Learning How to Lead Through Engagement with Enquiry Based Learning as a Threshold Process

A study of how Post-Graduate Certificate in Education healthcare professional students learn to lead

By

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Abstract

There has been a significant increase within healthcare to focus on instrumental and technical skill development in order to monitor and regulate competence. However, higher education institutions are encouraged to utilise innovative, student-centred approaches to learning that focus on the process of learning rather than the outcome. This study explores the learning journey of Post-Graduate Certificate in Education (PGCE) healthcare professional students studying at a new university within the Midlands who engaged with enquiry based learning (EBL) as the philosophy underpinning their PGCE.

The methodology is a single case study based on group interviews. Six groups totalling 59 students were interviewed to ascertain their experience of the nature of EBL, their conceptions of learning within a community of practice, the transformative influences that enabled an ontological shift and the emerging leadership qualities.

The findings show the nature of EBL is a holistic experience that enables epistemic development and has all the features of a threshold concept yet it is a process and not a concept. The community of practice is a fundamental part of the process and engenders feelings of responsibility for others' learning. The transformative component of the EBL experience enables an ontological shift which relates to EBL as a process rather than a concept and the overall experience of the PGCE enables the development of leadership qualities, most notably, self-confidence, self-identity and self-belief.

This study captures the students' epistemic and ontological development through engagement with the EBL process. It argues the literature around threshold concepts should explore integrating student-centred pedagogy into threshold concepts rather than viewing it as a separate entity to enable PGCE students to develop leadership qualities. It utilises the proposed threshold process within a framework that outlines the preparation and practice of educational leaders in healthcare which embraces exposure to, engagement with and enactment of leadership.

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Chapter 1: Introduction

Becoming a leader requires a process of learning. Given the social, tacit and situated nature of leadership expertise, it is interesting to consider, using Eraut et al's (2000) research questions: what do leaders learn, how do they learn it and how might they be helped to learn it more effectively? If leadership is about enabling change then leadership requires not only a learning process but can also be interpreted as the enabling of learning, both individual and collective (Blackmore and Kandiko, 2011). The language suggests that learning and leadership are intertwined.

I deliver a part-time post-graduate certificate of education programme (PGCE) to experienced healthcare professionals at a new university based in the Midlands utilising an enquiry based learning (EBL) approach. This study aims to explore the student experience of a PGCE and focuses on whether the process of EBL, as a proposed threshold process, facilitates learning through a community of practice and whether, as the students transform their perspectives, they develop leadership qualities to enable leading learning in practice. The development of leadership qualities go some way to address Eraut et al.'s (2000) questions of how do leaders learn and how can they learn more effectively.

This introductory chapter will firstly give the context in which healthcare and healthcare education takes place including the professional regulations dictating teaching practice for nurses and midwives. It will identify the aims of the study before outlining the literature and the research design then present the research questions. Finally, this chapter will provide an outline for the rest of the study.

Healthcare Context

Today's healthcare and healthcare education is set against a background of tightening fiscal policy and a continually changeable political doctrine. The National Health Service (NHS) has a long history of attempting to improve both management and leadership. The many reports produced throughout the last half century have either explicitly been about management and leadership or alluded to it. Due to the politicised nature of the NHS, each report is generally linked to a change in political party. The Cogwheel Report in 1967 called for clinical divisions to take responsibility for the management of resources with the involvement of clinicians in management and the first 'grey book' for management was published in 1972 (Department of Health, 1972). The impact of the Cogwheel report was eradicated by the 1974 reorganisation of the NHS. The reorganisation was proposed by a Conservative government, which aimed to develop services across authority boundaries and promoted a multidisciplinary approach, however, it relied on consensus management. Prior to the date of the reorganisation, Labour came to power. The theory behind the 1974 reorganisation was considered comprehensive but consensus management led to prolonged or no decision making as too many agencies were involved to gain consensus.

With a further change of political power in 1979, the Griffith's Report (1983) was published with the memorable quote 'if Florence Nightingale were carrying her lamp through the NHS today, she would be searching for the people in charge'. Griffiths (1983) gave doctors a central role in management although this went unnoticed as he is commonly criticised for bringing in the general manager culture; managers who modelled themselves on business and created roles as chief executives.

More recently, the last Labour government's Health Act (Department of Health, 1999) allowed general practitioners and primary care staff to commission care, this created primary care trusts. Continuing on from this was Lord Darzi's Next Stage Review

(Department of Health, 2008) which stressed the importance of effective clinical leadership. The NHS is now facing the biggest shift of power and accountability in its history as a result of the current Health and Social Care Act. The Act aims to place the commissioning of care in the hands of GP consortia and disband the strategic health authorities and primary care trusts. The NHS is adapting to this contemporary architecture; new delivery options are being formed whilst old structures are being dismantled and decommissioned.

Parallel to these changes have been significant reports into NHS standards. The Francis Inquiry report (2013) has heavily criticised the organisational culture which allowed poor quality of care and leadership to precipitate through the NHS Trust. Royles (2013) claims the report will be a generation-defining leadership challenge. To some extent he defends the previously dominant NHS leadership style and describes it as 'pacesetting'. This approach is centred on meeting targets and reflects the target driven nature of the NHS over the last two decades. He suggests that a renewed focus now should enable leaders, at all levels, to focus on the development of others and self to create more responsive, responsible systems, organisations and individuals that care for society (http://www.guardian.co.uk/healthcare-network/2013/jan/24/francis-report-leadership-challenge-nhs, accessed 28.01.13).

In contrast to pacesetting, the King's Fund suggests that the focus of recent public debate on leadership in the NHS has focused on the issue of leaders being viewed as 'superheroes'. The King's Fund (2011) report into the future of leadership and management in the NHS uses the title 'no more heroes'. They draw on examples from other public sector services such as 'super heads' in schools, elected mayors in local government and the rapid turnover of NHS 'turnaround' chief executives. They propose that as the operation of all public services is becoming more complex, there is evidence that the superhero approach can be effective if the organisation within which it operates is

successful but superhero qualities can become weaknesses if the organisation is struggling or when serious misjudgements are made (King's Fund, 2011). The report goes on to discuss the type of leadership they believe is needed within the NHS and distributed or shared leadership seems to be the preferred style, however, the emphasis is placed firmly on effective leadership and its vital role for the future success of the NHS. It highlights many reasons for this, giving quantitative evidence that includes turnover figures but also more qualitative evidence for the support of good leadership. As an example, the Healthcare Commission use surveys in which staff rate the quality of leadership in their organisation. The findings suggest that for senior managers with higher ratings from their staff equate to: higher performance ratings, higher scores for clinical governance and lower numbers of patient complaints (CQC, 2011).

The NHS Leadership Academy was established in different regions from 2007 onwards and the rhetoric around its inception was to develop outstanding leadership in order to improve patients' experiences, their health outcomes and well-being during a period of unprecedented challenge and change. The Academy proposes a leadership framework to provide 'a consistent approach to leadership development for all staff in health and care irrespective of discipline, role, function or seniority and represents the standard for leadership behaviours that all staff should aspire to.' The framework talks of leadership development for all staff although the publicity surrounding its development talks chiefly of senior leaders however, there is recognition that leadership development should and must happen at all levels. The aim of the Leadership Framework is to create a single overarching framework for all health and care staff to build on best practice standards for leadership development. The seven stage framework consists of demonstrating personal qualities, working with others, managing services, improving services, setting direction, creating the vision and delivering the strategy.

The context thus far has been situated within the NHS rather than education. All undergraduate and the majority of postgraduate or post-registration education for healthcare professionals in the UK is delivered by higher education institutions. Higher education institutions deliver healthcare programmes that are approved and monitored by the various healthcare professional, statutory and regulatory bodies to ensure the standards of education confer competence at the point of registration and reflect the conduct expected by the regulating body.

In 2008, the Department of Health ratified the decision for nursing to become an all graduate profession by September 2013 and in 2012, Lord Willis was commissioned to look into the future of nurse education. A key area for review within the Willis report (2012) was how nurse education, both undergraduate and postgraduate, could best prepare nurses for the future. Nurses account for the largest group of staff within the NHS and the report defended graduate level nurses and stated the future healthcare system will require graduate nurses to practise and lead nursing. The anticipated impact of the Francis Report (2013) provided a key driver for the Willis (2012) report which was to ascertain whether nursing education could be held directly responsible for poor practice or the perceived decline in standards of care; this was not found, the report did however, recommend that all healthcare service providers take responsibility for equal partnerships in nursing education and recognise that the culture of the healthcare workplace impacts on the standard of education. This equal partnership proposition was supported by the recommendation that healthcare service providers and universities develop collaboratively joint staff appointments. Another key recommendation was that there should be a national nursing career framework which demonstrates synthesis of practice, education, management and research to enable suitable career pathways in order to retain nurses. To support this, the report suggests that employers, universities, regulatory bodies and royal colleges should invest in the future by supporting, through funding, continuing professional development. Willis (2012) recommended that healthcare service providers

make use of the enhanced skills of the new graduate nursing workforce to improve standards and provide effective leadership; he called upon nurses to provide this leadership and restore professional pride.

Despite the backdrop of an emerging graduate nursing profession with enhanced skills, it can be argued that due to overregulation of the NHS (NHS Confederation and the Independent Healthcare Advisory Service, 2009), the complexities of current healthcare education primarily dictates the focus of professional development is upon task or skill for competency and as such, reduces the opportunity for the breadth and depth of thought required for leading practice. Fraser et al (1998) note that this blinkered task-orientated approach does not facilitate student-centred learning rather it concentrates upon the process of fact transmission in a passive learning manner. Within this economy, Distler (2007) purports that nurse education has also had to contend with a shrinking workforce, and a more adult and ethnically diverse student base, as it attempts to address the challenges of maintaining nurses and midwives ability to remain clinically competent. He continues noting that although the vocabulary of healthcare education and professional development has changed to include terms such as student-centred learning, critical thinking, problem/enquiry based learning and evidence-based-practice, not all higher education institutions have embraced this revolution of education and continue to 'teach as I was taught'. He emphasises the importance of utilising a student-centred approach as pivotal to the development of higher-level thinkers in a challenging healthcare environment and believes that innovative approaches to student engagement are set to stay at the forefront of current healthcare education.

As mentioned previously, an issue for healthcare and healthcare education is the growing burden of regulation. A review carried out in 2009 showed that NHS organisations were subject to 35 different regulators, auditors, inspectorates and accreditation (NHS Confederation and the Independent Healthcare Advisory Service, 2009). To satisfy these

regulatory agencies, essential training has to be delivered to staff and this mandatory training impacts on the time available for staff to engage in professional development and can even be misrepresented as professional development (Webster-Wright, 2009). This over regulation has led to increased levels of administration and has drawn criticism from the political parties and the public, with Andrew Lansley, the then Conservative health spokesman making the comment that 'box ticking and bureaucracy seems to be more important than … caring for patients' (Conservative Party, 2010).

Whilst auditors and inspectorates regulate the NHS, it is the Nursing and Midwifery Council that are responsible for regulating nurses and midwives to safeguard the health and wellbeing of the public (NMC, 2010). One of their functions is to set the standards of education for pre- and post-registration nurses and midwives. Nursing and midwifery education is complex, with competing social values between health workforce demands, their professional aspirations and the social value of education. The Peach Report (1998) states that for all healthcare professionals to be fit for practice on registration, the critical relationship between theory and practice must be addressed. The Peach Report (1998) led to the publication Making a Difference (Department of Health, 1999) which called for a strengthening of pre-registration education and training, with more practice-based teaching. Fitness for Practice (United Kingdom Central Council, 1999) set out a major restructuring of pre-registration training, with an emphasis on practical skills and support. With the decision for nursing to become an all graduate profession by September 2013, another major restructuring of pre-registration programmes has happened with the publication of new standards for pre-registration nursing (NMC, 2010). The above changes are due to the politicised nature of healthcare education, the NMC reacts to government policy and in general, nurses and midwives accept changes in education and practice in an uncritical, unquestioning manner.

As well as regulating nurses and midwives on entry to the register, the NMC regulate those who can teach students who on point of registration will have a recordable qualification on the register such as student nurses, student midwives and specialist community and public health nurses. The NMC qualified teachers have a responsibility to ensure that the standards of proficiency to practice have been met in order to register a professional nursing or midwifery qualification, whilst at the same time safeguarding the promotion of evidence-based practice and acting as a leader, advisor, role model and change agent for health care professionals in relation to their personal and professional development (NMC, 2008). Teacher status is conferred by successful completion of an NMC approved teacher preparation programme in order to achieve the prescribed outcomes of stage 4 of the developmental framework within the Standards to Support Learning and Assessment in Practice (NMC, 2008). Nationally, NMC approved teacher preparation programmes are delivered as a post graduate certificate or post graduate diploma level qualification within higher education institutions.

Context of professional development

The NMC are also responsible for regulating nursing and midwifery continuing professional developed. Nurses and midwives must maintain their competence by adhering to the NMC's Post Registration Education and Practice (PREP) requirements in order to provide a high standard of practice and care, keep up to date with new developments in practice and encourage reflection on practice (NMC, 2011). In order to maintain registration as a nurse or midwife, evidence of engagement with the PREP requirements is mandatory every three years post-qualifying. The requirements are divided into two standards, the practice standard and the continuing professional development standard and both dictate the necessary amount of hours spent on each activity within the preceding three years (NMC, 2011). The PREP handbook refers to the term lifelong learning which has become commonplace terminology for the majority of

regulated professions. The need for continuing professional development to maintain high-quality practice is widely identified as an implicit responsibility of professionals today, reinforced by explicit requirements of professional standards and registration procedures (Webster-Wright, 2009, pg. 702).

Whilst the NMC regulate continuing professional development the workload of nurses and midwives has increased and practice has become more complex. With reference to the Francis Inquiry, it could be argued that the conditions under which nurses' practice have gradually deteriorated as nurses experience a multitude of competing demands resulting in less time to engage in professional development and growth. Whilst nurses and midwives (and nursing and midwifery teachers) professional development is regulated, Fullan's (2007) statement provides an alternative view that continuing professional development, as a strategy for learning and professional development, is outdated and will not advance the profession. Fullan (2007) discusses professional development for the teaching profession but his argument has resonance to nursing and midwifery as increasingly professional development for healthcare professionals has become a regulatory function rather than a genuine developmental opportunity with the focus on competence and mandatory updates.

Fullan (2007) refers to the work of Elmore (2004) who dedicates a chapter of his book on school reform to professional development in which he observes a gap between what we know about effective professional development and how it is actually carried out. Elmore (2004, pg. 104) describes professional development as the set of knowledge and skill-building activities that raise the capacity of teachers to respond to external demands and to engage in the improvement of practice and performance. He then adds that there is almost no opportunity for teachers to engage in or sustain continuous professional development within their workplace which impacts on any notion of improvement therefore, school improvement is not considered a matter of refining teachers' knowledge

and skills. There also exists a disparity in the research on the subject of professional development as Webster-Wright (2009) highlights; the predominance of research is on the delivery of professional development programmes rather than on the experience of professional learning.

Before reviewing the literature pertaining to professional development or professional learning it is important to define the terms used. Mayer and Lloyd (2011) state until recently that the terms professional learning and professional development have been used interchangeably yet outline the importance of defining the two terms, they refer to Knapp's (2003) definitions that professional learning refers to changes in the thinking, knowledge, skills, and approaches to instruction that form practicing teachers' repertoire (pg. 112) in comparison to professional development which includes the full range of activities, formal and informal, that engage teachers in new learning about their professional practice (pg.112). It would seem that professional learning is seen as more holistic and transformative than professional development which encompasses the regulatory and statutory requirements set out by employers and professional bodies. The terms used in this study will reflect this difference.

Background to the Study

The interest in the study developed from the necessity to write a curriculum for students comprising of senior healthcare professionals from a variety of clinical backgrounds who were seeking a registerable teaching qualification with the NMC. Having worked in higher education for several years, I had witnessed mature healthcare professionals feeling alienated in academic settings as they tend to experience formal post-initial education as peripheral to their central interest which is practice.

The students had to learn about learning which prompted me to consider Eraut et al.'s (2000) questions and apply them to learning which included what do students need to learn, how do they learn it and how might they be helped to learn it more effectively? On reading Perry (1970) and Belenky et al. (1986) I identified with their perspective that learning is an active process of meaning-making. The students on the PGCE classified the programme as part of their continuing professional development and learning is characterised as a developmental process. However, if learning is an active process of making meaning and is characterised as developmental, how does learning happen? The process of adult learning is complex and varied which prompted my interest in finding a student centred approach to learning that would put the students at the heart of their learning and educational practice.

Knowles (1980) developed principles of andragogy which are used widely to inform current undergraduate and postgraduate education to engage students in their learning and promote independence. Andragogy relates specifically to learning strategies for adults and whilst this study focuses on adults, the term pedagogy will be used as a strategy for learning and teaching regardless of age, and as the study of being a teacher. Darbyshire (1993) argues that the differences between andragogy and pedagogy are false and unfounded. She goes onto claim that true pedagogy has far more radical, powerful and transformative possibilities for nursing education.

