overhead question	Implicit	63
00.55.03	Socratic question	Implicit	64
00.01.39*	Managing the late arrival of a trainee	Explicit modelling.	65
00.01.51*	Question and nominate	Implicit	66
00.03.43*	Overhead question	Implicit	67
00.03.46*	Use of wait time	Implicit	68
00.04.42*	Closed question.	Implicit	69
00.05.09*	Socratic question	Implicit	70
00.05.19*	Socratic question	Implicit	71
00.06.30*	Socratic question	Implicit	72
00.06.44*	Socratic question	Implicit	73

00.06.48*	Closed question	Implicit	74
00.07.03*	Question and nominate	Implicit	75
00.10.29*	Overhead question	Implicit	76
00.12.18*	Question and nominate	Implicit	77
00.13.08*	Socratic question	Implicit	78
00.12.49*	Socratic question	Implicit	79
00.13.17*	Formative assessment using a post-it to capture from every student an answer to a question	Implicit	80
00.14.43	Formative assessment and acknowledging feedback on post-it task	Implicit	81
00.17.18*	NB The debrief has started and Teacher B is leading this and seeking to unpack Teacher E's use of modelling within the session by modelling the use of questions to the trainees. Noticing Teacher E's verbal and non-verbal communication: the modelling of dialogic classroom	Explicit.	82
00.18.55*	Non-verbal communication. 'Thinking aloud' (Loughran, 1996, p.17) about pedagogical thinking and decisions as Teacher B notices a student nod their head	Explicit	83
00.19.30	Student-teacher relationship. Thinking aloud	Explicit	84
00.20.37*	Decision on choice of activity. Thinking aloud.	Explicit	85
00.21.44*	Dialogic classroom. Thinking aloud about pedagogical thinking and decision making	Explicit	86
00.24.15*	Reflection in action. Thinking aloud.	Explicit modelling	87
00.26.26*	Teaching strategy and metacognition	Explicit modelling and facilitating the translation to the trainees' own practice	88
00.28.10*	Types of questions and use of 'wait time' related to that (Rowe, 1972)	Explicit	89
00.30.01*	Teacher E creating physical space for trainees when asking questions. Non-verbal communication	Explicit	90
00.30.25*	Use of trainees' names	Explicit	91
00.31.22*	Teacher E's setting up of and managing of group work	Explicit modelling and facilitating the translation to the trainees' own practice	92
00.32.05*	Dialogic classroom. Use of differentiated language when asking questions	Explicit	93
00.33.45*	Dialogic classroom	Explicit	94
00.35.24*	Embedding equality and diversity. Thinking aloud about the choice of case study material that challenges stereotyping and is based on pro-sustainability principles	Explicit modelling and facilitating the translation to the trainees' own practice	95
00.38.27	Choice of activity. Thinking aloud about pedagogical thinking and decision making for the case study	Explicit modelling and facilitating the translation to the trainees' own practice	96

Appendix 22: Out of “segment” modelling pro-forma

Please complete this pro-forma by doing the following:

1. Delete any teaching behaviour(s) you do not model;
2. Add any teaching behaviour(s) you model which is not on the list;
3. Identify which form of Lunenberg et al.'s (2007) modelling you use to model these behaviours.

Teaching behaviour I model in my teaching and work	Form of modelling
Assessment requirements (module specification)	
Classroom displays	
Classroom set up/ergonomics	
Collaborative practices	
Communication in a class	
Differentiation	
Directed activities related to texts embedding the minimum core (literacy, language, numeracy and ICT)	
Use of emails	
Emotional intelligence	
Emotional resilience	
Feedback	
Group work	
ICT	
Inclusivity	
Indeterminate future	
Lesson planning	
Metacognition	
Passion for teaching	
Questioning	
Relational resilience	
Relationship building	
Resistance	
Role play	
Socratic questioning	
Suggestion circles	
Teaching materials	

Thought processes	
Values	
Vulnerability	

Teacher Educator completing the form:.....

Date:

Please email your responses to me as soon as you can. Thank you.

