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Implementing Change: Project Report and Personal Reflections

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Abstract

The quality of mentoring within initial teacher education has been criticised as inconsistent for several years and improvement is a national and institutional priority. My research study investigates the design, implementation, and refinement of a resource to support the self-reflections of mentors based in school in their professional role within initial teacher education. A self-reflection tool was designed to provide a reference point to enable mentors to critically reflect on their role, encouraging the recognition of their strengths and identifying areas for development.

The research study employed a research design-based approach, where mentors were the participants and informed the development of the self-reflection tool. Each mentor provided two sources of data for analysis; an individual interview and an annotated self-reflection tool.

There were five key themes that emerged from my research study. Critically, all mentors found the self-reflection tool useful in supporting their reflective practice. The graphic representation of the self-reflection tool enabled mentors to appreciate the breadth of the role more fully. This resulted in mentors annotated documents creating individual profiles that were varied, reflecting their uniqueness and that of their student teacher and the context they work in. Mentors indicated that they had not prioritised support for student teachers' research and enquiry activities or their own professional learning during this Clinical Practice. Nearly all mentors were able to identify aspects of their role that they would like the opportunity to develop.

The self-reflection tool stimulated mentors' reflections on their mentorship practice, enabling critical consideration of their role and the identification of professional learning needs. The self-reflection tool also has the potential to be used within school and across schools to encourage mentors to engage in critical reflective practice and to effectively target professional learning needs of individual and groups of mentors.

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Chapter 1

1.1 Prologue

This research report is concerned with the design, implementation, and refinement of a resource to support the self-reflections of school mentors in their professional role within initial teacher education. The study was driven by my professional role as the lead for mentor development within the Cardiff Partnership and motivated by the value I placed (and continue to place) on the critical role that a mentor holds in inducting student teachers effectively into the teaching profession. My professional knowledge and experience in initial teacher education has been gained over a substantial amount of time, namely as a: i) Senior Lecturer in initial teacher education and Physical Education (PE); ii) Programme Leader for the Post Graduate Certificate in Education (PGCE) in PE; and, iii) Programme Director for the PGCE secondary programme. My early career was spent in school as a teacher specialising in PE, and later in an extension to my role, as a PE mentor and Senior Mentor. Undertaking this Professional Doctorate (EdD) qualification has enabled me to reflect upon, use and develop my significant experiences of mentoring in initial teacher education. The EdD has also provided me with the opportunity to study and develop my own practice-based research whilst making a unique contribution to mentoring and continuing to work and progress in the field of initial teacher education (Open University, 2022). One of the purposes of the EdD route is to positively influence an individual's professional practice through the investigation and implementation of some form of 'change'. This research project aimed to investigate whether the adoption of a self-reflection tool (the change) could support school-based mentors in initial teacher education¹ to appreciate and develop their mentoring role. Undertaking the systematic review of PE mentoring literature, and an in-depth exploration of educational research has informed the design, implementation, and analysis of my research study.

¹ The following terms will be employed to identify staff supporting student teachers from across the partnership: i) **mentor** will refer to school-based mentors; ii) **senior mentor** will refer to the designated lead for mentors within a school; and, iii) **university tutor** is a member of staff from the university linked to a partnership school.

Estyn ² (2018a) uses the following definition in terms of the role of a school mentor, as

...a one to one relationship between a relatively inexperienced teacher (the mentee) and a relatively experienced one (the mentor), which aims to support the mentee's learning and development as a teacher, and their integration into the cultures of the school and the profession. Mentoring is seen as a necessary developmental activity, with the emphasis on empowering and enabling [mentees] to do things for themselves.

(Estyn, 2018a: p.3)

The role is diverse and skilful. In a scoping study with a focus group of motivated and experienced PE mentors, mentors believed themselves to be reflective practitioners but had difficulty articulating the breadth of the role (Bethell, 2020 ³). This could be considered problematic for the self-reflection process if mentors are not clear about what their role entails. The creation of a resource to identify elements of the mentoring role was considered a potential solution in supporting school mentors' self-reflections. The disparity between mentor's identification of themselves as reflective practitioners and their limited ability to identify and articulate the role contributed to the rationale for the research study. In my professional capacity, I wanted mentors to be able to effectively identify their role, to enable them to create a personal mentoring profile, allowing a celebration of their strengths as well as the identification of aspects that could be refined and developed. Therefore, the aim of my research study was to design, implement and evaluate a self-reflection tool that would support school mentors in reflecting upon their professional mentorship practice, thereby enabling them to identify strengths as well as areas in need of further development as part of a focus on their own professional learning.

To achieve this aim, I embarked upon designing and creating a resource employing a design-based approach: i) which would provide a graphic representation to view the potential breadth of their mentoring roles; ii) that was clear and concise in its

² Estyn is the educational inspectorate for Wales.

³ See EdD submission for DOC8001 WRIT1 – Proposing Change: Context and Change, submitted with this final report.

presentation; iii) that was easy to understand and use; and iv) that was of value to mentors.

This EdD is modular in nature and previous modules have enabled me to gain an in depth knowledge of the recent research literature in PE mentoring in initial teacher education (Bethell, 2019 ⁴), a greater understanding of educational research methodologies and methods appropriate for the study (Bethell, 2020 ⁵), and an opportunity to complete a pilot study (Bethell, 2021 ⁶). The original study was to be focused on PE mentors. However, a change in my professional role to the leader of mentor development across all Cardiff Partnership programmes, meant that my professional interest needed to widen to embrace all school mentors, including all phases and subjects. It also became apparent from the systematic review of literature that although the research was focused on PE mentoring (primarily, a few generic mentoring sources were included) the findings and discussions were generic to mentoring, not specific to PE. This point was also highlighted by a reviewer of a paper submitted by the researcher and her supervisory team to the Welsh Journal of Education (Bethell *et.al.*, 2020). The findings from the pilot study had also been very encouraging, with mentors stating that the self-reflection tool had been valuable in supporting the self-reflection process (Bethell, 2021). In consultation with my supervisory team, widening the sample of school mentors to reflect wider education reform and the way the initial teacher education partnership was accredited, it was considered reasonable and desirable. Using the iterative process, a basic principle of the research design process, refinements were made to the self-reflection tool to broaden its generic nature to school-based mentoring, rather than some of the specific references related to PE. As a result, the final study was expanded to include Cardiff Partnership mentoring at both primary and secondary phases.

⁴ See EdD submission for DOC8002 WRIT1 – Proposing Change: Review of Literature and Rationale for Change, submitted with this final report.

⁵ See EdD submission for DOC8003 WRIT1 – Proposed Project Design and Pilot (Essay), submitted with this final report.

⁶ See EdD submission for DOC8003 WRIT2 - Proposed Project Design and Pilot (Report), submitted with this final report.

1.2 Context for the study

Mentoring is a core principle of initial teacher education and is considered a vital element of meaningful school-based teaching experience (McIntyre, Hagger, and Wilkins, 2005). Whilst other training components may vary within an initial teacher education programme, the centrality of the 'mentor' is constant (Carter and Francis, 2001; Hobson *et al*, 2009; Wright, 2018). Therefore, the "quality of school-based initial teacher education will depend crucially on the work of teachers in the role of mentors" (McIntyre, Hagger, and Wilkins, 1994: p.11). However, the quality of initial teacher education and mentoring provision in the UK has come under considerable scrutiny in recent years, with all aspects of educational performance high on the political agenda (Furlong, 2015; Estyn, 2018a). In England, the Carter Report (Department for Education, 2015), reinforced the centrality and importance of the mentor in the training process. Despite this varied practice in mentoring there has been identified a lack of policy attention to the role of mentors leading to poor retention and recruitment; a need for greater attention to mentor training; and recognition of the impact of quality mentoring (Department for Education, 2015). Several similar findings were identified in other UK countries relating to the lack of policy, status afforded to the role and the need for effective mentor training (Welsh Government, 2013; Organisation for Economic Cooperation and Development, 2014; Furlong Report, 2015; Chambers, 2015). The implication of these findings was that research was needed to inform the development of mentoring within initial teacher education provision.

In Wales, the Tabberer report (Welsh Government, 2013) and the 'Improving Schools in Wales' report (Organisation for Economic Cooperation and Development, 2014) both highlighted the need for significant changes in initial teacher education if it was to respond to the future needs of schools. Both reports raised concerns about the quality and the ability of initial teacher education to prepare new teachers for schools in the present or for the future. In response, the Furlong report (2015) made

recommendations about the future direction of initial teacher education in Wales. The most pertinent recommendation, from this report, is the professional learning of all those involved in the provision of initial teacher education. Professional learning is defined for the purpose of this review as “...activities that develop an individual’s skills, knowledge, expertise, and other characteristics as a teacher” (Organisation for Economic Cooperation and Development, 2009: p.53). Hobson *et al.* (2009: pp.209-210) identified the role of the mentor as having a positive effect on individual school mentors’ professional learning by improving self-reflection of their own practice, learning from their mentee, participating in mentor training courses and more generally from the opportunity to talk about teaching and learning. In addition, Chambers (2015: p.19) discusses how mentoring provides the opportunity to develop professionally *in situ*, overcoming the criticism that traditional systems of professional learning are sometimes considered too distant from the realities of practice. These findings suggest that undertaking the role of a school mentor can have a positive impact on their professional learning in several ways. Despite the professional learning benefits to student teachers and school mentors, Estyn (2018b) continue to identify the need to develop systems of effective training for school mentors as part of initial teacher education provision and make clear recommendations to address deficits in existing practice. This suggests that at present, there is a disparity between policy and practice.

Education reform in Wales has been significant in the last few years, including: i) a Nation Mission (Welsh Government, 2017a); ii) a Curriculum for Wales (Welsh Government, 2019a); iii) Professional Standards for Teaching and Leadership (Welsh Government, 2017b); iv) new criteria for the accreditation of initial teacher education programmes in Wales (Welsh Government, 2018); iv) a National Approach to Professional Learning (Welsh Government, 2019b); and, a National Strategy for Educational Research and Enquiry (Welsh Government, 2021b). As part of the rapidly changing landscape of education, Wales identified new requirements for Higher Education Institutions wishing to provide initial teacher education programmes (Welsh Government, 2016; 2018). The new accreditation process identified brief guidelines on the roles and responsibilities within the provision of initial teacher education. Interestingly, although there is reference in the updated guidelines from Welsh

Government (WG) (2018: pp.16-17) relating to the presence of school mentors, the description of the role is very general, and merely states that:

- There is a whole-school approach to supporting new teachers and this includes a designated subject mentor;
- Subject mentors should be trained experienced practitioners that have been selected, are supported, and monitored;
- Subject mentors should have access to high quality, subject mentor training programmes.

These guidelines are reflected in aspects of England's Initial Teacher Training Core Content Framework (Department for Education, 2019) which state that a mentor should be an expert practitioner and be able to provide a structured process for improving the student teacher's practice. Currently in both countries, there is an emphasis on professionalising the mentoring role through appropriate selection of teachers and a programme of professional learning. Within Wales, the value of mentoring has been widely recognised within education through the new Professional Standards for Teaching and Leadership (Welsh Government, 2017b) and the National Approach to Professional Learning (Welsh Government, 2019b). Inclusion of specific criteria related to mentoring for any institution providing initial teacher education in Wales acknowledges the importance of the role and the need for high quality professional learning (Welsh Government, 2018 ⁷). However, in the most recent publication from Estyn related specifically to initial teacher education, mentoring is still identified as variable, with some mentors continuing to lack knowledge and understanding of their role (Estyn, 2021 ⁸).

The need for greater consideration and development of mentoring has clearly been and continues to be a focus of education policy and practice. As a researcher and practitioner working for an accredited Partnership it felt timely, and professionally appropriate to investigate how professional learning for mentors could be developed. Student teachers' success is significantly influenced by the quality of the support and

⁷ Welsh Government (2018) – Criteria for accreditation of initial teacher education programmes in Wales

⁸ Estyn (2021) Engagement work – Initial Teacher Education

guidance they receive in school (Ambrosetti, Knight, and Dekkers, 2014; Walters and Robinson, 2019). Effective mentoring is critical to building the foundations of the next generation of teachers in Wales and therefore a study to develop the effectiveness of mentors was considered 'worthy' (Tracy, 2009). Therefore, the aim of this research project was to design, implement and evaluate a self-reflection tool that will support mentors in developing their professional mentorship practice.

Finally, it should be recognised that this doctorate has been undertaken during a time of considerable change and disruption. Firstly, the educational landscape in Wales has undergone significant change in the past five years (Welsh Government, 2017a, 2019a). Changes to the provision of initial teacher education have necessitated constant adaption and refinement because of shifting foci. The study began with one set of expectations for the workplace experiences that mentors implemented as student teachers undertook a 'school experience'; these expectations changed three years ago with newly accredited programmes and a move to 'clinical practice'. It is normal to expect change over time, but these have been more significant than predicted and required greater adaptation and refinement than were expected when the study was originally conceived. Fortunately, the pilot study (Bethell, 2021) straddled the original initial teacher education programme and the newly accredited initial teacher education programme, enabling adaptation of the self-reflection tool to reflect the changes to the expectations of mentors. Secondly, the Covid-19 pandemic has had a major impact on education in Wales since March 2020 (Welsh Government, 2021a, James *et.al.*, 2021). This disruption made it difficult to complete my study as initially envisaged and required adaptations to the timing of data collection and means of interviewing participants. Given the constant uncertainty throughout the summer of 2021, the ability to access and interview participants from both secondary and primary schools was a significant achievement.

This report has been designed to articulate and reflect upon a research study aimed at supporting mentors' professional learning. The report is presented as chapters that provide a structure from which to appreciate the research journey from inception to conclusion. The following information outlines the presentation of the research report; Chapter One – provides a prologue to my research study and sets the context under

which the research was conducted; Chapter Two – provides a synthesised critical review of the context, a systematic review of relevant literature, and a review of theory underpinning the research approach; Chapter Three – is a discussion of the methodology, research design, methods, and ethical considerations informing the research study; Chapter Four – presents the research findings, and a discussion of the significance of these findings; Chapter Five - concludes by summarising my findings supported by relevant literature to answer my research questions; it suggests how my study contributes to the research literature on mentoring in initial teacher education, and finally makes recommendations to inform the development of professional practice within Cardiff Partnership; and finally, Chapter Six – is a written reflection of my professional doctorate journey, exploring the impact on my development as a researcher, practitioner and, on me personally.

Chapter 2

2.0 Review of the literature

This chapter of my study incorporates findings from an extensive review of a range of literature that informed the development of my professional doctoral (EdD) at all stages. Firstly, as presented in Chapter 1, I offer an appreciation of the context in which the doctorate is situated, facilitated through a review of national and international reports and policies, together with other relevant literature related to mentoring in initial teacher education. Secondly, I present a systematic and critical review of literature related specifically to Physical Education (PE) mentoring (Bethell, 2019⁹). Importantly, this review was initially undertaken to inform initial stages of the wider research project. Finally, I critically explore the literature examining the theoretical basis that underpinned the development of the self-reflection tool and the research grounding, namely; experiential learning, reflective practice, and teacher agency.

2.1 Situational context of the study

As the global aim of my EdD final research project was to design, implement, and evaluate a self-reflection tool that, as part of a focus on mentor's own professional learning, would support their reflective practice upon their professional mentorship practice. In so doing, I wanted to enable them to identify their strengths as well as those areas in need of further development. I proposed to achieve this by critically interrogating two specific objectives, namely:

⁹ See EdD submission for DOC8002 WRIT1 – Proposing Change: Review of Literature and Rationale for Change, submitted with this final report.

Objective 1: Design, implementation and evaluation of the self-reflection tool with mentors to help support self-reflection, to identify strengths and areas for further development which can inform professional learning.

Objective 2: Refinement of the self-reflection tool to ensure its effectiveness in supporting school mentors' reflective practice.

2.2 Systematic review of the literature

2.2.1 Purpose and objectives

The purpose of the systematic review of the literature was to collate, analyse, and evaluate the definitions, identified skills and qualities, and professional learning needs of PE mentors in initial teacher education, as reflected in contemporary literature (July 2018 ¹⁰ and reviewed in January 2022). Consequently, the purpose was to be met through the following three objectives:

1. To systematically review the terminology associated with PE mentoring in initial teacher education
2. To critically characterise the attributes of PE mentors in initial teacher education.
3. To identify the professional learning needs of PE mentors in initial teacher education.

¹⁰ See EdD submission for DOC8002 WRIT1 – Proposing Change: Review of Literature and Rationale for Change, submitted with this final report.

2.2.2 Methods

The method I utilised in conducting this literature review was adapted from that suggested by Edwards *et al.* (2018) which employed the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols (PRISMA-P) (*c.f.*, Moher *et al.*, 2015; Shamseer *et al.*, 2015). My aim in using this approach was to provide a systematic and critical process, that would minimise bias in the identification, selection, synthesis, and summary of recent research literature (Shamseer *et al.*, 2015). DOC8002 WRIT1 (Bethell, 2019; pp.2-8), provides a detailed explanation of the application of PRISMA-P for my study, including: i) the information sources and search strategy; ii) the eligibility criteria; and iii) the data extraction and analysis, whilst a detailed exposition of the findings of the review are described in full in DOC8002 WRIT1 (Bethell, 2019; pp.10-21).

Figure 1 presents a flowchart of the systematic review and Table 2.1 provides an overview of the core categories, higher order and sub-themes used for the analysis of the papers identified for inclusion in the systematic review of literature.

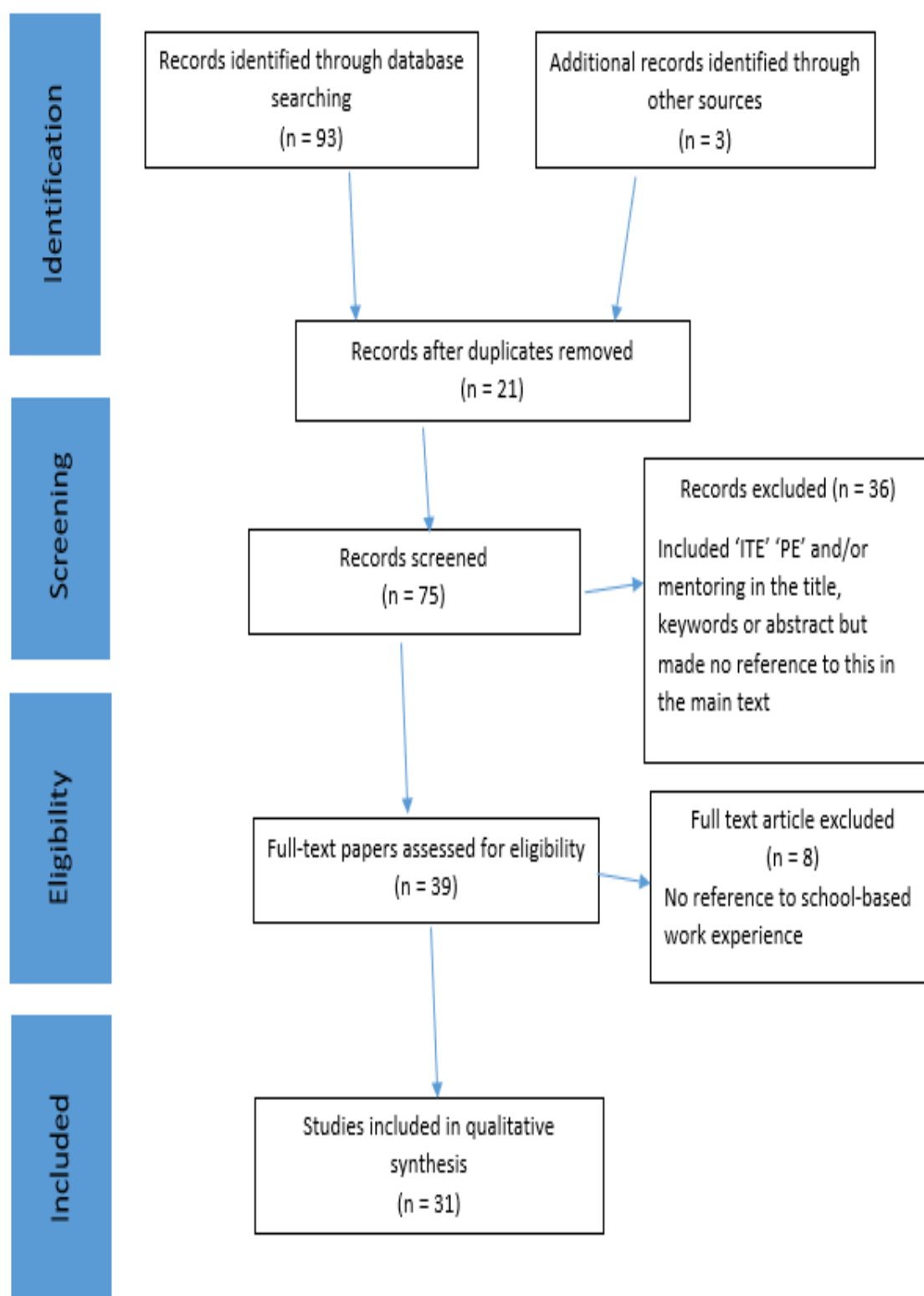


FIGURE 1 - FLOWCHART DEMONSTRATING THE APPLICATION OF PRISMA-P PROCESS

TABLE 1-AN OVERVIEW OF THE HIGHER ORDER THEMES, SUB-THEMES, AND CORE CATEGORIES USED FOR THE ANALYSIS OF THE 31 PAPERS FOR THE SYSTEMATIC LITERATURE REVIEW

(Values in parentheses refer to the number of papers in each core category)

Higher order theme	Sub-themes	Core categories
Terminology	Definition	Specific to initial teacher education (1)
		General to mentoring (14)
	Title for mentor role	Cooperative (9)
		Mentor teacher (10)
		Mentor (6)
		Supervisor (1)
		Assessor (3)
	Eligibility	Use of specific criteria (2)
		Experience (4)
		Willingness (2)
		Suitability (4)
		Exemplary teaching (1)
	Mentoring models	Reference to specific models (3)
		Approaches (8)
		Student voice (1)
Attributes of mentor	Relational	Communication (7)
		Collaboration (7)
		Support (10)
		Sense of identify (4)
		Learning community (6)
	Contextual	Workplace reality (10)
		Rules of teaching (3)
		Attendance at training (2)
	Professional	Knowledgeable (10)
		Role model (10)
		Risk taking and autonomy (4)
		Observe and feedback (10)
		Target setting (1)
		Systematic assessment (9)
		Co-enquiry (6)
Professional development	Motivation	Professional benefits (7)
		Personal satisfaction (2)
		Enhanced retention (2)
		Barriers (4)
	Need to develop training	Development of partnerships (6)
		Lack of training (2)
		Develop existing training (2)
	University provision	Research project (18)
		Accreditation (3)
		Development of theoretical models (4)
		Annual training (3)

2.2.3 Discussion of results

My systematic review provided valuable insights into the research in PE mentoring in initial teacher education in recent years, and, in conducting it, I certainly recognised that detailed analysis of the findings of these studies was required for me to make more robust and critical comments about the theories and practices suggested. However, the review did allow me to comment upon the content of the literature and for initial inferences to be drawn upon the key objectives that I outlined at the start of the review. It also provided me with the opportunity to make comparisons with policy and practice in Wales at present.

