The UCL EdD: An apprenticeship for the future educational professional?

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Abstract

In 2001, the Institute of Education (now the UCL Institute of Education (UCL IOE)) became one of only three internationally accredited centres for the training of Reading Recovery trainers. To achieve accreditation, the training programme was required by the International Reading Recovery Trainers Organization to be linked to the IOE doctor of education (EdD). Specifically, apprentice trainers were required to complete a minimum of Year 2 of the EdD programme (the Institution-Focused Study) successfully, as a gateway to achieving their professional qualification. The IOE EdD allowed for a unique apprenticeship model that combined academic study and research at doctoral level together with practical experiences. This paper presents a case study of the apprenticeship model as viewed by professionals who have undergone the experience. Findings suggest similarities to previous reports on professional doctorates, but also suggest a bridge and transition from apprentice to an apprentice who is also a mentor. A range of tensions are also suggested, some of which have been described by previous authors, but also others that have not previously been reported. Apprentice trainers reported feeling like 'weird fish' in that although their apprenticeship model was part of the EdD, it did not 'fit' with experiences the rest of their cohorts received. Nevertheless, there was a sense of preparedness for participants' new, complex professional roles. Implications of findings for linking the EdD to specific professional roles are also discussed.

Keywords: apprentice practitioners; apprentice researchers; apprentices as mentors; insider research; professional doctorates; work-based doctorates

Introduction

The doctor of education (EdD) programme was established at UCL Institute of Education (UCL IOE) in 1996, attracting a range of senior professionals from diverse fields such as architecture, consultancy, dentistry and medicine, education, international development and social work. Its structure has characteristics identified as common to many professional doctorates (Mellors-Bourne *et al.*, 2016), including a structured phase of taught courses prior to a research phase.

Until 2014, students in Year 1 undertook four taught courses: Foundations of Professionalism, two Methods courses, and a Specialist Route course (see Table 1). The Specialist Route courses are no longer offered due to viability in terms of numbers. Instead, students undertake options from the Research Training Programme offered across all doctoral programmes in the Centre for Doctoral Education of UCL IOE. During Foundations of Professionalism, students explore professionalism, both as a broad conceptualization and within their own contexts. The rationale for this course is to induct students into a range of perspectives from which professional life

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Table 1: EdD programme structure

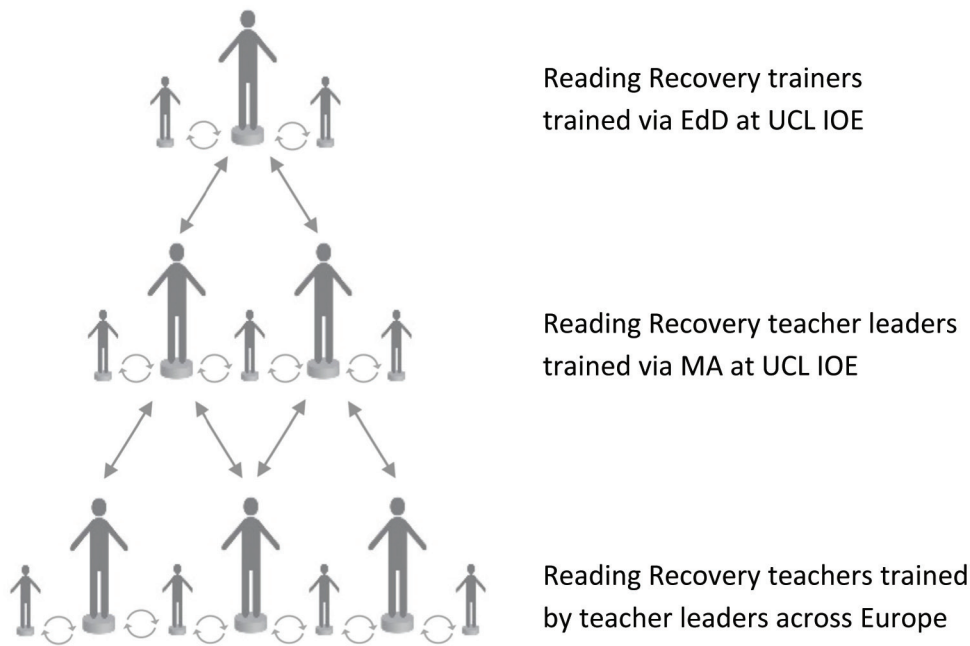| Year 1	Year 2	Year 3	Years 4–7
Taught courses	**Research phase**		
Foundations of Professionalism	Portfolio	IFS submission	Thesis submission
Methods of Enquiry 1	IFS proposal	Thesis proposal	
Methods of Enquiry 2		Formal review of proposal	Viva
Specialist Route (option) course			

Source: Hawkes and Taylor (2014: 2)

might be viewed and to provide opportunities for sharing perspectives across a diverse range of professional contexts. Methods of Enquiry 1 and 2 focus on methodology and methods respectively: the latter giving an opportunity to undertake an empirical pilot study. The Specialist Route allowed students to undertake study in their own (or closely aligned) substantive professional field. Taught course assignments are developed as a portfolio of work to which is added a reflective statement. This reflective statement requires students to draw together key points of learning from Year 1, together with demonstrating an understanding of links between and across taught elements, to support the research phases.