Appendix 23: In-Service New Tutors Training Day programme

Date: Tuesday 23rd February 2016

Room: LS2/01

9.30 Refreshments in LS2/01

10.00 Welcome and objectives for the day.

Tutor needs

10.30 An introduction to the Consortium and its work

11.00 Break

11.15 Web access & E-vision, the University's system for managing student applications

11.30 iPDP

11.45 ASIS, the University's management information system for students

12.15 Lunch in LS2/01

12.45 In-Service modules

1.30 Assessment and feedback

2.00 Levelness

2.30 Break

2.45 Consolidation & revision

3.00 Finance

3.30 Library induction

4.00 Close

Appendix 24: Continuous professional development and scholarly activity record

These questions and pro-forma are designed to capture the continuous professional development (CPD) and scholarly activity you have undertaken during my study with you and your team and any future CPD and scholarly activity you might want to undertake, i.e. the professional learning practice of Kemmis et al.'s (2014) ecologies of practices. I am interested in the CPD, both formal and informal, and scholarly activity you have undertaken since February, 2013, which is when I began to collect my data at the site, though I also have a question about pre-2013 CPD and scholarly activity that may be relevant to this study. I've given an example of what an entry might look like for some of the questions, though I appreciate you may not always remember the full details of the article or event you attended, but your CPD manager might be able to help with dates and details of any events you have attended.

Name of participant	
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Question 1: What continuous professional development, formal and informal, and scholarly activity have you undertaken since January 2013?

Date	Brief description of the activity	Who was the activity with? On your own? One to one? Team level? Department level? College level? Other teacher educators?	What type of activity was it? Reading a book or article; Professional discussion with a colleague(s); conference; Writing a paper for publication;	How was it undertaken? Seminar/paper? Online? Webinar? Private reading? Team meeting?	What was the value of the activity? Rate the activity from 0-5 where 0 = no value at all to my work as a teacher educator and 5 = highest possible value to my work as a teacher educator	Was the activity voluntarily undertaken or were you mandated to attend/complete it?
1.1.13	Example Read article in the TES on behaviour management	On my own	Reading an article	Private reading	3	Voluntary

Question 2: Did you undertake CPD, formal or informal, or scholarly activity before January 2013 that might be relevant to this study?

Yes/No (Please delete) If yes, please complete the table below.

Date	Brief description of the activity	Who was the activity with? On your own? One to one? Team level? Department level? College level? Other teacher educators?	What type of activity was it? Reading a book or journal article; Professional discussion with a colleague(s); Conference; Writing a journal article;	How was it undertaken? Seminar/paper? Online? Webinar? Private reading?	What was the value of the activity? Rate the activity from 0-5 where 0 = no value at all to my work as a teacher educator and 5 = highest possible value to my work as a teacher educator	Was the activity voluntarily undertaken or were you mandated to attend/complete it?
24.6.11	Example Attended David Powell's session on modelling as part of the Consortium Annual Conference	Other teacher educators	Conference	Presentation	2	Voluntary

Question 3: What have been the three most valuable CPD events and/or scholarly activities you have undertaken as a teacher educator? What made them valuable?

Date	Description of the event	What made it valuable

Question 4: What three CPD activities or scholarly activities would you like to undertake as a teacher educator? What would make it valuable to you as a teacher educator? Would you need any support to complete this CPD or scholarly activity?

Description of the event/activity	What would make it valuable to you as a teacher educator?	Would you need any support to complete this CPD?	Would your current college support this priority? If not, why not?
Example Undertake some research into some of my former trainees' embedding of literacy into their vocational teaching	It would inform my future practice and be helpful to other FE based teacher educators	Time to undertake the research. (or annual leave approved) and some financial support with transcription costs and travel	

If you have any questions about the pro-forma or the questions I have asked, please send me a text and we can discuss.

To ensure I have sufficient time to analyse the data, please could you return the completed pro-forma to me by Tuesday, 3rd May, 2016.

Thank you.