Variability in the terminology used to describe the role of the PE mentor in initial teacher education is problematic. Indeed, my analysis revealed that definitions of mentoring were general in nature and rarely related specifically to initial teacher education. The title of the role associated with school-based mentoring was consistent within countries of origin, implying a coordinated national approach. This was exemplified in the research studies from France, where the term “cooperating teacher” was consistently applied (Chalies *et al.*, 2008; Cartaut and Bertone, 2009; Escalie and Chalies, 2016). Indeed, for comparative reasons, it would appear desirable to have an agreed title and definition for the role of the school-based PE mentor in initial teacher education.

The work of Ambrosetti, Knight, and Dekkers (2014) provided me with a useful framework for the analysis of mentor attributes. They identified three aspects that they consider to inter-link in effective mentors, namely: relational, developmental, and contextual attributes. The ability to communicate, support and collaborate were also noteworthy features in the literature. It would be expected that these relational attributes appear when an overall feature of mentoring is to ‘nurture’ development (Ambrosetti, Knight, and Dekkers, 2014: p.225). A study by daCunha, Batiste and Graca (2014), investigating how student teachers work, learn, and develop

professionally, found that collaboration with supportive mentors had a significant impact on their development. However, this can be problematic as the relational attributes identified are not necessarily those all teachers possess (Chambers *et al.*, 2012). Chalies *et al.* (2008), also provide a cautionary note, suggesting that emotional support may occur at the expense of more effective reflective practice, potentially hampering development.

Learning to appreciate the school setting and the nuance of the profession is a key feature of effective mentoring (Ambrosetti, Knight, and Dekkers, 2014). Making sense of the educational environment and exploring the rules applied within specific contexts starts to build student teachers' understanding of the profession. It is evident in the four theoretical models presented in the works of: i) Chambers *et al.*, (2012); ii) Levy and Johnson (2012); iii) Ambrosetti, Knight, and Dekkers (2014); and iv) Walters and Robinson (2019), that there is a need for mentors to appreciate the student teacher's stage of learning, which in turn varies depending upon the context. Indeed, Young and McPhail (2016) and Jones, Tones, and Foulkes (2018) recognise this developmental aspect of training by suggesting that a mentor may employ a 'master/apprentice' model initially and move towards a 'co-enquirer' model as a student teacher becomes more confident and autonomous. The need to employ different approaches to mentoring may explain why it is difficult to agree an overarching definition for mentoring in initial teacher education. Exploration of theoretical models and approaches surrounding mentoring and professional learning has been identified as an area that requires further research (Walters and Robinson, 2019).

Attributes associated with being a professional were identified as being linked to the relational and contextual aspect, with attributes such as knowledge, role modelling and observation being connected to experiences of teaching in school (Chalies *et al.*, 2008; Fantilli and McDougall, 2009; Bjuland and Helgevold, 2018). A study by Chambers and Armour (2011) identified that a lack of knowledge can lead to different understandings of professional practice which may not always match the intended outcomes of a programme. 'Knowledgeable' was referred to in several papers, but whether this knowledge relates to subject content, pedagogy or other aspects of the profession was not always clear.

The ability to effectively assess, provide feedback and set appropriate targets can be an additional function of a mentor. Chambers *et al.* (2011) investigated three examples of initial teacher education provision and found two different approaches to this aspect: no requirement (Republic of Ireland) compared to joint responsibility with the partnership university (Northern Ireland and England). It was also raised as a concern in the literature that there can be conflict when a mentor is required to both mentor and assess, with the possibility that student teachers learn to 'please', imitating mentors rather than taking risks (Ballinger and Bishop, 2011; Lofthouse and Thomas, 2017). This element of mentoring can be at odds with the notion of developing student teachers to become more autonomous and to innovate their practice (Cartaut and Bertone, 2009; Hobson *et al.*, 2009; Chambers *et al.*, 2012). Ballinger and Bishop (2011) suggest that a frank and honest conversation by a mentor with a student teacher may be the best course of action to explain this dual role.

The range of attributes required by effective mentors is clearly extensive (Ambrosetti, Knight, and Dekkers, 2014). Given the impact that an effective mentor can have, selection of appropriate teachers for the role is crucial (Hobson *et al.*, 2009). A lack of rigour, when deciding who to appoint to a mentoring role, is raised as a concern and there needs to be a selection process based on expertise and dispositions (Chambers *et al.*, 2012; Estyn, 2018a). A case study by Chambers *et al.* (2012) investigated the role of PE mentors across three countries and provided an overview of the similarities and differences in existing practice. They concluded that verification of the impact of a system that selects and trains its mentors was necessary but implied from their initial study that those systems that do select are more effective. This recommendation to select and train mentors is exemplified in existing practice in Norway (Bjuland and Helgevold, 2018).

The need for annual training for mentors' professional learning was identified in the literature; however, what this entails is not made explicit in any of the papers I reviewed (Hobson *et al.* 2009; Chambers *et al.*, 2012; Nugent and Faucett, 2012). This prevents any discussion about the value or content of such provision, but it is an area of interest and worthy of further investigation. A lack of training has been identified as a

contributory factor to ineffective mentoring (Charlies *et al.*, 2008; Chambers and Armour, 2011). A reoccurring barrier to professional learning identified in the literature relates to increased workloads, and lack of time and funding for mentoring programmes (Hobson *et al.*, 2009; Chambers *et al.*, 2012).

Within the literature, reference to opportunities for the professional learning of mentors related to the provision of support or interventions by the university; there was no literature relating to any in-school or cross-school provision. Research methods varied including, case studies attempting to ascertain an understanding of present situations, and action research exploring innovation in mentoring practice through specific interventions. Walters and Robinson (2019) provide an example of a small-scale intervention devised to investigate the benefits of mentoring for school-based mentors' own professional learning. They identified benefits to their practice from two specific aspects: i) when mentors reflected on and shared their own teaching practice, and ii) from the teaching practice brought to the partnership by the student teachers. Research emanating from France highlights a drive to develop mentor expertise in alternative approaches to student teacher professional learning, specifically in developing a co-enquiry approach to learning (Chalies *et al.*, 2008; Cartaut and Bertone, 2009; Escalie and Chalies, 2016). Professional learning within the initial teacher education sector in France has been driven by national policies attempting to improve the connections between university and school-based provision, and the approaches employed to train teachers (Escalie and Chalies, 2016).

There is limited research in the area due to the nature of the subject matter of this review. Research studies are conducted over short periods of time and with limited numbers of participants, which reflects the nature of the short duration of initial teacher education programmes and small cohorts of mentors and student teachers. Results obtained therefore can be considered transferable but may not always be generalisable to other contexts. The review has identified interesting commonalities and differences in the literature.

2.2.4 Conclusions

This section of my final report has provided an up-to-date systematic review of the literature pertaining to PE mentoring in initial teacher education. No other work of this nature was identified during any of my searches. Indeed, the review highlighted that there is a paucity of studies in this field at present, with only 31 papers eligible for the systematic review when employing the PRISMA-P guidelines. This reflects Welsh Government's concerns that there has been a lack of research to inform educational reform and development (Welsh Government, 2021b). However, reviewing or implementing collaborative and co-enquiry approaches to PE mentoring in initial teacher education was a prevalent feature of a significant amount of the literature that I reviewed.

Considering the objectives of my review specific attention was focused upon terminology, attributes and professional learning opportunities relating to PE mentors in initial teacher education. The use of terminology throughout the literature is inconsistent. To enable greater transparency, a consistent or more thorough explanation of terms is needed. Being explicit about the nature of the mentoring role within individual initial teacher education programmes was suggested to be an effective condition to ensure consistency of mentoring provision (Young and McPhail, 2016). WG (2017) consistently use the term 'mentor' in their new accreditation documentation. However, in keeping with the outcomes of my systematic review of the literature, a nationally accepted definition for the role of mentoring in Wales has not been presented (Estyn, 2018a). It is therefore suggested that researchers need to be explicit and consistent in their use of terminology to enable transparency.

Mentoring is complex, and it requires a range of attributes that can be considered psychosocial and professional in nature (Ambrosetti, Knight, and Dekkers, 2014). The need for an individual to be able to employ a range of attributes can justify the call for selection criteria to ensure appropriate teachers are appointed to mentoring roles (Chambers *et al.*, 2012). The provision of mentor training was also identified in some literature as necessary to support effective practice (Hobson *et al.*, 2009, Chambers and Armour, 2011). Surprisingly perhaps, no literature source either described or

investigated what constituted effective mentor training. Professional learning opportunities were inferred in the literature, with involvement in research projects having an impact on approaches used by mentors to support student teachers (Bjuland and Helgevold, 2018).

2.3 Synthesis of the systematic review of literature

Whilst my systematic review of literature was focused specifically on PE mentors, there was, nonetheless, a lack of reference to specific PE subject knowledge and PE subject pedagogy. Indeed, the focus on generic aspects of mentoring throughout suggests that the findings could be considered relatable to school-based mentoring in general. This point was also acknowledged in a reviewer's comment on an initial draft of the paper I submitted, together with my supervisory team, to the *Welsh Journal of Education* (Bethell *et al.*, 2020 ¹¹). The reviewer clearly identified the generic nature of the findings, stating that, '*Although the paper is ostensibly about mentoring in PE and based on a review of the PE literature, the way in which the author(s) have presented their findings is entirely at the level of generic principles.*'. This had not been a deliberate decision, it purely reflected findings from the literature reviewed. This finding is also supported by research identifying a growing concern with a lack of specific focus on developing subject knowledge and subject pedagogy in mentoring provision for student teachers across initial teacher education, provision in recent years (Rowe, 2019; Healy, Walsh and Dunphy, 2020).

The findings from my systematic review of literature resonate with changes that can be seen in initial teacher education policy and practice, both institutionally and

¹¹ Bethell, S., Bryant, A.S., Cooper, S-M., Edwards, L.C. and Hodgkin, K. (2020). Mentoring PE student teachers in Wales: Lessons from a systematic review of the literature. *Welsh Journal of Education*, 22(2), 26-51.

nationally at present in Wales. Indeed, approaches such as: i) an emphasis on developing collaborative partnerships; and ii) research-informed practice being a necessary element of accredited programmes, are now an expectation in initial teacher education in Wales (Welsh Government, 2018). Nationally, there is an emphasis on professional learning for all involved in education with a National Approach to Professional Learning that emphasises collaboration and co-enquiry (Welsh Government, 2019b). In addition, initial teacher education providers now need to identify what their criteria is for the selection of school-based mentors and provide a commitment to providing professional learning (Welsh Government, 2018). Finally, there is consistency in the use of term *mentor* in national documentation, although individual initial teacher education partnerships do employ varying terminology. The term mentor is used consistently within all the documentation and communications across my initial teacher education partnership, with the aim of being consistent with national employed terminology.

One of the most pertinent discoveries made through the review of literature, was a research study by Ambrosetti, Knight, and Dekker (2014 ¹²). They formulated a mentor framework to explore and explain the complexity of the role. They identified three components of an effective mentor, namely: i) the relationship between mentor and mentee; ii) the needs and goals of the relationship; and iii) the context that mentoring occurs in. This framework has been critical in informing a conceptual understanding of the mentor across the Cardiff Partnership and is also reflected in the design and content of the self-reflection tool for mentors.

The following section explores theoretical approaches to learning from experience and considers why they are a good foundation in which to ground the use of a self-reflection tool to support the professional learning of mentors.

¹² It is important to clarify that the Ambrosetti, Knight, and Dekker (2014) paper was one of the additional papers included in the review of literature that was not PE mentor specific but related to mentoring in general.

2.4 Theory underpinning the development of a self-reflection tool

The professional learning of all involved in education is considered a critical factor in the success of wide-ranging changes to educational provision in Wales (Furlong, 2015; Welsh Government, 2015, 2019, 2021). The development of my self-reflection tool to support the professional learning of mentors has been theoretically based on the inter-play drawn from three distinct contexts, namely: i) experiential learning models (Kolb, 1984; Gibbs, 1988), ii) reflective practice (Schön, 1991) and, iii) teacher agency (Priestley, Biesta, and Robinson, 2015). These theories are all associated with professional learning within education and were therefore considered appropriate choices to inform the design and development processes of my self-reflection tool.

2.4.1 Experiential learning

According to Kolb's (1984) experiential learning model, an individual's critical reflections on concrete experiences have the potential to better inform subsequent experiences. Kolb's model has four stages: i) concrete experience (do it); ii) reflective observation (reflect upon it); iii) abstract conceptualisation (make sense of it); and iv) active experimentation (plan next stage) (Malthouse and Roffey-Barentsen, 2013). The model usually starts at the concrete experience stage (although learning can start at any stage); after the experience we reflect on what happened and use this reflection to create an understanding of the experience, and this understanding is then used to plan next actions and the process starts again (Carey, 2014). The model is cyclical or iterative, and as Cropley *et al.* (2010: p.3) suggest, 'If learning has taken place a new form of experience on which to reflect and conceptualise should be created in each cycle as subsequent action is experienced in a different set of circumstances'. Effective learning occurs when reflection on these experiences leads to analysis of the situation and conclusions are drawn as to how to adapt, and individuals are more effective in subsequent situations (McLeod, 2017).

Kolb's (1984) model has its critics that claim there are some limitations with the model. Firstly, there is a lack of consideration of aspects such as values, beliefs, and identity that could have an impact on the learning process, as it is not purely a cognitive

process of problem solving and knowledge building (Carey, 2014). Secondly, it is not explicit in the model how as a solitary individual the ‘abstract conceptualisation’ phase works. Identification of the resources and conditions under which this critical aspect of the process is effective is underemphasised. Finally, Evans *et al.* (2006) suggest that the model could result in ‘restrictive’ practice. They describe restrictive practice as getting better at achieving intended goals within a given context using specific methods, without considering if these goals and methods are appropriate. Indeed, Carey (2014) suggests that this restrictive practice makes it difficult to produce significant shifts in an individual’s thinking, limiting professional learning.

Despite some of the identified limitations of Kolb’s model however, it does provide a structure that is clear and logical to guide reflection on experiences. It also encourages the individual to take responsibility for their own learning, and from this perspective the model is useful. The cyclical/iterative process of reflecting on experiences to develop professional practice underpinning Kolb’s work has been employed by several theorists to address some of the limitations of the model. Reflective practice is discussed in more detail below as an alternative approach to facilitating professional learning.

2.4.2 Reflective practice

According to Bolton (2009) experience alone does not necessarily lead to learning; deliberate reflection on experience is essential. Argyris and Schön (1977) referred to the deliberate reflection on experience as *double loop* learning, where changes to practice are identified to improve practice, as opposed to *single loop* learning where the same mistakes can be made repeatedly. Early work by Dewey (1933) introduced the concept of ‘reflective thinking’ as an approach to problem-solving and professional development. This was extended and refined in the influential work of Schön (1991) who introduced the approach of reflective practice to established both direct practice and professional development in the field of education. This approach has since been extensively used in other professions, such as nursing and psychology (Thompson and Pascal, 2013). Indeed, reflective practice has been used in education as a means

by which individuals can extend their knowledge and skills to maintain or extend their competence throughout their professional lives (Malthouse and Roffey-Barentsen, 2013). It is therefore unsurprising that the appeal of the idea of reflective practice has seen its adoption as a foundation for many initial teacher education programmes (Loughran, 2002).

Reflective thinking is associated with the identification of 'problematic' experiences (Dewey, 1933; Schön, 1983). Loughran re-phrases the notion of *problem* stating it '...can refer to a puzzling, curious, or perplexing situation' (Loughran, 2002: p.33). Parsons and Stephenson (2005) further explore this aspect suggesting that reflective practice can also be useful when something is already being achieved at a satisfactory level but could be changed or improved. Thompson and Pascal (2013) state that reflective practice enables a process that uses a concrete experience as a starting point and then encourages drawing upon a professional knowledge base to make sense of it, engaging with the challenges and identifying ways to develop, resulting in professional growth. However, Loughran (2002: p.35) warns that the positive impact of reflective practice can be affected when there is a '...dogged adherence to an approach despite the nature of the practice setting because alternative ways of seeing are not (cannot) be apprehended.'. Loughran (2013) terms this *rationalisation of practice*, where change is not considered necessary because there is a perception that there is not a problem with existing practice. Alternatively, he states that where there is *justification of practice*, conscious decisions related to professional knowledge have been employed. The need to identify and scrutinise assumptions that underpin practice need to be part of *critical* reflective practice (Brookfield, 1995)

In his seminal work Schön (1983) identifies two approaches to reflective practice, *reflection-in-action*, and *reflection-on-action*. Reflection-in-action refers to the 'in the moment' changes individuals make based on professional knowledge that will improve outcomes at the time. These can be automatic, based on practice that is ingrained. Reflection-on-action relates to explicitly drawing on an individual's professional knowledge base, and reflecting upon what could have been done differently, developing understanding further and recognising the positives of the experience. Thompson and Pascal (2013) incorporate a third approach that of *reflection-for-action*,

referring to the process of planning ahead, drawing on professional experiences to make the best use of time and resources. Thompson and Pascal (2013) consider the need to be *reflexive* as part of being a reflective practitioner.

'Reflective' and 'reflexive' practice are terms often used interchangeably. However, they have different meanings within the theory of reflective practice. Reflection contains a traditional notion of understanding individual practice through an analytical process, whilst reflexivity includes the added dimension of external factors such as social and contextual aspects that influence practice (Glanville, 2013). Understanding internal and external factors that influence practice enable more informed appreciation of alternative practice that could be employed in the future. Thompson and Pascal (2013) therefore claim that reflexivity is critical in making sure that reflective practice is *critically* reflective practice.