During Year 2, students commence their research phase, completing their Institution-Focused Study (IFS) early in Year 3. The IFS requires students to conduct small-scale research, usually based on/in their own institutions, demonstrating how the study will contribute to their professional understanding and development, and to the institution on which their research focused (as set out in the EdD handbook).

In this paper, I consider one particular professional role: the Reading Recovery trainer's role, and how the EdD supports both the in-service development and accreditation of those moving into the role. Reading Recovery is an intensive one-to-one literacy intervention for pupils identified as struggling readers and/or writers following one year of instruction in school. In 2001, the Institute of Education became one of three internationally accredited centres for training Reading Recovery trainers under the auspices of the International Reading Recovery Trainer Organization (European Centre for Reading Recovery (ECRR), 2011). Accreditation as trainers comprises one year full-time and a second part-time year of the EdD. It is inextricably linked to successful completion of the IFS as well as daily teaching of children in Reading Recovery. The in-service development of Reading Recovery professionals at all levels – trainers, teacher leaders (teacher-educators) and teachers (Figure 1) – is referred to as an apprenticeship model (Clay, 2009). In this paper, I explore this apprenticeship model and the role the EdD taught courses and IFS play in apprentice trainers' professional preparation.

Much research on doctorates in general, and more specifically on professional doctorates, focuses on defining what a professional doctorate is (Lee, 2009; Drake and Heath, 2011) and how the professional doctorate can be differentiated from an academic doctorate such as the PhD, even when the latter might have a professional focus (Scott, 2014). Research also often focuses on who might study a professional doctorate and why (Wellington and Sikes, 2006). Specifically, Hawkes and Taylor (2014) consider who might study an EdD. Others (Smith, 2013) focus on the contribution a professional doctorate might make to practice. There is also research that explores and differentiates between professional doctorates and work-based doctorates (Costley and Lester, 2012). However, there is a dearth of literature focusing on the EdD as an apprenticeship model.

Reading Recovery trainers trained via EdD at UCL IOE

Reading Recovery teacher leaders trained via MA at UCL IOE

Reading Recovery teachers trained by teacher leaders across Europe

Figure 1: The relationship between Reading Recovery professionals

Source: Adapted from Taylor *et al.*, 2013

In this section, I review literature that reflects on the professional and work-based doctorates and the type of knowledge (Smith, 2013; Scott, 2014) developed through professional doctoral programmes. I consider rationales for variable points of entry to professional doctorates in relation to an apprenticeship model. Literature reviewed comprises papers resulting from systematic reviews, and both quantitative and qualitative studies. More recent research and literature, however, appear to draw on similar, older sources. These seminal works often provide a historical context for the development of doctorates in general, and professional doctorates more specifically, together with potential rationales for these developments. Lee (2009), for instance, draws on several debates surrounding doctoral studies (Kemp, 2004; Scott *et al.*, 2004; Powell and Long, 2005; Park, 2007). Indeed, Scott *et al.* (2004) appear to be the respected authorities in the field.

Defining and being able to identify and distinguish what is meant by 'professional doctorate' in the first instance will provide common ground for exploring the EdD as an apprenticeship model.

Defining professional doctorates

Defining 'professional doctorate' is problematic since authorities in the field use different terms to mean the same thing and use terms interchangeably. For instance, Scott *et al.* (2004) make a distinction between practice-based doctorates in relation to the performing arts, implying minimal theoretical underpinning, and the professional doctorate. Winter *et al.* (2000), on the other hand, talk of practice-based doctorates for health professionals and for teachers, with the inclusion of strong theory–practice links. Marion *et al.* (2003) also refer to the practice-

based doctorate in relation to health-care professionals in the United States of America (US). Alternatively, Drake and Heath (2011) talk of the practitioner-researcher and use this term interchangeably with insider-researcher, suggesting that professional doctorates are almost always undertaken by practitioners within their own institutions. On further exploration, Drake and Heath (2011), in unpicking the terms 'professional' versus 'practitioner' research, suggest that for some practitioner research is less well regarded. Lee (2009) suggests that the term 'taught doctorate' is also often used interchangeably with professional doctorate. Professional doctorate is therefore possibly the preferred term. Since there is diversity in terms used, Lee (2009) suggests it might be more appropriate to define what is meant by each of the terms. For instance, the European University Association state that 'Professional doctorates, or practice related doctorates, are doctorates that focus on embedding research in a reflective manner into another professional practice' (EUA, 2007: 14), while the Quality Assurance Agency for Higher Education posit 'In professional and practice-based doctorates the research may be undertaken in the workplace and so have a direct effect on organizational policy and change, as well as improving personal practice' (QAA, 2011: 2). The United Kingdom Council for Gradate Education takes this further:

> A professional doctorate is a programme of enhanced study which, whilst satisfying the University criteria for the award of a doctorate, is designed to meet the specific needs of a professional group external to the University, and which develops the capability of individuals to work within a professional context (UKCGE, 2002: 62).