David

Appendix 25: Viewing Frame for session

Activity	Column1: What is David doing?	Column 2: What teaching decisions has David made? What other options might have been available?	Column 3: How suitable is the teaching strategy David is using for my own teaching?	Column 4: What theories of learning might explain David's practice?
Before class starts	Display of quotation	Engage teachers whilst they wait for the start of the class. David might have shown a short film clip or played some music.		Value-expectancy theory of motivation Gagne's 1 st level of learning: gaining attention
Start of the class	Sharing the aims, outcomes and overview of the session	Helps teachers know what they will be learning today and its value for their own teaching. Not shared aims and outcomes at the start, though asked at the end of the session what the teachers thought my aims and outcomes were		Introducing a lesson Behaviourism Constructivism Value-expectancy theory of motivation
Activity on how they are 'learning to teach'				
Lecture on learning to teach and modelling and activity on modelling				

Produced and developed by David Powell 30 Oct 2014 from an initial suggestion by Teacher Educator B

Using the Viewing Frame

For any class where I am using the Viewing Frame:

1. I make an A3 landscape photocopy of the Viewing Frame for each trainee and hand it out with a copy of my lesson plan at the start of the class.
2. I then “turn on” the trainees’ varifocal modelling lenses by inviting them to become “student as teacher and learner” (based on Taylor’s (2008) work). I introduce the Viewing Frame and explain how I want them to use it within that class, i.e. I tell them which activities we are focusing on.
3. When I want the trainees to “switch on” the Viewing Frame, I stop, tell them we are about to use it and I want them to focus on and capture my “sayings, doings and relatings” for this episode of the class and that we will then be discussing them.
4. At the end of the activity I ask them to finish off their notes for the Viewing Frame and we then “unpack” my teaching and its “sayings, doings and relatings”.

Things to bear in mind when using the Viewing Frame

1. The need to allocate time in the session plan for trainees to complete the frame.
2. Group work can be set for the trainees to discuss their Viewing Frame notes and add further detail.
3. The need to allow sufficient time to discuss the notes made using the frame.

Appendix 26: Feedback on using the viewing frame with your trainees

The Viewing Frame has been developed as a result of feedback from trainees (student teachers) and teacher educators that what is being modelled is not always “visible” to the trainees. The purpose of this pro forma is to capture some feedback from you and your trainees on your and their experience of using the viewing frame. The boxes will expand, so please provide me with as much feedback as you can. Thank you.

This feedback may then be used in my EdD to evaluate the viewing frame and to make revisions to it in light of your comments.

David Powell

September, 2015

Your name	
Your job role, e.g. Senior Lecturer in Teacher Education	
Your place of work, e.g. University of Huddersfield	
Details of the class	
Date	
Start time of the class	
End time of the class	
Type of group you used the viewing frame with, e.g. Trainees training to be science teachers in secondary schools in England	
Course they are studying, e.g. Post Certificate in Primary Education (Early Years and Key Stage 1) with QTS	

Year of the course, e.g. Year 1	
Your experience of using the viewing frame	
What was your experience of using the frame?	
Would you make any changes to the design or content of the frame?	
Was there any impact of using it on the planning of your classes?	
Was there any impact on your teaching as a result of you using it?	
Your trainees' experience of using the viewing frame	
What was your trainee's experience of using the frame?	
Would they make any changes to the design or content of the frame?	
Was there any impact in terms of student engagement with your practice as a result of the frame?	
Was there any impact on their learning when using the frame?	
Any other comments that you would like to make about the frame	

Thank you for completing the pro forma.

Please email the pro forma back to d.powell@hud.ac.uk no later than 31st March, 2016.

Appendix 27: Suggested induction programme for FE-based teacher educators

This 3 year programme draws on the work of Boyd et al. (2011) and Elliahoo (2014) on induction and Lunenberg et al. (2014) on the six roles of the teacher educator, though it does not cover the induction to an institution, as this is set out by the employer. The suggestions are not presented in order of priority.