Dewey (1933) declared that reflection is a complex, rigorous, intellectual, and emotional exercise that takes discipline and time to do well. According to Williams and Grudnoff (2012), there are also conditions that facilitate reflective practice such as a workable reflective model, extensive knowledge, and experiences. Malthouse and Roffey-Barentsen (2013: p.9) identify several potential benefits for individuals who are reflective practitioners as being learners who are: '...autonomous, with an improved understanding of their subject; critical thinkers; problem-solvers; and possess individual change management skills'. Other significant benefits referred to by Ghaye (2010: p.1), included: '...enhanced human flourishing...' through opportunities to be more open-minded, have creative thoughts, enjoy better relationships and to be more resilient. Also mentioned in the literature, was the potential to invigorate and energise practice (Hickson, 2011). However, there is also a presence in the literature about the rhetoric of professional educators to advocate reflective practice without ensuring the relevant skills and knowledge are understood for the process to be effective (Russell, 2005; Williams and Grudnoff, 2012).

It would appear from the discussion so far that the use of reflective practice could be beneficial as an approach in supporting mentors' professional learning. Without some form of reflective thinking at the end of a Clinical Practice experience, there is a chance

that mentors will continue to practice in the same way. This was earlier referred to as *single loop* learning, whilst the encouragement of deliberate critical reflection on a Clinical Practice experience should result in improved practice because of *double loop* learning (Argyris and Schön, 1977). The recent development of a *research-informed clinical practice* approach to student teachers' professional learning has necessitated the development of the mentoring role. Therefore, there needs to be support for mentors' appreciation of the breadth of their role and how this could look in practice.

The exploration of reflective practice highlights the potential benefits to mentors not just in the form of professional learning, but also in personal gains such as 'autonomy', being 'open-minded', and 'invigorated and energised' in their practice (Malthouse and Roffey-Barentsen, 2013; Ghaye, 2010; Hickson, 2011). It is envisaged that by encouraging reflective practice it will enable mentors to have ownership of their professional development and be able to learn and grow from their own practice (Otienoh, 2011). Professional and personal growth are explored in more depth in the next section considering 'agency'.

2.4.3 Teacher agency

Notions of agency 'have usually been loosely associated with active striving, taking initiative, or having an influence on one's own life situation' (Eteläpelto *et.al.*, 2013: p.46). It has been regarded as an important concept across multiple disciplines because of its positive impact on challenges of life-long learning and labour market uncertainty (Eteläpelto *et.al.*, 2013). As a result of varying perspectives on agency, a common definition or framework has yet to emerge. This review will refer to the approach to defining agency presented by Priestly, Biesta, and Robinson (2015: p.22) who suggest agency is '...the *interaction* of individual 'capacity' with envioning 'conditions'. Attention is focussed particularly on lifelong learners who systematically reflect on their practice, and who are in search of information and ideas to develop their practice. It is considered that professional agency in teaching is generalisable to the role of a mentor, in so much that the concept can be applied to a teacher's wider professional role.

The concept of teacher agency has become the focus of significant attention in the past decade with emerging acknowledgement of teachers making an active contribution in shaping their work and conditions (Imants and Van de Wal, 2020). Indeed, an underlying principle of educational reform in Wales at present is the promotion of teacher agency to ensure success in curriculum development. It is considered that ‘...appropriate ownership and decision-making by those closest...’, should inform developments (Donaldson, 2015: p.14). The process is captured by Priestley, Biesta, and Robinson (2015: p.23) who assert that agency is the intentional ‘...capacity to formulate possibilities for action, active consideration of such possibilities and the exercise of choice’. According to Eteläpelto *et.al.*, (2013), professional agency has positive connotations for creativity, motivation, well-being, and even happiness. Agency also connects to an individual’s autonomy and self-fulfilment, in being able to act as a force for change (Casey, 2006). A cautionary note however is raised by Heijden *et al.* (2015) who reported there can be significant variation in teachers’ desire to learn: from not seeing the need, not knowing how, to being eager to learn. Therefore, not all teachers will want or be able to become ‘agents of change’.

Leijen *et al.*’s (2020) ecological model identifies three components that are necessary to achieve teacher agency, including: i) professional competence; ii) the structural and cultural context; and iii) professional purpose. Indeed, Emirbayer and Mische (1998) contend that considerations of agency need to incorporate a temporal scope so that the past and the future as well as the present are recognised. Drawing on this work Priestly, Biesta, and Robinson (2015a: p.30) incorporated a temporal-relational element to their model containing three dimensions. The past is referred to as the *iterational* dimension, where past patterns of thought and action can be reactivated to produce stability. The future is represented by the *projective* dimension where individuals consider potential future actions reconfiguring actions from the past. The final dimension is the *practical-evaluative* and entails an individual’s capacity in a present situation to make conscious judgements while engaging with cultural, structural, and material conditions. Considered alternatives are derived from the past

and the projective future, allowing an individual to sustain previous practices but also to adapt or change them.

A study by Priestly, Biesta, and Robinson (2015b) investigating teacher agency in curriculum reform, found that participants were able to bring about efficient change in practice in the short-term based on their large repertoire of practical experiences. However, long-term effectiveness towards enacting future policy and practice was noted as a concern because of a narrow consideration in the *projective* dimension. They identified a lack of appreciation of the purpose behind reform for the limited long-term effectiveness. Ehrich, Hansford and Tennent (2004) also highlighted that a lack of understanding of programme goals was associated with problematic outcomes.

2.5 Synthesis of theory underpinning development of the mentor self-reflection tool

From the discussion in this section connections can be identified between reflective practice and agency. Mentors' enactment of agency will be associated with a willingness/desire to be involved with the process of reflective practice resulting in professional learning, which, if based in an iterative cycle will continue to develop agency and professional learning (Kolb, 1984). A lack of mentor agency may be associated with mentors who are unfamiliar with reflective practice, and who may need support to understand the learning process. It must also be recognised that it is possible that there are mentors who do not see the need for professional learning and may use their agency to resist developing their role, or who do not believe they have the capacity to influence their own professional learning (Russell, 2005; Williams and Grudroff, 2012). As mentioned earlier in the chapter the selection of appropriate teachers to be mentors should be a thoughtful consideration for any providers (Hobson *et al.*, 2009; Chambers *et al.*, 2012; Estyn, 2018). A mentor who does not value professional learning should not be inducting student teachers into the teaching profession.

2.6 Summary

My professional involvement with mentors had led me to question how individuals reflect upon their mentoring role to identify successes and inform future development. As a teacher, there is a formal mechanism within a school context to facilitate reflection on performance, namely 'performance management', and a set of professional standards for teaching and leadership that can be used to guide the process (Welsh Government, 2017). However, no such mechanism exists for the role of the mentor in Wales at present. Cropley *et al.* (2010: p.197) claim that reflective practice can be a valuable approach for examining and justifying practice, taking personal responsibility for monitoring current practice, and identifying how to become more effective. The development of teacher professional learning and agency are key principles of current Welsh education reform, and, by association all those involved in initial teacher education, including mentors (Donaldson, 2015; Welsh Government, 2019a). Indeed, encouraging the conditions under which this can be supported was a key driving force for my study. It was hoped that the encouragement of mentors to involve themselves in reflective practice would lead to higher levels of motivation and creativity to sustain and develop their role.

The creation and development of a resource to support mentors' reflective practice was considered appropriate to begin the process of encouraging their professional learning and agency. The *mentor self-reflection tool* is a resource devised to facilitate mentors to: i) have a better understanding of their role; ii) identify strengths in existing practice; and iii) identify any changes to their practice that they consider could make them more effective. The mentor self-reflection tool was designed to reflect changes to the role identified in the original mentor training course (September 2019), which focused on informing mentors how they could facilitate student teacher's professional learning through a research-informed Clinical Practice (Burn and Mutton, 2013; Biesta *et al.*, 2015; Estyn, 2018a). The resource aims to support the development of understanding at the *reflective observational* stage (mentor practice during clinical practice), and the *abstract conceptualisation* stage (approaches to mentoring) (Kolb, 1984). Mentors' reflective practice should enable them to 'reactivate' effective practice, and/or 'reconfigure' practice to improve effectiveness in the future (Priestly *et al.*

(2015). The self-reflection tool has been designed to identify approaches and practices that can be incorporated into the mentoring role.

2.7 Research questions

The aim of my EdD research project was to design, implement, and evaluate a self-reflection tool that would support mentors' reflections upon their professional mentorship practices, thereby enabling them to identify strengths as well as areas in need of further development, as part of a focus on their own professional learning. Therefore, the following research questions were identified to achieve my research study's aim:

Research question 1: Does the self-reflection tool support mentors in their reflective practice?

Research question 2: In what ways can the use of the self-reflection tool support mentors in identifying their own professional learning needs?

Research question 3: Are there refinements to the self-reflection tool that would make it more effective in supporting mentors' reflective practice?

The following chapter presents a detailed and critical discussion of the methodology, data collection and data analysis methods I employed in answering the aim and objectives of my research study, as well as the research questions outlined above.

Chapter 3

3.0 Methodology

This chapter is designed to explore the philosophical and professional foundations that were used to inform the decisions I made in designing my final research study. Firstly, I explore my methodology through a systematic investigation of my research aim, involving: i) an appreciation of my ontological and epistemological beliefs; ii) the development of a philosophical stance; iii) situating my research study within a research paradigm; iv) the use of quantitative and qualitative data; v) a critical consideration of conducting my research study in an ethically informed manner; and, vi) an appreciation of my participants. This foundation of information provided me with parameters to guide my choice of methods ensuring the data I collected captured the reality of mentors' experiences (Scotland, 2012). Therefore, the second part of this chapter identifies and justifies a design-based research approach as an appropriate choice to address my research aim. I explain why the research techniques of interviewing and document analysis were chosen to collect my data and how it was analysed. Finally, I discuss how my choices of research approach and techniques support my claim that my considerations have produced a piece of research of quality.

3.1 My philosophical stance

The importance of a philosophical stance became apparent to me through my EdD journey. A detailed exploration of this aspect of my work can be found in DOC8003 WRIT1 (Bethell, 2020; pp.2-8). Kivunja and Kuyuni (2017) suggest it is important to recognise the philosophical lens through which a study is undertaken as it informs research design choices. In addition, Scotland (2012) considers that it allows better

comprehension, questioning, and application of research. My exploration of my fundamental beliefs and values enabled me to firmly situate my study within a pragmatic paradigm. One of the attractive aspects of the perspective is that it allows the researcher to use all approaches to solve problems based on real world practice (Creswell, 2009).

Wahyuni (2012) suggested that philosophical beliefs are associated with ontology and epistemology beliefs and that these determine the research paradigm. Ontologically, I identified with a *realism* perspective as it provides a bridge between the extremes of *objectivism* and *relativism* and acknowledges that there are differences between reality and people's perceptions of reality (Krauss, 2005). Based on the finding of my systematic review of literature (Bethell, 2019), and my professional practice, it is known that the role of a mentor is usually defined by institutions, however, aspects of mentoring are interpreted by mentors. Epistemologically, it was considered there were likely to be aspects of *objectivism* (mechanistic aspects of the mentoring role) and *subjectivism* (mentor interpretation of aspects of the role). A pragmatic paradigm was identified as a best fit for providing a framework for this research study based on these philosophical beliefs. However, it was recognised that the research questions initially determined the research design and not my philosophical viewpoint; this was part of my learning through the EdD programme (Tuli, 2010).

3.2 Research Design

3.2.1 Mixed Methods

A mixed methods approach was adopted for my research study, with a qualitative approach dominating (Cresswell, 2009). This is a distinct method of inquiry that allows the deliberate combination of both quantitative and qualitative approaches to data collection and analysis; and, combining the two methods avoids a polarised approach (Creswell and Plano Clark, 2007; Tashakkori and Teddlie, 2009; Ponce and Pagan-Maldonado, 2014). Quantitative methods, with their emphasis on objectivity and

detachment, are combined with qualitative methods focused on real world phenomena, where realities are multiple and socially constructed (Tuli, 2010; Scotland, 2012; Kivunja and Kuyuni, 2017). A pluralistic approach, which combines the two methods provides more, ‘... informative, complete, balanced, and useful research results.’ (Ross and Onwuegbuzie, 2010: p.234). Denscombe (2008) also suggests that combining two approaches provides a more complete picture and reduces the potential for bias from a mono-method design. From a pragmatic perspective, the selection of a mixed methods approach acknowledges, and allows for, an investigation of the mechanistic aspects of a mentor’s role, as well as the deterministic and voluntaristic elements where there are choices and interpretations by individuals (Holden and Lynch, 2004).

Several strategies were employed within my mixed methods study (Cresswell, 2009). However, four aspects were considered specifically, namely:

1. **Timing** – refers to whether data is collected at the same time (concurrently), or in phases (sequentially). My research study collected data sequentially; where the self-reflection tool was sent electronically prior to participants’ interviews. This decision was pragmatic in that we were operating virtually (Cresswell, 2009).
2. **Weighting** – I was primarily interested in qualitative methods as it would generate an in-depth understanding of an individuals’ perceptions of their role, and therefore this approach was of greater significance (Bryman, 2009). However, the use of a quantitative method also provided the opportunity for additional findings to be identified.
3. **Mixing** – an ‘embedded’ approach was employed in my research study as presented in Figure 2. However, it should be recognised that previous studies (e.g., Bethell *et al.*, 2020) informed the development of this study, so there was a ‘connected’ approach running throughout the research process (Cresswell, 2009: p.212).
4. **Theorising** – as previously stated, my research study should be viewed through a pragmatic lens (Kivunja and Kuyuni, 2017).

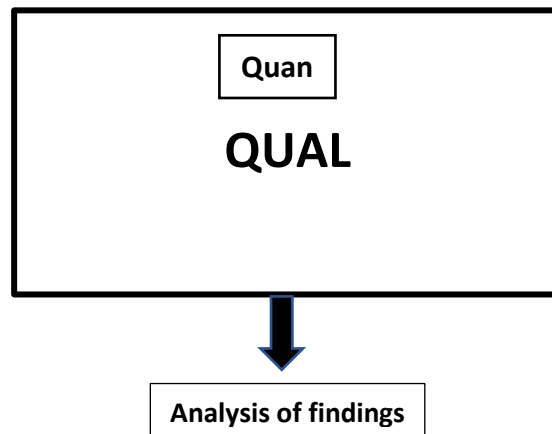


FIGURE 2 -CONCURRENT EMBEDDED DESIGN (ADAPTED FROM CRESSWELL, 2009)

The use of capitalisation indicates the priority of qualitative data, analysis, and interpretation in the study. QUAL/Quan indicate that the quantitative methods are embedded within the qualitative design and help to support the findings of the primary data source (Creswell, 2009: p.214). Collecting two types of data simultaneously enabled investigation from two different perspectives and facilitated ‘... greater certainty in inference, conclusions, and statements.’ (Ponce and Pagan-Maldonado, 2014: p.113). The research findings can also be considered more reliable as the strengths from one approach can offset methodological shortcomings from the other (Caruth, 2013).

3.2.2 Ethical considerations

My philosophical position determined the ethical stance I took about what I considered right and wrong behaviours relating to my research study. The four criteria that Kivunji and Kuyuni (2017) identify as being critical in ethically sound research, were considered and applied across all aspects of my study, namely:

1. **Teleology** - the theory of morality, and in this context is concerned with whether research is intrinsically good or desirable and if outcomes are meaningful.
2. **Deontology** – refers to an appreciation that every action in the research process has a consequence. These consequences should benefit participants, the researcher, and the scholastic community.

- 3. *Morality Criterion*** – relate to the intrinsic moral values that were upheld during the research, such as the truthful interpretation of the data.
- 4. *Fairness*** – draws my attention as the researcher to the treatment of participants, ensuring their rights are upheld.

Whilst an exploration and an appreciation of moral philosophy enabled me to consider my ethical stance, I was also guided by institutional regulatory codes of practice (Cohen, Manion and Morrison, 2011). In addition, the British Educational Research Association's (BERA) guidance was used to inform and guide all aspects of my study (BERA, 2018). I applied for permission to engage with the study by submitting a research proposal for approval by both the local Research Degrees Sub-committee, and Cardiff Metropolitan University's central Research Degrees Committee. I also applied for and obtained ethical clearance from the local Research Ethics Sub-committee prior to undertaking the pilot study (see Appendix 1).

Appendix 2 presents an example of the information sheet that was distributed to my potential participants prior to committing to the study. Importantly, this presents explicit information about the benefits (*i.e.*, professional learning related to mentoring, and contribution to school and initial teacher education mentoring community), and any potential harms (*i.e.*, likely time and energy involved) (Howe and Moses, 2020). The information sheet also identifies that mentors had the right to withdraw from the study at any stage without explanation (BERA, 2018). I was honest and transparent with mentors about the research study having dual aims, namely: i) developing mentors' practice, and ii) contributing towards my EdD. It was also explicitly stated that mentors would not be privileged or penalised for taking part in the study. Additionally, I made it clear that I could not use my professional role to allocate student teacher placements, which could be considered as an incentive. Mentors then signed a form to give voluntary informed consent (see Appendix 3).

The potential power differential due to my roles as the university tutor and researcher, and the mentors' professional roles, was fully acknowledged and considered in the design of the study. Additionally, the collaborative and iterative process of design-

based research helped to minimise what might have been considered a power differential between me and the mentors (Tuli, 2010).

Finally, in line with the BERA (2018) guidelines, the mentors' privacy, and that of their schools was ensured by adhering to the norm of anonymising participants and institutions through using pseudonyms and codes respectively, thus avoiding deductive disclosure (Tracy, 2010). Additionally, in line with the Data Protection Act (2018), mentors were made aware that their data would be securely stored on Cardiff Met's password protected OneDrive platform, and that it would only be used in the dissemination of a research report, and any subsequent academic publications.

3.2.3 Design-based research

The decision to situate my research study within a pragmatic paradigm directed me towards specific research design choices. Indeed, an exploration of design-based research (Bethell, 2020 ¹³), appeared to effectively address the research objectives of my study, with the focus on an iterative process of designing, investigating, and refining a product (Anderson and Shattuck, 2012; Bethell, 2021 ¹⁴). It further allowed me to create a usable product whilst embracing my philosophical position relating to the active involvement of mentors in the implementation, evaluation, and refinement of a self-reflection tool for their use. One of the specific features of design-based research focuses on the development of products and provides recommendations that will inform practice and have an impact on a specific problem or situation (Brown, 1992). Anderson and Shattuck (2012: p.16) state that design-based research is, '... situated in a real educational context which provides a sense of validity to the research

¹³ See EdD submission for DOC8003 WRIT1 – Proposed Project Design and Pilot (Essay), submitted with this final report

¹⁴ See EdD submission for DOC8003 WRIT2 - Proposed Project Design and Pilot (Report), submitted with this final report.

and ensures that the results can be effectively used to assess, inform, and improve practice in at least this one (and other) context.’. As the aim of my research study was to design a self-reflection tool to support school-based mentors in their ability to engage in effective reflective practice, the choice of a research design that: i) recognises the individual context (the initial teacher education programme and school setting); ii) the development of a product (self-evaluation tool); and, iii) the use of self-reflective cycles (theoretical models), appeared an appropriate one.

The seminal works of Brown (1992) and Collins (1992) both advocated an innovative approach to research design based upon concerns that existing approaches failed to recognise the complexity of educational settings. Barab and Squire (2004: p.9) believe that a distinct feature of design-based research is understanding the messiness of the real-world, ‘... with context being a core part of the story and not an extraneous variable to be trivialised.’. Brown (1992) advocated that theory should inform design and vice-versa, which Collins (1992) also supported stressing the role of theory to inform design, and the role of design testing to refining theory. Collins (1992) also suggested that innovations created in a laboratory, and those implemented in real classrooms, were frequently quite different, recognising that classroom variables are key features of the educational context. Cobb *et al.* (2003) argue that the role of design-based research is not merely to empirically ‘tune’ what works, with all the emphasis being on the iterative design process, but to develop and refine theory. Indeed, Barab and Squire (2006) support the argument that design-based research needs to be more than hypothesis testing, and that theorising needs to recognise the characteristics of the situation and the design in practice. Therefore, theory may be ‘humble’ because of the concentrated foci of much design-based research on specific situations and contexts (Cobb *et al.*, 2003: p.2).