Merriam (2001) recognises that adult learning is an elusive concept since the process of learning and impact of context is poorly understood and the transformative and emancipatory potential of adult learning is often overlooked (Webster-Wright, 2009). Adult learning requires the concepts of meaning-making and development to be integrated for the individual to enable them to construct meaning and encourage an ontological shift (Cousins, 2010).

I decided to adopt an enquiry based learning (EBL) pedagogy for the Post Graduate Certificate – Teacher in Health and Social Care (PGCE) which leads to the registerable qualification of Teacher with the NMC and Fellowship with the Higher Education Academy. I felt it was essential to the success of the programme that the students could make explicit links to their learning by applying it to their clinical and teaching practice as, according to Price (2003), learners learn more deeply when classroom-gathered knowledge can be applied to real-world situations. The students study part-time, one day per week and spend the majority of their time in clinical or clinical teaching practice. The EBL process engenders learning that is integral to professional practice and is central to knowing and behaving like a practitioner within an environment of continuous change and adaptation, where knowing how to acquire knowledge for a particular purpose is often more important than the knowing itself (Jackson, 2003).

As the context of the professional learning needs to be embedded in practice, I explored Meyer and Land's (2003) threshold concepts as they included practice as an essential element and were explicit in how development was integrated into practice, their discussions around 'troublesome' learning and liminal space also resonated due to the complexities of practice. The question that arose in considering threshold concepts was what are the threshold concepts within a PGCE? Enquiry based learning as student centred pedagogy is purported to be a suitable method of teaching threshold concepts yet the EBL process itself was troublesome for the students. For the majority of PGCE students it was their first experience of truly student centred learning so they were experiencing the concepts of what they are aiming to explore which created conceptually difficult knowledge (Perkins, 1999) or experientially difficult knowledge. Much of the research around threshold concepts focuses on the threshold concepts themselves (Yip and Raelin, 2012; Cousin, 2010; Meyer and Land, 2005; Meyer and Land, 2003) rather than on the skills that may emerge as students realise the thresholds. Meyer and Land

(2005) suggest that threshold concepts are in themselves, a threshold concept and this implies the experience of EBL may be viewed as a threshold *process*.

After implementing an EBL approach, I began to observe a significant shift in the students' perspectives of themselves and their learning. I looked into theories of epistemic development outlined by Perry (1970) and Belenky et al. (1986) and whilst their positions and perspectives of a learners growth applied to the students, it was Cousin's (2010) theorising around ontological shifting in relation to Meyer and Land's (2003) threshold concepts that more closely reflected what I was witnessing. When the students experience an ontological shift or eureka moment, they gain confidence which engenders self-belief; a vital element in the development of a leader (Rhodes, 2012; Gronn, 1999).

As there is limited evidence on learning for educational leadership in the healthcare arena or what best facilitates the development of leaders who can lead learning in the workplace, it is timely to conduct a study that examines the development of educational leaders who have the responsibility to lead learning in practice. An imperative of leadership research is to understand how people develop their knowledge and practice of leadership in order to develop and broaden this expertise (Casey and Goldman, 2010; Kempster and Stewart, 2010). The research around educational leaders and leadership is more prolific than nursing leadership which tends to focus on nursing organisational leadership rather than nursing educational leadership. I have therefore drawn predominantly from the educational leadership research and applied the concepts to nursing education. This may be problematic as I have referred to the accession phase of Gronn's (1999) leadership career framework which outlines the stages to headship. This made me reflect on the equivalent position of headship in nursing. Titles such as Director of Nursing are evident as senior nurses but perhaps this reflects the position of a deputy head as the position of headship in a healthcare organisation is the Chief Executive. In contrast, schools have one professional group to represent whereas healthcare

organisations have numerous professions. A Director of Nursing would be a professional head within the organisation but not necessarily an educational head or head of the organisation. Another dichotomy was whether head of a healthcare institute or faculty within a higher education institution could be considered a headship however, within the educational leadership research, reference is not made to those who are head of education institutes or faculties within universities. These roles, whilst usually occupied by professionals, refer to themselves as academic leaders, not profession specific heads. The difficulty therefore, was finding literature pertaining to nurse educational leadership, as outlining a career or what the pinnacle of that career would look like is problematic as there is no definitive role or career structure.

The central theme of this study however, was not to define or develop a nursing educational leaders career pathway, it was to examine whether EBL as a proposed threshold process can enable student development of leadership skills through a transformational adult learning experience. Hence, the intent of this study is to frame a greater understanding of educational development through EBL as a threshold process to inform how student teachers learn to lead learning and develop leadership qualities.

Aims

The broad aims of this study are to explore the students' experience of a PGCE that utilised an EBL approach. The study will focus on whether the experience of EBL, as a threshold process, facilitated learning through a community of practice and whether, as students transform their perspectives, they develop leadership qualities to enable educational leadership in healthcare.

Research questions

A review of the literature into enquiry based learning, epistemic development, threshold concepts, communities of practice, transformational learning and leadership qualities generated four main themes and these informed the research questions which were grouped into themes. In order to address the aims of the study the following research themed questions were established as key:

1. What is the nature of an EBL experience? To what extent may EBL be considered a threshold process? To what extent does it influence epistemic development?

2. What influences does learning within a community of practice have on student development as educators?

3. Do the students experience an ontological shift as a result of experiencing EBL? What influences do students perceive as important in transforming their views?

4. How does the experience of the EBL process develop leadership qualities? What impact has this had on the students' perceptions of themselves as emerging educational leaders?

The first research theme questions were essential to establish how the nature of an EBL experience is perceived by the students as it provides the context for the subsequent research questions and allows consideration of whether the experience of EBL can be considered a threshold process and to what extent this enhances epistemic development. The second research theme question was designed to determine the influences learning within a community of practice have on the students' educational development as a community of practice is fundamental aspect of EBL. Research questions around theme

three asks whether the students experience an ontological shift to ascertain whether the experience of the EBL process can be considered a transformational learning experience and finally, research themed questions four ascertain how leadership qualities emerge through an EBL experience and whether the students perceive themselves as educational leaders.

The research themed questions should enable a better understanding of the nature of an EBL experience, the impact learning within a community of practice can have and whether this leads to an ontological transformation resulting in emergent leadership qualities. Consequently, tentative recommendations can be made as to how PGCE students can learn to lead educational practice in a healthcare setting.

Justification for the study

As outlined in the context of this study, the UK healthcare system is facing unprecedented challenge and change whether due to government policy or independent inquiries into poor standards of care. The majority of recent healthcare policy refers to the need for high quality leadership from all healthcare professionals at all levels (King's Fund, 2011). A fundamental element to the success of an organisation such as the NHS is the quality education of the professionals that it will ultimately employ (undergraduates) and the continuing professional development of its professionals once employed (postgraduates). This study is justified as it will contribute to knowledge of the development of educational leaders in the healthcare setting. Whilst it would be ambitious to state this will impact on professional learning in the workplace and subsequent standards of care, it is anticipated that the enhancement of the PGCE students' ability to lead education in practice may have a positive impact on the students and professionals they lead and teach resulting in an improvement in professional practice.

An overview of the literature

The literature presented in this review is essentially drawn from two separate disciplines: nursing and education although the themes emerging from each discipline were at times connected. The theories of EBL, constructivism, epistemic development, threshold concepts, communities of practice, transformation and leadership development are explored in the literature review and are underpinned by the conception of their contribution to continuing professional development and learning.

Freire (1970) suggested that education that utilises a problem solving approach develops the ability to perceive critically the way learners exist with their reality and involves, through dialogue, the emergence of teachers and students being jointly responsible for the learning process in which all grow. The debate around how best to facilitate transformative learning experiences centres on reflective practice and dialogue. Enquiry based learning is just such an educative approach that develops an environment in which learning is driven by the process of enquiry owned by the student (Centre for Excellence in Enquiry Based Learning, 2011). They go onto state that:

> ...it is essential that students are educated for knowledge creation, lifelong learning and leadership. They will take on leading roles in their future working environments: directing change, asking important questions, solving problems and developing new knowledge (CEEBL, 2011).

After identifying the philosophical roots of EBL, its characteristics as a constructive learning process are considered. Enquiry based learning is characterised by a commitment not only to knowledge creation and sharing but also to an action orientation - to the application and utilisation of knowledge (Carter and Ireson, 2002). Enquiry based learning makes the learning, not just the content, important and places practice at the heart of knowledge and the student at the centre of learning (Fraser et al., 1998). Within

the literature review, EBL is discussed as a constructivist approach to learning and it is noted by Phipps (2003) that whilst epistemological belief can affect engagement with EBL as a constructivist philosophy, conversely EBL can aid epistemological development (Kreber, 2006). This involves more than just skill acquisition and information gathering, it requires a transformation of knowledge, views, identity and relations with others and with the individual (Baxter-Magolda, 2007; Belenky et al., 1986; Perry, 1970) and as such can be viewed as troublesome and a threshold concept therefore, I explore the epistemic developmental frameworks outlined by the works of Perry (1970), Belenky et al. (1986) and focus on Meyer and Land's (2003) threshold concepts for transformative learning.

Meyer and Land (2003; 2005) discuss ways of thinking and practising within a subject and suggest threshold concepts can be identified specific to a discipline, particularly those where there is a degree of consensus as to what constitutes a body of knowledge (e.g. mathematics and medicine). To further the discussion around thinking and practising, the theory practice gap is explore in relation to professional learning and models of development are considered (Webster-Wright, 2010; Benner, 1984; Dreyfus and Dreyfus, 1980).

As Brown and Duguid (1991) note, learning cannot be studied separately from the conditions in which it occurs. Enquiry based learning is socially situated therefore, the literature pertaining to situated learning and learning through a community of practice (Lave and Wenger, 1991) is studied. The notion of sharing the knowledge created is explored by discussing the students' development within a community of practice (Lave and Wenger, 1991). Carter and Ireson's (2002) work is centred upon a conviction that the alignment of professionally-focused enquiry provides a vehicle for individual learning and the development of change management capacity across whole communities of practice. By encouraging practitioners to be knowledge producers gives equal value to their contributions to the knowledge-base about teaching, learning and leadership.

Mezirow's (1978, 1990, 1994, 1995) influential work on adult learning and perspective transformation is explored as it influences the transformative aspect of Meyer and Land's (2003) threshold concepts and includes reference to a disorientating dilemma which resonates with Meyer and Land's (2005) discussions around liminality and Cousin's (2010) ontological shift. Mezirow (1978) perceived perspective transformation as existential learning or a sense of becoming and a search for the meaning of life. The literature considers whether the objective of learning should be to become and to achieve a transformative goal or ontological shift (Cousin, 2010), rather than to simply know about something (Natanasabapathy et al., 2011; Servage, 2008).

Different styles of leadership are widely discussed in the literature; transactional (Burns, 1978), transformational (Bass, 1990), distributive (Gronn, 2002; MacBeath, 2005) and situational (Hersey and Blanchard, 1982) and these leadership styles describe methodological approaches which aim to accomplish the same essential objective: leadership which, at its most basic, improves effectiveness and engages staff. Leadership is both this simple and this complex (Leithwood et al., 2004, pg. 8). Each leadership style inevitably has its own traits and this study does not aim to focus on a particular leadership style therefore the definition of leadership that informs this study is the broad conceptual outline provided by Barker (1997, pg. 491):

> 'Leadership… is a process of transformative change where the ethics of individuals are integrated into the mores of a community as a means of evolutionary social development'.

As the focus of leadership development is arguably to enhance the achievement of the learners (Brundrett and Rhodes, 2011) this will be considered although the predominant focus of this study will be on how learning may develop leadership qualities. Learning

through the process of EBL, within a community of practice, promotes learning and self-development (Pearce, 2009; Jackson, 2003; Price, 2003). Self-development can lead to an increase in self-esteem or what Gronn (1999, pg. 36) describes as positive feelings of one's worth and value as part of self-belief. In the pilot study it became clear that confidence and self-belief were the key emerging qualities and this related to the accession phase of Gronn's (1999) leadership career framework and Rhodes (2012) work on self-belief as a potent modifier in the journey to leadership.

Stage two or the accession phase of the framework requires the aspirant leader to have self-belief which entails a sense of personal efficacy and self-esteem described as part of the domain of inner work (Gronn, 1999). Gronn (1999) identifies that an important pre-condition to success at this stage is individual self-belief. Self-belief, self-confidence and self-identity have emerged in other educational leadership research as important qualities for leadership (Rhodes, 2012; Blackman, 2010; Rhodes et al., 2009; 2008, Cowie and Crawford, 2009, 2008; Griffiths, 1993) and these will be considered and theorised within the findings.

When considering leadership development, MacBeath et al.'s (2009) study into leadership for learning was reviewed as they propose five principles to ensure effective and shared leadership within schools to promote an effective learning environment which is of relevance to the PGCE students when in practice. Whilst this study considers leadership for learning, the context of this study is to extrapolate how learning can develop leadership qualities.

In reviewing the literature, the emerging themes were that experiencing the process of EBL may be a threshold concept and may lead to epistemic transformation. This experience may be affected by learning within a community of practice and potentially, a

key quality for leadership development is self-belief. The next section will outline the research design.

Methodology and Method

The research is considered within Carr and Kemmis (1986) three basic forms of educational research namely; positivist, interpretive and critical. I would position this research as interpretive educational research which seeks to understand and generate theory from the lived experience of the process of education.

The methodology is a single case study based on group interviews to identify why and how a programme using an enquiry based learning (EBL) approach led to the observed results or outcomes. A case-study methodology facilitates an in depth approach to ascertain what is and is not effective (Yin, 2009).

The research employs semi-structured group interviews with six student cohorts totalling collectively 59 students who have all undertaken the PGC - Teacher utilising an EBL approach.

Findings, Discussion and Contribution

The findings are reported in the themes relating to the research questions and are supported by quotes from the student students. The discussions of the findings are linked to the research questions and the literature reviewed. The purpose of the findings is to clarify how the PGCE students learnt to lead. It is intended that the outcomes of this study will contribute to the development of new knowledge by understanding how and why experiencing an EBL approach may be considered a threshold process rather than as a pedagogy to enable students to engage with threshold concepts. This discussion around

a pedagogy becoming a threshold processes has not been contested before and potentially enhances the threshold concept debate. A further area of development is the proposal that by engaging with EBL as a threshold process, students through experiencing altered epistemological and ontological perspectives, enhance their self-identity, self-confidence and self-belief which enables them to be exposed to, engage with and enact leadership. This growth of leadership development aims to further inform the research agenda.

Structure of the Thesis

This thesis is divided into five parts. The next chapter (Chapter 2) follows on from the context provided in the introduction by introducing and critiquing the literature that has influenced this study. The third chapter (Chapter 3) justifies the research design of the study to locate the philosophical approach and discuss the methodology as well as incorporating the sample, the method of data analysis and the ethical issues underpinning the work. Chapter 4 presents the findings which are structured within each of the research themed questions. Discussion of the findings is presented in Chapter 5 and again these are structured within the research themed questions and finally chapter 6 summarises the findings and outcomes of the research with discussions around the contribution to knowledge and suggestions for further research.

Chapter 2: Literature Review

Introduction

This chapter will outline the purpose for this study and explores the relevant literature pertaining to each research question. The literature review will initially outline the search strategy adopted to generate the literature. To provide context, the philosophical roots of EBL will be considered and its alignment with constructivist learning theory. The relevant literature for research question one explores the epistemic development frameworks as proposed by Perry (1970), Belenky et al. (1986) and focuses on Meyer and Land's (2003) threshold concepts. Consideration is also given to the theory practice gap and the relation to professional learning and models of development. To underpin research question two, the literature concerning situated learning and communities of practice is explored. The literature supporting research question three pertains to the notion of transformation through an educational learning experience and finally, in order to outline research question four, the literature that shapes learning for leadership and the role of self-belief in a leaders' development will be presented.

The literature review will ultimately develop the theory underpinning the EBL process, threshold concepts and students' epistemic and ontological development through a transformational learning experience. The proposed epistemic and ontological transformation enables reconstitutive change as the students develop the foundations or qualities required to lead learning in practice.

Search Technique

A review of the literature on EBL, professional learning, transformative learning and leading learning included searching the Nursing and Midwifery Council (NMC) for policy

statements, the British Education Index (BEI), Education Resources Information Centre (ERIC), Cumulative Index to Nursing and Allied Health Literature (CINAHL), British Nursing Index (BNI) for academic research publications using the terms 'enquiry based learning', 'philosophy of enquiry based learning', 'metalearning', 'threshold concepts', 'professional learning', 'continuing professional development', 'professional education', 'self-directed learning', 'adult learning', 'constructivism', 'leadership for learning', 'learning for leadership', 'educational development', 'professional identity', 'self-belief', 'self-esteem', 'self-concept, 'self-efficacy' and 'community of practice'. Key subject areas and authors were established and this work was then reviewed, together with references and bibliographies, enabling access to additional relevant works. This began a second trail of investigation and a narrowing down of relevant publications. As the study required 6 yearly cohorts to be investigated, the timeframe within which the review of the literature took place spanned 8 years in total from the inception of the study through to completion. Email alerts via ZETOC were used to inform me of new articles that became available which met my search criteria.