This statement resonates well with most professional doctorates. However, there are an increasing number of university-based tutors who are required to undertake a professional doctorate, for example those involved in initial teacher training (Drake and Heath, 2011). From consideration of a range of definitions of professional/practitioner/practice-based doctorates versus the more traditional PhD, it appears evident that all doctoral programmes require students to make an original contribution to knowledge. The main distinction is the knowledge type. Indeed, Lee (2009), in her discussion of professional doctoral study, posits that:

> a key element is the investigation of a professional practice issue and the generation of new knowledge and expertise, using research strategies developed and applied by the professional practitioner themselves, while practising in that setting … In essence the process and focus of study may differ from the PhD, though the outcomes are considered the same in terms of the level of knowledge and expertise developed and their intellectual rigour (Lee, 2009: 10).

I deal briefly with knowledge types in the next section.

Knowledge typology and the professional doctorate

Scott *et al.* (2004) explore the notion of integrating professional knowledge with academic knowledge. They focus largely on four typology modes of knowledge developed by Gibbons *et al.* (1994) and how these modes might be applied to a range of professional doctorates. However, Scott's (2014) conceptual paper argues for a reformulation of knowledge construction with three main elements. These three elements draw on Engeström's (2001) five principles that characterize activity systems, placing situated learning and multiple learning sites at the heart of knowledge construction. The integration of professional and academic knowledge is 'at the heart of professional doctoral study, seeking to produce "situated theory" [and] … critical to the production of such situated theory is reflexivity, the awareness of the theorist of their unique part in the construction of new knowledge' (Drake and Heath, 2011: 74–5). It is not just the situatedness of knowledge that is important. Entry to professional doctoral study varies too,

being discipline-dependent. This has potential implications for considering apprenticeships and professional doctorates.

Apprenticeships and the professional doctorate

Above, I focused on the semantics of labelling professional doctorates, together with an outline of types of knowledge contribution. However, there is a sense that points of entry to professional doctoral study are also worthy of discussion in relation to apprenticeships. Bourner *et al.* (2001: 72) mention the notion of an apprentice in their description of differences between PhDs and professional doctorates. They state 'the PhD is intended for apprentice researchers who may have no experience of the subject beyond the possession of a good first degree in the proposed field of study', whereas 'For most professional doctorates, the minimum level of entry is a master's degree in the field of study. In some professional doctorates, the minimum entry qualification is a "good" first degree' (ibid.).

Variation in entry requirements therefore stems from the type of professional doctorate being pursued. In an institutional review in the US, Salter (2013: 1,176) recognizes the variety of doctoral 'apprenticeships' that are 'first-degree doctorates … [and include] the MD for medical doctors … [and] the PharmD for pharmacists'. Costley and Lester (2012) identify doctor of clinical psychology (DClinPsy) and doctor of engineering (EngD) apprenticeships linked to entry for their respective professional roles. Nevertheless, Salter (2013) also acknowledges that many doctoral apprenticeships require prerequisite qualifications such as a master's degree, together with several years' experience in a particular professional role, such as the doctor of business administration (DBA); doctor of nursing practice (DNP); doctor of social work (DSW); doctor of public health (DrPH); and the doctor of education (EdD). Costley and Lester (2012) might regard these doctorates as 'professional extension'. Bourner *et al.* (2001) liken current professional doctorates to the higher-level study and professional apprenticeships originally associated with doctoral programmes for theology, law and medicine.

Doctoral apprenticeships therefore seem to be either first-degree doctorates linked to in-service learning, or professional extension degrees to provide credibility within a knowledge economy. However, the Reading Recovery trainer course bridges this divide. It follows an apprenticeship model through in-service professional development, yet has an entry requirement of a master's degree, together with experience in the professional field. It is this particular apprenticeship model that is the focus for this study.

Purpose of the research

My research aim was to establish perceptions of those having undergone Reading Recovery trainer training through the UCL IOE EdD. Subsidiary aims were: to establish whether the apprenticeship model helped apprentice trainers feel prepared for their new professional role and, if so, what in particular might have supported this sense of preparedness.

Research design

I adopted a qualitative, interpretivist research design, based on the qualitative research cycle described by Hennink *et al.* (2011). My role in the research process may be defined as insider-researcher, inasmuch as I work inside the same organization as some participants; but as an outsider in other respects, as I am no longer involved in Reading Recovery (and neither are some participants). Nevertheless, as a trainer previously accredited via the UCL IOE EdD, I am

an insider as I possess intimate knowledge of the Reading Recovery community. As Hellawell (2006: 484) posits, 'The word "community" is a much wider concept than just an organization, and possessing intimate knowledge of it doesn't necessarily mean being a member of it yourself'. I therefore position myself along a shifting insider–outsider continuum. I acknowledge, and make no apology, that my interpretations are influenced by my experiences and perceptions of the apprenticeship model, and occupy the space between the insider–outsider dichotomy (Corbin Dwyer and Buckle, 2009). I am aware of advantages and disadvantages of the insider–outsiderness, and the resulting relationship(s) I have with participants and with data (ibid.).

I adopted an exploratory case study approach where the Reading Recovery trainer training course – that is, the EdD taught course elements including the Specialist Route and completion of the IFS – was the case.