Suggested activities
Year 1 – the focus is on introducing the new member of staff to the role and work of an FE-based teacher educator
Introduction to the role of a teacher educator
Agree key CPD needs related to the role of being an FE-based teacher educator
Allocation of an experienced teacher educator as a mentor
Observing another teacher educator teach
Introduction to the ITE course modules
Introduction to the awarding body requirements
Joint observation of a trainee with a mentor
Joint assessment of a former trainee's work to develop assessment and feedback skills
Supporting trainees
Establishing relationships with key partners
Introduction to the pedagogy of teacher education, including modelling
Introduction to relevant literature for teaching
Introduction to teacher educator networks
Year 2 – Developing as a FE-based teacher educator
Begin to develop the ability to research practice. For instance, enrol for an appropriate master's level qualification
Explore in more depth the pedagogy of teacher education. This might include suggested reading to expand understanding of what it means to be a teacher educator. Attendance at a practical workshop that develops some of the skills and knowledge required to role model teaching behaviours to trainees
Embedding literacy, numeracy and technology into teaching
Knowing the "policy landscape"
Team teach with another teacher educator
Building relationships with key partners

Year 3 – Becoming an FE-based teacher educator
Maintaining relationships with key partners and building new relationships with new partners
Developing research skills
Attend a teacher educators' conference
Continue to build pedagogical and content knowledge
Consider becoming an external examiner for awarding body qualifications

Appendix 28: Example of transcription and analysis from interview with Teacher Educator B

Date of interview: 16.04.2013

Interview conducted by: David Powell

Interviewee: Teacher Educator B

Speaker	Dialogue	Analysis and comment
DP	So when you started working for Teacher Educator H did you go through a formal interview process or were you just absorbed into the team?	
TB	Well this was very different from how it worked with Teacher R. I was absorbed into Teacher R's team but, for Teacher Educator H, I had to do an interview and I was interviewed by Teacher Educator H and a senior manager at the time.	I don't seem to have asked about the interview.
DP	Can you tell me a little bit about your induction to being a teacher educator and what that involved?	
TB	Well, erm, it was a very cursory induction, erm, and what happened was, erm, some introduction to the University's mechanisms but nothing quite prepares you for the complexity of it. You know, I found it extremely complex. Erm, and the sharing some module specs and content – so a very big emphasis on the content, what I would be teaching. Erm, the induction didn't include how it would be done or Teacher H's preference for how it would be done. This is what you have to do, I trust you to do it. So a great deal of autonomy there.	Complexity of learning to teach (Boyd, 2014)
DP	Are there any other roles that you do alongside being a teacher educator?	
TB	Erm, I'm a manager for the programme - curriculum area manager for teacher education - that includes the FE side – so PTLLS, assessing awards - and the HE programmes.	
DP	And how do the two roles sit alongside each other - being a manager and a teacher educator?	
TB	Well it's very difficult to reconcile the managerial duties with the teaching duties because they require, in my view, different states of mind and different foci. And whereas for my	Ecologies of practices. Impact of educational

	managerial role I have to think, erm, obviously, about statistics and there are times when the business ideals and the educational ideals don't coalesce, and it's getting my head around that presents bit of a problem.	leadership on teaching
DP	So there are some tensions there	

Appendix 29: Example of transcription and analysis of Focus group with Teacher Educator D's trainees

Date of Focus Group: 14.03.2013

Interview conducted by: David Powell

Interviewees: focus group of Teacher Educator D's trainees

Speaker	Dialogue	Analysis and commentary
DP	I'd like to start off by asking is, what your idea of teaching was before you started to teach, before you started your Cert Ed or PGCE, before even a PTLLS?	
T8	I never even thought about it.	
T5	I think the only things I thought, um, were that I wouldn't teach like some of the teachers I had when I was younger. I thought, I'm never going to be like that.	Link to Wubbels
DP	Right, okay. What was it that they were doing?	
T5	I was asking questions that were A Level questions and I was told that we were doing GCSE maths and so they wouldn't allow me to ask those questions.	
DP	So, in a sense, possibly modelling what not to do.	
T5	Yes, definitely.	
T3	Certainly at GCSE and A Level I had some amazing teachers, who I identified as amazing teachers, and I didn't necessarily want to be a teacher then but now I would hope to I am as fun and as engaging as they were.	Link to Wubbels
T4	I think my experience has been quite different in some ways in that I worked in FE for over a decade in non-academic roles and, for many years, I was based in an academic staffroom, um, so I got	Observing other teachers