The result of these activities identified the key themes that informed this review and underpinned my research questions and provided a framework outlining the relationship between the preparation for leadership and the practice of leadership as a tentative conclusion upon which this study could be based.

Philosophical roots of enquiry based learning

For centuries, man has been contemplating the question of knowledge, how it is transferred and the effect knowledge can have. Knowledge can be defined as possession of information, facts, ideas, truths or principles but how does someone come to possess such information and how is it transferred? The search for knowledge can be obtained through enquiry or questioning, as an act of requesting information or as an investigation to determine facts. Enquiry or inquiry based learning (for the purpose of this study, I refer

to it as enquiry based learning) has many definitions but fundamental to them all is that it encompasses the skills of questioning and investigating new information while constructing knowledge (Wilhelm, 2007). I aim to give a brief outline of what I perceive as the philosophical development of EBL as an investigative technique for constructing knowledge.

One of the earliest philosophical texts is the Upanishads which came out of ancient India over 1000 years B.C. and form the theoretical basis for Hinduism. The Upanishads are interpretations that attempt to explain the kernel of knowledge and it is said that if you can understand them, it will lead to liberation from ignorance (Muller, 2006). Upanishad means sit down close and it is important to understand the teaching methods of the text which take the form of a question and answer session between pupil and teacher. The Upanishad body of aphorisms came to be composed into Brahmasutras and remain of interest today as they are about knowledge and the process of its transfer and what knowledge can do. The Brahmasutras are full of amusing stories about eccentric teachers who teach in unusual ways and these characteristics are still being perpetuated in the business of knowledge transfer today as educationalists explore different teaching methods, often embracing elements of eccentricity, to engage learners and transfer knowledge (Senechal, 2012). The Upanishads have a legacy in terms of the paradigms and the paradigmatic characters they present, they promote questioning through enquiry by asking for new answers, it offers a different perspective on the world: an alternative philosophical outlook. The doctrines of the Upanishads have been linked to Plato, Kant and Schopenhauer (Mullar, 2006).

Around 400BC, Socrates posed critical questions rather than answers to his interlocutors. Questioning towards a better understanding is central to the Socratic Method or 'elenchus' which has been defined as a technique in which a teacher does not give information directly but instead asks a series of questions, with the result that the student

comes either to the desired knowledge by answering the questions or to a deeper awareness of the limits of knowledge (Rowland, 2006, pg. 106). This awareness or recognition of the limits of knowledge or ignorance results in 'aporia' which is an essential component of elenchus. Socrates believed that his interlocutors must acknowledge their ignorance as a pre-condition for entertaining new ideas as it creates space for new knowledge (Rowland, 2006). The Socratic Method involves dismantling prior ideas in order to free the mind to think about a topic without the constraints of preconceived notions. By definition, this method deconstructs all prior thoughts on a topic and leaves the learner without a satisfactory answer to the primary question, it is aimed at rediscovering or uncovering the truth through critical dialogue and according to Socrates most famous pupil, Plato, this process is essential for learning.

Plato believed that the individual has innate knowledge and that individuals do not need to be taught but reminded, or brought to an awareness of this knowledge. The Greek term for midwifery is 'maieutic' and related to the Socratic Method, or dialectic, in which innate wisdom is stimulated through critical questioning (Rowland, 2005). Rowland (2006) states the teachers' task is to prompt reminiscence: the learner rediscovers the truth and it is thus reborn. Lam (2011) discusses the Socratic dialogues as among the earliest documented instances of enquiry style learning and elements of the Socratic dialogues are seen to influence thoughts and theories of learning throughout history.

In the proceeding centuries it was the Enlightenment period that generated philosophers and scholars who theorised about the nature of knowledge. The French writer Montaigne in the 16th century expressed the view that students at that time had knowledge of certain subjects but they could not apply or use their knowledge (Rowland, 2006), he disliked the way learning had become a drill. In the 18th century, Jean-Jacques Rousseau argued that education should enable students to learn for themselves rather than being fed the information from their teachers.

Moving into the 20th century, the significant educational reformer and philosopher John Dewey supported student centred learning and learning through projects. He purported that learning must include the process aspect, not just the information aspect. Dewey believed that inductive thinking should be free from interpretation and the cramped study of other people's learning. Dewey (1916, pg. 176) suggested:

> 'Were all instructors to realise that the quality of mental process, not the production of right answers, is the measure of educative growth something hardly less than a revolution in teaching would be worked.'

Dewey (1916) concluded that it was better to have fewer facts and truths to learn, and fewer things accepted unconditionally, resulting in fewer situations being intellectually worked out to the point where conviction means something real. He suggested that knowledge is built through stages where how to do something comes first, followed by acquaintance with it in an emotional and intimate sense.

Constructivism

Dewey's reference to knowledge building leads from what I perceive as the philosophical roots of EBL into constructivist theory. There are many divisions within constructivist theory (Phillips, 1995) and they have been ascribed a variety of names including: discovery learning (Anthony, 1973; Bruner, 1961); meta-learning (Biggs, 1985), problem-based learning (Schmidt, 1983; Barrows and Tamblyn, 1980), enquiry/inquiry-based learning (Jackson, 2003; Papert, 1980; Rutherford, 1964), action learning (Revans, 1979) and experiential learning (Boud, et al. 1985; Kolb and Fry, 1975).

The complex epistemology of Immanuel Kant was essentially constructivist (Phillips, 1995) and refers to the building of mental structures, or constructs, that are created from

factual elements, but are more coherent than those factual elements (Forman, 1993, pg. 137). Jean Piaget is also considered a foundational figure by many constructivists. He states:

> 'Fifty years of experience have taught us that knowledge does not result from a mere recording of observations without a structuring activity on the part of the subject. Nor do any a priori or innate cognitive structures exist in man; the functioning of intelligence alone is hereditary and creates structures only through an organisation of successive actions performed on objects. Consequently, an epistemology conforming to the data of psychogenesis could be neither empiricist nor preformationist, but could consist only of a constructivism.' (Piaget, 1980, pg. 23)

Constructivism focuses on the process of how knowledge is built rather than on the product produced from the knowledge. As mentioned previously, there are many different versions of constructivism, with EBL being one variant (Phillips, 1995). He identifies three broad distinct roles in constructivism: the active learner, the social learner and the creative learner. The active learner gains their knowledge through participation, they discuss, debate, hypothesis and investigate (Phillips, 1995). The social learner constructs their knowledge through dialogue with others rather than individually, this construction through discourse is reminiscent of Plato's Socratic Method where the truth is uncovered through critical dialogue and relates to a community of practice (Wenger, 1998). Finally, the creative learner needs to actively create or re-create their knowledge and they need guidance to reconstruct their perspectives (Perkins, 1999). These three learner types are all drawn upon in an enquiry based approach, although not all learners will adopt each role when they engage in an enquiry (Perkins, 1999).

There are criticisms of constructivist learning theories and they suggest that learning through experience or the shift away from teaching a discipline as a body of knowledge towards learning a discipline by experiencing the processes and procedures of the

discipline. Kirschner et al. (2006, pg. 78) warn that it may be a fundamental error to assume the pedagogic content of the learning experience is identical to the methods and processes or the epistemology of the discipline. In previous work, Kirschner (1992) argued that an expert's epistemology is not necessarily equivalent to the way one learns. He goes on to warn that educators confuse the teaching of a discipline as inquiry or the research process within the discipline with teaching the discipline by inquiry or using the research process of the discipline as a pedagogy.

Constructivist theorists Rorty (1991) and von Glasersfeld (1986) identified three stages to constructing knowledge: firstly, that understanding happens during interactions with the environment; learning cannot be discussed without reference to how it was learnt and this stage is important for professional learning. Secondly, cognitive conflict and perplexity is the stimulus for learning and determines the organisation and the nature of what is learned. This links to Dewey's beliefs on the 'problematic' leading to the organisation of learning (Savery & Duffy, 1996) or what Perkins (1999) describes as conceptually difficult knowledge or 'troublesome' knowledge. Finally, knowledge evolves through social negotiation and through the evaluation of the viability of individual understandings; self-understanding is tested and the understanding of others within the social group. These stages are largely derived from social constructivism, or the concept that a person's beliefs and understanding of the world are shaped to a significant extent by his or her historical, social and culture context (Vygotsky, 1978). At the heart of constructivist theory and the theory of epistemic development (Belenky et al. 1986; Perry, 1970) is that when students have an educational experience that challenges their existing understanding of a concept or idea it generates new knowledge and meaning (Piaget 1980; Vygotsky, 1978; Dewey, 1916). The key to constructivist theory is to create cognitive dissonance (Festinger, 1957) that promotes new understanding.

Literature underpinning research question 1: the nature of the EBL experience as a threshold process and epistemic development

The work of Perry (1970), Belenky et al. (1986) and Meyer and Land (2003) give positions and perspectives of epistemic development that encapsulate ways of thinking that establish meanings in leading to transformed understanding. Their positions and perspectives are not grounded in any learning theory and they do not subscribe to any one approach for learning development.

Epistemology is related to knowledge beliefs as classified by Perry (1970) as developmental positions, by Belenky et al. (1986) as epistemological perspectives and by Meyer and Land (2003) as threshold concepts. All suggest that epistemological beliefs move along a constructive developmental path, whether linear or not, and develop their beliefs from a point of fixed certainty to a complex constructed, relativist view (Perry, 1970; Belenky, 1986). Epistemological perspectives are not static, all-encompassing or necessarily linear (Belenky et al., 1986) but as a constructive process, individuals' perceptions change as their knowledge is constructed and these perspective changes lead to an altered epistemological understanding (West, 2004; Savin-Baden, 2003). This knowledge construction can lead to feelings of challenge and perplexity especially when related to the nature of personal responsibility and agency within a learning context (Savin-Baden, 2003).

Almost half a century ago, William Perry conducted a study of students' intellectual development. He was a researcher in the field of epistemological beliefs and in 1968 he started researching accounts of student conceptions of knowledge and their related conceptions of learning, derived from a developmental study of students in higher education at Harvard University. What emerged from his longitudinal study was a complex and persuasive interpretation of the connection between student intellectual

endeavour and student intellectual development and he came up with four categories of experiences: dualism, early and late multiplicity and contextual relativism. In what Perry perceived (in the late 1950s) to be a newly pluralistic world of higher learning he believed it essential to students' intellectual development that they could frame their development and live with the uncertainties it can evoke.

Perry's main line development charts a sequence of epistemological perspectives he calls positions. He starts with basic dualism where the students perceive things in polar terms; right versus wrong, good versus bad. The learners are passive and dependent, knowledge is perceived as quantitative and to be gained by hard work and obedience, teachers are the authority and hand down the truth. Gradually, students become aware that there are other opinions and what they believe to be true can be challenged. With a shift from passive to active learning brings a different conceptualization of knowledge. Their dualistic faith in the teacher as the authority and expert is unsettled. Dualism is usurped by multiplicity as they grow to understand and accept that the teacher as authority may not have the right answer. This position can be easier and be arrived at more quickly according to the subject discipline being studied. For example, in the humanities, differing viewpoints and accounts are encouraged as opinion and debate is essential to the subject.

Perry's scheme is summarised in table 1 on the next page:

Table 1: Perry's Main Line Development

Main Line of Development (Perry)	
Position 1	The student sees the world in polar terms of we-right-good vs. otherwrong-bad. Right Answers for everything exist in the Absolute, known to Authority whose role is to mediate (teach) them. Knowledge and goodness are perceived as quantitative accretions of discrete rightnesses to be collected by hard work and obedience (paradigm: a spelling test).
Position 2 Dualism	The student perceives diversity of opinion, and uncertainty, and accounts for them as unwarranted confusion in poorly qualified Authorities or as mere exercises set by Authority "so we can learn to find The Answer for ourselves".
Position 3 Early multiplicity	The student accepts diversity and uncertainty as legitimate but still temporary in areas where Authority "hasn't found The Answer yet." He supposes Authority grades him in these areas on "good expression" but remains puzzled as to standards.
Position 4 a) Position 4 b) Late multiplicity	The student perceives legitimate uncertainty (and therefore diversity of opinion) to be extensive and raises it to the status of an unstructured epistemological realm of its own in which "anyone has a right to his own opinion," a realm which he sets over against Authority's realm where right – wrong still prevails, or The student discovers qualitative contextual relativistic reasoning as a special case of "what They want" with Authority's realm.
Position 5 Contextual relativism	The student perceives all knowledge and values (including authorities) as contextual and relativistic and subordinates dualistic right–wrong functions to the status of a special case, in context.
Position 6	The student apprehends the necessity of orienting himself in a relativistic world through some form of personal Commitment (as distinct from unquestioned or unconsidered commitment to simple belief in certainty).
Position 7	The student makes an initial Commitment in some area.
Position 8	The student experiences the implications of Commitment, and explores the subjective and stylistic issues of responsibility.
Position 9	The student experiences the affirmation of identity among multiple responsibilities and realizes Commitment as an ongoing, unfolding activity through which he expresses his life style.

Belenky et al. (1986) used Perry's scheme as a framework to conduct the study on women. Their work Women's Ways of Knowing concerned how women know what they know and identified particular ways of knowing what women cultivated and valued, building on Perry's scheme of cognitive development. Belenky et al. (1986) describes women's cognitive development as contingent to the evolution of identity; the interrelationship of the self with others and the appreciation of truth and knowledge (Love and Guthrie, 1999). They conducted interviews with 135 women from ages 16 to over 60

based in higher education and the wider social sphere including diverse ethnic groups. This was significantly different from Perry's work which focused on students from an Ivy League university where the students were predominantly male and white middle class. The interviews asked women about their gender, relationships, ways of knowing, moral choice, personal moral dilemmas and aspirations for the future. They describe five epistemological perspectives from which women view reality and draw conclusions about truth, knowledge and authority and on how women know and view the world, they are: silence, received knowledge, subjective knowledge, procedural knowledge and constructed knowledge. These perspectives are summarised in table 2.

Table 2. Belenky et al. Women's Ways of Knowing

Women's Ways of Knowing (Belenky et al, 1986)	
Silence	Women who felt disconnected from knowledge and the relationship to knowledge. They have extreme sense of isolation and have no independent voice. They view themselves as incapable of knowing or thinking and the words are viewed as weapons; they do not want to be punished for using words.
Received Knowledge: Listening to the voices of others	Feel confused and incapable when required to do work. Their learning is by receiving and repeating the knowledge and words of authorities. Unable to see themselves as growing.
Subjective Knowledge: The inner voice	Recognition of the self as an authority and consider knowledge and truth to be inherently personal. Women in this category are optimistic and positive towards the future.
Procedural Knowledge: Separate and connected knowing	"Methods and techniques for evaluating the accuracy of external truth and the relative worth of authority." Separate knower focused on critical analysis and excludes personal feelings and beliefs. Connected knowers understand others' ideas as points of view.
Constructed Knowledge: Integrating the voices	They are hoping to understand another person's ideas by sharing their experiences and beginning to trust. Women have the ability to "listen, share and cooperate while maintaining one's own voice undiminished."

Belenky et al. (1986) recognised that their work was different from Perry's (1970) in that the progression of development was not linear. Perry (1970) believed the students progressed through the stages of development although they could remain fixed, or temporised, at any point until the next developmental phase arose. Belenky et al. (1986) argue that Harvard, as an Ivy League university, was a pluralistic institution that promotes development of relativistic thought (pg. 15). They discuss this linear development in relation to the context within which the undergraduates in Perry's (1970) study were socialised into higher education. As the sample in the Belenky et al. (1986) study included a diverse range of women, including some who had not fully engaged in education, they did not find a universal developmental pathway, rather they describe epistemological perspectives.

In the context of higher education, it is important to oppose dualism and encourage critical thinking in order for students to challenge their beliefs about the certainty of knowledge, reduce their automatic acceptance of the expert's word and reduce their passivity as learners (Schommer-Aikins, 2004). In Perry's (1970) explanation of the attainment of intellectual and emotional maturity, the students move from an authoritarian dualistic view through stages of doubt and ambiguity. They learn to accept this ambiguity and develop an understanding of the implications of managing this uncertainty to what Perry (1970) calls contextual relativism. Whilst there is an expectation that students who move through Perry's (1970) stages will grow intellectually and develop, there are problems. Developmental changes happen with experience, and education can promote this transformation. However, Natanasanbapathy et al. (2011) emphasis that education should also focus on the transformative process of becoming, rather than just on the process of learning which will be discussed later when considering transformational learning.