Case study context

Becoming a Reading Recovery trainer involves undertaking the UCL IOE EdD taught courses described earlier. However, unlike all other EdD students at UCL IOE, apprentice trainers are enrolled full-time in their first year. This is because the Specialist Route course undertaken is linked to the theory and practice of Reading Recovery involving fieldwork, leading to a cumulative portfolio of work that is assimilated and reconceptualized, culminating at the end of Year 1, in a 5,000-word reflexive assignment. This fieldwork involves: weekly seminars in the university setting; daily teaching of children in Reading Recovery; observing those training as Reading Recovery teacher leaders through a UCL IOE master's course (in all contexts this training requires teaching of children in Reading Recovery; university-based seminars; leading and facilitating conversation at a one-way viewing screen both in the university setting and at teacher in-service centres), and observing accredited trainers in their work across Europe. These multiple sites of learning provide the context for new learning to develop 'understandings from professional practice, higher education practice and the researcher's individual reflexive project' (Drake and Heath, 2011: 2). Towards the end of Year 1, apprentices start to undertake the trainer role, observed and supported by their trainer mentors. These mentors are usually apprentices' supervisors and are university-based. This particular relationship has the potential to avoid tensions discussed by Drake and Heath (2011: 76) of finding a 'good match'. However, it also blurs the line between colleague–mentor and supervisor. In Year 2, apprentices move into the full-time trainer role, supported by their trainer mentors, while continuing with the IFS as part-time students. During this time, apprentices undertake their own insider research related to an aspect of their new professional role.

To facilitate engagement with findings from my study, it is essential to explain the role for which apprentices are prepared. To ensure fidelity to Reading Recovery internationally, Reading Recovery trainers adhere to a set of standards and guidelines (ECRR, 2011) and ensure that all those involved in Reading Recovery (teachers and teacher leaders) also adhere to these standards:

> The quality of the teacher training governs the rate at which children … can reach age-appropriate levels … The quality of the training for the people who train the teachers … teacher leaders – is even more important. Teacher leaders train as teachers of children, as teachers of teachers, as organisers, advocates and managers of the programme, and as critics and evaluators of the academic and professional literature in their area. It is important … to ensure that the quality of training is maintained through centralised training and coordination (ECRR, 2011: 34).

Reading Recovery trainers are therefore involved in training teacher leaders through an in-service master's course at UCL IOE that in some respects mirrors the apprentice trainer training

programme. Trainers also observe teacher leaders as they work with teachers, both in their initial in-service year and during their ongoing continued professional development. They work closely with managers and administrators at local level and monitor the effectiveness of Reading Recovery through data collection on the implementation of the intervention. The professional role therefore involves travel across the UK and Europe:

> Trainers could also be viewed as agents of dynamic change, who need to consider the ways in which Reading Recovery must stay the same … to meet its objectives, and the extent to which it must evolve in response to changes in knowledge, in education and in society (ECRR, 2011: 34).

Participants

Participants were purposively selected and all trainers previously accredited via the EdD route were invited to participate. All potential participants are well known to me and I am well known to them, having worked as colleague and, in some cases, as mentor and supervisor. Seven of ten accredited trainers were willing and able to respond. Reading Recovery trainer apprentices embark on the EdD with many years' professional experience: some have been involved in adult professional learning; all have been practitioners in the field of literacy learning, and some have also been Reading Recovery teachers and/or teacher leaders, and as such, will have experienced the apprenticeship model at the respective levels of in-service training.

Motivation for undertaking the EdD therefore does not fit with findings from previous research (Wellington and Sikes, 2006). Apprentice trainers take the EdD as a secondary goal, their primary goal being linked to becoming Reading Recovery trainers. However, the motivation for becoming trainers resonates with some often cited motivations for undertaking a professional doctorate, such as being an agent for change (Smith, 2013) in literacy learning. Most UCL IOE EdD students hold senior positions in their current professional roles and apprentice trainers' delegations are no different in seniority. However, they have no experience in the role for which they are being prepared. Table 2 details participant characteristics. All names are pseudonyms. Since numbers of trainers accredited through the UCL IOE EdD are small, pseudonyms were selected for their gender neutrality to preserve (as far as possible) anonymity. Where necessary the words 'she' and 'her' are used, but this does not imply a confirmation of gender.

Some apprentices undertook their Reading Recovery training solo, while others were paired and others were in groups. All were EdD cohort members for all but the Specialist Route course, and some also took opportunities afforded to them by attending IFS workshops with their cohort peers. Cohortness is often given as a reason for students undertaking a professional doctorate (Wellington and Sikes, 2006; Pratt *et al.*, 2015). Four participants still currently work in the trainer role, while others have retired, with some working in alternative university-based roles. Four have subsequently been involved as mentors for newer apprentices, and three of the seven have successfully defended their EdD theses.

Data collection

Trainers were asked to respond to a short qualitative self-administered questionnaire, distributed via email following ethical approval. However, they were given the option of responding to the same questions via Skype interview; two preferred this option. Interviews were audio-recorded and fully transcribed. Responses from interviews were fuller than those self-reported, and, as interviewer, I followed up on responses. Interviews lasted approximately 35 minutes.