In the context of my study, the term design-based research is used for clarity and consistency. The characteristics identified below can be identified in most design-based studies, and they are also true of my study (Collins *et al.*, 2004; van den Akker *et al.*, 2006):

1. **Interventionist** – my research was aimed at designing an intervention in the real world. There is recognition of the naturalistic (messy) context, therefore.

2. **Iterative** – my research incorporated a cyclic design, evaluation, and revision approach. There was no attempt to hold variables constant, the aim was to identify variables and characteristics of situations that affect the variables of interest.
3. **Process-oriented** – a black box model of input-output measurement was avoided; the focus was on understanding and improving the self-reflection tool.
4. **Utility-oriented** – the merit of a design is measured, in part, by its practicality for users in real contexts. Design-based research started with planned procedures, but they were not tightly defined and were refined depending upon their success in practice. There was a concerted effort to involve different participants in the design process, each bringing their experiences and expertise in the implementation, evaluation, and analysis of the design.
5. **Theory-oriented** – the design was (at least partly) based upon theoretical propositions; and field testing of the design contributed to theory building.

It was felt that the emphasis of the research design on collaboration between myself and the mentors in an initial teacher education setting fitted within the objectives of my research study. As suggested by Anderson and Shattuck (2012) the creation of the intervention was based upon the identification of a problem within the 'local' context, with interventions created from the investigation of relevant literature, theory, and practice, from comparable contexts. Indeed, McGuigan and Russell (2015: p.35) claim that this will: '... generate evidence-based and ecologically valid recommendations for practice.'. Both my professional practice and experience, and an extensive critical systematic review of the literature (Bethell *et al.*, 2020), were deemed to fulfil Anderson and Shattuck's (2012) requirement to understand the background and context for the investigation to solve the problem that mentors did not fully appreciate the breadth of their role. Consequently, the ability to self-reflect was not always effective.

Design-based research recognises that in an educational setting the collaboration between researchers and practitioners is crucial. The reality was that the mentors with

whom I worked had the situational knowledge and experience, whilst I as the researcher had the means to investigate the process from the identified problem to the creation of a product (Anderson and Shattuck, 2012). Professionally, the emphasis on undertaking research 'with' mentors, rather than doing it 'to' them, was an important feature of the approach. The emphasis on 'understanding' implies a willingness to be involved in change, rather than the imposition of change. Support for my research study was sought, and secured, from 'experts' in mentoring in initial teacher education from the Cardiff Partnership, and from two other higher education institutions involved in initial teacher education provision. This extended the collaborative process into the wider initial teacher education community, thereby strengthening the design-based research aim of providing a basis for research in other situations.

Maxcy (2003) argues that it is acceptable to use a range of methods within this design approach, as they need to be appropriate to the specific situation or problem. This is in keeping with the suggestion that, when approaching research from a pragmatic perspective, a researcher will choose methods that are deemed best to answer the questions being asked. As one of the features of design-based research is several potential iterations, the flexibility to employ a variety of methods is a strength. Design-based research does not claim to produce theories and products that are necessarily generalisable but which reflect a specific situation and context. Indeed, this feature will be recognised when presenting the findings of my study; where the use of the self-reflection tool required additional iterations in different situations (or contexts) to be fit-for purpose. However, as Collins *et al.* (2004: p.21) state, one of the strengths of design-based research is: 'Design experiments are contextualized in educational settings, but with a focus on generalizing from those settings to guide the design process. They fill a niche in the array of experimental methods that is needed to improve educational practices.'

The iterative process employed in my research study, which is an integral component of design-based research is highlighted in Figure 3. It gives a graphic representation of the timeframe involved for each of three iterative cycles allowing time to: *design*; *implement*; and, *evaluate* the self-reflection tool. These iterative cycles were a critical element in achieving the aim and objectives of my research study. As my knowledge

and understanding developed throughout each iterative cycle I was able to refine the design and content of the self-reflection tool to support mentors' reflective practice more effectively.

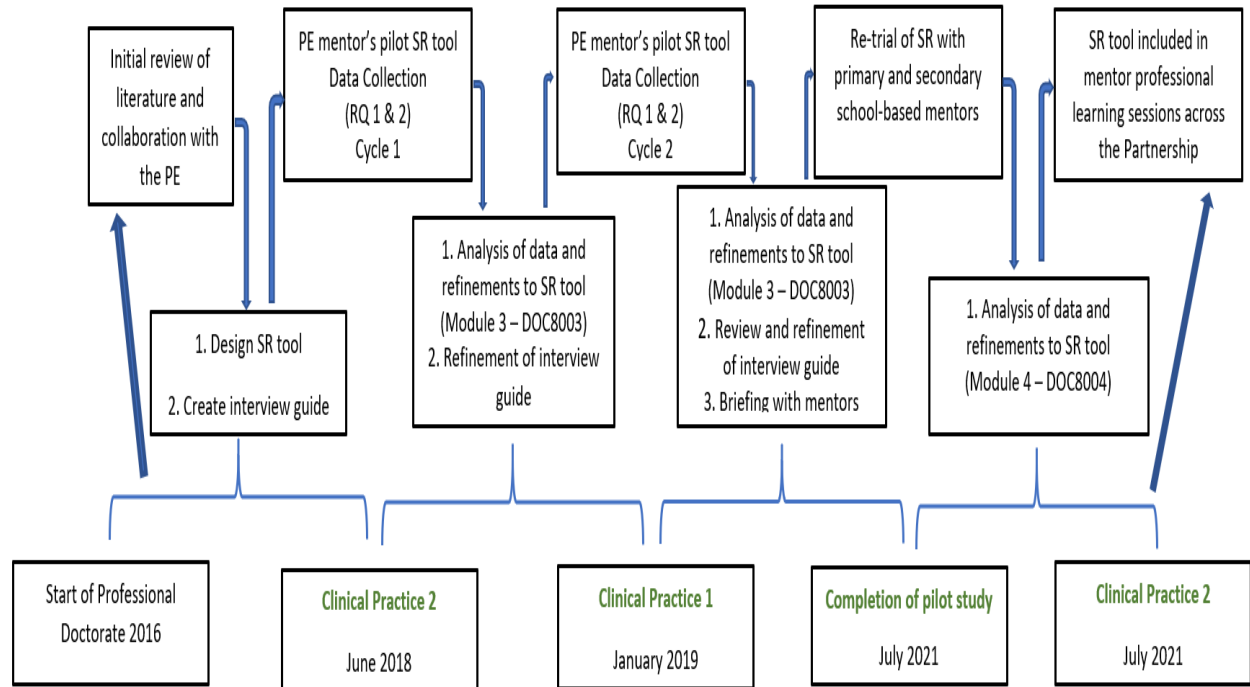


FIGURE 3-TIMELINE FOR THE DEVELOPMENT OF THE SELF-REFLECTION TOOL (JUNE 2018-2021)

The next section discusses how the iterative process was employed to develop the self-reflection tool.

3.2.3.1 Developing the self-reflection tool

The design and creation of the self-reflection tool was initially inspired by the graphic representation of the *Vitae Researcher Development Framework* (RDF, 2011) (see Appendix 4). The content was informed by analysing, synthesing, and evaluating information from a number of sources, namely: i) a systematic review of relevant

literature (Bethell, 2019 ¹⁵); ii) the National Standards for School-Based Initial Teacher Training and Mentors (North East Partnership, 2016; see Appendix 5); iii) the Carter Review on the quality of Initial Teacher Training (Department for Education, 2016); iv) Maximizing the Potential of Mentoring: A Framework for Pre-service Teacher Education (Ambrosetti, Knight, and Dekkers, 2014); v) feedback from a scoping study with PE mentors (Bethell, 2020); and, vi) a preliminary study trialling the self-reflection tool with PE mentors (Bethell, 2021). The self-reflection tool was designed to be a physical document that could be easily annotated by mentors. Several iterations of the original design were created prior to the final study being reported here, earlier iterations of the self-reflection tool can be seen in (Bethell, 2020, 2021). Figure 4 shows the fifth iteration of the self-reflection tool that was used by the subject mentors in my final study.

¹⁵ See EdD submission for DOC8002 WRIT1 – Proposing Change: Review of Literature and Rationale for Change, submitted with this final report.

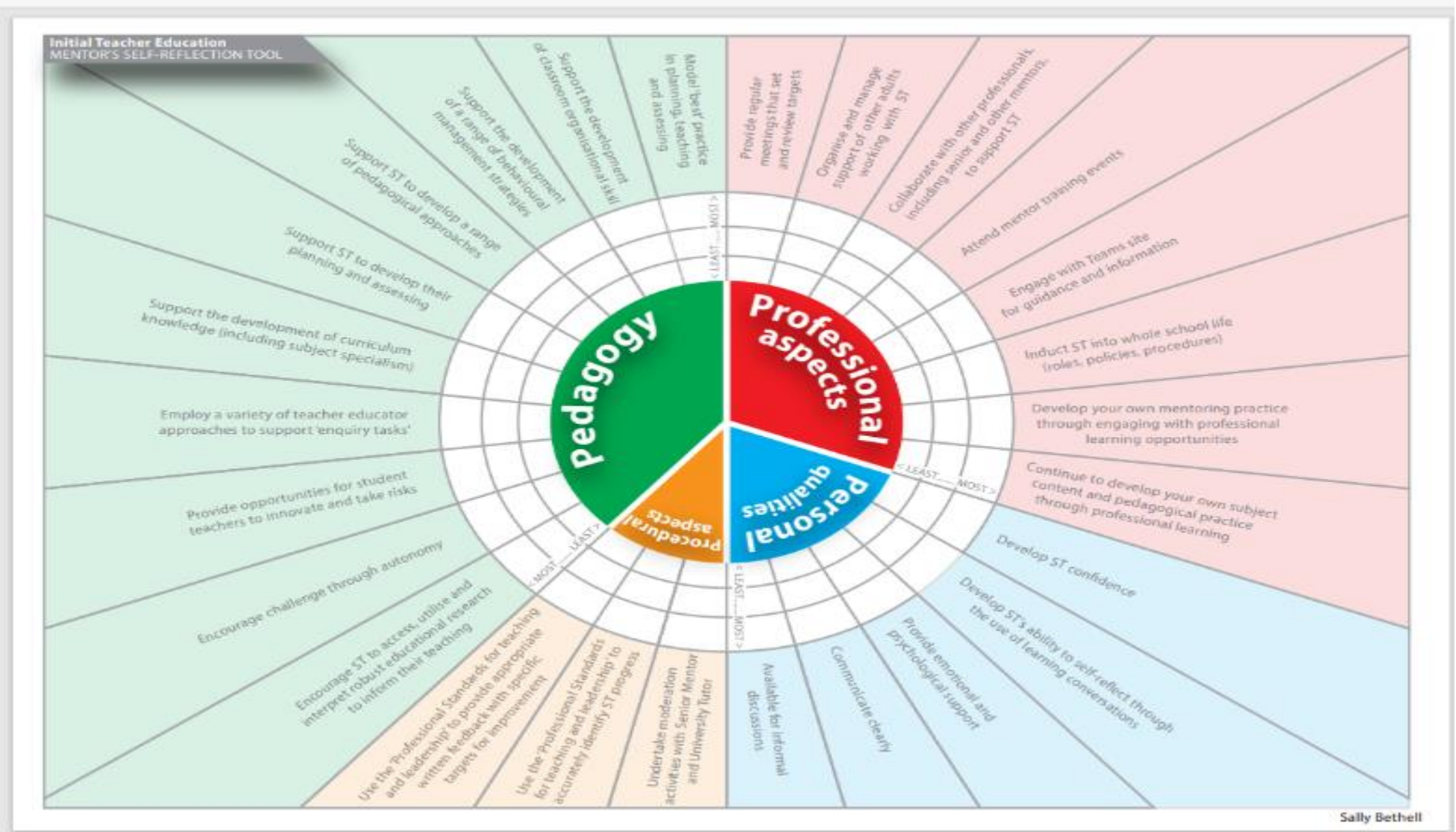


FIGURE 4-SELF-REFLECTION TOOL (FIFTH ITERATION - BETHELL, 2021)

3.2.3.2 *Participants*

My participants were drawn from the population of mentors in two of the Cardiff Partnerships *Lead Partnership Schools* ¹⁶, one secondary school (11-18 years of age) and one primary school (3-11 years of age). The participants were considered an appropriate sample as they were representative of the initial teacher education provision under investigation (Vogt *et al.*, 2012). According to Cohen, Manion and Morrison (2011), there is no definitive sample size when undertaking a qualitative research study. My sample size was considered sufficient in number 'to fully inform all essential elements of the phenomena being studied' (Sargeant, 2012: p.1). Therefore, it was considered a *purposeful* sample (Knelchel, 2019). However, given that the research was undertaken when schools had only recently returned to face-to-face teaching after the second Covid-19 lock-down, I felt an ethical responsibility to ensure participants were *willing* and *able* to be involved in the study (Vogt *et al.*, 2012).

Therefore, prior to mentors giving their voluntary informed consent, I invited all the mentors from both schools to a presentation outlining the purpose of the study, which included ethical considerations, and what it would entail from their perspective. Seven mentors volunteered to be participants giving their informed voluntary consent to take part in the study, four from the secondary school and three from the primary school.

Participants had varied profiles in terms of age, gender, teaching experience, mentoring experience, subject specialism, and age phase taught. Indeed, the range of participant profiles addressed the need to have a research sample that was *representative* of the population under investigation (Knelchel, 2019). A profile summary for my participants is presented in Table 2. Participants' real names were substituted with pseudonyms to ensure their anonymity (BERA, 2018).

¹⁶ Lead Partnership Schools – provide school-led training days, supporting theory to practice, as well as Clinical Practice placements.

TABLE 2 - SUMMARY OF THE STUDIES SCHOOL-BASED MENTOR PROFILES

Teacher's pseudonym	Teaching experience	Mentoring experience	Primary/Secondary	Phase/Subject
Lara	20 yrs.	6 student teachers	Primary	Early Years
Peter	5 yrs.	2 student teachers	Primary	Key Stage 2
Anna	18 yrs.	5 student teachers	Primary	Nursery
Jane	6 yrs.	2 student teachers	Secondary	Science
Chloe	4 yrs.	3 student teachers	Secondary	Religious Education
Lily	30 yrs.	10 student teachers	Secondary	Physical Education
Dai	10 yrs.	3 student teachers	Secondary	Geography

3.3 Data collection methods

Methods are what Bryman (2006) refers to as techniques that researchers employ to practice their craft. Interviews and documented evidence were the data collection methods I selected for my study. Following the advice of McKenney and Reeves (2019: p.106) methods were chosen based on the ‘... links between the affordance of particular methods and the questions being asked ... as the primary determinant.’

3.3.1 Interviews

Barab and Squire (2017) assert that one of the characteristics of design-based research is that it captures the ‘messiness’ of real-world interactions. Therefore, I chose interviews as the main data collection method to capture the social interactions of my mentors. Indeed, Blaxter, Hughes and Tight (2006) advocate the use of interviews to yield data that can be rich in the depth of information gathered as well as its breadth. The use of interviews enabled participants, both the interviewees and the interviewer, to discuss their interpretations about the situation from their own points of view (Cohen, Manion and Morrison, 2011). This view is also supported by McKenney and Reeves (2019) who state that the methods chosen should ensure that all participants are heard, as this gives a balanced portrayal of the situation, and it helps to create broader ownership of the results from the research study. Philosophically, this research method fulfilled my need to recognise the importance of mentors’ interpretations of their experiences, and the meaning they attached to them.

Several measures were considered to facilitate acceptable levels of authenticity and credibility when conducting the interviews. Informed consent (see section 3.3 for more detail) was obtained from all participants, including their commitment of time (Bell, 2011). Interviews were semi-structured to ensure that all participants could answer the same series of questions, but with the freedom to probe interesting responses (Bakker, 2018). An interview guide (see Appendix 5), was constructed that focused on initial

questions, but there were also subsequent questions to facilitate and support deeper investigation (Brenner, 2006). The interview guide was an adapted version from the pilot study (Bethell, 2021) which used themes informed from the review of literature relating specifically to mentoring in initial teacher education, and reflective practice. This was designed to enable describing and analysing responses easier (Biggam, 2015). Bakker (2018) suggests that the use of an interview guide also helps avoid ‘unsystematic bias’. The guide for this study also included time given at the start of each interview to allow me to provide a context for the interview, and to create an environment that encouraged the interviewee to talk expansively and honestly (Brenner, 2006; Gill *et al.*, 2008). An interview schedule was created that minimally imposed upon the interviewees in terms of the length of time of the interviews, and the convenience of location (Bell, 2011). Interviews were digitally recorded thereby enabling me to listen and watch, and to respond to my interviewee’s responses, without the need to constantly taking written notes, which could have been inaccurate and distracting for both parties (Gill *et al.*, 2008). The use of digitally recorded interviews provided an accurate record, avoiding bias due to memory, and further allowed for the potential for analysis by other researchers; thereby increasing the credibility of the study in the sense that it was independent of me as the researcher (Bakker, 2018).

Finally, the time commitment that the mentors would have to give over to participation in my study was minimised where possible. On average each interview last 30 minutes. Interviews took place at a time that suited each participant, and they were conducted remotely via Microsoft Teams ¹⁷.

¹⁷ Microsoft Teams is a digital platform with a function for video calls.

3.3.2 Documented evidence

The self-reflection tool was designed to be a physical document that could be annotated by mentors (see Figure 4). This type of document has been described by Bell (2010: p.127) as 'witting' evidence, in that it was based on information that I as the researcher wanted to impart about the various aspects of mentoring, and to prompt participants' self-reflections in the process. Furthermore, the annotated documents provided a 'deliberate', 'primary' source of evidence based upon the participants' perceptions of their mentoring with individual student teachers (Bell, 2010: pp.125-126). Quantitative data was obtained from mentors' annotated documents by awarding numerical values based on the number of boxes per segment that had been highlighted (Bowen, 2009). Therefore, the way in which the self-reflection tool was used by mentors, provided helpful data in ascertaining its value in supporting self-reflection. Understanding how the documents can be used to support self-reflection would then facilitate the development of the tool through the design-based research iterative process (Collins *et al.* 2004; Brown, 2006)

3.4 Analysis of data

A thematic analysis of the qualitative data derived from the interviews was undertaken following the systematic approach suggested by Nowell *et al.* (2017). Interviews were transcribed verbatim by a professional transcriber. I then checked and amended the transcripts through a prolonged engagement with the documents whilst simultaneously listening to the original recordings. Transcripts were also returned to participants to enable a *secondary* check for accuracy and/or to allow for the redaction of information (which one mentor did; Gilbert, 2008).

NVivo software was used to aid the storage, sorting, and organisation of the interview data (see Appendix 6 for a graphic representation of this process) (Nowell *et al.*, 2017). A deductive thematic analysis was employed to search for pre-identified themes within the transcripts. The themes were based on questions asked during the interview process and that were considered relevant for answering the aim and objectives of the

research study (Dilley, 2000). The process involved listening to each recording, and re-reading each transcribed interview, to facilitate a coding process that went beyond identifying key words or phrases, to identify explicit and implicit concepts (Braun and Clarke, 2006). These themes provided the basis for an inductive thematic analysis, where initial themes were then re-examined thoroughly to identify sub-themes, highlighting more specific trends in the data (Edwards *et al.*, 2016). This two-step or *hybrid* approach of identifying general themes and sub-themes accurately reflects and can be substantiated by the raw data. In Chapter 4, Table 4.1 provides a clear visual representation of the themes and sub-themes.

Each mentor's annotated self-reflection tool was reviewed and analysed systematically (see Appendices 8-14). As mentor's ratings had been based on their perceptions an *ordinal* scale was employed (Cohen, Manion and Morrison, 2018). For each segment of the self-reflection tool for each mentor the following numerical values were awarded; one where the *least important* box was annotated, two for of *some importance*, and three for *most important* (Cohen, Manion and Morrison, 2018). The quantitative data derived from the content of the document analysis enabled me to identify individual mentor profiles such that salient aspects were identified depending upon the characteristics of the student teachers assigned to each mentor. The use of colour in visual representations is advocated by Blaxter, Hughes and Tight (2010). Therefore, individual scores were converted into colours: *i*) blue = one, *ii*) yellow = two, and *iii*) green = three, providing a clear visual schematic when the data was presented in a table format (See Chapter 4, Table 4.2). The presentation of this data in a table format enables the reader to see individual mentor's mentoring profiles and to see relationships between aspects of all mentors' profiles.