Natanasanbapathy et al. (2011) presented the main contrasts between separate and connected knowing as part of the procedural knowledge perspective as they emerged in

Belenky et al's. (1986) study. Separate knowing, they argue, is more typically associated with men and seeks to construct truth, to prove, disprove and convince. The language around separate knowing is reminiscent of scientific discourse where hard facts are sought to convince and prove. While separate knowing is considered confrontational; connected knowing is a collective venture. Where the dialogue surrounding separate knowing is logical or scientific; connective knowing is narrative and contextual which more closely reflects the nature of healthcare. Instead of objectivity from what is known, the connected knower seeks connections and understanding. The inherent differences are that emotions are seen to obscure thought for the separate knower who wishes to prove and disprove in isolation, emotions are central to the connected knower and illuminate thought (Arnold, 1992). Objectivity for the former is achieved by adhering to impersonal and universal standards; objectivity for the latter is achieved by adopting the other's perspective, this links to Perry's (1970) position of multiplicity, moving forward to contextual relativism. While the separate knower is narrowing and discriminating, the connected knower is expansive and inclusive. For the separate knower, there is the risk of alienation and absence of care. For the connected knower, there is the risk of loss of identity and autonomy (Arnold, 1992) as they adopt other's perspectives however, the process of 'becoming' is a lifelong activity which involves transformation of perspectives and incremental maturation of the individual (Natanasabapathy et al., 2011).

Threshold concepts

I reflected on the stages of epistemic frameworks proposed by Perry (1970) and Belenky et al. (1986) and felt there was a further strand to be considered and explored, that of practice, or more specifically, the integration of theory into practice. I felt this was essential when considering the process of 'becoming', as a lifelong activity described by Natanasabapathy (2011). With the increasing focus on lifelong learning, the nature of higher education has shifted significantly (Field, 2006; Schuller and Watson, 2009). Some

would argue today's undergraduates are less critical and independent in their thinking than when Perry (1970) completed his work as higher education has changed through massification and consumerisation and also through a shifting culture from within (Savin-Baden, 2003; Field, 2006). 'New' universities educate large numbers of students from what 'old' universities describe as non-traditional backgrounds under the banner of widening participation. New universities largely develop and deliver technical or vocational programmes of study.

My work is situated within a new university where the majority of the student population undertake vocational courses. I identified with both epistemic frameworks but perhaps Belenky et al. (1986) resonated due to the fact my students work in healthcare and are predominantly female. However, the ways of knowing or epistemological perspectives outlined by Belenky et al. (1986), though related to gender are claimed not to be gender specific, indicating that whilst these ways of knowing might be held in common by women, they are also available to men. However, the gender bias of both studies by Perry (1970) and Belenky et al. (1986) was criticised by Baxter-Magolda (2010) who conducted a longitudinal study looking at both men and women over a twenty year period and developed three dimensions to the journey of what she describes as self-authorship. Self-authorship can be described as a process of self-reflection, identification of self-beliefs and the integration of that consciousness into awareness (Baxter-Magolda, 2010). The first dimension is epistemological, 'how do I know?', the second is intrapersonal, 'who am I?' and finally, interpersonal, 'how do I want to construct relations with others?'. The purpose of self-authorship is to answer the questions within the dimensions to heighten awareness of personal perspectives and determine why they are held. The advantage being if students are aware of the variables they can be evaluated for congruency with their beliefs, morals and values.

Whilst the goals of self-authorship are congruent with the advanced learning outcomes anticipated for students undertaking Masters level study, my main concern was that of professional practice. Meyer and Land (2006; 2005; 2003) and Meyer et al.'s (2010) papers on threshold concepts talk of the integration of knowledge transformation into practice. A threshold concept represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress, Meyer and Land (2003) use the word portal as a metaphor to describe a threshold. I felt this went further in providing a tangible framework of educational epistemic development as when understood or passed through; thresholds transform and integrate ways of thinking and importantly, practice around a certain body of knowledge (Meyer and Land, 2005). On mastering a threshold concept the learner begins to think as a professional in that discipline and not simply as a student of that discipline - grasping a threshold concept involves both an ontological as well as a conceptual shift (Cousin, 2010).

The idea of threshold concepts came from a UK national research project into the possible characteristics of strong teaching and learning environments in the disciplines for undergraduate economics education although further studies have identified their applicability across many disciplines. Threshold concepts are different from core concepts, which are viewed as building blocks of subject matter that need to be understood but in understanding them it does not mean a change in perspective (Meyer and Land, 2003).

Threshold concepts lead to mastery of a subject and to be classified as threshold they have certain properties. Realising a threshold concept can be consider *transformative* as there is a significant shift in the students perception of the subject which can lead to a transformation of personal identity or as Cousin's (2010) describes, becoming part of who we are, how we see and how we feel. Meyer and Land (2003) refer to Mezirow's (1978) work on perspective transformation which is covered later in this literature review. A

threshold concept is often *irreversible* and is unlikely to be forgotten, Cousin (2010) states it is problematic for the person to retrace their journey and recollect previous feelings of innocence or not knowing. Another characteristic of a threshold concept is that it is *integrative* in that it exposes the hidden interrelatedness of phenomenon (Cousin, 2010). This is particularly beneficial in relating theory to practice, the learner networks information and sees a broader perspective. A threshold concept is possibly *bounded* in that 'any conceptual space will have terminal frontiers, bordering with thresholds into new conceptual areas' (Meyer and Land, 2003, pg. 5). The term boundaries can raise questions relating to hierarchy and relations of power within learning environments which can impede or empower learning. A threshold concept is likely to involve forms of 'troublesome knowledge' which was first identified by Perkins (1999). He describes troublesome knowledge as that which appears counter-intuitive, alien or incoherent. Clouder (2005) and Meyer and Land (2005) describe troublesome knowledge as the difference between what is taught in the classroom and the reality of practice which is complex and elusive and describe the students as becoming 'stuck'. Another aspect of an encounter with troublesome knowledge as identified by Meyer and Land (2005) is mimicry where the students act or perform as if they are transforming their perspectives by either adopting the appropriate language within the group or hiding within the group. In Perry's (1970) work he refers to students in the dualistic position who say what they think the academic wants to hear. Students who mimic inhabit the naïve view and do not transform. However, Meyer and Land (2005) recognise that mimicry may hide the real possibility that the students are still coming to terms with troublesome knowledge and it could be viewed as a coping strategy. Cousin (2010) suggests troublesome knowledge or 'stuckness' can be more fully understood through the notion of liminality.

Liminality means of conscious awareness. Learning, argues Meyer and Land (2005), involves the occupation of a liminal space during the process of mastery of a threshold concept. Meyer and Land (2005) describe the liminal space as a conceptual space which

students occupy when thinking and if the thinking or learning is troublesome within the space it is described as a state of liminality. They based their conception of liminality on the seminal work of Turner (1969, cited in Meyer and Land, 2005) who considered rites of passage and adopted the term liminality to describe the transition of space and time within which the rites of passage were practised and generally involved an individual or group being altered from one state to another. The suggestion is that once a learner enters a liminal space, they are engaged with the project of mastery. Cousin (2010) claims that threshold concept research is sited in this space and involves establishing a dialogue with the students about their struggles to learn or master their subject. The liminal space is perceived as fluid and considered transformative as it challenges existing certainties. Being in the liminal space can be unsettling and engender a feeling of loss due to the challenging of existing certainties in which the learner may oscillate between old and emergent understandings (Meyer and Land, 2005). In some instances it can be useful to keep students in a liminal space to allow them to explore more fully conceptually difficult knowledge. The discussion around the fluidity of the liminal state links to the debate around epistemological development (Belenky et al., 1986; Perry, 1970) and ontological shifts (Cousin, 2010).

Meyer and Land (2003) argue that threshold concepts can lead to new and previously inaccessible ways of thinking about something. The discussion round troublesome learning is fundamental. Meyer and Land (2003, pg. 5) state:

'The notion of a threshold concept might remain merely an interesting issue of cognitive organisation and perspective were it not for the strong indication from our data that such concepts often prove problematic or 'troublesome' for learners… given the centrality of such concepts within sequences of learning and curricula structures their troublesomeness for students assumes significant pedagogic importance.'

They go on to ask critical questions as to how we enable students to understand such troublesome concepts and what might explain the variation in students' ability to cope with learning thresholds. Their paper was written to open up discussion of threshold concepts not to provide specific guidance as to how we might enable students to understand what Perkins (1999) describes as conceptually difficult knowledge.

In later papers, Meyer et al. (2006), Meyer and Shanahan (2004) and Meyer and Norton (2004) focus on the use of metalearning as a pedagogy to enable students to engage with threshold concepts. Metalearning is defined by Biggs (1985) as a theory of learning that focuses on the interaction between the person and situation; he suggests metalearning is a form of metacognition which relates to the awareness of students of their own learning processes and control over their learning. The concept of metalearning leads to an exploration by students of the relationships of personal factors, the situational context, approaches to learning and the anticipated outcomes of the learning which is associated with deeper level learning outcomes.

Meyer and Land (2005) also include the importance of discursiveness within threshold concepts as each discipline has its own language and within the discourse of new thinking, a new language is acquired. This is especially relevant to this study as the students operate within a group, or community of practice and as part of belonging to the group, the students adopt matching language.

As well as adopting a new language, knowledge might also be troublesome because it is ritualised, inert, conceptually difficult, alien or tacit. Students can remain situated or unwilling to let go of their held views. Difficulty in understanding threshold concepts may leave the learner in a state of liminality, a suspended state of partial understanding, or stuck place as described by Clouder (2005) and Meyer and Land (2005). Being stuck can prevent transformation of perspectives and Meyer and Land (2005) suggest this is a task

for course designers and tutors in enabling the students to overcome any epistemological barriers. Whist there is reference here to course designers in terms of redesigning activities, providing support materials and re-scaffolding, there is no specific mention of pedagogy or how effective design can enable the students to become unstuck. In work by Meyer and Shanahan (2004) they recommend metalearning as a suitable pedagogy to engage students with threshold concepts proposing that if students can identify how they learn best, they can adapt their learning to engage with threshold concepts. There appears to be a gap between facilitating the students to become unstuck when grappling with threshold concepts by redesigning activities and pedagogy. Whilst there is literature that references metalearning and other constructivist theories (Gilvary, 2012; Yip and Raelin, 2012; Meyer et al., 2006; Meyer and Shanahan, 2004; Meyer and Norton, 2004) in relation to engaging students with threshold concepts they are discussed as separate entities and do not explicitly unite the pedagogy with the threshold concept.

Rowbottom (2007) criticises threshold concepts and remarks that Meyer and Land (2003) do not define what a concept is and give no indication as to what is essential to a threshold concept. He goes onto state that concepts are not reducible to abilities and cannot be empirically isolated and asks how concepts can be tested rather than abilities. Meyer and Land (2003) do assert that the intention of their paper is to open up discussion around threshold concepts and recognise threshold concepts are different to each discipline and open to individual interpretation.

In the discussion and conclusion section of this study I consider whether the EBL experience can be considered a threshold process rather than a threshold concept in order to unite pedagogy and threshold concepts. Differentiation between the words concept and process needs to elaborated within the literature review in order to clarify the significance of this potential claim. Thompson (2011, pg. 756) provides a useful summary by suggesting that process-oriented theorists argue that if we build theory about what

happens to things, it becomes difficult to appreciate processes in which the 'thing' and the 'happening' are collapsed into a single becoming. The theory building around threshold concepts pertains to a concept being a 'thing' and the 'happening' of learning of the 'thing'. Whilst it could be argued Meyer and Land (2003) do not separate the 'thing' and the 'happening' as they promote the concept of a liminal space where students openly learn the 'thing' and this is the 'happening' (ontological shift), the interpretation of threshold concepts by other researchers have focused on threshold concepts as entities and some of the theory building has drifted towards this conception (Male and Baillie, 2011; Davies and Mangan, 2008). There is also a lack of evidence around an integrative supporting pedagogy that enables the 'happening' as in most cases, pedagogy is viewed separate to the threshold concept (Gilvary, 2012; Yip and Raelin, 2012; Meyer et al., 2006; Meyer and Shanahan, 2004; Meyer and Norton, 2004).

To highlight the need for an integrative pedagogy, Thompson (2011) observes that if the development is broken down into stages, elements of the development and experience are missed and this resonates with Cross's (1999) suggestion that it is what happens between the stages that is difficult to capture. Even if development is broken down further into multiple stages, there would always be fragments missing so it may not reflect an ontological shift. This suggests that to engage with an ontological shift a staged epistemological development may be inadequate, since it does not capture the fluidity of its nature or its essence. Thompson (2011) argues that a noun-based approach to epistemology such as a threshold 'concept' (the word concept being a noun) is inadequate for engaging with ontology since it is unable to capture its essence. Thompson (2011, pg. 756) suggests process-orientated researchers would instead claim that the essence of the development lies in its fluidity, for which it is necessary to combine a physical dimension (noun) with a temporal dimension (verb). The word process is both a noun and a verb thus provides a means of engaging with both epistemological

development and ontological development. Development of the learner exists and should be discussed within both dimensions not just one.

Despite the proposition that a threshold concept, as a noun, may only consider epistemological development rather than exploring an ontological dimension, Land et al. (2010) claim that engagement with the liminal space produces an ontological shift as outlined below in their relational view of the features of a threshold concept is shown in figure 1.
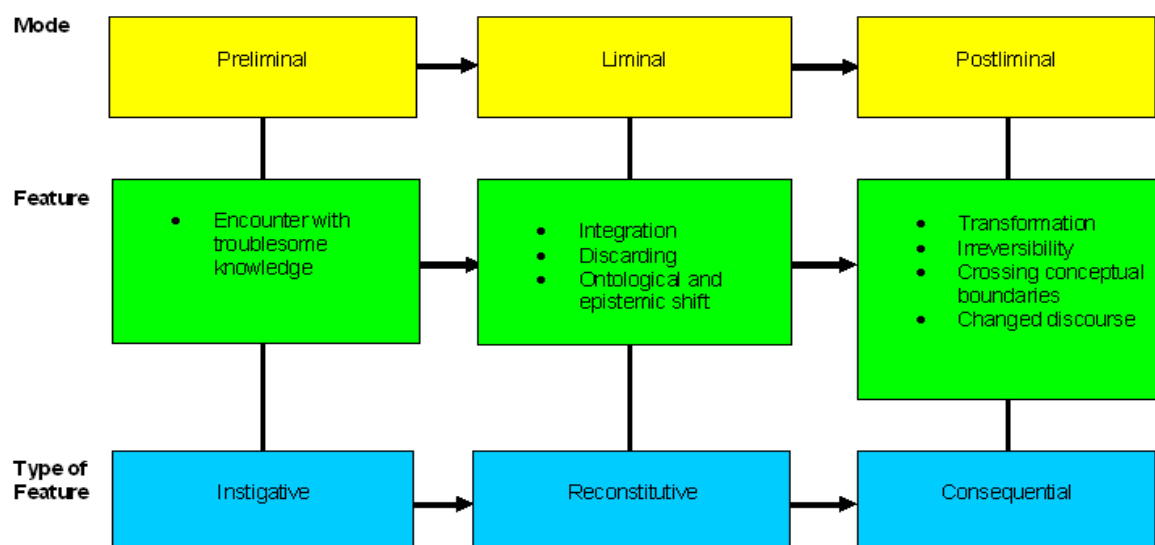
Figure 1. Relational view of threshold concepts (Land et al. 2010).

From this relational view they suggest the preliminal state begins with a trigger which is encountering troublesome knowledge to instigate movement in thinking or development. Within the liminal space the students discard prior knowledge and demonstrate an ontological and epistemic shift before integrating new knowledge and bringing about a reconstitutive change. In the postliminal phase the students' knowledge development is transformative, irreversible, crosses conceptual boundaries and the learner uses new

language which reflects mastery within the discipline. Cousin (2010) claims the relational view is not overly rigid or sequential in nature. It has been emphasised elsewhere that the acquisition of threshold concepts often involves a degree of repetition and fluctuation, which needs to be contemplated when considering the relational view (Land et al. 2010).

Perkins (2005) suggests that threshold concepts require learners to wrestle with complexity. This makes them troublesome because encounters with such concepts are typically met by a period of difficulty, requiring a reconstitutive change in thinking and practice. However, this process of conceptual change can result in transformed practice, with improvements in critical reasoning and problem solving skills (Chi & Roscoe, 2002; Kiley & Wisker, 2009; Lewis & Dehler, 2000).

It is the notion of troublesome learning that relates so well when considering professional practice. Daley (1997) established in a study of experienced post-registration healthcare professionals that they found the transfer of knowledge from theory to practice troublesome. They created a complex process of constructing a knowledge base in practice involving the integration of thinking, feeling and performance of the professional role and for each student this was dependent on their individual learning threshold. Meyer and Land's (2003) threshold concepts go some way to acknowledging the troublesome nature of practice when considering epistemic development however, their research is grounded in undergraduate students and does not wholly address the issue of professional learning or development.