Table 2: Participant characteristics

	Years accredited (submission of IFS)	Still works as trainer	Involved in trainer training	Gained full EdD	Involved in Reading Recovery as either teacher leader or teacher prior to training as trainer
Billy	14	No	Yes	Yes	No
George	13	Yes	Yes	Yes	Yes
Alex	6	No	Yes	No	Yes
Sam	6	No	Yes	Yes	Yes
Mel	5	Yes	No	No	Yes
Kim	5	Yes	No	No	No
Toni	2	Yes	No	No	Yes

Data analysis

Data were thematically analysed. Initially I read through self-administered questionnaires and assigned codes to words and phrases. I reviewed both interview transcripts and again used a process of open coding. I then looked for themes emerging using a constant comparative approach (Boeije, 2002), comparing within and across data sets. I also looked for negative cases.

Findings and discussion

Despite data being collected both via qualitative questionnaires and Skype interviews, there was similarity in findings, particularly in terms of preparedness for the trainer role. There were also some variations, largely linked to expectations, but not to prior professional experience. Four main themes emerged in relation to my study aims: apprentice trainer; apprentice researcher; apprentice as mentor; and preparedness for role. In addition, tensions featured highly in participant responses; this is worthy of discussion because of variations in types of tension previously reported. Apprentice trainer and apprentice researcher are separate themes, since all participants separated Specialist Route from EdD research elements.

Apprentice trainer

All participants valued the Specialist Route as a vehicle for learning the Reading Recovery professional role. The diversity of experiences gained through situated learning (Drake and Heath, 2011) across a range of learning environments (Scott, 2014) and the opportunities it afforded, with the 'shadowing' of their trainer mentors, was regarded as invaluable for most. However, Mel regarded fieldwork opportunities as separate from, rather than supplementary to, seminars, workshops and observations conducted in the university setting. For instance, in talking about Year 1 of the EdD, she stated:

> the things you had to do as add on: visits; a bit of teaching; observe the group, and all that sort of stuff. Then really there was the Specialist Route … I didn't see them coinciding very much.

This perception possibly links more to the toll of travelling to fulfil the apprenticeship requirements, rather than the situatedness of experiences. Mel stated how exhausting the year was, explaining 'there was a lot of travelling around all over the country ... some of it didn't

seem fit for purpose'. Nevertheless, Mel acknowledged how supportive Reading Recovery mentors were, particularly in being able to discuss fieldwork experiences and links to the professional role. Mel had previously been a Reading Recovery teacher leader and therefore had prior perceptions of the trainer role. During her teacher leader training, she also engaged with fieldwork while studying for her master's degree, and might have reflected on that experience in building theory–practice links.

Most participants noted how demanding the apprenticeship was, with Sam explicitly stating that 'whilst being very intensive, [this model] is of an appropriate level'. The aspects that supported Sam most, were:

> The support from experienced trainers [mentors] including: regular opportunities to engage in critical reflection on our observations of the programme, our own teaching of children in [Reading Recovery], our teaching in the [teacher leader] programme and critical debates around ongoing academic reading.

This view held by Sam was consistent with all but Mel, suggesting that, while intense, the fieldwork is an essential element of the apprenticeship model.

All participants except Mel also saw the blend of university-based opportunities, including the theoretical aspects, together with fieldwork opportunities, to be essential to make theory–practice links, a feature suggested as important for all professional doctorates (Scott, 2014; Pratt *et al.*, 2015). Contrary to Mel's perceptions of the situated learning and multiple learning sites, she valued the daily teaching of children; this is unique in Reading Recovery, in that all Reading Recovery professionals continue to teach children. This requirement allows for deeper understandings of how children learn and, in turn, supports trainers' work with other professionals. Mel felt so strongly about this requirement that she considered using this as her IFS focus:

> the teaching of children was … unique to Reading Recovery but we were struggling to maintain it [teaching of children] and therefore if we're struggling to maintain it, then actually a piece of research that might prove why we do it and the value of it would be really useful.

Mel also considered that outcomes from such research might have value to other university-based teacher-educators, allowing them to anchor their theoretical underpinnings and insights from a practice-based perspective.

The Specialist Route, offering the blend of fieldwork opportunities together with theoretical bases, was therefore considered important. Kim noted that it 'Truly felt as if I was engaging in professional learning rather than "training" and this has helped me continue to develop an inquiry stance'. Not only did participants consider themselves as apprentice trainers, they also saw themselves as apprentice researchers. This resonates with previous research, particularly in relation to the PhD (Lee, 2009).

Apprentice researcher

Several apprentices had not been involved in academic study for some time, whereas others had relatively recently become accredited as teacher leaders via a UCL IOE master's programme. Nevertheless, all participants specifically noted the value of Methods of Enquiry 1 and 2 in supporting their understanding of the research process. Methods of Enquiry 2 in particular was cited as being useful in a first attempt at 'thinking about ethical issues and conducting small-scale empirical research, helping apprentices dip their toes in the muddy waters of the research process' (Alex). Previously, they had theorized about research processes, and now they could operationalize what they had learned. George noted the 'mentorship provided by the tutors on

those courses [Foundations of Professionalism, Methods of Enquiry 1 and 2] was very helpful', and reflected how 'it was all about passing the independence to us'.