	<p>very much the backroom view of the teacher's life and I saw a lot of the stresses. I got probably got a warped picture of the life of a teacher. So I probably saw the worst of it and then the best as well because I saw students coming in to say thank you to the staff. And at one time some colleagues from the examinations department were based in there and so I was seeing their side of it. In many ways I've probably got a good foundation for the whole role.</p>	
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Appendix 30: Example of transcription and analysis from SRI with Teacher Educator D

Date of interview: 28.03.2013

Interview conducted by: David Powell

Stimulated recall interview with Teacher Educator D

Speaker	Dialogue	Notes & Analysis
DP	Erm, the session that we are going to review together now, what particular aspects of your teaching were you seeking to model to your trainees?	
TD	I think One thing I was wanting to model was a more active approach to learning what maybe seems like quite a dry subject, so we were looking at a historical approach and, obviously, one of my colleagues had already prepared this with a timeline and so I thought about having it up on the wall and having them move around physically. So I wanted to model to them, okay, that you can make very kinaesthetic, active approaches, erm, with very much quite dry knowledge based subjects and how you can do that. And obviously it's about the sequencing and, you know, I do quite a lot of stuff I think with them - I use cards a lot, you know, where they are sequencing and, and, and, and sort of put them in groups and things like that. So they might just be moving things around...and I do try and get them to move around the classroom and I think I do try to model that because really for the kind of learners they might be working with more than themselves, you know, there may be a need to keep the learners active in order to keep them engaged. So yeah.	
DP	Thank you, thank you. How have you used modelling in previous sessions? And I'm just trying to see how this piece of modelling fits in with your, you know, general use of modelling?	

TD	<p>I think – I am not sure all of this is modelling – I mean there is some very broad modelling, like I've taken quite a process and praxis approach to the last part of the sort of term, last term, where I do a lot of negotiating of the curriculum and we had a session where they'd started to say, 'I don't know...I feel...why are we doing this?', so we started to kind of, umm, critically analyse why we were studying the curriculum, you know, and in a way how relevant was it and what were the other things that they might want to study. And so I talked about, well, you know, we'd have time in the Summer term to look at those things and I made a note of them. So, all the way through, you know, I kind of make it clear what the core things are that we have to do in order for them to fulfil the requirements of the course and for them to achieve, but I do try to model that there is a lot of flexibility around the edges even what seems quite a structured course and that actually you can talk to your learners all the way through about what you are doing, how you are doing it, get feedback, get them to suggest things or get them to take ownership. I try to model that very much as sort of quite a flexible approach and very much like negotiation is very much quite a key from the start with me, erm, and what I'm doing. So that's a sort of really quite a broad thing, you know, sort of to take, to allow them to take a critical approach. It was interesting because by the end of the curriculum model they'd really appreciated that about half way through they were questioning it – "Why are we doing this? And I sort of encouraged them to do that rather than not allowing them to do that because then we said, "this is praxis". We're, you know, critical about our learning, we're thinking about what do we need, you know, and it's about empowering others, so I think that really helped them to understand the process of what it was in practice.</p>	<p>TD not 100% clear of whether it is modelling or not.</p> <p>Modelling of teacher autonomy</p>
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DP	Is there anything else you want to say about modelling before we start the film?	
TD	<p>I suppose there is modelling on different levels, I guess, that's kind of what I've said that that's quite a broad one but then there is the sort of micro, what I consider to be micro-modelling which might be about, say, the way that I give instructions, the way...some of the modelling might be to do with academic skills...again we'll do reading together and I'll get them to go through the process of picking apart a text and we'll do it as a joint exercise in groups and I say to them that the reason that we are doing the reading in class rather than out of class is because we are learning the process of doing it and we are developing different ways of doing it. And I guess again maybe I'm modelling a more process approach because I think that the product approach is something that they get may be a lot in their own experiences of being a learner but that more of a process approach is more about doing things together and analysing the process and then taking that forward. So, I guess, again I am aware of including that in my teaching.</p>	<p>noise interference on the recording</p> <p>Modelling academic skills</p>
DP	Did you find it useful when I talked through the different forms of modelling to help you consider what forms you might be using?	
TD	<p>Yeah, because I think that I sort of thought of modelling as one thing and now I'm sort of thinking about it. In fact when I'm answering this question I'm thinking to myself, yeah maybe that's modelling. Then when I talk about what I do I think: it is modelling. It's sort of, I've been able to analyse some of the modelling itself because sometimes that modelling is unconscious or semiconscious or I don't think of it as modelling; it's a strategy that I use or an approach or a philosophy that I have but I don't think of it under the umbrella of modelling necessarily, or I haven't done.</p>	<p>Links to RQ4.</p> <p>Developing TE's thinking about their teaching as a teacher educator</p>
DP	Thank you. Anything else?	
TD	I don't think so.	