Professional development and professional learning

The discourse surrounding professional education, learning or development refers to knowledge and skill acquisition. Each profession has its own unique body of knowledge

and skills that aspirant professionals are expected to acquire. In certain professions such as medicine, nursing and teaching the accrual of knowledge and skills are too frequently viewed as two separate entities; knowledge and skills relating to theoretical concepts are acquired within the higher education setting then the students are located in the workplace, where they accumulate practice based knowledge and skills, this has led to what has frequently been referred to as the theory-practice gap (Dall'Alba and Sandberg, 2006; Maben et al., 2006; Corlett, 2000). This traditional professional education view or training model supposes that professional skills are a set of attributes, such as knowledge, skills and attitudes (Dall'Alba and Sandberg, 2006) which have to be transferred to the learner in order for them to become a professional. These attributes are usually acknowledged and described in a decontextualised manner, separate from the practice to which they refer (Dall'Alba and Sandberg, 2006). This decontextualisation essentially ignores the value of ongoing and situated learning (Webster-Wright, 2009).

Numerous authors have questioned the idea that the development of professional abilities can be abstracted into the accrual of a distinct body of knowledge and skills (Lave, 1993; Dreyfus & Dreyfus, 1986; Benner, 1984; Schön, 1983). Dreyfus and Dreyfus (1980) developed a stage model approach to professional learning and identified skill acquisition within each stage that progresses from novice through to expert. The Dreyfus and Dreyfus (1980) model has been adapted for several professions including nursing (Benner, 1984; Benner et al., 1996) and teaching (Berliner, 1994). However, Dall'Alba and Sandberg (2006) acknowledge that not all learners will become experts as skill acquisition that is context-free is not enough for progression to advanced skill levels (Dreyfus and Dreyfus, 1986).

Within the healthcare arena, credence is given to Benner's (1984) model on how healthcare professionals move from the starting point of a novice to becoming an expert. The five stages to Benner's (1984) model are adopted from the Dreyfus and Dreyfus

(1980) model: novice, advanced beginner, competent, proficient and expert. Novice learning is dependent on concept formation through to expert learning which is identified as a constructivist process utilising skills of integration and synthesis. Similar to Meyer and Land's (2003) threshold concepts, Benner's (1984) work considers the complexity of professional practice. As Dall'Alba and Sandberg (2006) state:

> 'The professionals' way of understanding their practice forms and organizes their knowledge and skills into a particular form of professional skill. When practice is understood in a certain way, knowledge and skills will be developed accordingly.' (pg. 390).

Interestingly, Benner (1984) claims that healthcare professionals can 'know how' by accruing experience (experiential knowledge) and skills without ever learning the theory, or the 'know that' (conceptual knowledge). Rittle-Johnson and Seigler (1998, pg. 2) offer a definition of conceptual knowledge as understanding of principles governing a domain and the interrelations between units of knowledge in a domain. When considering knowledge within a domain, Alexander and Murphy (1999) describe the development of subject-matter knowledge which is comprehensively arranged around the key domain concepts and principles as one of the key processes a learner must go through to grow in competence within a domain.

Benner's (1984) work is still referred to widely in undergraduate and post-graduate healthcare education as a professional skill development model. Benner (1984) and Benner et al. (1996) conducted empirical research studies in order to explore the concept of what comprises expert nursing. They considered the nature of nursing practice and provided insight into each stage of their model, integrating the complexities of expert nursing or what Schön (1983) describes as professional artistry. However, Dall'Alba and Sandberg (2006) warn that Benner (1984) and Benner et al.'s (1996) insights are largely achieved despite, rather than through, the use of the Dreyfus and Dreyfus (1980) stage

model and believe there is still a question as to how the gap between theory and professional practice is bridged.

Benner's (1984) work is fundamental to expressing the embodied nature of practice and the fact that knowledge and skill development depends upon the professionals embodied understanding of their practice. According to Dall'Alba and Sandberg (2006), this reference to the embodied nature of practice had not been fully addressed in the Dreyfus and Dreyfus (1980). Benner (1984) also questions the most appropriate pedagogies for teaching novices through to experts and places emphasis on the need to promote effective teaching aligned to the individual's stage of development. Interestingly though, the teaching methods she suggests could be argued to be decontextualised in relation to professional practice (Dall'Alba and Sandberg, 2006), Benner (1984) proposes that since novices have no experience of the situation they face, they must be given rules to guide their performance (pg. 21). Whereas, proficient performers are best taught by use of case studies where their ability to grasp the situation is solicited and taxed (pg. 30). This does not provide a rich background to unite the 'know how' to the 'know that' (Dall'Alba and Sandberg, 2006) and the interpretation of Benner's (1984) work by the nursing profession has invariably reduced each stage down to a level of competence based on the development of technical skills rather than focusing on the wider exposition of embodied professional practice.

Criticism of the Dreyfus and Dreyfus (1980; 1986) model and Benner (1984) and Benner et al.'s (1996) research is that the studies were cross-sectional rather than longitudinal so there was no opportunity to witness professional development over time. Each stage of the model involved data being gathered about that stage which provides insight into the stage but not across stages which is in contrast to the work of Perry (1970) who studied undergraduates throughout their programme and witnessed their developmental, thus

epistemic change over time. Dall'Alba and Sandberg (2006) highlight that problems may arise as assumptions may be made about how development occurs.

Informed by Benner's (1984) work, Rubin (1996) studied a group of experienced nurses whose practice had not reached expert level to ascertain why. Rubin (1996) advocated that the reason the nurses had not reached expert level was due to the fact they lacked knowledge of the qualitative distinctions that are embodied in expert nursing practice (Rubin, 1996, pg. 191). Dall'Alba and Sandberg (2006) argue that the experienced non-expert nurses may actually represent the majority of professionals currently practising and that improvement of knowledge and skills, rather than transformation of knowledge to more complex understanding of practice, is probably more normal than exceptional. They go on to propose their own model of professional development based on the Dreyfus and Dreyfus (1980) model, they describe it as horizontal and vertical professional skills development. The horizontal dimension of their model allows for skills progression as experience increases. The vertical dimension recognised the embodied nature of professional practice and this increases over time and is represented in figure 2.
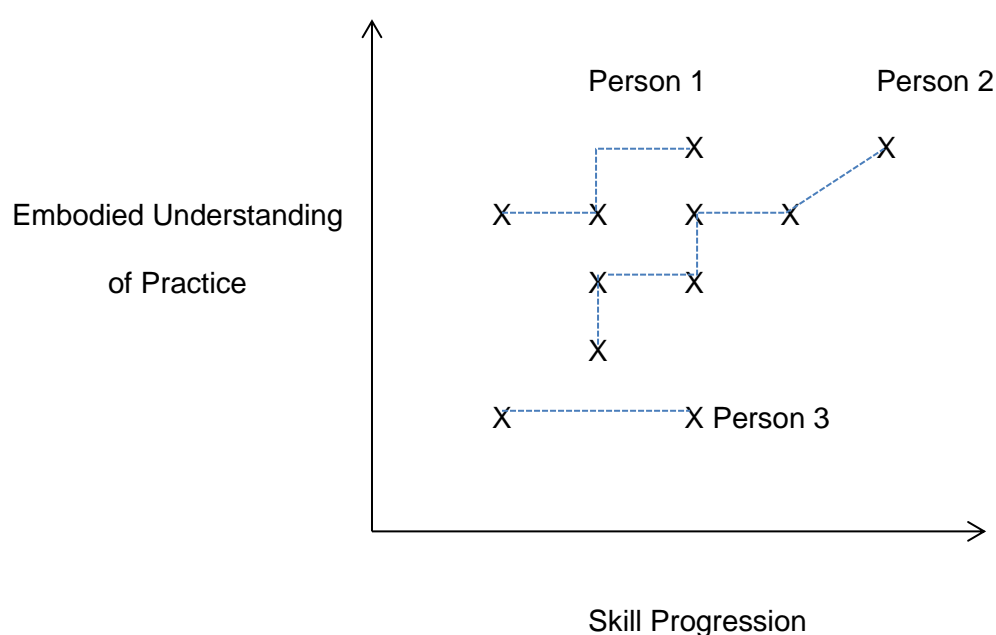
Figure 2: Model for development of professional skill with hypothetical development trajectories (Dall'Alba and Sandberg, 2006)

The horizontal and vertical dimensions allow for different professional development trajectories. Person 3 can increase their skills over time but may never embody practice and experience a transformational aspect to their practice; this enables positioning of Rubin's (1996) experienced nurses who never reached the stage of expert but whose skills had progressed. Dall'Alba and Sandberg's (2006) horizontal and vertical model allows for a non-staged approach to professional development and also recognises that skills may increase but the expertness of the practitioner may not.

Whilst the work of Benner (1984) and Dall'Alba and Sandberg (2006) recognise expertness and professional skill there is little recognition of leadership development within the models. In Browne-Ferrigno's (2003) paper on becoming a principal, she proposes four elements in her framework for professional growth; role conceptualisation, initial socialisation, role-identity transformation and purposeful engagement. Browne-Ferrigno's (2003) framework is based in school educational leadership however, it may relate to healthcare educational leadership as the principles can be applied to other professions. Her discussion around role identity transformation does unite Perry's (1970), Belenky et al's (1986) and Meyer and Land's (2003) depiction of epistemic development and self-identity reformation and takes it further by considering role identity transformation from a professional growth perspective rather than from an undergraduate or novice perspective. Browne-Ferrigno's (2003) work will be considered later when discussing communities of practice and leadership development.

Summary

The work of Perry (1970) and Belenky et al. (1986) talk of epistemological development whereas in Cousin's (2010) work on threshold concepts she talks of an ontological shift. Perry (1970) and Belenky et al. (1986) have drawn their positions and perspectives as stages of development by defining each position or perspective. This staging of

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epistemological development implies reification as they describe educational development as tangible entities rather than as a process by suggesting development or developmental stages can be separable when, in fact the nature of development is continuous or fluid (Thompson, 2011). The developmental stages in essence, only exist momentarily as a students' development will be in constant flux, or what Meyer and Land (2005) refer to as oscillation within a liminal space.

A further contrast in the work presented by Perry (1970, Belenky et al. (1986) and Meyer and Land's (2003) is where their work was situated. Both Perry's (1970) line of development and Meyer and Land's (2003) threshold concepts are based on students studying in higher education and Perry's (1970) work only considers undergraduates. Belenky et al.'s (1986) epistemological perspectives are based on a diverse range of women from contrasting backgrounds who may not have accessed higher education. They suggest that a received knower is the lowest perspective seen in higher education but there is no delineation between the age or maturity of the women within the other perspectives.

Perry (1970) and Belenky et al. (1986) do not focus or relate their work to the development of a professional. Meyer and Land's (2003) threshold concepts can be accommodated by most disciplines and recognises the value of transformed learning although the majority of papers on threshold concepts consider or inform three year undergraduate curricula (Cousin, 2010; Meyer and Land, 2005; Meyer and Land, 2003). However, threshold concepts can be applied to postgraduate students and can be utilised to inform professional development. Later work in the field has focused on utilising threshold concepts in a range of subject specialities, across undergraduate and postgraduate programmes (Gilvary, 2012; Yip and Raelin, 2012; Male and Baillie, 2011; Cousin, 2010; Davies and Mangan, 2008). Dall'Alba and Sandberg (2006) propose a model of professional development based on the work of Dreyfus and Dreyfus (1980) and

Benner (1984) which allows for non-staged professional development with the aim of achieving expert professional status. Dall'Alba and Sandberg (2006) recognise that professionals can stay fixed and not transform their practice and this point is of interest and may be related to Perkins (1999) conception of troublesome knowledge.

Perry (1970) and Belenky et al. (1986) do not differentiate between individual intellectual development and group intellectual development. There is recognition that students learn side-by-side but the positions and perspectives are discussed and considered from an individual epistemic development viewpoint. Belenky et al. (1986) talk of women sharing their voice and listening to and engaging with others but not as a joint venture or from a group learning perspective. Dall'Alba and Sandberg (2006) recognise the importance of professional communities of practice although they do not relate this to their model of professional development.

The significant part of this section of the literature review is related to the differentiation between the terminology of a concept and process. In Thompson's (2011) paper he claims that process-oriented theorists would argue that to build theory, epistemological and ontological development needs to be considered (and aligned) and suggests the word concept as a noun does not go far enough to explore the essence of what is being theorised, whereas the word process is both a noun and a verb therefore, reflects both epistemology and ontology.

Literature underpinning research question 2: communities of practice

The engagement with social negotiation as outlined previously is of central importance to the discussion as it considers whether learning through EBL is enhanced by learning within a group. The social negotiation stage of constructivist learning suggests that individual intellectual development is not only tested by the individual but is tested within the group; both individual and group learning are given equal recognition and status. Svinivki and McKeachie (2011) propose that working in a group or with others is more dynamic and motivating than working alone. The dynamism relates to the opportunity students get to restructure their own knowledge and understanding of concepts alongside their peers (O'Donnell, 2006) and group work enables students to synthesise and critically discuss ideas in ways that advance problem solving skills and conceptual understanding (Baxter-Magolda, 2007). The group work within EBL, or what I propose can be considered as a community of practice (Lave and Wenger, 1991) forms early and becomes a key feature of the process and experience of EBL (Jackson, 2003). What is less clear is whether the experience of the EBL, as a community of practice, enables a transformational learning experience or whether the learning within the community of practice is inconsequential and the learning is due to individual intellectual development.

Lave and Wenger (1991) coined the term 'communities of practice' when studying apprenticeships. A brief definition is that communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger, 2006). There are other terms that broadly encompass the philosophy of a community of practice, these can be called collaborative learning communities and professional learning communities. Tu (2004) suggests collaborative learning communities consists of small groups who encourage each other to maximize their own and each other's learning with the purpose that sharing ideas and responding to others, enhances thinking and deepens understanding. The four fundamental aspects of a

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collaborative learning community are empowering learners, building communities, continuing support and being patient (Tu, 2004, p. 13). The literature pertaining to professional learning communities suggest there are seven components which resonate with the EBL group values. Hord and Sommers (2008) depict the seven components as; a shared belief, value and vision, shared and supportive leadership, collective learning, applying the knowledge, supportive condition and shared personal practice. It is interesting to note the inclusion of shared and supportive leadership within a professional learning community although Hord and Sommers (2008) work was based on leading a professional learning community. This links to Browne-Ferringo's (2003) framework for professional growth for aspirant educational leaders which proposes initial socialisation into a new community of practice. She discusses transformation of the aspirant educational leaders in relation to understanding the need to change professional behaviour and this is supported by socialisation into a new community of practice that reflects the modelling of leadership required.

For the purpose of this study the term community of practice will be used as the literature surrounding threshold concepts use Lave and Wenger's (1991) notion of a community of practice. There are three characteristics of a community of practice; the domain, the community and the practice. The domain refers to the community having an identity, a shared interest, a commitment and shared competence that sets them apart from other communities or groups. The community works towards their interests, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other (Wenger, 2006). Finally, the members of a community of practice are practitioners. They develop a shared repertoire of resources to share practice and highlight the embedded nature of practice (Dall'Alba and Sandberg, 2006).

The importance of a community of practice can be applied to healthcare professionals as a community of practitioners within a clinical environment. The clinical area is a situated learning environment and practitioners can engage in actively learning with others within their professional practice (Lieberman & Miller, 2008; Lave & Wenger, 1991). However, increasingly, professional learning in healthcare focuses on the instrumental and technical interest of knowledge meaning emphasis is placed on getting more information for more effective work and to some extent, ignores the context within which learning takes place. Variables such as changes in the structure of training, new ways of working and increasing service pressures all impact on the quality of practitioner learning (Temple, 2010). Practitioners can acquire knowledge with no question of whether the learning is contextual, relevant or the intention of it.

The three characteristics described by Wenger (2006) relate to the group work that is central to the philosophy of EBL and is fundamentally about dialogue and collaboration. Transformative learning theory, which is considered later in this literature review, suggests that by engaging students in interactive experiences that involve group work and group problem solving enables autonomous thinking, critical reflectivity and critical articulation (Mezirow, 1994). As the students work together and pool their collective knowledge and understanding, they create together new knowledge (Jackson, 2003) therefore, knowledge about learning is created and shared through dialogue and critical reflection on practice. Jackson (2003) goes on to suggest that critical reflection on practice within a group enhances the level of the new knowledge.

In the work that first identified the term community of practice, Lave and Wenger (1991) studied apprenticeship and they discovered a complex set of social relationships through which learning took place. Of surprise to the researchers was that the learning did not reflect the novice/master type relationship normally envisaged when considering apprenticeships. They discovered that learning took place mostly with colleagues and

more advanced apprentices. Once communities of practice were identified, they could then be seen in a variety of settings from industry through to education and healthcare. The practice of a community is dynamic and involves learning on the part of everyone (Lave and Wenger, 1991).