The combining of qualitative and quantitative data through a concurrent embedded design sits comfortably within the mixed methods approach I originally identified for my study (Cresswell, 2009). Qualitative data derived from the individual mentor interviews was therefore corroborated, and in places challenged by the quantitative data obtained from the document analysis described.

3.5 Features considered to ensure quality research

Validity and reliability have been the criteria associated with the identification of quality research studies, and they indicate how well methods, techniques, or tests measure something (Golafshani, 2003; Cohen, Manion, and Morrison, 2011; Bakker, 2018). However, these criteria have traditionally been associated with quantitative methodologies, with the emphasis upon standardised tests, empirical testing, random samples, and controlled variables that produce findings allowing predictions and generalisations to be made from samples to populations (Guba & Lincoln, 1994; Scotland, 2012; Bakker, 2018). Indeed, Guba and Lincoln (1994) highlight that what quantitative approaches fail to recognise, is the potential that multiple realities are possible, having reduced the complex to the simple by controlling and reducing variables, and that these 'reductive' approaches can be problematic. Indeed, the statistical data generated from samples in quantitative studies, whilst often generalisable, does not necessarily provide a complete picture at an individual level. Qualitative data, on the other hand, allows for investigation at an individual level, and recognises the importance of the social and experiential basis of reality (Tracy, 2010; Scotland, 2012). Although Guba and Lincoln (1994) recognise there are multiple realities for individuals, they claim that there are often elements shared amongst many individuals, and even cultures. Applying a quantitative approach to the 'credible' contributions of individuals, therefore, enables the identification of commonalities, which also provide the potential for transferability. As Scotland (2012) asserts, transferability is one of the prime criteria in assessing the quality of quantitative research.

As discussed previously, my study is situated in a pragmatic paradigm, using a mixed methods approach, but with an emphasis within the qualitative domain. Therefore, to interpret validity and reliability from a more traditional positivist perspective, would have been inappropriate with its emphasis upon; controllability, replicability, predictability, the derivation of laws of behaviour, randomisation, and observability (Guba and Lincoln, 1994). Indeed, as Stenbacka (2001) believes that as qualitative research is not concerned with the process of measuring/quantifying, then the terms

‘validity’ and ‘reliability’ are not useful. Consequently, and as suggested by Golafshani (2003), appropriate synonyms for ‘validity’ and ‘reliability’ need to be substituted to reflect the alternative research perspective employed in my study. The terms ‘representativeness’ and ‘trustworthiness’ have therefore been used respectively, as suggested by McKenny and Reeves (2019). Golafshani (2003) also used the term ‘trustworthiness’ and identifies, quality, rigour, and dependability as criteria that can be employed to identify quality in qualitative research.

Based upon reflections of the work of Tracy (2010), related to what constitutes quality in qualitative research, the following eight characteristics have been identified: i) the research is applied to a worthy topic; ii) it has been investigated with rigour; iii) it makes a significant contribution; iv) it is ethically informed; v) it has meaningful coherence, vi) the approach is sincere; vii) it has credibility; and, viii) it has resonance. Whilst acknowledging that it could be argued that the first five of these criteria apply equally well to quantitative approaches, the criteria of sincerity, credibility and resonance apply specifically to qualitative approaches. As such all eight criteria were applied to my research study using the ‘concurrent embedded’ mixed methods approach (Cresswell, 2009). Sincerity refers to the involvement of me as the researcher in the study, and how the subjective nature of my values and biases have had an influence, and therefore needed to be acknowledged. The credibility of my study relates to the rich descriptive contributions that are provided by a variety of individual mentors (multivocality), and the use of my tacit knowledge to elicit and analyse these contributions (Guba and Lincoln, 1994). Finally, resonance is evidenced whereby readers of my research will associate with it, or will be influenced by it, because it evokes connections, or they can see how the findings can be generalised to their own context. It could also be claimed that ‘resonance’ is inextricably linked to ‘worthiness’ and other significant contribution characteristics, in that it is regarded as ‘useful’ to readers (Barab and Squire, 2004: p.8). However, the rigour and quality of a quantitative research study is determined by the richness of the data (its authenticity), and the appropriate analysis of that data (its trustworthiness) (Sargeant, 2012).

3.6 Triangulation

The use of two methods of data collection and data analysis, namely: i) the thematic analysis of the interview data, and ii) a document analysis performed on the mentors' self-reflection tools, were employed to increase the trustworthiness and validity of my research (Bakker, 2018). Although one data source is considered enough for some studies, additional data sources enable 'cross-checking', thus facilitating the ability to corroborate or challenge findings (Bowen, 2009; Bell, 2011). By using the same two data collection methods after a Clinical Practice was completed for each data capture point in the design-based research cycle my study aimed to achieve what Cohen, Manion and Morrison (2011) call 'methodological triangulation'. Indeed, the 'connected' framework design of Cardiff Met's Professional Doctorate programme ensured three research cycles were completed (Cresswell, 2009: p.212; Bethell, 2021). This, in turn, helps avoid any accusations that my study was conducted at only one point in time. This is a frequent criticism of educational research made by many, but most notably by Murray, Nuttall, and Mitchell (2008).

Chapter 4

4.0 Results and discussion of findings

Several significant findings were identified through my research study. Of primary importance was that mentors found the self-reflection tool valuable in supporting their reflective practice. Mentors also suggested that the self-reflection tool helped them to recognise the breadth of the role, which in turn supported their analysis and evaluation of their mentorship. In addition, mentors were able to identify aspects of their mentorship they prioritised to support their student. However, most mentors identified that *research* and *enquiry* activities were not a priority of their role during Clinical Practice 2. Most mentors were able to suggest ways they could professionally develop their role. There were a few minor suggestions made by primary school mentors to develop the self-reflection tool. Finally, secondary school mentors highlighted the challenges and impact of Covid-19 on their mentorship.

This chapter is presented in three sections related to the research questions posed. The sections will cover: the reflective practice of mentors; mentors' professional learning; and refinements to the self-reflection tool. An analysis and discussion of the data collected from mentors' interviews and their annotated self-reflection documents inform each section. Noteworthy findings from the analysis of both these data sets are presented and described; these findings are then critically interrogated by way of providing explanations as to why they occurred and developing an understanding in relation to the research questions posed. Table 3 provides a schematic representation of the collated overall responses elicited through the interview process. Table 4 presents an analysis of the self-reflection tool annotations as a clear visual schematic.

4.1 Research question 1: Does the self-reflection tool support mentors in their reflective practice?

Reflective practice in the context of my research study refers to a mentor's ability to critically reflect upon their mentoring to maintain or extend their professional practice (Malthouse and Roffey-Barentsen, 2013). An analysis of the interview responses indicated all mentors were able to identify and articulate aspects of their mentorship role which they considered had a positive impact upon their student teachers' progress (see Appendix 15 for mentor responses). All mentors were also able to identify aspects of the mentoring role that they considered were not as important in supporting their student teachers' development. Finally, five out of seven mentors were able to identify aspects of their mentoring role that they considered would make them more effective in the future. This finding suggests that mentors were tailoring their mentoring based on the perceived needs of their student teacher.

Table 3 illustrates the themes and sub-themes I identified through a thematic analysis of the mentor responses derived from their interview transcripts. Bold type indicates data that were considered either pertinent to answering the research questions or considered highly relevant. Four main themes were identified, namely: i) *mentors as reflective practitioners*; ii) *most important aspects of mentoring for Clinical Practice 2*; iii) *least important aspect of mentoring in Clinical Practice 2*; and iv) *feedback on the self-reflection tool*.

A graphic representation of the overall data from mentors' annotated self-reflection tool is provided in Table 4. Each aspect presented represents a section of the self-reflection tool. An analysis of the annotated self-reflection tool identified aspects of the mentorship role which were perceived to be most or least important for mentors. Each mentor's annotated profile was unique. Several aspects of mentoring were awarded *important* ratings from at least 5 mentors, including: the foundational aspects of pedagogy (Aspects 23-26); mentor's personal skills (Aspects 10-12); the professional aspects of regular mentor meetings and induction into whole life (Aspect 1 and 6); and the procedural aspects related to the *Professional Standards for Teaching and Leadership* of monitoring progress and providing written feedback to support

development (Aspect 14 and 15). The three aspects of mentoring considered *least* important by six mentors, or more were: use of the Cardiff Partnership ‘Teams’ site for guidance and information; and mentor development of mentor’s practice through engagement with professional learning opportunities (*aspects* 5, 7 and 20).

The following section explores in more depth the findings from my analysis of both sets of data to answer research question one.

TABLE 3 - SUMMARY OF THE THEMATIC ANALYSIS OF MENTORS’ INTERVIEW DATA COLLECTED DURING CLINICAL PRACTICE 2 – JULY 2021

Themes	Sub-themes	Number of mentors
Mentors as reflective practitioners	Do mentors reflect? How do mentors reflect? Why do mentors reflect? When do mentors reflect?	7 5 5 5
Reasons for being a mentor	Professional development Bringing new teachers into the profession Professional progression Support the development of student teachers	5 2 3 4
Most important aspects of mentoring for CP2	Autonomy, innovation and taking risks Behaviour management Classroom management Collaboration with ITE staff Emotional and Psychological support Engagement with Research Learning conversations Modelling teaching Coordinate and support the department Develop pedagogical approaches Support planning and assessment Use of the professional teaching Standards	2 2 2 1 2 2 3 3 1 3 2 2
Least important aspects of mentoring for CP2	Modelling Informal discussions Innovation and taking risks Developing ST use of Research & Enquiry Developing planning and assessment Developing a range of pedagogical approaches Developing confidence Mentor professional learning Engagement with Teams document site	1 1 2 7 1 2 1 4 2
Proudest aspect of mentoring from CP2	Influence over ST progress Impact of feedback Mentor's personal development Personal organization	4 4 2 1
Identification of areas for mentor development	Collaboration Developing mentor qualities Engagement with ST digital portfolio	3 3 1
Self-reflection tool feedback	Benefits of SR tool Using the SR tool Refinements to SR tool	7 3 3
Feedback for the Partnership related to mentoring	Use of collaborative practice Dissemination of course content Structure of Clinical Practice	1 2 1

TABLE 4 - ANALYSIS OF MENTORS' ANNOTATED SELF-REFLECTION TOOLS (JULY 2021)

	Mentor	Dai	Jane	Lily	Chloe	Lara	Anna	Peter
Aspect of mentoring on the self-reflection wheel								
1. Provide regular meetings that set and review targets								
2. Organise and manage support of the department/AoLE for ST								
3. Collaborate with other professionals, including senior and other mentors to support ST								
4. Attend mentor training events								
5. Engage with 'Teams' site for guidance and information								
6. Induct ST into whole school life (roles, policies, procedures)								
7. Develop own mentoring practice through engaging with professional learning opportunities								
8. Continue to develop own AoLE, subject and pedagogical practice through research and enquiry								
9. Develop ST confidence								
10. Develop ST's ability to self-reflect through the use of learning conversations								
11. Provide emotional and psychological support								
12. Communicate clearly								

TABLE 4 CONT. - ANALYSIS OF MENTORS' ANNOTATED SELF-REFLECTION TOOLS (JULY 2021)

Mentor	Dai	Jane	Lily	Chloe	Lara	Anna	Peter
Aspect of mentoring on the self-reflection wheel							
13. Available for informal discussions				**			
14. Undertake moderation activities with Senior Mentor and University Tutor	+						
15. Use the 'Professional Standards for teaching and leadership' to accurately identify ST progress							
16. Use the 'Professional Standards for teaching and leadership' to provide written feedback with specific targets for improvement							
17. Encourage ST to access, utilise and interpret robust educational research to inform their teaching							
18. Encourage challenge through autonomy	+						
19. Provide opportunities for ST to innovate and take risks	+						
20. Employ a variety of teacher education approaches to support 'enquiry tasks'							
21. Support development of curriculum knowledge (including subject specialism)				**			
22. Support ST to develop their planning and assessing							
23. Support ST to develop a range of pedagogical approaches							
24. Support and develop a range of behavioural management strategies							
25. Support the development of time management							
26. You model 'best' practice in planning, teaching, and assessing				**			

Key: Table 4.2 illustrates how mentors annotated their self-reflection tools using a simple scale **Green** represented 'most' important, **Yellow** 'some importance' and **Blue** 'least important'. Where a box is White it was because the mentor had left it blank. ** indicates that a box was half annotated and + indicates the mentor would usually employ these aspects but did not during this Clinical Practice.

4.1.1 Mentors as reflective practitioners

When mentors were asked about their reflective process their responses were varied; in this respect they identified some similarities, but there were also several differences. The main theme: '*are mentors reflective*', derived from the interview data was reviewed and then categorised into four sub-themes based upon the meaningful way the data appeared to connect. The main themes and sub-themes are identified in Table 3 and are discussed in the following section as: i) *do mentors reflect?* ii) *how do they reflect?* iii) *why do they reflect?* and iv) *when do they reflect?*

4.1.1.1 *Do mentors reflect?*

When mentors were asked if they reflected on their mentoring role, without exception they all stated that they did. Indeed, by way of an example, Chloe's and Peter's responses suggested that they considered reflective practice as part of their normal professional practice:

I think that comes naturally; as a teacher, I'm very reflective anyway, so I'm constantly thinking about what I need to do, what I have done, the impact of it, how can I change it for next year with a different student. (Chloe, Interview 1: 08.07.21)

It's common with teachers anyway, we're constantly reflecting anyway, so it's a natural process. (Peter, Interview 7: 14.07.21)

This was a critical finding as the self-reflection tool can only be of value if mentors engage in reflective practice. Theoretically, it had been assumed that the professional expectation that teachers are reflective practitioners, with a will to understand and develop their practice, would also apply to their extended role as a mentor (Schon, 1991; Malthouse and Roffey-Barentsen, 2013). Therefore, it was reassuring to hear all mentors state that this assumption was indeed correct from their own perspective.

The discussions with mentors related to their reflective practice were revealing. All mentors considered themselves to be reflective. Table 5 provides an overview of; sub-

themes, mentors' responses, and consideration of implications linked to relevant literature. There was significant variation in individual mentors' responses as to how, why, and when they considered they used the process of reflective practice. There was consensus that reflective practice enabled mentors to be more effective in supporting their student teachers during a Clinical Practice and informed their future practice. Loughran (2013) suggests that this enables *justification of practice*, where mentors make conscious decisions to maintain or adapt subsequent practice. No mentors mentioned a school culture that actively encouraged reflective practice. However, the fact that the senior mentor in the primary school had actively sought out my professional help (see Chapter 6 section 6.2), indicates that there was a desire to develop reflective practice with mentors in that school. The following sections interrogate specific *aspects* of the mentoring role using the self-reflection tool to inform the interview discussions.

TABLE 5- INVESTIGATION OF MENTOR'S SELF-REFLECTIVE PRACTICE

Sub-theme	Aspects identified	Example of mentor response	Links to literature and implications
Why do mentors reflect?	1. To support their student teacher effectively (5 mentors).	<p><i>... when things have maybe gone a bit wrong or there's been a bit of miscommunication, I just kind of think about how that could have been avoided and how I'd do it differently next time...</i> (Jane, Interview 4: 08.07.21)</p> <p><i>I look at their progress, and I think about what I need to do in order to support them to get them to where I think they need to be.</i> (Chloe, Interview 3: 08.07.21)</p>	<p>As identified by Ambrosetti, Knight, and Dekkers, (2014) the need to have effective communication skills is paramount to be an effective mentor. As an inexperienced mentor therefore, Jane's recognition that she needed to develop her communication skills was a pertinent comment. Jane's identification of <i>correcting</i> practice reflects the <i>problematic</i> experiences identified as a critical feature underpinning the theoretical work of Schön (1991). Schön (1991) suggests that it only when a problem occurs that reflective practice is valuable.</p> <p>This comment associates more closely with Loughran's (2002: p.33) notion that an experience does not need to be identified as problematic, it could be just a '... puzzling, curious, or perplexing situation'. As suggested by Malthouse and Roffey-Barentsen (2013), Chloe employed reflective practice to develop her knowledge, identifying what practice to maintain and what aspects to develop</p>
How do mentors reflect?	<p>1. Informality of the self-reflection process. (2 mentors)</p> <p>1b. Formality of the self-reflection process. (1 mentor)</p>	<p><i>... not in a formal sense I suppose, but I do reflect personally... but not in a formal written-down way.</i> (Lara, Interview 5: 13.07.21)</p> <p><i>I don't keep a journal or anything like that.</i> (Anna, Interview 6: 14.07.21)</p> <p><i>Student teachers... complete a reflection of my mentoring at the end of their placement, to inform me of things that they really valued and things that they think they would have found beneficial when they joined me ... this is for my benefit and that of future students.</i> (Chloe, Interview 3: 08.07.21)</p>	<p>Mentors choosing to engage in the process of reflective practice supports the work of Loughran (2013), who suggests conscious decisions need to be employed to develop professional knowledge. Indeed, the idea of 'taking initiative' for involvement in a process that is not being encouraged or demanded of the role, also reflects a level of mentor <i>agency</i> (Eteläpelto, 2013).</p> <p>Interestingly, whilst many mentors suggested that their reflections were informal and sometimes <i>ad hoc</i>, Chloe shared that she had formalised a process to contribute to her reflective practice, using a Google Form. According to the views of Priestly, Biesta, and Robinson (2015), Chloe was also demonstrating characteristics of mentor agency by taking the initiative to <i>systematically</i> reflect upon her practice, in search of information and ideas to develop her practice.</p>

TABLE 5 - CONT.- INVESTIGATION OF MENTOR'S SELF-REFLECTIVE PRACTICE

Sub-theme	Aspects identified	Examples of mentor responses	Links to literature and implications
How do mentors reflect?	2. Social dimension. (4 mentors)	<i>... discussion with the students, discussion with my TA, we sort of reflect on things that are going well, things we can improve upon. There are obviously meetings with lead Mentor XXXX as well, so we have some reflective practice there. (Anna, Interview 6: 13.07.21)</i>	Four mentors out of seven identified how a range of other school staff contributed to their reflective processes. According to Thompson and Pascal (2013), an awareness of the importance of the social context of mentoring by mentors demonstrates <i>reflexivity</i> , which is considered a <i>critical</i> aspect of reflective practice. However, this was not corroborated by mentors' annotations suggesting that mentors are reflecting on the impact on student teachers, rather than their mentorship.
When do mentors reflect?	1. On-going process 2. At the end of a Clinical Practice	<i>I think that comes naturally; as a teacher, I'm very reflective anyway, so I'm constantly thinking about what I need to do, what I have done, the impact of it, how can I change it for next year with a different student. (Chloe, Interview 1: 08.07.21)</i> <i>It's common with teachers anyway, we're constantly reflecting anyway, so it's a natural process. (Peter, Interview 7: 14.07.21)</i> <i>I've thought about that at the end of this placement, and at the end of last year really. (Dai, Interview 2: 07.07.21)</i> <i>Particularly between the two placements, there was a lot I would change about my mentoring style ready for XXXX, but also just kind of within the placement as well. (Jane, Interview 4: 08.07.21)</i>	Mentors' comments related to the timing of reflective practice mirror Schön's (1991) identified <i>reflection-in-action</i> , and <i>reflection-on-action</i> . It could be considered that reflection-in-action are the responses made by mentors during a student teacher's Clinical Practice to have an <i>in the moment</i> change for student teacher's development of practice, which are almost automatic and related to an individual's professional knowledge-base and ingrained practice. The second approach relates to explicitly using a mentor's professional knowledge-base and reflecting on what could be done differently, developing understanding, and recognising positives from mentoring a completed Clinical Practice. Jane's comment supports the theoretical suggestion that <i>double loop</i> learning was involved (Argyris and Schön, 1977). Through her reflective practice at the end of Clinical Practice 1, Jane identified that she was more conscious in Clinical Practice 2 of being clear when communicating with her student teacher to avoid misunderstandings.

4.1.2 The most important aspects of mentoring

Mentors were asked if they could identify three *aspects*, from the self-reflection tool, that they felt had the most significant impact on their student teachers' following Clinical Practice 2 (see Table 3). It was considered that these choices would indicate where mentors felt they had been successful in supporting their student teacher. Mentors' responses varied widely, indicating a recognition of the uniqueness of each student teacher's needs. No one *aspect* was identified by more than three mentors as most significant. Twelve sub-themes, each relating to an *aspect* of the self-reflection tool were identified by mentors. Of the 12 sub-themes identified, the majority fell into the *pedagogy* segment of the self-reflection tool, which reflects the significance of the pedagogy descriptors in the *Standards for Teaching and Leadership* (Welsh Government, 2019). The following *aspects* were each mentioned by three mentors, namely: i) learning conversations; ii) modelling teaching; and iii) developing pedagogical approaches. The significance of these *aspects* will be discussed in the next section as they relate to findings from the systematic review of literature and developing priorities within the Cardiff Partnership (Chalies *et al.*, 2008; Bjuland and Helgevold, 2018).