Toni specifically mentioned learning how to become an effective insider-researcher, and during the IFS phase felt a sense of empowerment in terms of both research processes and academic writing. Kim concurred. It appears the IFS phase was instrumental for participants in thinking of themselves as apprentice researchers, starting to develop confidence about their abilities as researchers. George reflected, 'for me, I think it was the first point where I thought I could do it', continuing, 'when we started doing the IFS … I remember it being hugely motivating, collecting that data. Just learning so much by putting into practice what I'd done and becoming aware, "yes, I did have something to say"'. This perspective resonates with Salter (2013: 1,178), who posits that in professional doctorates, 'both scholarship and research are used to solve local problems, resulting in knowledge that may be utilizable by other practitioners'.

Participants also concurred with previous research (Marion *et al.*, 2003; Wellington and Sikes, 2006; Lee, 2009; Drake and Heath, 2011; Costley and Lester, 2012; Salter, 2013; Smith, 2013; Scott, 2014) about the way that the professional doctorate can support understanding of one's own practice and in turn enhance that practice. Kim reflected how the IFS gave:

> the opportunity to conduct a study bringing together the preparation from the [Methods of Enquiry] modules was very welcome. I was able to explore an element of practice which helped me to better understand it and my continued learning in that aspect has enabled me to lead conference sessions and write for publication on professional learning.

Therefore, participants' perceptions seemed to 'fit' with both modes 1 and 2 knowledge (Gibbons *et al.*, 1994). As Smith (2013: 317) explains, mode 1 is usually university-led by a 'subject expert with the … researcher as apprentice learning the craft of doctoral study from a skilled academic researcher'. Mode 2, she goes on to say, relates to 'practice knowledge and expertise generated by the practitioner for the practice setting, facilitated by the academic as researcher, not imparted by the academic as researcher' (ibid.). Mentors for the two Methods courses were academic researchers. Mel was grateful for feedback on a Methods course assignment from a non-Reading Recovery academic because he helped her see how she could engage with Reading Recovery literature with more criticality. George similarly noted how 'here was this academic experience … asking us to challenge [Reading Recovery]'. However, the main difference for participants as apprentice trainers was that their supervisors for both the IFS and beyond, and those involved in mentoring their professional roles, were one and the same person. I say more about this unique relationship as academic and professional mentor below.

Participants felt that by the end of the IFS, they were able to conduct research that contributed to knowledge and practice, and many have published. However, Mel was more reticent as she compared herself to trainers in the US who constantly publish and are internationally renowned. Mel recognized that US trainers have doctorates on entry to Reading Recovery trainer training and acknowledged that much of the research they conducted was small-scale. She seemed perturbed as an apprentice researcher, saying she felt 'research ready but not research able'. All participants viewed themselves as practitioner-researchers ('researching professionals') rather than researchers as practitioners ('professional researchers') (Salter, 2013: 1,180).

What also emerged was that all participants saw themselves not only as apprentice trainers and apprentice researchers, but simultaneously as mentors for others, explaining how the EdD supported this dual identity.

Apprentice as mentor

It was anticipated that participants might make parallels between models for Reading Recovery teacher leader training and their own trainer apprenticeships, as during their Specialist Route they were exposed to literature about the apprenticeship model. George explicated this as 'like doing something yourself, at the same time as seeing teachers learn about it, at the same time as seeing someone else mediate it'. While Alex explained that her study 'helped me to clarify some aspects of the training model and therefore supported my professional practice', and Toni was 'using articles [she] had read for [her] research as part of [her] work with the [teacher leaders] [she] worked with'.

However, an unexpected outcome was the value placed on the EdD Methods courses, not only for participants as research apprentices, but also as mentors for those training to be teacher leaders. Smith (2013) supports this extension of the coaching/mentoring value in her discussion of nurse practitioners undertaking a professional doctorate. As participants moved into Year 2 of the EdD, they were expected to work as trainers (albeit supported). Moving into the professional role involved supporting and supervising trainee teacher leaders with their academic work. Mel, for instance, suggested that it was not just about becoming a Reading Recovery trainer, but also about being a member of UCL IOE. She states that continuing to complete her EdD helps her be more supportive of her students with their academic work. She recognized the interplay between the two identities as both student and tutor, stating: '[because] I'm also in that student role, it's kept me grounded, so everything I learn about … writing, about handing stuff in, about feedback, feeds out into the work I do with students'. Mel also reflected on the closeness of relationships with her own mentors and suggested this was a great model in supporting student teacher leaders acknowledging the range of relationships as colleague, student and tutor. The supportive relationship Mel develops with her own students may be partially due to the modelling by her mentors. However, Mel acknowledged how, despite only recently having completed her master's, she 'struggled academically', and 'it was overwhelming'. She recognized how teacher leaders in training might struggle with the blend of learning opportunities, and particularly with their academic work, and therefore wanted to ensure that she mediated as best she could as their mentor.

Alex and Toni also specifically mentioned how the Methods courses and their IFSs had supported them in thinking about the academic support they needed to provide to student teacher leaders. Alex seemed to lack confidence in her own ability as researcher and writer, and in supporting master's students. This was probably due to a long gap since undertaking any academic work, which she acknowledged, stating that:

> I returned to academic work after a long gap and started EdD level studies at the same time as taking up a new and challenging job. This mirrored the position of most [teacher leaders] who took up MA level study after a gap and started to write a dissertation in the same year as they took up their new job.

Support provided by Alex as mentor was as a result of being aware of, and understanding, university 'requirements, processes and systems including grading systems, the IOE emphasis on ethical issues and understanding of informed consent'.