Tillema and Orland-Barak (2006) consider Lave and Wenger's (1991) situated learning and communities of practice as a key element of their views on the nature of professional knowledge and knowing. They identify three main views: reflective (Schön, 1983), situated (Lave and Wenger, 1991) and constructivist or transformational (Bereiter, 2002). The reflective view suggests a personal understanding that is fostered utilising reflection either personally or through social exchange and dialogue to develop new understanding. The situated view produces knowledge through conversations with colleagues suggesting that professional learning is collaborative and developed through active participation (Wenger et al., 2002). The constructivist or transformative view is based on collaborative knowledge building (Bereiter, 2002) whose work is based on Karl Popper's theory of three realms and argues that mainstream learning theories exist only in the mind and are too individualistic. He believes that human beings do not operate purely within the mind; what they learn is understood within the context of their culture, akin to Vygotsky's (1978) social constructivism. Learning that only takes place in the individual mind argues Bereiter (2002) should be replaced by conscious activity to collaborate within a community to build knowledge in order to develop and understand concepts and ideas.

A criticism of Tillema and Orland-Barak's (2006) views on professional knowing is that the constructivist or transformative view of professional knowledge construction is essentially situated therefore, the community of practice may be too embedded in its own practice thus knowledge construction may not prove to be a potential driver for change (Osterlund and Carlile 2003). This could suggest that communities of practice enable professionals to learn in a climate of change but not necessarily drive change. To be able to change

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professional perspectives and beliefs, a learning partnership is needed that can challenge and renew existing knowledge (Kelleher, 2003) not perpetuate it as suggested with situated learning. Knowledge that is regarded as shared and co-constructed with peers engenders a transformational or constructivist view of professional knowledge (Bereiter, 2002). Jackson (2003) claims that the EBL process is central to knowing and behaving like a practitioner in an environment of continuous change and adaptation through a community of practice but not a passive community, a community that challenges existing beliefs within a collaborative framework.

Learning is not just an individual activity, it is social as well (Lieberman and Miller, 2008; Lieberman and Pointer-Mace, 2010). When considering the literature pertaining to teachers' professional learning, it would seem that teachers who work collaboratively build a commitment to their peers and further learning (Little, 1993). Ingvarson et al. (2005) identified a professional community of practice as an important element of effectiveness in relation to professional learning and found that a substantial level of professional community is vital to significant change (pg. 17). Whereas Osterlund and Carlile (2003) cautioned that situated learning within a community of practice does not necessarily lead to change, Borko (2004) found that if teachers were involved in shared or collaborative professional learning communities that knowledge development, collegial interactions and changes in practice were more apparent. Mayer and Lloyd (2010) stated that there is evidence to support the notion that professional learning communities within teaching practice enhance professional development and student achievement. However, Little (2002) warns:

> 'research spanning more than two decades points to the benefits of vigorous collegial communities … relatively little research examines specifically how professional communities supply intellectual, social and material resources for teacher learning and innovations in practice' (pg. 917).

Lieberman and Pointer-Mace (2010) suggest a useful learning opportunity exists in sharing practices or making practice public. They go onto state that teachers who make their work public create new conversations about teaching which can be very powerful and developmental. As Lieberman and Pointer-Mace (2010) reiterate, if teachers engage in a professional learning community and open up their practice to colleagues they expand their knowledge and skills and professional development opportunities.

Nurses and midwives also engage in learning as a social activity (Lieberman and Miller, 2008; Lieberman and Pointer-Mace, 2010) and enjoy collaborative dialogue to acquire knowledge and express their views. When in practice they construe their learning as a conversation, disseminating their knowledge and involving others in questioning to expand their ideas to develop the advanced learning outcomes described by Baxter-Magolda (2007). However, elements of the development of practice, such as sheer repetitious deliberative practice, or what Perkins (1999) names ritual knowledge which has a routine and rather meaningless character (pg. 7) can distort what happens in the real world and may not lead to the skills associated with expert practice.

Summary

Students of an EBL learning community engage in exploring a question to generate theories for explaining the question and searching for information so as to solve the enquiry. Question generation and theory formation are conceptual processes developed within a social context. Whilst EBL requires team work; the object-orientedness of the enquiry activity is the most fundamental aspect, which can, as such, be pursued either individually or collectively (Paavola and Hakkarainen, 2005, pg. 549).

The literature indicates that learning through a community of practice enhances educational development through collective knowledge building which augments

individual learning. The setting up of a knowledge community that aims to exceed the limits of existing knowledge is an essential component of knowledge creation (Bereiter, 2002). What has emerged from the literature is the importance of the situation within which learning takes place, whether within or out with a community of practice, the context for learning is key. If the community of practice does not promote learning or development, then the success of the community will be limited.

Literature underpinning research question 3: transforming views, an ontological shift

Having previously discussed EBL as a constructivist approach and its proposed benefits for adult learners within a community of practice, does it necessarily follow that EBL as a proposed threshold process will lead to transformation and an ontological shift as an expected consequence? How do students go from constructing knowledge to developing intellectually or transforming their perspectives? Students can acquire knowledge but it may not be transformative. According to Mezirow (1978), if personal transformation has truly taken place, then he believes it is impossible to prevent wider impact. Therefore, if education is about development, then the objective of learning should be to become and to achieve a transformative goal, rather than to simply know about something (Natanasabapathy et al., 2011; Servage, 2008).

In 1978, Mezirow published his influential work on adult learning and his concept of perspective transformation. The term perspective transformation refers to a shift in the adult students learning or meaning and a perspective shift takes place which he explains as;

> Perspective transformation is the process of becoming critically aware of how and why our presuppositions have come to constrain the way we perceive, understand, and feel about our world; of reformulating these assumptions to permit a more inclusive, discriminating, permeable and integrative perspective; and of making decisions or otherwise acting on these new understandings. (Mezirow, 1990, pg. 14)

He does not ground his theory in constructivist philosophy but gives a critical view of self-directedness. Transformative learning theory ascribes to the fact that adult learners will improve their understanding of the world by revising their frames of reference which

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include their habits and their points of view (attitudes, values, beliefs). Mezirow (1978) claims that adult learners frames of reference are initially shaped by social and cultural influences but can be modified through instrumental learning (problem solving), communicative learning (discussing problems) while reframing their assumptions (critical reflection) upon which habits of mind and points of view are based. Boyd and Myers (1988) criticise Mezirow's (1978) notion of critical reflection and claim it is based in rational and analytical reflection. Boyd and Myers (1998) suggest there needs to be engagement with the affective processes of reflection and emphasise that learners need to be open to the possibility of transformation and willing to accommodate alternative expressions of meaning. They describe phases in the process of transformation and suggest learners need to be open to transformation, recognise it and go through a stage of loss in which they recognise that in reconstructing their knowledge that their old meanings are no longer valid for future practice. Boyd and Myers (1988) state this brings about a point or state of discernment. This process has resonance with Perry's (1970) developmental positions and reflects the move to contextual relativism.

Mezirow (1995) expands on his earlier work and proposes that students can learn in four different ways. First, they can elaborate on existing frames of reference; second, they can learn new frames of reference; third, they can transform habits of mind; and fourth, they can transform points of view (Slavich and Zimbardo, 2012, pg. 579). Mezirow (1990) describes a 'disorienting dilemma' needed for transformational outcomes. Palmer and Zajonc (2010) state truly transformative education is messy and suggest that for information to become engrained, rather than merely learnt, it is both subjective and objective and all bound up in experience. Mezirow (1978) refers to the adult learner as a whole person and discusses adult learning as holistic (Ahteenmaki-Pelkonen, 2002). He claims adult education has marginalised teaching to technical and instrumental knowledge and has missed the most important form of adult learning – existential learning, which is in the search of the meaning of life itself (Mezirow, 1978). This relates in

some way to Natanasabapathy et al.'s (2011) concept of becoming as a lifelong activity which involves transformation of perspectives. Baxter-Magolda (2007) defines the result of the transformation as self-authorship which forms a developmental foundation for advanced learning outcomes, such as critical thinking, complex problem solving and mature decision making which are sought after attributes in today's healthcare professionals. The development of these higher order skills are thought to be most effective when learnt in pairs or groups as peer interaction requires students to express their thinking and to consider different points of view when solving problems (Smith et al., 2009).

However, Ahteenmaki-Pelkonen (2002) warns that Mezirow's (1978) work better suits the individual and gives evidence of empirical studies where his transformation theory omits societal, ideological and power considerations which impact significantly on learning and subsequent transformation. Within the context of EBL, the group, or community of practice (Wenger, 1998) is vital. Any group has its own culture and Mezirow omits culture from his earlier work which could affect any ensuing transformation. As Boyd and Myer (1988) point out Mezirow's (1978) view of critical reflection is based on rational and analytical reflection and does not allow for affective processes, they recognise that perspective transformation is not only a psychological process but a social process. To address the issue of culture, the development of transformative learning theory has been explored in specific contexts (see Taylor et al. 2000; Cranton, 1994).

When considering the relational view proposed by Meyer et al. (2010) on pg. 37, the journey through the liminal states involves the integration of new knowledge which reconstructs the learners' prior knowledge after letting go or deconstructing prior knowledge. This restructuring enables an ontological and epistemic shift (Cousins, 2010). In the literature relating to research question one, epistemic development has been outlined and explored. The term ontological shift is when a change is experienced that

alters the relationship between the person experiencing the change and their previous relationship with it so our conception of how something exists has changed. It can also lead to a change in category of the thing experienced. When students think differently, they view things differently and develop new relationships between thoughts which then become embedded thinking. This is an ontological shift.

The integration and reconstruction of new knowledge or as Land et al. (2010) describe it, the reconfiguration and accompanying ontological and epistemic shift (Cousin, 2010), can be seen as the reconstitutive properties of the threshold concept (Land et al., 2010). The features of integration and reconfiguration enabling the perspective shift brings new understanding which enables the learner to cross the conceptual boundary into the postliminal space where the transformation of the learner and what is learnt become apparent. Land et al. (2010) claim this is an irreversible transformation and is marked by a changed use of language and the learner adopts the threshold practices of what has been learnt. The crossing of conceptual boundaries, transformation, irreversibility and changed discourse may be typified as consequential features of the threshold concept (Land et al., 2010).

Land et al. (2010) explore transformation and use the heading metamorphosis. The use of the term metamorphosis is used to suggest mutation and within this concept is the sense of loss, bereavement or even decay. They make reference to the work of Kelly and Crainton (2009) who describe transformative learning as dependent on content, context and discipline. They propose that transformation is a way of making meaning of knowledge in a discipline in a way that students don't passively accept and believe what they are told or what they read, but rather engage in debate, discussion, and critical questioning of the content (Kelly and Crainton, 2009). Promoting transformative learning involves engaging students with the content, context and discipline rather than focusing on just one or two aspects.

Summary

Both Mezirow (1978) and Land et al. (2010) describe a trigger that begins the transformational journey for the learner. Meyer and Land (2005) suggest this trigger may be troublesome knowledge or in the case of this study, a troublesome process. Perkins (1999), in identifying troublesome knowledge calls it conceptually difficult knowledge which, in the case of EBL, I would call a conceptually difficult experience.

Literature underpinning research question 4: leadership qualities and emerging leaders

In the relational view proposed by Land et al. (2010) represented in figure 1, there are three stages of liminality; preliminal, liminal and postliminal. As learners move through the stages of liminality they may experience feelings of exhilaration but the middle stage of liminality is more commonly associated with feelings of loss, a shift of identity and deconstruction of previously held knowledge (Land et al., 2010). As mentioned previously, a further complication might be the process or ways of thinking and practising within a specific discipline which can be referred to as 'threshold practices' or 'threshold experiences' that are necessary in the learner's development (Land et al., 2010). If viewed as a journey through preliminal, liminal and postliminal states, the journey begins by an encounter with troublesome knowledge in the preliminal state. Land et al. (2010) describe this as:

> 'The troublesome knowledge inherent within the threshold concept serves here as an *instigative* or provocative feature which unsettles prior understanding rendering it fluid, and provoking a state of liminality.' (pg, xi)

This instigative feature bears similarities to the disorientating dilemma outlined by Mezirow (1978) and acts as a trigger for learning and entry into the liminal space. Meyer and Land (2005) talk of self-identity or a shift of identity. They argue that as students acquire threshold concepts there is a shift in the students subjectivity and a repositioning of the self and this has a reconstitutive effect. It is this point that is of interest to this study as one of the central tenets is that leadership qualities or traits are developed after students have completed the PGCE.

Griffiths' (1993) theory of self-identity talks of the individual creating their own auto-biography from stories constructed by themselves of their lives. This sense of story relates to Gronn's (1999) leadership as a career framework which emerged from the biographies of leaders. It would seem self-identity is inextricably linked to leadership and self-identity is a complex milieu of social, cultural and psychological constructs. Gronn (1999) talks of the connections between actions or human agency and the social structures within which they take place. A key element of this suggests Griffiths (1993) is a sense of belonging and how this can impact on self-identity. Individuals may choose to belong or not belong depending on the group and how they perceive their treatment by the group. Griffiths (1993) relates this to race and gender yet parallels can be drawn to the group work or community of practice created by EBL as to whether the students feel they want to belong and how this might affect them.

It was on reading the literature for this study I noted the many references to self: self-belief, self-esteem, self-efficacy, self-identity, self-concept, self-confidence, self-development, self-realisation, self-assertiveness, self-trust, self-doubt and self-directedness. Self-related terms are appearing increasingly within the education leadership literature (Rhodes, 2012; Cowie and Crawford, 2009; Cowie and Crawford, 2008; Gronn, 1999; Griffiths, 1993). It would seem identity of the self and belief in self are key components for learning and leadership (Rhodes, 2012; Meyer et al., 2010, Gronn, 1999).

Self-belief

Gronn (1999) suggests that self-belief is a pivotal aspect of the accession phase of a leadership career and this is of value as it could be argued that without self-belief, the leader would not attain mastery of the role, therefore, would not become a leader. The term mastery of the role is similar to the expression by Meyer and Land's (2005)

reference to mastery of the subject on realising a threshold concept, perhaps each element of Gronn's (1999) framework may be considered a threshold concept in the development of a leader.

Gronn's (1999) work centres on life history, his work alongside Day and Bakioglu (1996) and Ribbins (2003) brings together shared features of a leaders' life history and grounds them within core themes. The life history literature provides frameworks for the development of leaders or seems to describe learning leadership on-the-job. Whilst Gronn's (1999) leadership as a career framework is grounded in school leadership, I believe the principles can be applied to healthcare educational leadership. He recognises that leadership is heavily context bound as each leader practices within their own organisation and culture, bringing their own individual values and beliefs to the role and this can be applied equally to the healthcare education environment.

Gronn (1999) outlines a leadership career framework which has four stages set within three macro contexts namely, historical, cultural and societal. The leadership career begins with formation which forms the basis, through a conception of self, of leadership character. Formation relates to early childhood experiences and family background that can impact on a person's potential for leadership. Prior to the development of Gonn's (1999) leadership career framework, Brungardt (1996, pg. 84) had identified that family influenced personal characteristics such as intelligence, self-confidence, assertiveness, achievement, orientation and reliability. At the earliest stage of a leader's career, the notion of self is considered and within the formation stage it attributes self-confidence as important. However, it may be worth considering that the formation stage should not be given too much credence on the basis that there may be little point in focusing on these issues as childhood experiences cannot be repeated therefore, cannot be changed (Haughton, 2012).

Stage two is titled accession and this is the preparation stage for leadership and is of key importance to this study. The leader is described as aspirant and requires self-belief which entails a sense of personal efficacy and self-esteem described as part of the domain of inner work (Gronn, 1999). Gronn (1999) identifies that an important pre-condition to success at this stage is individual self-belief. If self-belief emerges as part of the repositioning of the self, whilst in the liminal space as outlined by Meyer and Land (2005), it could be argued it is at this point that the leader becomes aspirant. Within Gronn's (1999) accession phase the aspirant leader projects themselves publicly to provide evidence of credibility as a future leader which then progresses to succession, selection and induction towards role mastery. Mentoring or coaching can be important during the accession stage (Rhodes, 2012; Blackman, 2010) as it can be described as the 'grooming' stage in which candidates can test their potential capacity to lead (Gronn, 1999, pg. 34).

Gronn (1999) describes two components of the accession stage: the domain of inner work and the domain of public perception, or the external/internal face. Externally, the potential leader perhaps takes on their first leadership role, or has leadership elements added to their current role. Internally, Gronn (1999, pg. 34) talks of repression, subordination or re-channelling of individual needs in order for aspirant leaders to reconstruct themselves or their thinking and behaviours to demonstrate the rudiments of leadership. Within the discussion around the domain of inner work, Gronn (1999) includes Horney's (1950) reference to self-realisation, he notes that Horney (1950) suggests the path to self-realisation, self-assertiveness and the achievement of mastery is fraught with self-conflict (pg. 34). This reference to self-conflict resonates with the idea of liminality where the learner oscillates between one state and another (Meyer and Land, 2005) resulting in the development of new knowledge and an eventual transformation or new self-identity. Gronn (1999) recognises the reconstruction of self and the inner conflict and it is on this

basis he includes self-belief as an essential characteristic of the accession phase and divides this into two components; personal efficacy and self-esteem.