4.1.2.1 *Learning conversations*

Three mentors identified learning conversations as one of the most significant *aspects* of their mentoring in helping their student teachers make progress. As highlighted in Table 4, *aspect* 10 was identified as *important*, with five mentors annotating their self-

reflection tool with *most*, and two mentors suggesting it was *quite* important. Anna described how she and her student teacher had engaged in learning conversations:

... she's very passionate, so we'd have loads of discussions about the ethos, especially because I've spent the past 5 or 6 years in my school trying to change the way we're teaching in early years ... we talked about that an awful lot, because she's really interested in outdoor learning and forest schools ... (Anna, Interview 6: 13.07.21)

Anna was responding to her student teacher's interest by engaging in stimulating discussions on aspects of specific interest. Anna's comment resonated with the views expressed by Lofthouse and Thomas (2017), in that *learning conversations* should help student teachers, and their mentors, make sense of the theoretical and practical realities of their experiences, and that they should be focused upon a specific aspect of teaching and learning. Chloe further suggested that focused learning conversations helped: '*... to develop student teachers' ability to self-reflect.*' (Interview 3: 08.07.21) Indeed, this was reinforced by Lara who also suggested that her student teacher's reflective practice was stimulated with learning conversations: '*...constant dialogue ... not just daily, but during the day in the classroom ... identifying strengths and ways forward.*' (Interview 5: 13.07.21). This suggests that mentors' facilitation of learning conversations is a critical aspect of their role. This teacher educator approach is supported by McIntyre (2005) who states that professional knowledge can be developed when *craft knowledge* is articulated.

4.1.2.2 *Modelling teaching*

Three mentors identified *modelling best practice* as being significant to their student teachers' development (see Table 3). Table 4 aspect 26, corroborates the significance

of this element of mentoring with five mentors annotating the self-reflection tool to indicate *most*, one mentor shading the *most* box halfway through to indicate somewhere between *most* and *quite*, and one mentor indicating *quite*. A justification for the use of role modelling was provided by Lara, who explained:

It was quite early on in the Practice ... and I said you're going to do 3 lessons in maths this week – and she said, 'Could you start them on the Monday? So, I can see how you explain multiplication and then I can pick it up from there?' and I said that was absolutely fine, that actually made a lot of sense. So, I would model vocabulary, model methodology, the use of resources, the pace, and the type of questions. And then she was able to lead on from my starter ... So, I think modelling is a big part ...
(Lara, Interview 5:13.07.21)

Most student teachers are novices by the very nature that they are on a PGCE course. Therefore, to support their development they need to be able to see what teaching and learning looks like in *situ*, which is particularly useful in the initial stages of training (Amaral da Cunha *et al.*, 2016). However, it should be remembered that student teachers were undertaking Clinical Practice 2 just after the Covid-19 *second lockdown*. This meant that most of the student teachers' experiences on Clinical Practice 1¹⁸ had been undertaken *on-line* and they had seen extremely limited *face-to-face* classroom teaching. So, whilst this *master-apprentice* approach identified by Jones, Tones, and Foulkes (2018), is normally associated more with Clinical Practice 1, five mentors considered it to be a relevant approach during Clinical Practice 2.

¹⁸ Clinical Practice 1 was undertaken between late November 2020 and March 2021.

Opportunities for some student teachers to observe or practice a range of pedagogical skills were restricted during Clinical Practice 2 because of Covid-19 protocols that were in place in their schools to maintain safer working environments. It was widely acknowledged by mentors that student teachers would have missed the breadth of opportunities they would have liked them to have experienced. A Welsh Government (James *et.al.*, 2021 ¹⁹) project investigating the impact of Covid-19 on initial teacher education provision, raises concerns about student teacher opportunities and experiences during this period.

4.1.2.3 *Developing pedagogical approaches*

Developing student teachers' appreciation of a range of pedagogical approaches was identified explicitly by three mentors (see Table 3). However, several mentors made comments that highlighted a recognition of the interconnected nature of many of the *aspects* in the pedagogical section of the self-reflection tool. Mentors' annotations indicated that this was an important feature of mentoring, with six out of seven mentors identifying it as *most* important (see Table 4, *aspect* 23). One of Dai's comments captured the idea of the *aspects* in the self-reflection tool being interconnected, and he further identified the importance of the pedagogical *aspects* when working with an inexperienced student teacher

¹⁹ James, D., Morgan, A., Milton, E., Bryant, A., Clement, J., Kneen, J. and Beauchamp, G., (2021) 'Assessment and initial teacher education in Wales at a time of change: Adapting and learning'. *Profession*, 18, p.19.

On the pedagogy side of the wheel, I put three 3s in terms of organisation, behaviour management, and a range of strategies ... We hadn't got the fundamentals consistently there to actually say, 'Right! Play about – give this a go and see what happens!' because the foundations weren't quite consistently there ... (Dai, Interview 2: 07.07.21)

Dai's comment indicates that he recognised that his student teacher needed to appreciate and develop aspects of classroom practice that they had been slower in developing or that may not have been a priority for Clinical Practice 1 because of the nature of the experience. As mentioned earlier, Lara had shared specific pedagogical practices associated with early years teaching and learning, and Chloe discussed how she had adapted her mentoring to develop her student teachers' pedagogic approaches by encouraging the exploration of available resources:

... you haven't been in a normal non-Covid classroom, so if you ask the question, 'What would you have done?' it's very difficult to know what you would have done. So, then I'd give ideas, but I encouraged her to read the teacher toolkit book, because in that there are really purposeful activities. (Chloe, Interview 3: 08.07.21)

Mentors' appreciation of the need to support the development of sound subject and pedagogical approaches, as a foundation for effective teaching, was reassuring. The importance of sharing their knowledge and understanding of pedagogy was voiced by mentors and is explicit in the *Professional Standards for Teaching and Leadership* (2017b). However, this was in contrast with concerns that there has been a lack of subject pedagogy in mentoring provision for student teachers across initial teacher education provision and may reflect differing priorities between Wales and England (Rowe, 2019; Walsh and Dunphy, 2020).

Analysis of the annotated self-reflection tools highlighted three *aspects* of interest that were not explicitly mentioned by the mentors during their interviews (see Table 4). Firstly, the importance of *regular mentor meetings* (*aspect 1*) where the intention is to set and review targets with student teachers was considered as *most important* by all mentors. Secondly, that nearly all mentors annotated *aspects 9 to 13* in the *personal qualities* section as *most important*. It could be that mentors chose not to discuss these *aspects* because they considered them to be fundamental attributes of being a mentor, a *given* if you are involved in the role. And finally, the *procedural aspects 14 to 16* were awarded levels of *most important*. Again, these were not mentioned by mentors, but may be reflective of the *procedural aspects* of mentoring. There are external forces demanding that mentors are accountable for monitoring and awarding grades for their student teachers against the *Professional Standards for Teaching and Leadership* (Welsh Government, 2017b). Therefore, mentors know that they must complete these *procedural aspects*; indeed it is an expectation for every mentor, and therefore there is no choice involved.

4.1.3 Least important aspect of mentoring in Clinical Practice 2

Mentors were asked if they could identify three *aspects*, from the self-reflection tool, that they felt were the least important *aspects* when mentoring their student teachers during Clinical Practice 2 (see Table 3). It was considered that identifying specific *aspects* of the self-reflection tool would enable mentors to prioritise and articulate their choices. Although a range of *aspects* were again discussed by mentors, fewer were identified than in section 4.1.2, and two significant *aspects* were highlighted, that of *developing student teachers' use of research and enquiry tasks* (all mentors), and

mentor professional learning, (four mentors). These two aspects are now discussed in greater detail.

4.1.3.1 *Developing student teachers' use of research and enquiry activities*

The lack of understanding surrounding the concept of research and enquiry, a fundamental aspect of the Partnership's Clinical Practice model, was a compelling finding. All mentors commented that this was one of the *least* important aspects of their mentoring provision in Clinical Practice 2 (see Table 3). This is partially supported by mentors' annotated self-reflection tools, with three mentors identifying this *aspect* as *least* important, and four mentors selecting *quite* important. During the interviews mentors identified; a lack of confidence (1 mentor), the university's responsibility (2 mentors), the Research Champion's ²⁰ responsibility (2 mentors), and lack of impact (1 mentor) for not prioritising support for *research and enquiry* activities through their mentorship (see Appendix 16 for mentor's responses).

There was a level of confusion relating to what mentors understood *research and enquiry* to be, and who was responsible for supporting the student teachers with this *aspect* of their Clinical Practice. This was concerning as the Partnership had provided specific training for new mentors on this aspect to support student teachers' Clinical Practice. Senior mentors had also been briefed at the start of the year on the importance of schools in encouraging and supporting *research and enquiry* activities,

²⁰ A Research Champion is the person in a Lead Partnership School who guides and supports student teachers to undertake a research assignment based on a feature of the schools' development plan.

the expectation being that they would disseminate this information as part of their professional learning with their mentors. The Welsh Government's *Covid assessment project* (James *et al.*, 2021) found that there was a difference in perception related to initial teacher education between Universities and Partnership Schools. This supports the impression that this training may not have happened. The impact of Covid-19 on mentors' professional learning will be discussed fully in section 4.2.3. Finally, it might also have been considered that during Clinical Practice 1 student teachers had more time to undertake research and reading because of teaching *on-line*, and therefore it was not considered as important in Clinical Practice 2.

Burn and Mutton (2013), advocate student teachers investigating and developing their teaching by using research and enquiry approaches is a fundamental principle of the Partnership's Clinical Practice model. It also sits firmly with a national drive within the Welsh educational context to be research-informed (Welsh Government, 2019, 2021). Indeed, this aspect of mentoring clearly requires revisiting with more effective professional learning. Charlies *et al.* (2008), and Chambers and Armour (2011) identified that a lack of effective training is a contributory factor to ineffective mentoring. Whilst, Biesta *et al.* (2015), postulated further that mentor competence and confidence is associated with an appreciation of the purpose and expected outcomes of embracing research and enquiry activities.

4.1.3.2 *Mentors' professional learning*

As mentioned previously professional learning within Welsh education is a key priority (Welsh Government, 2019, 2021). Mentors' professional development during Clinical

Practice 2 was highlighted by four out of seven mentors as least important (see Table 3). It was clear through discussion that this was not because they did not value their own professional development, but that they recognised that, given the situation they were operating in (Covid-19), they could not prioritise this *aspect*. Table 4, *aspect 7*, provides support for this with none of the mentors highlighting this to be *most important*.

4.1.4 Self-reflection tool feedback

All mentors agreed that the tool had been useful in supporting their self-reflections (see Table 3). In so doing, mentors identified several features that they considered made the self-reflection tool valuable.

The simplicity of the presentation of the self-reflection tool was commented upon favourably by several mentors. Lily's comments identify qualities that were also mentioned by other mentors relating to the visual presentation and the use of colour coding:

I like those wheels. I like the way it's set out like that. For me I can see my reflection is in the middle and I can see straight away what I'm using a lot of and what I'm not using a lot of. And I like the colour coding round the outside. I like the way it's set out. For me, the way my brain works, that suits me! (Lily, Interview 1: 07.07.21)

Connected to the simplicity of the self-reflection tool, there were also views expressed related to the tool not being too time consuming to use, as both Lara and Anna explained:

... it wasn't overly time-consuming ... I think it's an easy tool to use, I liked that it wasn't asking us to write comments, lots of text. It was nice, it was an easy thing just to read through and reflect and sort of mark down and have a little think about things that would easily be something you could use to build on your own practice. (Lara, Interview 5: 13.07.21)

Because we're all so busy, if you'd given me a questionnaire I'd be like – (sighs). Whereas I could just go, 'All right, I will think about this' that you're able to just scribble in a box. (Anna, Interview 6: 13.07.21)

As previous discussed, throughout Clinical Practice 2 mentors stated that they had felt even more acutely under pressure from a lack of time, and an increased workload, than usual. These comments resonated with a recurring barrier to professional learning which I identified in my review of literature, and which related to lack of time and increased workloads (Hobson *et al*, 2009; Chambers *et al.*, 2012). Therefore, the fact that the concept of the reflection tool's design had set out to be simple to administer and complete, appears to have been successful, at least from a commitment of mentors' time perspective.

Significantly, mentors also suggested that they gained greater appreciation of the breadth of their role from using the self-reflection tool. This was a reoccurring theme, supporting some mentors to identify professional learning needs based on *aspects* of the role that had previously not appreciated (Lara, Interview 5; p.23). As Dai and Lara both explained:

... it made me realise how many aspects there are to the role and how many different parts, but it also just helped to identify the things that I feel I do every day – well not every day, but as part of being a mentor. But also, it makes you realise there are other bits that maybe I shy away from a little bit and just for my own personal targets next year, thinking about

what I can do and the extra bits to help support our students. (Dai, Interview 2: 07.07.21)

I thought, 'My goodness, there's so many things I do,' and you almost do them incidentally because that's your student, that's your class, you're modelling, you're training, you're guiding your student – and you don't necessarily put a name to what you're doing. (Lara, Interview 5: 13.07.21)

During *new mentors' professional training* ²¹, mentors explore three elements of mentoring, namely: i) professional learning; ii) support; and iii) assessment. Estyn (2021) claim that mentors' lack of understanding of their role has resulted in variability in the quality of mentoring in Wales. Young and McPhail (2016) suggested that being explicit about what a mentor's role entails would help them to be more effective. Consideration is therefore necessary as to whether initial professional learning for mentors needs to be adapted to reflect specific aspects of mentoring in more detail, rather than the simplified generic approach taken at present.

A final contribution from Jane was particularly interesting, and revealed that the self-reflection tool had potential to stimulate professional learning conversations between mentors:

... I think I've found it really helpful and I don't know if he told you, but Duncan and I also kind of shared our reflections, so I saw him on Tuesday and he brought his wheel to me and he was, 'I just wanted to have a think about how you felt about it all' and our opinions, actually, were quite similar, which was really refreshing, like I know that we've done OK. (Jane, Interview 4: 08.07.21)

²¹ All new mentors in the Cardiff Partnership's model undertake professional learning developed by the Partnership and delivered by the senior mentor in individual Partnership schools.

In my professional and research capacity, I was delighted to hear how Jane and Dai had initiated this additional level of reflection. Glanville (2013) suggests the addition of a social context may enable a more informed appreciation of alternative practice that could be employed in the future. Also, Thompson and Pascal (2013) claim the social context encourages *reflexivity* which is fundamental in making sure that reflective practice is *critically* reflective practice. Indeed, it could be suggested that Dai and Jane are demonstrated that they have the potential to be *agents of change* through their willingness to engage in professional dialogue (van der Heijden *et al.*, 2015).

4.2 Research question 2: In what ways can the use of the self-reflection tool support school-based mentors in identifying their own professional learning needs?

Professional learning was the major motivator identified by mentors for their involvement in initial teacher education. This was reflected in the interview responses of mentors who mentioned: professional development of their teaching; professional progression; supporting student teachers; and, bringing new teachers into the profession (see Appendix 17 for extracts of mentors' responses). This finding reflects one of the most significant findings from the systematic review of literature, that teachers are motivated to adopt the role of *mentor* as they believe they will benefit professionally (Bethell, 2019). The self-reflection tool was conceived to provide a basis for mentors to identify their professional learning needs. The self-reflection tool

enabled mentors to capture prior experience, in this case Clinical Practice 2, which stimulated *reflections for action* (Thompson and Pascal, 2013). The two most commonly occurring professional learning needs mentors identified were opportunities to collaborate (3 mentors), and the development of the *personal* aspects of mentoring (3 mentors). The impact of Covid-19 was a re-occurring theme throughout secondary school mentors' interviews. This significant finding will be discussed in the later stages of this section (4.2.3).

4.2.1 Collaboration

Collaboration features in four descriptors for the Professional Standards for Teaching and Leadership in Wales (Welsh Government, 2019). It is recognised as an important aspect of professional practice. It was significant therefore, that secondary school mentors identified this as a potential avenue to develop their professional practice in mentoring. However, mentors identified varied reasons for wanting more opportunities to collaborate including; standardisation of assessment, support, and the opportunity to share best ideas.

Both Jane and Dai commented on how collaboration could help them become more confident in their judgements regarding their student teachers' progress. Jane had covered one of the lessons that Dai's student teacher was teaching and found the opportunity to compare student teacher performance as valuable:

I saw Dai's second placement student and it made me sit back and think maybe I've been a bit too hard on XXXX...in terms of certain things that he planned and certain things he does in the classroom, that I just didn't see in the other student. And I think then I was really motivated to kind of boost XXXX's confidence a little bit, to be like 'You know, you're doing fine' but it is helpful...
(Jane, Interview 4: 08.07.21)

Dai explained how he would enjoy observing student teachers from other subjects, and that it could help with the standardisation of his assessments:

At no point have I had time to go and see how the science student teacher is doing, how the maths teacher, the PE teacher is doing.' Again, to help me to see how they're doing, I would love that opportunity but also it comes to a kind of standardising. (Dai, Interview 2: 07.07.21)

Both Jane and Chloe explained that pre-Covid-19 they had actively sought opportunities for collaboration, but that restrictive practice had made this difficult this year. Jane discussed how previously working with other mentors, within her department, had enabled the sharing of ideas to develop practice. However, she wanted to develop this further, *'I think it would be quite nice to take that a bit further... (Interview 4: 08.07.21)*

Chloe explained how she had valued collaboration with the university tutor (me) and the senior mentor. This is reflected in the *most* important aspect annotated by Chloe for aspect 3 on her self-reflection tool. As Chloe stated:

One thing I benefited from this year is the amount of collaboration I had with you and XXXX as the senior mentor and the university tutor, that was beneficial to me. (Chloe, Interview 3:08.07.21)

The collaborative process was a consequence of a *failing* student teacher triggering monitoring protocols, and between us we had to work out a suitable plan of action. Chloe was clear that this collaboration had been supportive in helping her support her student teacher.

All three mentors who identified opportunities to collaborate more were from the

secondary school. No mentor from the primary school suggested this aspect to support their professional learning. This could reflect the different school situations and contexts that mentors worked within, with social mixing amongst teachers being particularly restrictive in secondary schools due to Covid-19. The feeling of isolation identified by Chloe had been highlighted prior to Covid-19 as a disadvantage of being a mentor and has also been identified in the literature (Hobson et al., 2009). Interestingly, primary mentors who had earlier spoken about their reflective process involving others, did not identify collaboration when considering their professional learning needs. This could suggest that collaboration was already embedded in their wider teaching practice.

Jane's opportunity to observe another subject's student teacher enabled her to reflect and make sense of her own student teacher's progress. Therefore, the opportunities to collaborate could enabled Jane and Dai to pool their knowledge and solve problems, challenging their own practice and work together on new approaches. This approach is supported by Lofthouse and Thomas (2017) who suggest that collaboration for professional learning can be productive through the exchange of ideas and familiarisation with alternative practice. In addition, Hobson *et al.*, (2009, p.212) suggest the use of *affinity groups* to facilitate mentor-to-mentor conversations. Whilst it is recognised that collaboration is beneficial, reassuringly, Ehrich (2004) suggests mentors reflecting on their practice together or alone, allows reconsideration of what they are doing and why and allows them to work towards improving their own professional practice.

4.2.2. Personal qualities

Three out of seven mentors identified being more conscious of their personal qualities associated with mentoring to enhance their future practice as a result of using the self-reflection tool. One of the strengths of the self-reflection tool appeared to be that it provoked consideration of the breadth of the mentors' role, including their personal skills. The three mentors' responses related specifically to their communication skills within the personal skills sector. All seven mentors had also highlighted *communicate clearly* (aspect 12) as *most* important on their annotated self-reflection tool.