	[recording stops]	
DP	The first stop is at two minutes and thirty seconds in film one.	
TD	<p>Well I think...there I didn't think I was going to have anything to say because it was just general admin but I guess... what I think I'm trying to model there is that I'm really listening to the students' input and valuing that.</p> <p>I'm really conscious of that and, erm, sort of listening to their ideas, getting them to contribute their thoughts and feelings about what we do. Again, I guess, this is part of the process of negotiation that I was talking about earlier actually that I'm saying to them 'well this is what we are going to do so, what do you think?' I actually plan the lessons with the learners a lot of the time and, with this class in particular, more than maybe my teenagers, very much in this class we negotiate the sessions and I talk about what we are going to do in the next week or in subsequent weeks, then we plan it out together and sometimes we might spend half an hour sitting down and talking through the next half of the term and what we are going to do and how we are going to do it. So, I guess, that, that again, that process of modelling I'm sort of seeing there and they are very much...I get their permission for things, so they suggested that we bought somebody in who had been at the conference and so I acted on that but then it was about talking through them what that is going to be and, and making sure that they are happy, making sure they are on-board, erm, they are owning their curriculum in a way and their classes. Yeah, I think that's all for now. There is something else but I can't remember.</p>	Would need to see this happen to be sure if it is modelling
DP	What form of modelling do you think you were using there?	
TD	I can't remember.	Not something they were familiar with, so still getting used to the terms.
DP	Do you want me to remind you?	

TD	Yeah, please.	
DP	So there is implicit modelling which is where you show people how to do something but there is no commentary or explanation. There is explicit modelling where you show someone a particular technique and you demonstrate it and then you provide an explanation and commentary. Or there is explicit modelling where you then seek to make a link between the modelling and the explanation and the student's own practice, so in a sense there's bridging. Or there is explicit modelling where once you've explained your discussed your practice, debated it, you then make links to theory or make links to theory as part of that discussion.	
TD	Yeah. Well this is implicit	My analysis suggests it was explicit.
	[recording stops]	
DP	The second stop is at 10.15 in film one.	
TD	Okay, I guess, again, this is implicit modelling, erm, but I can't remember we talked about it so we might come on to it being a bit more explicit in a minute. Certainly, again, it is kinda fairly typical of what happens when I am doing an activity of like = and I'm quite conscious of the fact that I'm modelling active monitoring and stepping back because I think especially, you know, teachers who are fairly new to teaching have this feeling that they have to be, like, on the case the whole time and so that kind of sitting was actually quite important ((laughs)): you know, the fact that I sit and watch. I sit and sometimes I will really step back and if I feel like, erm, I'm inhibiting them or the students are getting on really well without me I might almost hide in the corner or go out of the room for a little bit to let them get going, you know, erm, yeah, if I feel my presence is inhibiting. So I sort of do try and model that sort of, kind of stepping back, that kind of, you know, actually what monitoring is which it is not necessarily walking round it can be just watching from a distance and you can pick up a lot and you only intervene when is necessary, you	I agree with their analysis. Evidence of the impact of 3 weeks between class and discussion Implications of time Links to develop trainees' ability to observe lessons (Munby and Russell, 1994)