Bandura (1977) first introduced the theory of self-efficacy with his seminal work; self-efficacy as a unifying theory towards behavioural change. Later, Bandura (1986) situated his theory of self-efficacy within a social cognitive theory of human behaviour that grounded cognitive development within a socio-structural system of influences. He then proposed self-efficacy as a theory of personal and societal or public activity that regulates human well-being with the additional focus of attainment (Bandura, 1997). He goes further to explain how self-beliefs function and how they can be created and strengthened to achieve or hone attainment or to what extent people think their actions will result in success (Bandura, 1986; 1997). Due to these effects, efficacy beliefs are a strong determinant of students' success but so too are the beliefs of others, including students' peers, teachers and family (Bandura, 1997).

More recently, educational research has considered leadership talent management (Rhodes 2012; Rhodes et al., 2009; Rhodes et al., 2008; Rhodes and Brundett, 2006) and these studies have revealed that self-belief and self-confidence play a key role in leadership development. Rhodes (2012) argues that self-belief merits further attention when considering talent management and the journey to leadership with particular emphasis on the role it has to play in nurturing the potential to lead linked to effective performance. He explores the relationship between self-belief and talent management and proposes that the management of self-belief which entails self-confidence, self-esteem and self-efficacy is related to success in socialisation and belonging, perseverance, successful identity transformation and enactment which fosters the goals of talent management as getting the right person in the right job and development, commitment, performance and retention.

Rhodes (2012) paper makes explicit links between self-belief and talent management in schools. Whilst there is evidence of developing leadership talent in healthcare organisations (Wells and Henja, 2009) this is generally focused on healthcare organisations as businesses and promoting success through effective leadership with the emphasis on driving efficiencies. Wells and Henja (2009) talk of leadership as competency based, trainable, performance manageable and even refer to leadership 'muscle' which implies a focus on the training and development of technical skills rather than focusing on the broader context of holistic professional practice.

Rhodes (2012) states self-belief is a foundation of performance at all stages of Gronn's leadership framework although suggests it is the incumbency phase that warrants further attention. The third and fourth stages of Gronn's career framework are incumbency and divestiture respectively and these represent established leaders; each stage outlines the career development aligned to their experience and stage of career. However, this study aims to focus on self-belief during the accession phase as it is proposed the students emerge as fledgling educational leaders after completing the PGCE.

Less work is evident within the literature on learning for leadership as a lifelong learning activity although stages of development of leaders have been described within a 'longitudinal framework' (Gronn, 1999, p. 22). There is a suggestion that there is limited systematic research directly linking leadership and learning (Berson et al., 2006; Vera and Crossan, 2004; Waldman et al., 2009) although there is increasing evidence of scholarly activity within the subject area (MacBeath et al., 2009; Yip and Raelin, 2012). Browne-Ferrigno (2003) discusses educational leadership within a framework for professional growth although this focuses on the transition to principalship rather than continuing development beyond achieving principal status.

In previous research, the leadership-learning relationship has been investigated in terms of transactional-transformational leadership (Waldman et al., 2009) and critical management and reflexivity (Cunliffe, 2009). Raelin (2007) suggests the focus of leadership development as an educational activity is misguided and recommends that greater emphasis is placed on learning how to learn from practice and this is supported by Browne-Ferrigno (2003) who states transformation is related to socialisation within a community of practice. This links to MacBeath et al's. (2009) focus on leadership education or development from learning and the transfer of leadership concepts from the classroom to the workplace (Cunliffe, 2009).

MacBeath et al. (2009) developed five principles about leadership for learning which arose over time and were drawn from the myriad of theoretical perspectives concerning leadership, learning and learning communities. The first principle is a focus on learning and the activities identified within this principle are that: everyone involved is a learner; learning is centred on emotional, social and cognitive processes; effective learning is sensitive to the context and how people learn; the ability to lead arises out of effective learning experiences and finally, opportunities to practice leadership develops learning.

The second principle is conditions for learning. The activities associated with conditions for learning are that: the culture of the community of practice is nurtured; everyone has time to reflect on learning; the learning spaces celebrate learning; the learning environment is safe and allows for creativity and potential failure and that learning tools and strategies embrace thinking about learning and teaching practice. The third principle is dialogue, to make leadership and learning conceptually and practically explicit. The activities around dialogue include: making leadership for learning practice explicit, discussable and; promotes dialogue into the link between learning and leadership; the sharing of values, understandings and practices brings consistency; considers factors

which inhibit and promote learning and leadership transferable and makes the link between leadership and learning within the community of practice.

MacBeath et al. (2009) perhaps bring their own agenda to the fourth principle as MacBeath (2005) is a known author on the topic of distributed leadership. The fourth principle is shared leadership and involves: promoting a community of practice as a learning community; epitomising shared leadership in everyday practice; encouraging all members of the community of practice to take the lead as appropriate to task and context; utilising the experience and expertise of the community of practice and cross boundary working regardless of role and status. Finally, the fifth principle is a shared sense of accountability where there is a collective approach to internal accountability as a requirement of accountability to external agencies. This clearly links to one of the NMC domains around accountability which requires the students to set professional boundaries and be accountable for their decision making around students being fit for practice (NMC, 2008).

MacBeath et al's (2009) principles focus on leadership for learning in schools and the relationship between leadership and learning. Implicit within their research is that there is leadership and whilst there is recognition that leadership will develop as a result of focusing on leadership for learning, it implies that leadership skills have already been developed to some extent. This leads onto learning for leadership which should be the precursor to leadership for learning. The first book on learning for leadership was by Rice (1965) which was a study based on a series of conferences discussing leadership and aiming to raise new ideas of leadership and how it could be learnt. Learning for leadership has been widely discussed but predominantly appears to relate to leadership preparation: learning for leadership prior to becoming a leader.

Yip & Raelin's (2012) study on threshold concepts identifies modalities for teaching leadership practice and reveals that threshold concepts do not work in isolation; instead, learners engage with threshold concepts through a combination of three select, socially situated learning processes, which they describe as threshold modalities: variation, enactment and reflection. They describe how threshold modalities are socially situated learning processes that facilitate a reconstitutive change in practice. Their findings further suggest that threshold concepts open up possibilities for a transformation in leadership practice, but the move from conceptual engagement to transformation can be better understood through the means of threshold modalities. They claim that by using action learning as a pedagogical method, they have created a unique approach to teaching leadership development that enables students to engage with threshold concepts.

The threshold modalities outlined by Yip and Raelin (2012) are essentially part of the action learning process and could be equated to the process of EBL: variation allows for different concepts to be explored within the safety of the group; enactment enables role play which is part of EBL, when the students bring back and share their knowledge, they model or practice new ways of presenting information in readiness for teaching and finally, reflection, which is an essential integrative component of professional practice. The departure from Yip and Raelin's (2012) study is they view situated leadership and shared leadership as threshold concepts whereas I propose EBL can be considered a threshold process.

This links to Natanasanbapathy et al. (2011) notion that education should focus on the transformative process of becoming, rather than just on the process of learning. This is in contrast to Yip and Raelin's (2012) study which states through engaging with a series of threshold modalities, leadership as a threshold concept is understood. Much of the research around threshold concepts focuses on the threshold concepts themselves (Yip and Raelin, 2012; Cousin, 2010; Meyer and Land, 2005; Meyer and Land, 2003) rather

than on the supplementary skills that may emerge as students realise the thresholds. When the students experience an eureka moment, they gain confidence which engenders self-belief, a necessary building block for leadership (Rhodes, 2012; Gronn, 1999).

From the literature reviewed around communities of practice, the evidence suggested that effective professional learning is best situated within a community that supports learning (Wenger, 1998; Darling-Hammond, 1997). As discussed in the introduction to this study, the context of healthcare and healthcare education has changed rapidly due to economic and social changes and this has impacted on the delivery and relevance of professional development (Fullan, 2007; Elmore, 2004). What seems to emerge as a key outcome of professional learning is the need for professionals to challenge implicit assumptions and question taken-for-granted practices in order to lead changes in practice (Boud & Walker, 1998).

Cole (2004) argues that professional development is a great way to avoid change as staff that undertake professional development believe they are engaging in something valuable and it absorbs their energy so diminishes the time they have to spend on real change and improvement.

Summary

This section has considered the literature around the change in self-identity through the experience of being in the liminal space. This has been linked to Rhodes' (2012) discussion around identity transformation as a result of the management of self-belief which relates directly to Gronn's (1999) exposition of self-belief as part of the accession phase of his leadership career framework. Consideration has also been given to leadership for learning as outlined by MacBeath et al (2009).

Conclusion to the literature review

The themes that emerged from the literature review arose from the areas under investigation firstly; enquiry based learning, constructivism, epistemic development frameworks, threshold concepts and professional development. This led onto reviewing the literature around communities of practice and its impact on learning. The literature on transformational learning and ontological development was then critiqued followed by the literature surrounding self-identity, self-belief and self-confidence and their relationship to leadership development.

The key findings that have emerged as a result of the literature review relate to the work of Perry (1970) and Belenky et al. (1986) on epistemological development. This led onto the work of Meyer and Land (2003) and Cousin (2010) who discuss threshold concepts where students encounter troublesome knowledge and enter a liminal space which enables an ontological shift. From my perspective, the gap in the literature highlighted here is Thompson's (2011) notion that the nature of development is fluid thus the developmental stages only exist momentarily as a students' development fluctuates. This resonated with the theory of a liminal space however, I thought this worthy of further study to consider what is meant, or what is implied, by the term threshold concept and it led to the themed questions included in research question 1:

1. What is the nature of an EBL experience? To what extent may EBL be considered a threshold process? To what extent does it influence epistemic development?

It is argued that the term threshold concept does not fully represent the true ontological development, not least in part due to the nature of the terminology. In Thompson's (2011) paper he claims that process-oriented theorists argue that to build theory; epistemological

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and ontological development needs to be considered and aligned, thus the word concept as a noun does not fully represent the essence of what is being theorised as a threshold concept. The word process is both a noun and a verb therefore, possibly reflects both epistemological and ontological development which gives rise to the term a threshold process rather than threshold concept, although this has only been considered in light of students participating in an EBL approach.

The discussion on professional development led on to recognising the importance of professional communities of practice (Dall'Alba and Sandberg, 2006). Studying using EBL embraces group work and can give rise to a community of practice. As development is an intricate process of learning and reflection it requires careful socialisation into a community of practice (Browne-Ferrigno, 2003) which informed research question2:

2. What influences does learning within a community of practice have on student development as educators?

The literature suggests a community of practice embraces collective knowledge building, which augments individual learning thus development. However, this augmentation of learning is only successful if the context of the learning is suitable, aligned and developmental. For development to be successful the students need their self-belief nurturing alongside educational skill development through situated learning activities guided by qualified professionals (Lave and Wenger, 1991; Schön, 1983).

Leading on from the discussions relating to the threshold concept literature and its references to transformative views and ontological shifts, Mezirow's (1978, 1990, 1995) work on transformational learning was reviewed. The outcome indicated a trigger which begins the transformational journey for the learner and this related to the troublesome knowledge outlined by Perkins (1999) which can act as a trigger for learning. This led me

to ask firstly whether EBL brought about an ontological shift and if it did, what influenced that shift as outlined in research question3:

> 3. Do the students experience an ontological shift as a result of experiencing EBL? What influences do students perceive as important in transforming their views?

The notion of transformation linked into Rhodes (2012) discussion around identity transformation in relation to self-belief and the role this plays in the journey to leadership. Gronn (1999) identified self-belief as a fundamental part of the accession to leadership and the need for this to be nurtured and to grow. Yip and Raelin (2012) use threshold concepts to teach leadership by engaging students with what they term as threshold modalities. They suggest this can lead to a transformation in leadership practice. This led me to consider whether EBL, as a proposed threshold process, develops leadership qualities and the impact this has on the students as represented by research question 4:

> 4. How does the experience of the EBL process develop leadership qualities? What impact has this had on the students' perceptions of themselves as emerging educational leaders?

The above summary of the themes and research questions emerged from the literature review and need to be considered within the context of the study students. The following research design chapter will outline the methodology and methods in order for the rest of the study to be put into context.

Chapter 3: Research Design

In this chapter, I will locate my research within the wider frameworks and outline the context of the epistemological and ontological philosophies underpinning this study. I aim to justify and critically evaluate the research methodology and research methods, including discussion around sampling, ethics, validity, reliability, trustworthiness and analysis.

Wider Frameworks

In order to clarify the purpose of the research it is important to position it within a wider framework. Habermas (1971) developed a theory of knowledge-constitutive interests that ties the natural history of the human species to the essentials of the socio-cultural form of life. He proposed three knowledge-constitutive interests, each based in human existence and expressed in a particular type of scientific or scholarly inquiry (Bohman and Rehg, 2011). The first is the technical interest which is concerned with the natural sciences and types of social science that aim at scientific experiments. The kind of knowledge is instrumental requiring causal explanations and promotes a positivist approach to research.

The second type of cognitive interest is practical interest and this is based on personal understanding that operates within socio-cultural life. Human societies depend on such understanding and the ability to interpret their nature as much as they depend on understanding the natural environment (Bohman and Rehg, 2011). The kind of knowledge generated is practical for understanding and the research methods employed are hermeneutic.

The final cognitive interest is emancipatory interest which is to overcome dogmatism, exploitation and domination by critical reflection then action. This kind of knowledge is

emancipatory through critical reflection and the research methods employed relate to critical theory. Overall, the typology represents a hierarchy from technical interest, through practical interest, finally to emancipation and action.

In seeking to clarify the purpose of this research, I support Habermas's (1971) view that to explore the role that human interest plays in understanding why we do what we do and how we relate to others, we need to look beyond the positivist account described within technical interest as it is argued that controlled techniques or experiments are inappropriate for the interpretive sciences (Bohman and Rehg, 2011). This would position this research within practical interest as it is aiming to understand what we do and how we relate to others. Practical interest relates to Wallace's (2003, pg. 18) direction towards developing knowledge for understanding which enables knowledge for action.

A further typology for clarifying or positioning research is Carr and Kemmis's (1986) three basic forms of educational research namely; positivist, interpretive and critical. Merriam (1998) goes onto interpret the three types with positivist research being perceived as education as the object or phenomenon to be studied. Knowledge gained through scientific and experimental research is quantifiable and objective (Merriam, 1998, pg. 4). Interpretive research is categorised as education being a process and a lived experience therefore, understanding the process or experience is theory generating. Critical research is a social institution designed for social and cultural transformation and reproduction (Merriam, 1998, pg. 4).

Utilising the typology presented by Carr and Kemmis (1986) would position this research as interpretive educational research which seeks to understand and generate theory from the lived experience of the process of education and to create knowledge for action (Wallace, 2003) to provide greater understanding as to whether the EBL process enabled

epistemic development and ontological transformation which laid the foundations for educational leadership for healthcare professionals.

Philosophical approach

Important issues of the nature of the phenomena to be investigated and the means of investigation must be considered alongside the kind of knowledge that is required. Research is carried out in order to discover something that is not already known, if consideration is given to what counts in social science research, there are a range of activities that aim to formulate or discover something new (Hughes and Sharrock, 1997). They go on to suggest that the philosophical; mainly ontological, epistemological and methodological issues need to be addressed early in a research project in order that the methods for enquiry are decided prior to the commencement of the research itself.

Someone's view of reality and being is called ontology. Blaikie (cited in Grix, 2004) defines ontology as the study of claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other. In other words, if someone studies ontology they study what is meant when it is said that something exists.

Ontological assumptions are concerned with the essence of realities, either that which is external to individuals or the realties produced by individual consciousness (Cohen et al., 2007). The two extremes of this reality form the nominalist – reality debate. The realist position being that reality is external to the individual and is imposed on them whereas, the nominalist views reality as being of the individuals own making (Cohen et al., 2007). The two perspectives on the study of human behaviour have weighty implications for research and the methods utilised to generate knowledge. Individuals perceive and interpret reality as a product of their social, cultural and educational experiences although it should be recognised that reality in some situations, may not be of the individuals

making and thus imposed upon them. Mack (2010) holds the view that individuals interpret events differently leaving multiple perspectives of an incident. This would categorise this study's ontological position as nominalist.

If ontology is the study of what is meant when it is said that something exists, then epistemology is the study of what is meant when we say we know something. Crotty (1998, pg.3) defines epistemology as the theory of knowledge embedded in the theoretical perspective and thereby in the methodology. Grix (2004, pg.68) states that research is best done by:

'Setting out clearly the relationship between what a researcher thinks can be researched (her ontological position) linking it to what we can know about it (her epistemological position) and how to go about acquiring it (her methodological approach), you can begin to comprehend the impact your ontological position can have on what and how you decide to study.'

Epistemology can be considered as the inquiry into the conditions of the possibility of knowledge. Scientific research seeks to make objective meaning claims but in the case of social sciences these have to be in the context of the human activity which has created them and which cannot be understood apart from these (Hughes and Sharrock, 1997, pg.139). Knowledge is gained through a strategy that respects the differences between people and the objects of natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action (Bryman, cited in Grix, 2004).