Having used the self-reflection tool, Lara stated that it had helped her appreciate various aspect of mentoring that she not previously considered:

...for example, providing emotional and psychological support – I hadn't really thought about it...I think it's something that really makes you think about the way you speak to people...that was something I wasn't aware of.... (Lara, Interview 5: 13.07.21)

The way Lara communicated with her student had previously been *automatic*, from her perspective, she had not consciously thought about the potential *affective* impact. This did not mean she had not been supportive or effective. However, in future this conscious consideration of how she communicated was an aspect Lara suggested she would focus upon.

Jane was able to identify how her confidence in her ability to articulate herself clearly had developed during Clinical Practice 2, partly as a result of working with a challenging student teacher and the need to be explicit in her communications:

It probably sounds a bit silly, but I didn't think I'd be able to be the sort of person who, if I thought someone wasn't doing well enough, that I'd be able to say that.

I didn't think I'd be able to be as firm as I have been. I almost kind of feel like it's changed my teaching style as well, because if it's not good enough, it's OK, to say 'that's not good enough and we've got to work harder on it.' (Jane, Interview 4: 08.07.21)

Interesting, Anna was the only mentor who specifically mentioned a tangible professional learning *need*. Anna identified that the skills needed to have *difficult* conversations would be useful for her to develop. Her previous student teachers had all been capable and therefore the necessity for this skill had not arisen. However, she felt this would be a useful area for her to develop professionally in preparation for the potential of more challenging situations:

I didn't have to have any difficult conversations with XXXX because she was the type of student that she is. So that would be something, if that situation arose in the future there would be new skills to learn and a new thing to employ professionally. (Anna, Interview 6: 13.07.21)

The identification and recognition of the personal aspects of mentoring as part of the overall profile of an effective mentor was pleasing for me as the designer of the self-reflection tool. Recognition by all three mentors of the need for effective communication skills is supported by the literature as a critical feature of effective mentoring and therefore a pertinent aspect for professional development (Ambrosetti, Knight, and Dekkers, 2014).

4.2.3. Impact of Covid-19

Mentors recognised that to manage their roles during the pandemic they had to prioritise where to focus their effort. As mentioned in section 4.1.3.1, Covid-19 restrictions had had an impact on student teachers' experiences but it was also acknowledged that it had an impact on mentors' own professional development.

Schools were focused on ensuring they assessed pupils to enable them to support gaps in learning, and in secondary school teacher assessment replaced national examinations. Welsh Government's *Covid assessment project* (James *et. al.*, 2021) supports this finding identifying high stakes assessment as a significant feature in secondary schools during this period. Indeed, during this period there was also a pragmatic approach to mentor development from the Cardiff Partnership reflecting the challenges to student teacher assessment focused on guiding and supporting mentors' accurate identification of progress. Indeed, in my review of literature, I postulated that the focus of assessment was at odds with the notion of fostering more innovative mentoring practice, however, these were unprecedented times! (Cartaut and Bertone, 2009; Hobson *et al.*, 2009; Chambers *et al.*, 2012). I would suggest this narrowing of focus towards assessment, both with regards to pupils and student teachers, limited mentors' ability to mentor in the way they would have wanted to and reduced their capacity to consider their own professional learning during this period.

4.3 Research question 3: Are there refinements to the self-reflection tool that would make it more effective in supporting school-based mentors' reflective practice?

As discussed in section 4.1, all mentors were positive about the value of the self-reflection tool in supporting their self-reflective practice. Six out of seven mentors felt able to make suggestions for refinements to the self-reflection tool that they felt would make it even more effective. Their suggestions fell into two themes: *i*) refinement of

terminology (three mentors), and *ii*) clarification of what aspects of the self-reflection tool meant (three mentors)

4.3.3 The use of terminology

Following my pilot study (Bethell, 2021), refinements were made to the self-reflection tool based on PE mentor feedback. As the final study was extended to include both primary and secondary school mentors, a further iteration of the self-reflection tool was undertaken. Adaptations were made to ensure subject, and phase specific language was more generic and applicable across all school phases (see Figure 4). My use of some terminology and phrasing was referred to by Anna as ‘wordy’ in a written annotation on her self-reflection tool for aspects 15 and 16 (see Appendix 13). Whilst Chloe stated that some of the terminology was ‘...*just the teacher kind of jargon, if you like, but I think if you're in the profession you know what it all means*’ (Interview 3: 08.07.21). Although Anna and Chloe drew attention to this aspect, there was an acceptance or familiarity with the language being used.

However, two primary mentors mentioned that the use of the term AoLE (Area of Learning and Experience) used on the self-reflection tool with aspects two and eight was ‘*jargon*’. They did not consider this was appropriate terminology. Peter had not annotated either aspect because he felt AoLE, as a term, did not reflect how he operated in his primary setting. Also, both Anna and Peter felt aspect 2 *Organise and manage support of AoLE/department working with student teacher*, did not reflect the range of individuals a mentor might work with in a primary setting. As Peter commented, in relation to the use of AoLE as a term:

Well obviously, in primary we just cover everything in there. So much is on a cross-curricular basis anyway...And the other one, they organise the

department AoLE, I see that as more applicable to maybe a more comprehensive setting.

He then suggested:

‘Other adults can look to the fact of anyone you look to; meeting the School Secretary, meeting the Bursar, you’re meeting SLT, so all those things so ‘other significant adults’ that wording would cover that. (Peter, Interview 7: 14.07.21)

This was useful feedback and highlighted my lack of appreciation of the more integrated approach found in the primary school setting. My professional learning and experience in the past couple of years had been focused on developing an appreciation of individual *Areas of Learning and Experience*, as presented in the Curriculum for Wales (Welsh Government, 2019). Clearly, these primary mentors were more advanced in recognising the interconnection of these areas of learning and the underpinning cross-curricular themes.

During the pilot study the organisation and management of other teachers who worked with the student teacher had been identified by mentors as a significant feature of the mentors’ role (Bethell, 2021). This had led to the incorporation of this aspect on the self-reflection tool. However, primary mentors identified that the phrasing of Aspect 2 was limiting, and consideration was needed of the range of adults that they could potentially work with. The suggestion that the self-reflection tool could use the phrase, *‘other adults’* satisfied both mentors.

4.3.2 Clarification of aspects of the self-reflection tool.

Three out of seven mentors stated that they had been slightly confused initially by aspects of the self-reflection tool. However, mentors did not suggest that this required refinements to the self-reflection tool, it just meant that they had taken time to consider certain aspects and then decided upon their own interpretation. Lara's annotated self-reflection tool (see Appendix 12) did not have the aspect *Encourage challenge through autonomy* annotated. However, written annotations on the self-reflection tool demonstrated that she had considered what this meant commenting '*what does this mean?*' above the statement, and then, '*encouraging the ST to take the lead?*' below the statement. Interpreting some of the aspects was also something that Dai referred to:

I think there are certain bits that maybe the wording I think wasn't clear in terms of – I guess you're continuing your own AOLE, subjects and pedagogical practice and research and enquiry, thinking about – is that in terms of me as a teacher or as a mentor?... all of them make sense, I wasn't stuck on any of them for a particularly long time! (Dai, Interview 2:07.07.21)

The consideration shown by Lara and Dai demonstrates the reflective process that both engaged with. Dai's dilemma could be because of a system where attention is focused on the student teacher, with a lack of recognition of the mentors' professional skills. A lack of focus on the mentor's role had been a professional concern of mine for some time and was also identified in my pilot study (Bethell, 2021). This reflects the findings of Walters and Robinson (2019) who claim that research literature investigating school-based teaching experience is generally focused on the student teacher, and that there is a need for greater focus on how mentoring might support

student teachers' mentors. However, Chloe did recognise that the self-reflection tool was designed to consider mentors' professional and personal qualities:

...you've got the 4 areas of learning in the middle and then you've got all the strands coming off. I think one is a focus on mentoring, yourself, and the other one is your student. For example, research - one is about encouraging the student to research, and then the other one is the mentor continuing to develop in research. (Chloe, Interview 3: 08.07.21)

The importance of how mentors use their professional and personal skills with student teachers was an important part of the design process. I purposely wanted mentors to reflect more widely to consider themselves as an integral part of the process of mentoring. Bell's (2010) suggestion that documented evidence can be used to impart information, rather than just to collect data, would appear to reflect Dai and Chloe's responses.

When adapting the self-reflection tool to accommodate both primary and secondary mentors, I had tried to use appropriate educational terminology that I presumed was generic. Mentors' suggestions for refinements to make the self-reflection tool fit for purpose for both primary and secondary mentors were valuable. Anything that confused or alienated mentors was a significant realisation for me which needs careful consideration. To ensure that mentors can effectively engage with the self-reflection tool, iterations need to be appropriate to all mentors, and therefore the involvement of primary colleagues would be important with any future iterations.

Mentors' suggestions for adaptations to the self-reflection tool were limited in number and depth. Primarily, I would suggest that the self-reflection tool had been through several iterations and therefore should have been close to being *fit for purpose* at that point in time. Therefore, I would have expected limited suggestions. However, consideration of my combined role as; the *university tutor*, the *researcher*, and the

designer of the self-reflection tool, could have made mentors feel they were not able to make more critical suggestions. So, whilst I was conscious of the power differential, I may not have been able to totally ameliorate my perceived position of power (Tuli, 2010). Finally, Pascal and Thompson (2012) state that effective reflective practice takes time, and I had not prepared mentors to consider this line of investigation prior to the interview. In retrospect, contributions could have been predicted as being limited. However, the next iteration of the self-reflection tool would be informed with mentors' suggestions for refinements. This fulfilled one of the principles of design-based research in that mentors contributed to the development of the content of the self-reflection tool (Anderson and Shattuck, 2012).

4.4 Summary

Findings from the study indicated that mentors found using the self-reflection tool supported their ability to reflect on their most recent mentoring experience. All mentors were able to identify and discuss the most important aspects of their role in supporting their student teacher to make progress. All mentors were also able to identify aspects of their role that they considered were of less importance and were able to articulate the reasons why. Some mentors were able to identify specific aspects that they would like to develop in order to become even more effective. Primary mentors were able to suggest some minor refinements to the self-reflection tool to ensure that terminology was suitable for both primary and secondary school mentors.

A summary of the significance and implications of these results and discussion is presented in Chapter 5 as conclusions are drawn from the research study and recommendations made.

Chapter 5

5.0 Conclusion

The aim of my EdD research project was to design, implement, and evaluate a self-reflection tool that, as part of a focus on mentors' own professional learning, would support their reflective practice of mentors upon their professional mentorship practice.

My research study was underpinned by a mixed-methods approach. This enabled the combining of qualitative and quantitative data derived from mentors' interviews and their annotated self-reflection tool. The collection of two types of data enabled investigation from two perspective and provided greater certainty for *inference* and *conclusions* (Ponce and Pagan-Maldonado, 2014: p.113). The study used a design-based research approach with the focus on an iterative process of design, investigating, and refining of a product which was considered appropriate for achieving the aim and objectives of my study (Anderson and Shattuck, 2012).

Through a systematic investigation of relevant literature and the application of my design-based research approach, the EdD research study enabled me to design and create the self-reflection tool (see Appendix 19 for latest iteration). Before starting my EdD research project no such resource existed within the Cardiff Partnership. In addition to the production of the self-reflection tool, the research study identified several significant findings: *i)* all mentors found the self-reflection tool useful in supporting their reflections on their mentorship; *ii)* all mentors employed professional judgement when choosing how best to support their student teacher; *iii)* most mentors did not consider supporting student teachers' *research and enquiry* activities as a priority of their role; *iv)* secondary school mentors suggested opportunities to

collaborate would support their professional learning; and, v) Covid-19 had an impact on secondary school mentorship during Clinical Practice 2. Each finding is now be briefly explored to ascertain its relevance and implications for practice.

Firstly, all mentors indicated that they found the self-reflection tool valuable in supporting their reflections. This was important as it is suggested that engaging in the initial stages of reflective practice provides opportunities for mentors to extend their knowledge and skills to maintain or extend their professional practice (Malthouse and Roffey-Barentsen, 2013). In addition, mentors stated that the self-reflection tool helped them to recognise the breadth of their role. This is significant as Biesta *et al.* (2015) suggest, that not appreciating various aspects of the role could lead to a *narrow* consideration of previous experiences and restrict future actions. This suggests that the self-reflection tool could also be useful as a graphic *guide* to the role of a mentor in Cardiff's Partnership.

Secondly, the self-reflection tool enabled mentors to produce a profile of mentorship based upon an individual student teacher during one Clinical Practice. Mentors recognised that they had prioritised specific aspects of mentoring depending on their perception of their student teachers' needs. The literature suggests this is critical for targeting appropriate support (Chambers *et al.*, 2012; Levy and Johnson 2012; Ambrosetti, Knight, and Dekkers 2014; Walters and Robinson 2019). This also implies that there is no *right* profile. Profiles will vary between mentors as they are equally as unique as their student teachers, and the context they work in. It could be considered that the process of self-reflection highlights that mentors in the study demonstrated agency in *aspects* of their mentorship.

Thirdly, one of the fundamental principles of the Clinical Practice model at the Cardiff Partnership is that research informs practice. Mentors' lack of support for student teachers' *research* and *enquiry* activities has significant professional learning

implications for the Partnership. Mentors' *rationalisation of practice* indicated a lack of appreciation that this was a problem (Loughran, 2013). This finding suggests mentorship is also at odds with Welsh Government's drive for research-informed practice (Welsh Government, 2019; 2021). There is clearly a professional learning requirement to address this lack of appreciation on the part of mentors for their role in supporting this aspect.

Fourthly, the self-reflection tool enabled most mentors to identify specific professional learning needs. Indeed, one of the most significant learning needs identified was the opportunity to collaborate in terms of sharing their practice, resolving problems, and standardising their judgements. It was acknowledged that working practices in the secondary school had made collaboration difficult (Chloe, Interview 3:08.08.21). Indeed, as the mentor lead for the Partnership my need to collaborate more widely to appreciate the context of primary school mentors was also highlighted. In line with Welsh educational policies and practice (Welsh Government, 2017b, 2019 ²²), collaboration needs to be recognised as an integral element of professional development within schools and across schools. Indeed, in the original the Cardiff Partnership Model the creation of mentoring communities to encourage collaboration was a component and therefore needs revisiting.

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Finally, it was widely acknowledged by mentors that Covid-19 had had an impact on their student teachers' experiences during Clinical Practice 2, and on their own professional learning. These mirrored national findings related to initial teacher

²² *National Approach to Professional Learning in Wales* (Welsh Government, 2019)
Professional Standards for Teaching and Leadership (Welsh Government, 2017b)

education having a lower priority in schools during this period (James *et.al.*, 2021 ²³). This suggests that there is a need to re-focus mentors, and all those involved with mentors, about the original aims of Clinical Practice and how they might be achieved.

5.1 Recommendations

The following section contains recommendations that emanate from the key findings from my EdD research study. The recommendations are directed towards specific groups within initial teacher education at the Cardiff Partnership where there is a potential to impact practice.

Recommendation 1 – *Mentor leads* for the Cardiff Partnership need to develop professional learning opportunities to disseminate the main research findings and explore the possible applications of the self-reflection tool with senior mentors and university tutors (Briefing sessions September 2021; January 2022). Investigation of how the self-reflection tool can be made easily available to all stakeholders across the Partnership is needed. The mentoring team needs to include representation from the primary school phase to reflect all programme contexts.

²³ James, D., Morgan, A., Milton, E., Bryant, A., Clement, J., Kneen, J. and Beauchamp, G., (2021) 'Assessment and initial teacher education in Wales at a time of change: Adapting and learning'. *Profession*, 18, p.19.

Recommendation 2 – All senior mentors and university tutors need to be presented with the main findings of this research report to justify inclusion of self-reflection tool as a resource to support mentors' professional learning. Senior mentors and university tutors should trial approaches for the use of the self-reflection within their schools, for example independent mentor self-reflection opportunity, or as stimulus for discussion as part of a whole school mentor meeting.

Recommendation 3 – All mentors within the Cardiff Partnership are provided with an opportunity to engage in self-reflective practice, supported by the self-reflection tool. This will also provide an opportunity to focus mentors on the breadth of their role. Professional learning needs which are identified should be recognised and supported by Partnership schools and/or the Cardiff Partnership.

Recommendation 4 – The findings to the Cardiff Partnership Management Team to inform elements of the Partnership self-improvement plan.

Recommendation 5 - Clinical Practice and mentoring teams need to consider how they will ensure that all mentors within Partnership schools appreciate the importance of *research and enquiry* activities and are able to support their student teacher.

Recommendation 6 – The Cardiff Partnership management and mentor development teams need to consider how mentoring communities can be supported and sustained. This is a component of the mentorship model, but clearly has yet to be firmly established across all schools.

5.2 Limitations

Whilst recognising that there are some limitations to my study, I believe I have been sincere in all aspects of my research (Tracy, 2010). I would also like to remind readers that this study was undertaken when initial teacher education and schools in Wales were just coming out of the second Covid-19 lockdown.

Participants chosen for the study were representative of the population under investigation. They were 'able and willing to participate', which is vitally important according to Vogt et.al. (2012). However, all mentors were from two Lead Partnership Schools, and the sample size was relatively small. Therefore, it is fully acknowledged that a larger sample size, including more Partnership schools would reduce any potential claims of bias and/or error, as well as facilitate my ability to generalise (infer) results (Knelchel, 2019).

The data analysis stage was undertaken by me and did not have a *peer debrief* as advocated by Guba and Lincoln (1994). A peer-debrief by an expert of thematic analysis, and with knowledge of the area of interest would have reduce the chance of aspects being missed. Although, this may lay the study open to accusations of bias, a suitable qualified researcher was unavailable.

It was hoped that the collaborative and iterative features embedded in the design-based research approach, would foster a collegiate relationship between myself as the researcher and the mentors minimising any potential 'power' deferential (Tuli, 2010). However, mentors' responses when asked about refinements to the self-reflection tool were limited.

The following chapter provides a critical reflection on this research study and my EdD journey. It culminates in considerations for advancing my doctoral work.

Chapter 6

Self-Reflective Essay

6.0 Introduction

This essay is a critical reflection of the work I have completed throughout my journey towards the Professional Doctorate (EdD). In it, I intend to demonstrate how my professional practice has developed and has been influenced because of aspects of the EdD programme of study. It will include a consideration of the ethical and political issues I encountered, and it concludes by my reflecting upon the work I have undertaken, and how it can be advanced post-EdD. The essay is structured in keeping with the self-reflective presentations that I completed for the assessments of: DOC8002 PRES1²⁴, and DOC8003 PRES1²⁵, namely, my reflections on the impact of my EdD on: i) my research process and its outcomes; ii) my professional practice; and iii) me personally.

A foundational aspect of my EdD study was an exploration of the value of reflective practice in supporting mentors' professional learning. Therefore, whilst investigating the theory of reflective practice to inform and develop my research study, I personally feel that I have become the embodiment of the process as both a researcher and as a professional. The assessed self-reflective elements of the EdD, coupled with the

²⁴ See EdD submission for DOC8002 PRES1 – Proposing Change: Review of Literature and Rationale for Change, submitted with this final report.

²⁵ See EdD submission for DOC8003 PRES1 – Proposed Project Design and Pilot (Essay), submitted with this final report.

iterative aspect of a Design-Based Research approach, necessitated that I engaged in my own reflective practice at regular intervals. Aspects of both Gibbs's (1988), and Bains *et. al.*'s, (1999) models of self-reflection, with their emphases on *in-depth* reflection, related to my reflective process, particularly when considering more complex problems. However, I did not systematically set out to use any one model. Indeed, my decisions related to the next phase of my research process, and my professional work were based upon reflections of my experiences, coupled with my developing theoretical understanding. Undertaking Brookfield's (1995) *deliberate critical* self-reflection has encouraged me to develop as both a researcher, and as a professional. The changes to my practice in both respects could be identified as an example of *double loop* learning, where practice develops as alternatives are identified through the reflective process (Argyris and Schön, 1977). The following sections will investigate these reflections in more detail.

6.1 Reflections on my Professional Doctorate journey

The aim of my final research study (DOC8004) was to bring about a change in mentors' abilities to critically reflect upon their professional practice. The creation of a self-reflection tool was therefore the product I designed and refined over the period of the research study to facilitate mentors' reflective practice.