	<p>know, is fruitful or if you want to manage the session. So, again, I think that is implicit modelling; I am conscious of what I'm doing there and I'm kind of, like, do it to quite a great extent partly because they are adults and, you know, they can take things and run obviously; they don't need so much intervention but I really try not to intervene unless I think it is really appropriate or necessary. So I'm sort of modelling that there, I guess. And also with me moving around the room I'm modelling – I don't necessarily, I didn't do it then so much – when I'm talking to people particularly when I'm engaged in , you know, more than just a passing comment with them I will crouch down so I'm at their height, so I'm in the group rather than looming over them. So I'm sort of conscious of that and, again, that is implicit modelling. But I do model that to them, you know. That's kinda of something I'd do probably semiconsciously there but I can see why I chose to do what I did. And possibly I might have crouched down a bit more sometimes but, you know, and certainly if I'm engaged in any exchange of any length I would, I would crouch down unless my back was bad. And sometimes – in that room it's a bit difficult – sometimes I will go round the back and that is a conscious strategy but within this, this context it would be modelling the fact that you don't always have to be face to face and so it's about keeping back a bit. Erm, so yeah, and I suppose I'm sure that it is modelling exactly. Like the discussion in the corner which just turned into a little bit of a counselling session about something else. Erm, you know, there is a level at which I'll do that and there is a level at which I'll say 'should we talk about this, you know, let's put this aside because we have a tutorial time' and that is kind of what I am flagging up – that there is room for them to discuss that, obviously the student felt they needed to express how they were feeling and they got some support from the group but, again, modelling that, yes, you can do a bit of</p>	
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	<p>counselling in a group but you also have another place to do that one on one in tutorials. Because there are a couple of times in that clip where I said 'if you are worried about that, let's talk about that later'. You know, I'm not just fobbing them off, there is a specific time to do it. So that's sort of a signal to them and to me that we're gonna meet later and we're gonna take it further. So, again, it's kind of modelling about values, I think, there. Again it's implicit not explicit because if it was explicit we would spend the whole class talking about it, wouldn't we? But maybe we need, one thing that has just struck me, you know, is I could look at some of this stuff with them and that would be really, really useful if you don't mind me having a copy. You know, that this kind of, you know, we will have time after Easter and so I'll put it to them and see if they'd like to look at some of it and look at them and look at me and talk about what we do. Yeah, that's it.</p>	
	[recording stops]	
DP	Stopping film one at 19.56.	
TD	<p>Okay, so I guess I realise now that I did a little bit of explicit modelling there in terms of I asked them to, err, I invited us to reflect on, you know, the activity that we'd just done, which was a sequencing activity, a sorting thing, and about why I'd done it like that and why I'd cut it up rather than just given it to them as a hand-out, and they came up with some suggestions and I just added a few more or prompted them to come up with a couple more. Erm, So yeah, it was really about deconstructing the activity, thinking about how you are engaging the learner and then that also became a very kind of productive discussion about how, how people learn, how people do things – their assignments, sharing their ideas and reinforcing their own - and I was able to reassure them that they can do it in different ways.</p>	<p>Now aware that subconsciously they had she has used explicit modelling. I analysed this as explicit modelling too, though identified it as starting at 14.40. Was there an opportunity here to build a link between theory and translating to own practice when discussing the sequencing activity?</p>

DP	Okay. Are you considering any other options, as you explicitly model there, about how you might take that explicit modelling forward in terms of...anything?	
TD	I don't know, I don't think so . Erm, I think I was just thinking about it in terms of ... well, I guess I was thinking about modelling ... I was modelling...I was modelling the...the decision to do an activity in a certain way. Oh, I'm getting mixed up here! But I was also... I guess...again, the whole, talking about the purpose of something with learners. I guess I was trying to model that because I do that, you know, I have to do that a lot with my teenagers because they might be disengaged and they might need to know, because it is important for people to know why they are doing something and it's important for them to know the limitations of their freedom and where their freedoms are. So I guess that's again part of the, that was less explicit. The stuff that was explicit was me getting them, erm, to think about why they might do an activity in a certain way. Erm, yeah.	Listening to the tone of voice when they replied to this, they seemed almost embarrassed that they hadn't. Evidently thinking about it.
DP	Were you thinking of, was there any option there or had you considered the option of then linking it to say not just how you would approach your own work but how you might use something like this with your own trainees? Is that something you might have done here or you might have done previously?	
TD	Erm, I don't think I've done that yet actually but that would be a useful thing to do because I know that some of them do work with, you know, academic writing - they work with Access students. Well Student 3 does who sits in the corner. Erm, so no, that's not something I've thought about doing but that would be a useful thing to do. I wonder whether, yeah, again I think I'm probably a little bit like them - a bit anxiously focused on the thing that they've got to achieve. Erm, you know, and that was sort of stopping me from taking it further. Yeah, But, erm, yeah, No, that's a good point, it would have been good to do that as well, to point that out.	Does this imply that TD doesn't normally link modelling to trainees own practice? Demands of the curriculum...focusing on what's got to be achieved. Modelling a factorised curriculum. See Teacher F's