Toni, conversely, had only recently completed her master's, yet also lacked confidence in supporting others academically and welcomed opportunities, the IFS particularly, afforded to 'think and write at a much higher level', enabling the ability to support teacher leaders in training.

Each of the above themes were instrumental in the transition from apprentice to apprentice as mentor, and in becoming prepared for participants' professional role.

Preparedness for role

Participants were unanimous in acknowledging how well prepared they were for their new professional roles as a result of their apprenticeships. Kim's final questionnaire response regarding this relationship between preparedness and the EdD, was: 'The model links very well to a professional doctorate because of the close links between theory and practice. It's intensive but develops a lens on practice – a lens that is always critically reflective.' This sense of preparedness was developed incrementally, particularly through the Specialist Route and through the mediation of mentors.

For George, a major feature of this preparedness was the personalization of learning. George trained alongside another apprentice but noted how their needs were different and how these differences were acknowledged by mentors and built into the programme:

> They saw us 3-D in a way … They saw us from professional and practice thinking level, but also from an emotional level … I think it was so personalized, so tinkered and shaped around everything that they knew about us.

George emphasized this personalization, and explained how the situatedness of learning and the multiple learning sites, particularly of the Specialist Route, provided 'the experiences [which] were so shaped around the role, and very sensitively putting you in situations … it was judged you were ready for'. Toni, Alex and Sam also explicitly valued the scaffolding provided by mentors – both from academic tutors and from their trainer mentors. The need for individual personal journeys is echoed by Lee (2009).

All participants acknowledged how new learning was incremental, and noted the relevance of taught course modules, including the Specialist Route, to their professional roles. (Interestingly, they did not view the Specialist Route as a taught course.) Although experiences of academic work and fieldwork culminated in a 5,000-word assignment, all acknowledged the iterative, cyclical nature of learning. Mel, for instance, found 'the on-going pieces that we did each term, which … built into the assignment … changed your thinking'. George acknowledged how they 'were writing incrementally towards that [Specialist Route] assignment'. It was the gradual development of thinking across multiple learning sites, mediated by mentors, that gave participants this sense of preparedness for the role.

Not all participants were explicit about the point at which they felt prepared, although they acknowledged that there was a gradual transition into the role. However, George felt that by IFS stage, she had a 'different message and a contribution to make … to colleagues, that was all my own, and could be used to shape some of the things we [Reading Recovery] did'. Previously, George, like other participants had considered that mentors across the EdD had the 'knowledge', but 'suddenly, you've got that voice'.

Despite feeling prepared for the role, and despite all participants being advocates of the apprenticeship model, there were nevertheless tensions.

Tensions

One of the strengths of the apprenticeship model was the personalization of learning, particularly from trainer mentors. However, some participants experienced this personalization as a lack of equity: 'The sort of responsiveness and the personal-ness of it has been received to be quite confusing … a sort of feeling that's what's done for one ought to be done for everybody' (George). There was not only tension within the Specialist Route course in the way learning was mediated for apprentices, but also across Year 1 of the EdD. There was a sense of more equity with academic mentors, that is, the whole cohort was treated the same, whereas, due

to the personalization of learning with trainer mentors, there was confusion. This difference in working practice between trainer mentors and academic mentors posed problems. George suggested that some apprentices 'found the tensions between an academic programme and what they were being asked to do in Reading Recovery as very tricky'. This might link to the purpose for learning or the type or mode of knowledge required (Scott, 2014). Some found it easier to make links between academic and professional knowledge than others. Making sense of academic knowledge was mediated by mentor trainers, and this mediation was welcomed, with apprentices being asked how they could 'make sense of that' within the context of Reading Recovery and their professional role. These tensions seem to resonate with Pratt *et al.* (2015: 43) in acknowledging the 'complex and differing pedagogic relations that students develop across multiple spaces'.

Another tension identified was the differences between apprentices and the regular EdD cohort. The latter came from senior professional positions and were familiar with their professional roles (Lee, 2009), attending as part-time students (Drake and Heath, 2011). They could make links to their contexts in the way anticipated by the EdD team. Apprentices, on the other hand, not only undertook Year 1 of the EdD full-time, they were also learning their professional roles on-the-job, akin to the practices identified by Costley and Lester (2012) in their discussion of work-based doctorates. As George stated, 'we were like weird fish … Whilst everyone had a persona … they had deputy headships or whatever … They all had identities and persona away from that [the EdD], but then theirs wasn't predicated on a fidelity model'. The majority of each cohort 'fitted' with previously reported motivations for undertaking professional doctorates (Scott *et al.*, 2004), unlike apprentices who might 'approach their doctoral candidature from a significantly different starting point from the conventional target group' (Costley and Lester, 2012: 258). Nevertheless, cohortness was regarded as important, as was the community of apprentice Reading Recovery trainers, supporting findings of Wellington and Sikes (2006) and Drake and Heath (2011). Mel, for instance, suggested that 'if there's a group of you, rather than doing it on your own, did we influence each other and did we sometimes think, "you know, we're in this together"?'.