The need to behave in an ethical manner throughout my whole research study is something that I became particularly conscious of during my EdD journey. Previously, I had appreciated the need to consider The British Educational Research Association's (BERA) guidance (2018), and then the need to apply the relevant ethical aspects of this to my own institution's ethics committee, for approval to undertake my research study. This process would then be reported in a section of my research report. What I

came to appreciate is that ethical behaviour should permeate and influence all research decisions throughout the life course of a study, not merely to be considered before starting it. The decision to employ a Design-Based Research (DBR) approach, with its emphasis on an iterative cycle of research, necessitated changes to the study not foreseen at the start, but that still needed to be ethically informed. Consequently, I also learnt to consider the ethical impact of the decisions that I made *during* the study. In the next couple of paragraphs, I will share several examples from my research study which evidence my heightened awareness of ethical considerations.

One of my first experiences of my ethical responsibilities came because of presenting my research proposal at an Association for Physical Education conference in March 2017. In hindsight, the presentation was very *I* as the *professional* and the *researcher* orientated, *i.e.*, as in *I* am going to do this, because *I* see a problem. A member of the audience questioned if I had asked mentors if they thought a self-reflection tool would be a promising idea; it was only then that I realised I had not asked their opinion. I had presumed that it would be useful based upon my own professional experiences of working with mentors. As suggested by Kivunja and Kuyuni (2017), I should have firstly considered the aspect of teleology - whether my research study was desirable, and whether the outcomes would be meaningful; and secondly, deontology - would the research process benefit the mentors, as well as me as the researcher, and the wider scholastic community. At that moment in time, I had not considered these aspects. However, following this incident at the conference, the scoping exercise I had planned involving interviews with a sample of mentors was adapted to find out: i) if they considered themselves to be reflective practitioners; ii) what they reflected upon; and iii) if a resource to support these reflections would be useful. Their responses were unanimous in that they considered themselves reflective practitioners, that they were

not aware of any resources to support their self-reflections, and they thought that a resource could be useful.

The scoping exercise further helped legitimise my research study, in that it now met some of the criteria identified by Tracy (2010) as components of quality research as it was a; *worthy* topic, it had *credibility* because of the mentors' contributions; and it would potentially make a *significant contribution* to our mentoring provision within the Cardiff Partnership. The scoping study also helped me to start formulating my philosophical stance to my research, through the recognition that in the world of mentoring in initial teacher education there are: *ontologically* singular and multiple realities for mentors – *i.e.*, mentors do not view or practise all aspects of mentoring in the same way; and *epistemologically* these realities need to be understood through an appreciation of the mentors' own experiences. The adaptations I made to the scoping exercise, because of the identification of a flaw in the assumptions underpinning the research study, were accommodated by my decision to situate my research within a pragmatic paradigm that recognised that the methods a researcher chooses are derived from the need to solve real world problems (Cresswell, 2009).

Acting in an ethical manner can also be identified in the decisions I made before conducting the interview phase of my final research study. When I was preparing for this phase, it had been agreed with my supervisors that I would expand my pilot study (Bethell, 2021²⁶). Consequently, I planned to include a larger sample of participants, drawn from secondary school mentors, in a variety of subject areas to ensure that the

²⁶ See EdD submission for DOC8003 WRIT2 - Proposed Project Design and Pilot (Report), submitted with this final report.

self-reflection tool could be generalised across our Postgraduate Certificate in Education secondary programme, rather than just focusing upon Physical Education mentors. A larger and more diverse research sample would provide more credible, trustworthy, and generalisable findings. As part of my professional role, I am a *university tutor*²⁷ to a Lead Partnership School, and I had obtained consent to situate my research study within this school. This gave me access to 10 mentors with whom I already had a rapport. I created a short and informative presentation that I shared with the mentors about the study, and then I invited them to take part. I emailed each mentor with study information and consent forms and awaited their responses. I had followed all the guidelines and advice on gaining voluntary informed consent. I was therefore devastated when four mentors sent me email responses saying ‘sorry’ they could not take part in my study for a variety of reasons both personal and professional, and two failed to respond at all. Four mentors replied to say that they were willing to take part. I emailed the two mentors who did not reply once more, and still received no reply. At this point, I could see my whole study falling apart; delaying the interviews would mean missing the vital period immediately after a Clinical Practice, whilst identifying a new school and going through the approval phase was likely to take too long. My initial instinct was therefore to try and use my position as a university tutor to encourage (persuade) those mentors who had been unwilling to reconsider. However, I quickly realised that this could have been perceived as exploiting a power dynamic because of my professional role. This would have not only been completely against my own philosophical stance, but also against my commitment to the BERA (2018: p.6) declaration that I would treat all individuals ‘... fairly, sensitively, and with dignity...’ which included their right not to volunteer for the study.

²⁷ A university tutor provides a link between school-based colleagues and the partnership.

When I took time to reflect further upon the situation the mentors found themselves in at that time; during the previous 18 months, they had been working and living through the first Covid-19 pandemic lockdown, and a subsequent phased return to school. I quickly realised that my request was just beyond their capacity at that point. I am not sure if *fate* is an acceptable term to use in the context of academic research, but in that same week, I was contacted by a primary school senior mentor who had wanted to do some professional learning with her mentors in preparation for the next year. In an opportunistic move, I shared my problem about gathering sufficient participants for my study and I asked if she might have any volunteers. In a truly short space of time, I had another three mentors as willing participants for my research study, resulting in more credible findings in relation to both primary and secondary PGCE programmes. Upon reflection, I am pleased that I acted in a pragmatic manner to resolve this challenge, by adapting the research study plan. I also acted ethically by enacting clause eight of the BERA (2018) guidelines, by responding sensitively and respectfully to some mentors not wanting to be participants. My professional role encompasses both primary and secondary provision, so appreciating the perspectives and context of primary mentors has also helped develop my knowledge and understanding in that educational context.

Challenges of a different type came from my lack of experience and understanding of working within a research environment, and the expectations surrounding it. Since working in higher education, I have been slightly uncomfortable with the emphasis on the publication of academic papers as part of a culture of performativity. Alfrey, Enright, and Rynne (2016: p.5) recognise this culture in accountability systems within Higher Education Institutions, and which have been used to encourage ‘... high productivity in accelerated time frames’, sometimes compromising the quality of

research.’. Mahon and Henry (2021) also draw attention to compromising research activities when they are described in terms of *outputs*, *impact*, and *targets*, and are related to satisfying key performance indicators. Indeed, I recognise that my EdD sits within this political agenda as outlined in the WG’s (2021) *National Strategy for Educational Research and Enquiry*. Additionally, my doctoral studies have been encouraged and funded because they helped to fulfil not only a national agenda, but also institutional priorities aimed at becoming more research-active in the fields of initial teacher education, and educational reform in Wales. Although never explicitly stated that I must, I did initially feel obliged to contribute to the performative culture through the publication of an academic paper based on my EdD’s systematic review of literature (DOC8002). I was not convinced, however, that I had an interested audience, and that I might merely be supporting the *ticking* of an ‘output’ box.

As I have developed as a researcher, I have learnt to appreciate the value of research as a scholarly activity, and the need to disseminate my work. Appreciating that the *publication* of a research paper is just one acceptable mechanism for the *dissemination* of research has been important to me (Blaxter, Hughes and Tight, 2011). My change in perspective was informed because of; conducting my own research, being actively involved with a research community, and engaging extensively with a range of literature. It has also afforded me the freedom to decide how best to disseminate my research. Ashwin and Trigwell’s (2017) paper helped me to identify how I might categorise my audiences when considering an appropriate approach for dissemination. They suggest there are three categories: i) the *personal*; ii) the *local*; and iii) the *wider* audience. At a fundamental level, I recognised that I should become more knowledgeable about the research process, how it influences my own professional practice, and how it gives me personal satisfaction. In addition, findings from my research study needed to be shared with people within my university

to inform potential change. Finally, I was able to rationalise why publishing a paper was important: there is a wider audience. My systematic review of literature made a unique contribution to knowledge, presenting a synthesis of literature related to PE mentoring in initial teacher education, which previously did not exist (Bethell *et al.*, 2020). Whilst the paper held little appeal to most people within my organisation, I now recognise that a wider audience might find that it *resonates* with their context, or area of interest (Tracy, 2010). In the last three years, I have attempted to share my research experiences and findings at an organisational and wider audience level, because, as Blaxter, Hughes, and Tight (2010) state:

The enthusiasm you garner from being involved in research can also be very persuasive for others who may develop insights from, or become more interested in, the issues arising from your research. This can create incremental and cascading changes that, while they may not rock the world immediately, nonetheless become significant in themselves. (p.11)

Throughout my EdD journey, I have tried to share aspects of my work. Whilst recognising I was not necessarily *rocking the world*, I did believe that researchers in a comparable situation to me, or in a similar field of study, might find something useful or interesting in my work. An example of this was during my final reflective presentation at an open invitation seminar session within my academic school and the Physical and Health Education for Lifelong Learning (PHELL) Research Group (the membership of which contains many early career researchers). Whilst this caused me a little anxiety, it was important for me to share my research in a supportive and safe environment with likeminded Physical Educationists. Equally as important was acknowledging the challenges that I had encountered, and how I had resolved some of them. A few individuals at the seminar commented that they appreciated my honesty about these challenges and the need to be resilient and determined to overcome them. I also led a session on the process of undertaking a systematic review with doctoral students in

initial teacher education, and another on getting your first academic paper published (with PHELL). In all these dissemination environments I took opportunities to share my developing knowledge of the research process gleaned throughout my EdD journey.

At a wider-audience level, I have: i) contributed to two of ‘Tom and Emma’s Talk Teaching’ podcasts discussing all things mentoring, including my research and findings (September, 2019; December, 2021), ii) presented aspects of my research through the Cardiff Partnership Research Webinar Series (March, 2021), and iii) had an academic paper peer-reviewed and published in the *Journal of Welsh Education* (Bethell *et al.*, 2020). I found this last process at times intimidating, and I am hoping in the future to become more confident and comfortable in this aspect of academic endeavour. However, I feel a moral imperative to make sure that my work has an impact on its intended audience. I now feel more empowered to disseminate my research using a range of approaches to best engage with different audiences. This has gone some way to alleviating my concerns that only individuals who access journals might benefit from my research. Varying the approaches employed for different situations and contexts has hopefully made my work more accessible and useful to those involved in the Cardiff Partnership as well as for a wider audience. The professional benefits to me, and to our initial teacher education partnership, are examined in more detail in the following section.

6.2 Reflections on my professional development

For me, the appeal of pursuing the Cardiff Met EdD was that it proposes that any research study undertaken should result in a positive influence on an individual's professional practice. This was an important feature for me when considering which doctoral route I should take. What I have learnt through my EdD journey has significantly informed my professional practice, and it has afforded me new opportunities such as becoming the lead for mentor development across the Cardiff Partnership, and membership of the Partnership's steering group management structure²⁸. These new roles have enabled me to develop my professional practice and influence that of others. Through my involvement in the EdD process, I have been afforded the status of *expert* on mentoring - which helped justify my assuming a leading role in the development of this aspect across our Partnership. Through the knowledge and understanding I have acquired from my research, and the development of mentoring, I have been better able to fulfil my role as a university tutor when working to support and develop my student teachers, their mentors; and school-based senior mentors during Clinical Practice. I believe my ability to develop and support my student teachers through the taught university provision is now better informed and more effective. Finally, I believe my EdD journey has significantly contributed to me becoming more professionally valuable to the Partnership.

One of the most significant contributions of my EdD research to our Partnership's professional practice has been to provide a foundation on which to develop mentors'

²⁸ Several steering groups contribute to various aspects of the Partnership's provision to ensure effective management and development of the initial teacher education programmes.

professional learning. The call for educational reform in Wales, based on *research-informed* practice, applies equally to initial teacher education (Welsh Government, 2019). Therefore, before our Partnership's bid for re-accreditation as a provider of initial teacher education (Education Workforce Council, 2019), I was asked to lead a task group aimed at developing our mentoring provision. The task group identified the criteria for the selection of mentors and created a model for professional learning for our Partnership. The task group used my findings from an exploration of the policies and practices documentation, and my systematic review of mentoring literature, to inform and create our mentoring programme (Bethell, 2018). The work of our task group supported the successful bid to be re-accredited as providers of initial teacher education from September 2019.

The task group also devised and created a professional learning resource to ensure mentors fully appreciated the requirements of *Clinical Practice* and their role in supporting student teachers to successfully achieve the aims of the programme. The mentor framework of Ambrosetti, Knight, and Dekker (2014) was particularly helpful in the team's consideration of the breadth of the role of an effective mentor. We synthesised and simplified their work to suit our situation. We identify that mentors need to: support, facilitate professional learning, and assess student teachers. The identification of these three aspects enabled us to devise and design a *new mentor* professional learning package, exploring the identified aspects in more depth through interactive activities. Professional learning sessions were held with all university tutors and senior mentors involved in our newly accredited programmes in the summer of 2019, which enable them to train their mentors within their schools. Therefore, in the autumn of 2019, all Clinical Practice schools should have been able to roll-out professional learning sessions for their mentors to support the newly accredited initial teacher education programmes.

Findings from my research study indicated that the self-reflection tool was useful in supporting mentors' reflective practice ²⁹. Consequently, it has been added to the resources available to all partnership schools, to support their mentors' professional learning. Additionally, during a scheduled senior mentor briefing session (September 2021 and January 2022), I highlighted my main findings (see Appendix 18), and I specifically shared the finding related to *mentors' lack of appreciation and encouragement for research and enquiry activities*. I did this to justify our partnership-wide drive to develop this fundamental aspect of Clinical Practice. I also stated that my research participants had found the tool useful in supporting their reflective practice, and that senior mentors were welcome to introduce it in their schools. Senior mentors were then asked to consider how they might exploit the resource within their schools to encourage its wider use. Once senior mentors have had time to embed the resource, it would be useful if the Partnership captured some evidence to indicate any impact from its use (Academic year 2022-23).

I have acknowledged in the sections above how my involvement in the EdD programme has had a significant impact upon my professional practice and supported the development of mentoring across the Cardiff Partnership. There have also been some less obvious benefits to professional practice based on suggestions shared with me by mentors during my research study interview process. Whilst I could have restricted this information to data for my study, I thought that if I shared it immediately with the appropriate staff, there was an opportunity that it might improve our provision. One such instance was when two mentors suggested that knowing the content of the

²⁹ See EdD submission for DOC8004 WRIT1- Implementing Change. Research Report and Personal Reflections

university taught provision, on a weekly basis, would help them to make links with their school provision for the student teachers. I shared this feedback with my colleague responsible for communications. This added weight to other similar requests he had been receiving, and there is now a weekly briefing for mentors outlining all the generic university and school-led training day themes and content. This regular communication has been well received by mentors across the partnership. Indeed, suggestions identified during my research participants' interviews, and feedback to appropriate university and school-based staff, have had a direct impact on partnership provision, and have changed aspects of our joint practice.

I had always considered that my main professional contribution was as a member of the university's teaching staff. Teaching is, and always has been, my priority. I believe that undertaking the EdD has benefitted my teaching, and thereby my student teachers' learning. However, from a research perspective, my increased knowledge and understanding has made me feel more competent and confident to be an advocate for the creation and consumption of research literature as part of professional learning, and to support student teachers with their academic assignments. Linked to another of the main findings from my research study – that mentors did not feel they were *encouraging student teachers to explore their practice using research and enquiry approaches* - I have subsequently adapted many of my lectures. For example, I now make explicit reference to elements of McIntyre's (2005) continuum of educational knowledge ³⁰ when I role model *best practice*. I have identified where I acquired the knowledge for the practice I am demonstrating, and

³⁰ McIntyre (2005) propose a continuum of educational knowledge that moves from at one end the practical approach to acquiring knowledge through practice and observation to the more abstract approaches of reading educational literature and research papers.

how it has been, or could be, developed over time using various aspects of the continuum. Philosophically, this has made me more comfortable about emphasising the value of a wider use of research literature, but without de-valuing more practice-type approaches to developing knowledge and skills. Also, through my research-revised teaching approach, I am hoping that my student teachers will be able to support some of their mentors' appreciation of the value of research and enquiry activities because they better understand and appreciate this principle of Clinical Practice.

I continue to take immense satisfaction from teaching, which leads me into the last section of my reflective essay, related to the impact of my EdD journey on me personally.

6.3 Reflections on my personal development

I have decided to structure this section based on a consideration of myself as a series of domains. This is a concept used by Mosston and Ashworth (2002) to analyse how teaching can have impact on aspects of an individual's learning. I am considering that this is an appropriate way to analyse my own personal learning and development, because of the holistic and integrative nature of the approach. Mosston and Ashworth (2002) identify four domains that can be influenced through learning experiences: i) cognitive; ii) emotional; iii) social; and iv) physical.

The intellectual challenge of my EdD has provided some of the invigoration I was looking for before embarking on my research study. I have realised that I am able to contribute in a worthwhile way to the academic world. The process of reading extensively has been both rewarding and challenging. Appreciating the need to take

time to immerse myself in an extensive range of literature, to fully appreciate the content, is something that previously I would have done sporadically, considering it either indulgent or onerous depending upon the focus. I have come to appreciate *slow* reading as advocated by Walker (2011) - that time is taken to read more deeply, to enable consideration, and for the pure pleasure of the activity. The opportunity to develop a deeper understanding of my research area both from a subject and a research perspective has helped me make connections to numerous other aspects of my professional practice. This has strengthened my contribution to the professional practice of our initial teacher education partnership as an *expert* in anything relating to mentoring.

I feel my social skills have helped me navigate several new relationships that have been critical to my success in, and enjoyment of, the EdD process. My supervisory team have supported and challenged me in equal measure. We have worked out how they can best help me to be successful at various stages of the process. I believe they have invested in me because it has become a personal mission, as well as professional responsibility. I have exploited my relationship with family and friends who have acted as sounding boards outside my work environment. All have undertaken higher degrees in completely different fields and therefore have different experiences and perspectives which has proven invaluable, enabling me to discuss my work in a social setting. In some of my social setting there is a lack of appreciation of why I would be challenging myself in this way, and at my age. My immediate family have recognised and supported my involvement, sometimes resulting in me being purely focused on my research, and at others being totally detached, and on the rare occasion being physically absent. I would not have been able to undertake and complete this challenge without this support.

The EdD journey has been an emotional roller coaster for me. There have been numerous occasions when I could happily have stopped because it had become too hard. I have always been clear that I do not need the qualification; my job does not depend upon it. As well as acknowledging that I am a determined character, I recognise that several people have invested time, effort, and a good deal of kindness in supporting me. I would have hated to let anyone down. I feel that you should pay back, and then pay forward when you are privileged enough to have such support. I have learnt to manage some of my emotions more effectively; for instance when I initially received written feedback on my work, reading constructive criticism as 'not good enough'. I have developed over time the ability to read feedback, then leave it for a couple of days before I go back and re-read it. I then try and action the 'easy' alterations, before attempting the more demanding suggestions. This approach has made me calmer, enabling me to be critically reflective. I have felt more confident with the final submissions of all my written work because of considering and incorporating the suggestions made.

I have had to be very disciplined throughout my EdD journey, not to lose sight of the fact that I need to keep moving. My well-being is linked to taking regular physical activity. Therefore, I planned carefully how I would incorporate physical activity during periods of study. So physically, whilst the ageing process has undoubtedly taken its toll on me, I have at least maintained a satisfactory level of health and fitness.

My involvement in the EdD has resulted in developing me personally. I have a stronger professional identity, I have new friends, and I have developed new relationships with existing friends. I feel in some situations I manage my emotions more effectively, and I am still moving. Most of the time, I have enjoyed my EdD adventure.

6.4 Concluding comments, and advancing doctoral work

The self-reflection tool will never be a finished product. It is better to view it as a concept. It will evolve to reflect changing national and institutional priorities, which will influence the role of the mentor. Therefore, I will continue to employ a DBR iterative approach to refining the resource (Shattuck and Anderson, 2012). So, whilst I have a resource that will be *current* for Clinical Practice in 2022, it may well need small refinements for the next academic year, if there are changes to the partnerships policy or practice. The creation of the resource was purposely simple, thereby encouraging engagement and enabling adaptations.

If I disseminate my research effectively, it is feasible that other providers could take the concept of the resource and adapt it to their specifications. It would be professionally satisfying to see my research have an impact in other settings. For this to happen, I need to find opportunities to disseminate my research through appropriate channels, such as: the publication of at least one research paper based upon my research report, ii) a shorter *practice* article, and iii) presenting my work at a conference either through an oral presentation or poster. Although, I have had an academic paper published in a journal based on an aspect of my research study, I would need guidance and support for this extension of my research work. However, if the dissemination process creates greater insight or interest into mentoring in initial teacher education, I feel my work will have been valuable.

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