		comment in their interview
DP	Anything else?	
TD	No.	
	[recording stops]	

Appendix 31: Profiles of the trainees in this study

Teacher Educator B's trainees

Code	Level of study (e.g. Cert Ed)	Number of years teaching prior to starting the course (e.g. new teacher, 2 years)	Subject Specialism	Teaching context (e.g. FE college, Independent training provider)
Trainee 1	PGCE	New teacher	Sport	Charity
Trainee 2	PGCE	Experienced	Song writing/ Music technology	FE college
Trainee 3	PGCE	3-4 years	Law	FE college
Trainee 4	PGCE	10+ years	Accountancy	FE college
Trainee 5	PGCE	New teacher	ICT	School
Trainee 6	PGCE	3-4 years	BSL	Self-employed
Trainee 7	PGCE	New teacher	Mechanics	Charity
Trainee 8	CertEd	Experienced	Counselling	Community based education
Trainee 9	PGCE	New teacher	Art	FE college
Trainee 10	CertEd	Experienced	Electrical	FE college
Trainee 11	CertEd	Experienced	Cookery	FE College
Trainee 12	PGCE	10+years	Art	School
Trainee 13	PGCE	New teacher	Sport	FE college

Teacher Educator D's trainees

Code	Level of study (Cert Ed? PGCE?)	Teaching experience prior to starting the course (e.g. new teacher, 2 years)	Specialism	Teaching context e.g. FE college, Independent training provider
Trainee 1	PGCE	Teaching assistant in school	LDD	In school and independent training provider
Trainee 2	Cert Ed	New to teaching; first year teaching	Music technology	FE College
Trainee 3	PGCE	Working for Health Promotion training provider and previously for Leeds Metropolitan University as part time lecturer	Health	Training provider in Health Promotion
Trainee 4	PGCE	New to teaching as an English specialist	FS/English	FE college
Trainee 5	PGCE	At least 1 years' experience as a Science teacher	Science and maths	FE college
Trainee 6	Cert Ed	At least 1 years' experience as an assessor in Sports Management	PE	Independent Training provider
Trainee 7	Cert Ed	New to teaching/training	Chef	Independent Training Provider
Trainee 8	Cert Ed	New to teaching	Travel and tourism	FE college
Trainee 9	PGCE	New to teaching	Social Skills	Charity, voluntary sector
Trainee 10	PGCE	New to teaching	LDD	Charity, voluntary sector

Teacher Educator E's trainees

Code	Level of study (e.g. Cert Ed)	Number of years teaching prior to starting the course (e.g. new teacher, 2 years)	Subject specialism	Teaching context e.g. FE college, Independent training provider
Trainee 1	Cert Ed	New teacher	Catering	FE College
Trainee 2	Cert Ed	4	Hairdressing	FE College
Trainee 3	PGCE	New teacher	Dance	FE College
Trainee 4	PGCE	20 years	Drama	Self-employed as a private tutor
Trainee 5	Cert Ed	Over 5	Cake Decoration	FE College
Trainee 6	Cert Ed	New teacher	Sports	FE College
Trainee 7	Cert Ed	4	Construction	Specialist FE college
Trainee 8	PGCE	2	Spanish	FE College
Trainee 9	Cert Ed	New teacher	Media	FE College
Trainee 10	PGCE	New teacher	Media	FE College
Trainee 11	PGCE	1	Maths	Pupil Referral Unit
Trainee 12	PGCE	5	Music	Pupil Referral Unit

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