The higher level of thinking (Lee, 2009) required was also greatly valued. However, Mel perceived anomalies because grades are awarded for assignments. Mel espoused, 'the minute you get a score for something, it demeans and devalues the process of learning … I don't think the grading and scoring of something that's actually supposed to be about developing your professional role and understanding, is helpful'. Mel returned to this negativity in relation to the apprentice mentor role, finding grading a source of anxiety. George, on the other hand, found the award of grades helpful in establishing progress and feeling sufficiently confident to move into role and to make contributions within the more experienced trainer team and within taught course sessions.

Another source of tension was that apprentices were required to move fully into role in Year 2. This expectation meant that they were more like regular EdD cohorts, in that they were working in their own professional contexts while continuing to learn part-time through the IFS and beyond. However, some concern was expressed, as they were working as trainers prior to full accreditation – that is, having completed the IFS. Some were concerned about how they might be viewed by, and what their credibility would be with, teacher leaders and professionals they dealt with across Europe (Scott *et al.*, 2004; Smith, 2013). For Mel, nomenclature was important: 'I can't see further than getting [the thesis] done and sort of wanting to have that name, that nomenclature'; this resonates with motivations cited by Wellington and Sikes (2006). For George, nomenclature was less relevant than processes; it was less about it being an EdD

but more about the 'agility of thinking … it's not the doctorateness, it's the fusion of the programme'.

Despite tensions identified by participants, the apprenticeship model for Reading Recovery trainer training is successful when measured by preparedness for role and by knowledge construction. Engeström (2001) asserts that situated learning and multiple learning sites are at the heart of knowledge construction, and the apprenticeship model for Reading Recovery trainers certainly provides these activity systems. However, these activity systems alone are insufficient in meeting the requirements of doctoral study, since these same opportunities are afforded to those on master's programmes too. More is required at doctoral level. Drake and Heath (2011), for instance, suggest continual cycles of reflexivity are required; apprentice trainers engage in such cycles.

Conclusion

Findings must be regarded with caution, given that this was a small group of participants, and these participants were training for one particular role via an EdD apprenticeship. Only this one group of professionals have followed such an apprenticeship model at UCL IOE, and it would therefore be unwise to suggest that this model should be unwittingly replicated. In terms of implications for conceptualizing the EdD as an apprenticeship model, findings raise interesting questions. First, should the Specialist Route be reintroduced as part of the EdD taught courses? If so, how might pedagogy support links to the workplace? Should supervisors co-tutor on the EdD throughout both taught courses and beyond to help mediate and contextualize conceptual learning to the professional role or substantive professional field? Should the Specialist Route assignment be cumulative? Should apprentices be involved in mentoring?

Reintroduction of the Specialist Route might have cost/time implications due to the low student numbers across specialisms. Nonetheless, participants placed great value on the Specialist Route in making strong theory–practice links. Costley and Lester (2012: 258) discuss the possible emergence of 'a third generation of professional doctorates, where individual programmes are negotiated and directed by candidates themselves'.

Although staffing could be an issue in finding 'advanced practitioners … who can bring real-world and specialized expertise to advancing the practice skills of students' (Salter, 2013: 1,181–2), this might be resolved through the apprenticeship specialism being situated outside the university and based within the industry or discipline that students work in. Maybe an apprenticeship supervisor, currently practising in industry, could be mentored by academic tutors (to support understanding of university processes and academic rigour). Salter (2013: 1,179) also argued for the 'increased involvement of industry professionals'. This would require collaborations across many industries but might support students' development of the desirable types/modes of knowledge through doctoral apprenticeships more seamlessly. Costley and Lester discuss how this role might be as coach or mentor, rather than supervisor:

> Some universities split the advisor role between two people, one generally a core member of programme staff who is thoroughly familiar with the doctoral programme and is principally concerned with matters of process, and the other an internal or external specialist who has insights into the professional, contextual or methodological issues with which the candidate is working (Costley and Lester, 2012: 262).

UCL IOE now operates a system of two supervisors, whereas this was not the practice at the time participants were apprentices. An alternative to an industry supervisor might be for one supervisor to have experience of the workplace or an experience closely aligned to apprentices' professional roles. A strong theme above was the way in which Specialist Route mentors, because

of their knowledge of the professional role, could mediate and help contextualize complex issues around professionalism and research beyond what academic mentors could achieve. UCL IOE EdD students have an academic tutor for each of the taught courses but assignments are marked by two, with no involvement of supervisors until the IFS. Perhaps the supervisor should co-tutor each of the taught courses to aid mediation and contextualization.

If the Specialist Route were reintroduced, rather than the assignment being an end product in its own right, it could be cumulative. This would allow for the iterative cyclical processes previously discussed to be developed. In turn, these processes would support apprentices changing thoughts and development of ideas through a process of reflexivity (Drake and Heath, 2011). This would also support apprentices making theory–practice links over time, and being able to implement ideas from each of the taught courses.

As UCL IOE EdD students progress through their doctoral studies, they are often asked by tutors to contribute to new students' learning. Newer students place great value on perspectives other students bring. It might be worth exploring, for instance, ways of embedding this practice into the EdD, rather than it being an ad hoc approach, with an expectation that students will also become mentors.

These questions might be considered to improve and enhance the continued development and redevelopment of the UCL IOE EdD and, with the similarity to other EdDs, may provide others with food for thought in the development of their EdD curricula, pedagogies and assessments.

Acknowledgements

Notes on the contributor

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