The ontological and epistemological assumptions of interpretavist research are outlined by Mack (2010) in table 3 on the next page.

Ontological Assumptions	Epistemological Assumptions
• Reality is indirectly constructed based on individual interpretation and is subjective. • People interpret and make their own meaning of events. • Events are distinctive and cannot be generalized. • There are multiple perspectives on one incident. • Causation in social sciences is determined by interpreted meaning and symbols.	• Knowledge is gained through a strategy that respects the differences between people and the objects of natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action (Bryman, cited in Grix, 2004). • Knowledge is gained inductively to create a theory. • Knowledge arises from particular situations and is not reducible to simplistic interpretation. • Knowledge is gained through personal experience.

Table 3. Interpretivist Ontology and Epistemology.

The interpretavist paradigm is influenced by the philosophical movement phenomenology (Mack, 2010). In phenomenology, the need to consider human beings' subjective interpretations, their perceptions of the world as starting points in understanding social phenomena is advocated (Ernest, 1994). Sandberg (2005) suggests that to overcome the limitations of positivism; interpretive approaches have followed ideas from philosophical phenomenology and its emphasis on lived experiences as central to human behaviour. The nature of the phenomena to be investigated has considerable bearing upon the means of investigation and the kind of knowledge that is needed. Denscombe (2003, pg. 96) in his description of phenomenology states it has been useful as an umbrella term, covering styles of research that are in direct contrast to positivism and emphasises:

- subjectivity (rather than objectivity);

- description (more than analysis);

- interpretation (rather than measurement);

- agency (rather than structure).

He goes on to state its credentials are reinforced by dealing with people's perceptions or meanings, attitudes and beliefs, feelings and emotions. Humans embody values and it is these which need to be understood by social research in order to make sense of the unique constellations that make up human experience (Hughes and Sharrock, 1997). The interpretive approach strives to understand the perspective of the people considering their first-hand experience to uncover meaning. Interpretive research approaches such as phenomenology are examples of situated research approaches that maintain the holistic nature of the experience studied and can be useful for research into learning (Webster-Wright, 2009, pg. 714). From this perspective, the validity or perceived truth cannot be grounded in an objective reality but is instead subjective. What is considered to be valid or true is negotiated and there can be differing valid claims to knowledge.

In contrast, positivism deals with objective facts that are tested, measured and examined by individuals to make sense of the events they are confronted with. What these objective facts cannot do is stand for any objective reality in the way proposed by positivist research (Hughes and Sharrock, 1997, pg. 129). This is of interest when utilising a positivist approach in social research as the data gathered is scrutinised and categorised in an attempt to gain clear and unambiguous responses. In the case of this research, this would detract from the students narrative about their educational experience as to reduce their narratives into abstract entities such as attitudes, beliefs and values detaches the students from the reality within which they are being studied. The scrutinising of the data further removes their talk from the circumstances within which it was created meaning positivist methods decontextualise constructs so distort the phenomena they are intended to investigate (Hughes and Sharrock, 1997).

To fully reflect the views expressed by the students it is vital I understand my own ontological and epistemological perspectives in order to understand the phenomena being investigated. The phenomenological strategy adopted for this study focuses on the PGCE

students' interpretations of the EBL experience and it is anticipated this will give rise to the multiple realities identified by Denscombe (2003). I place myself as an interpretavist researcher to generate knowledge from the subjective interpretations and students' perceptions of their experience in order to understand the phenomena. In summary, ontological assumptions inform epistemological assumptions which inform methodology and these all give rise to the methods employed to collect data.

Methodology

One of the most significant confusions accompanied by the interpretive rejection of so-called objective methodological procedures for producing knowledge is how, and to what extent, knowledge produced within interpretive approaches can be justified (Sandberg, 2005, pg. 42). The challenge was to find a methodology that provided the necessary tools to study the phenomenon within its context in order to address the research questions. The methodology is a single case study with groups of PGCE students representing the primary unit of analysis or case (Yin, 2009) under investigation to identify how a PGCE programme, using an EBL approach, led to the observed results.

According to Yin (2009, pg. 4):

> 'A case study is the method of choice when the phenomenon under study is not readily distinguishable from its context. Such a phenomenon may be a project or programme in an evaluation study.'

Case studies can be utilised in a variety of research designs, data collection methods, epistemological directions and disciplinary perspectives. However, there is an imprecise understanding of case study and according to Merriam (1998); it is often misused as a catch all research category for anything that cannot be categorised as purely a survey or experiment. Zucker (2009) suggests that prior to embarking on a case study it should be

clear that no other descriptive method will obtain the level of description necessary for the study. A case study methodology facilitates an in depth approach to ascertain what is and is not effective (Bassey, 1999). Scholz and Tietje (2002) produced a table of dimensions and classifications of case studies and this has been applied to frame this case study as outlined in table 4 and will be discussed in turn.

Dimension	Classification
Design	Single case study Holistic
Motivation	Intrinsic
Epistemological status	Exploratory
Purpose	Research
Data	Qualitative
Format	Unstructured

Table 4: Dimensions and classifications of the case study

Single case

The primary distinction in design characteristics of a case study is the issue of whether it should be a single case or multiple cases (Yin, 2009) and there are numerous reasons why the single-case design is a preferred choice (Zucker, 2008). With multiple-case study design, comparison and control groups are used to establish causality (Yin, 2009). In group based learning initiatives such as EBL, it is difficult to identify comparisons much less control groups. A single case study can be viewed as unique, prototypical, salient or revelatory to the understanding of a phenomenon or problem (Scholz and Tietje, 2002) and Yin (2009) provides five rationales as to the appropriateness of single case design

and these are whether it is critical, unique, representative, revelatory or longitudinal. I would argue that this is a single case study and is revelatory as I have had the opportunity to observe and analyse a phenomenon previously not considered and the descriptive information gleaned from the case is revelatory (Yin, 2009).

Holistic

Another consideration is whether the case study is holistic or embedded. Whilst the study considers different groups of students and these groups could be considered as a unit of analysis (Yin, 2009), the intention is to examine and evaluate the holistic nature of the experience of EBL. There is the possibility of studying a single case with embedded units; these are normally associated with a mixed methods approach which integrates qualitative and quantitative methods with each sub-unit of analysis subject to separate examination (Scholz and Tietje, 2002; Zucker, 2008; Yin, 2009). Whilst Yin (2009) supports the use of positivist methods within case study design, Stake (1995) and Bassey (1999) maintain a case study is interpretive therefore, qualitative. It is recognised that single case study methodology does not lead to results having the same level of certainty as an objective or positivist approach (Lincoln and Guba, 1985) but it can enable better understanding of what is going on in the process which was what was required in this study.

Motivation

Stake (1995) describes differing types of case studies dependent on the nature of the study: an instrumental case study provides insight into an issue; an intrinsic case study gains a deeper understanding of the case and the collective case study is the study of a number of cases to inquire into a particular phenomenon. The motivation for the case study is intrinsic rather than instrumental as I am responsible for data gathering and I am

accountable for the analysis and wish to investigate the case for understanding (Scholz & Tietje, 2002).

Epistemological status

Exploratory case studies aid the understanding of the phenomenon and enable the development of hypotheses, models or theories (Scholz & Tietje, 2002). The difference between a descriptive case study and an exploratory study is the utilisation of a reference theory or model in the process of data collection and case description which characterises a descriptive case study (Scholz & Tietje, 2002). Of particular relevance to this study is that an exploratory case study is useful in situations where cause-and-effect relationship is the theme. In this case, the experience of EBL was the cause and the exploratory element was to investigate the effect thus addressing the research questions and developing a tentative model.

Purpose

Scholz & Tietje (2002) argue that a case study is applicable as a method of research, teaching, or action/application. The case study in this instance is the methodology.

Format

There are various basic formats of case studies (Ronstadt, 1993) and in this circumstance the case is unstructured rather than structured due to the fact the case is too complex to be presented in a highly structured, logical and solution focussed way. This case study represents a method of learning about a complex phenomenon through description and contextual analysis. The results are both descriptive and theoretical in the sense that the

questions raised about why the experience happened as it did, and what within that is important to explore (Corcoran et al., 2004).

I would therefore, position this study as a single case as it explores the phenomenon arising from the students' experience of EBL. A criterion for selecting case study research is that it provides in-depth inquiry into a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2009, pg. 18). A single case study was considered an appropriate strategy to seek to explain the phenomenon of learning through EBL to generate concepts capable of reflecting the social reality of the students' experience. The case study allowed me to consider the phenomenon in context by investigating the students' experience of EBL in their PGCE groups in order to represent their experience through immersion in their group cultures (O'Leary, 2005; Bassey, 1999). The findings generated insight into how the phenomenon of learning through EBL arose within the context of the groups studying for a PGCE. This immersion in the real-life context enabled a rich picture to be drawn of the phenomenon in order to explore the research questions.

Previous evaluative work into EBL includes Palmer (2002) who used EBL for teaching and assessment in the form of student-led seminars and evaluated the effectiveness by questionnaires, interviews and tutorials for evaluation. Hughes et al. (2004) developed an online EBL module for undergraduate healthcare students and evaluated it via discussion boards, interviews and reflective essays. Thomas et al. (2007) utilised an EBL approach for inter-professional modules and evaluated it from the viewpoint of facilitators and the challenges faced by them in delivering the modules by observations, focus groups and interviews. These studies and others have used a variety of mainly qualitative methods for evaluating EBL activities.

Method

This research employed semi-structured group interviews with six student cohorts totalling collectively 59 students who have all undertaken the PGCE utilising an EBL approach at a post-1992 University in the Midlands. The first cohort had nine students, the second four students; the third, fourth and fifth all had twelve students and the sixth, ten students. The sampling was purposive (Black, 1999, pg.124) and was used in order to access 'knowledgeable people' i.e. those students who had experienced EBL (Cohen et al., 2007). Using the six cohorts ensured that researcher discrimination or subjectivity was reduced. The students were invited by letter to attend the group interview and participation was entirely voluntary.

May (2001) states a typical group interview involves between eight and twelve people who, guided by a group interviewer, discuss the topics under consideration for anything between an hour and half to two and a half hours (Stewart and Shamdasani, 1990, pg. 10). The second cohort of four students may not be ideal but there opinions are still compelling and sought after and recognised as a valid cohort.

The rationale for selecting group semi-structured interviews reflects May's (2001) opinion that group interviews constitute a valuable tool of investigation, allowing researchers to explore group norms and dynamics around issues and topics they wish to investigate. One of the quintessential features of EBL is group work and how they function as a community of practice. I believed it was congruent and consistent with the ethos of EBL to ascertain the views of the students collectively. Group interviews create an opportunity for collective discussion around unarticulated assumptions which can provide insight into complex motivations and behaviours (Bloor et al., 2001; Morgan and Krueger, 1993). As Morgan (1996) explains:

'What makes the discussion in focus groups more than the sum of separate individual interviews is the fact that the students both query each other and explain themselves to each other.' (pg. 139)

There is however, literature focussing on the methodological and analytical complexity involved in conducting group interviews (George, 2013). Concern has been expressed about the reliability, validity, and generalisability of group interviews (Carey 1995) and this issue is discussed under validity, reliability or trustworthiness later in this chapter. Morgan (1996) has outlined concerns of the interviewer's role in generating the data as well as the impact of the group itself as, in this case, as communities of practice. This issue is considered under ethics and my role as researcher later in this chapter.

George (2013) identifies that group interviews can experience issues associated with research methods that rely on self-reported data; namely, participants may self-censure, under-report or over-report. It was necessary to consider social-psychological phenomena specific to small-group interaction. For example, I aimed to negate the issue of social desirability bias which can lead to students acting in a way to present themselves in a favourable light (Goffman, 1959). This was achieved by interviewing the groups after they had completed the course in order for them to feel they could express themselves freely without comeback. Similarly, I considered how to reduce the issue of groupthink, described by Asch (1956) as when participants censure or withhold information for the sake of conformity. These potential biases within the group could also lead to further issues of privacy and embarrassment (Peek and Fothergill, 2009). This was believed to be less of an issue as the groups had developed into effective communities of practice by the time the group interviews were conducted. In addition, the nature of the EBL process encourages the students to challenge each other and to play devil's advocate by asking thought-provoking questions and engaging with alternative perspectives (MacDougall and

Baum, 1997) it was believed this would further reduce not just groupthink but also any embarrassment.

Overall, Yin (2009) identifies the strength of group interviews as a source of collecting evidence for a case study as they focus directly on the case study topic and can be insightful by providing causal inferences and explanations. However, he also warns of bias due to poorly articulated questions, biased responses including reflexivity and inaccuracies due to poor recall. It was therefore, important to develop effective questions to illicit the data needed.

The interview questions were developed from a focus group or pilot case study (Yin, 2009) with a previous cohort of PGCE students who had partially participated in EBL. Yin (2009) suggests pilot case studies are selected due to convenience, access and geographic proximity and this was partially true for this study but more important to their selection was they were PGCE students who had participated and experienced EBL thus, more closely representing the groups included in this study.

Yin (2009) states that a pilot case study can help to refine data collection plans to more fully ascertain the content of the data and the procedures to be followed. In this case, the pilot study was utilised to assist in developing relevant lines of questioning so the group interview questions could be developed for the full case study. This was more problematic than anticipated as the students' experience of EBL was limited to one module. They had been taught by traditional learning and teaching methods for the first two modules and the students struggled to grasp the concept of the self-directedness involved with EBL.

The questions for the pilot study case were based on the four themes that inform the research questions which arose out of the literature review. Yin (2009) states that these type of questions may structure the group interview but do not have to be used as literal

questions during the interview. I wished to explore the four themes identified as research questions and developed lead questions around each theme. I was conscious of the fact Becker (1998) advises not to ask 'why' questions as these can lead to interviewees feeling defensive. The questions were specified but there was freedom to probe beyond the answers to seek clarification and elaboration (May, 2001) in order to inform the questions for the group interviews. From the pilot case study group interview, four themed questions were refined and sub-questions emerged to clarify and explore the themes in more detail and served as an aide memoire for the interviews (appendix 1).

Interviews are an essential source of case study evidence because most case studies are about human affairs or behavioural events (Yin 2009, pg.108). Whilst the weaknesses of such a method have been outlined and I have attempted to justify the reason for selecting group interviews as a suitable method for this single case study, I recognise the interviewees' responses are potentially open to question due to bias and these are discussed later when considering my role as the researcher and validity, reliability or trustworthiness.

Ethics and my role as the researcher

The ethical dilemmas inherent in this study were linked to my role as the groups' facilitator as well as researcher. As a result of this, ethical permission was sought from the University Institute's Ethics Committee and approval for the study was granted and is included in appendix 2, please note the title of the study changed as the thesis progressed to more clearly articulate the findings of the study. The method did not change therefore new ethical approval was deemed unnecessary by the Chair of the Ethics Committee.

My position in the research did raise some ethical issues due to being the groups' facilitator as well as researcher and this could lead to what Creswell (1998) describes as implications for bias within the study. However, O'Leary (2005) and Bassey (1999) suggest with case studies that a degree of immersion into the culture can enable a rich picture to be drawn.

There is much debate within educational research focussing on insider/outsider approaches. Authors such as McNiff and Whitehead (2006) couch their preference for insider research in positive terms and Elliott (1991) is explicit in his concerns about 'traditional' forms of outsider educational research. He argues that outsider researchers define valid knowledge by reproducing generalised academic theories which bear little resemblance to students' experience or judgements. It is necessary to consider the potential for bias from being positioned essentially inside the research and declare this relationship, especially when analysing and making sense of the data. Throughout the research process I considered Bassey's (1999) ethical values: respect for democracy, truth and the person in order to address the issues of insider research.

Bassey's (1999) respect for democracy, truth and the person aims to ensure ethical research practices. Respect for democracy is concerned with respecting freedom; the freedom to investigate, express ideas, criticise others and publish research. He claims that these freedoms are subject to the responsibilities imposed by respect for the truth and the person. Respect for truth states that researchers have to be honest in their data collection, analysis and reporting their findings. This is where the issue Bassey (1999) describes as trustworthiness arises: in respecting the truth, the researchers must not deceive others or themselves. Respect for persons is acknowledging that the data is owned by the person, requiring the researcher to treat the person as a human being who is entitled to dignity and privacy.

Bassey's (1999) three ethical values underpinned the ethical process for this study. In respecting the persons as a source of data, I initially sought permission from the students to conduct the group interviews. Informed consent was gained from the students by providing them with a letter outlining the purpose of the study and the instruction that they could voluntarily withdraw from the study at any point (appendix 3). After the group interviews, I emailed the transcripts to the students for checking purposes as Denscombe (2003) suggests that this respondent triangulation is a useful safeguard that enables moderation of the data. As the information collected will be in the public domain after the completion of the thesis, it is necessary to protect the privacy of the students. The confidential and anonymous treatment of participant's data is customary when conducting research (BERA, 2011). Participants have the right to privacy, confidentiality and anonymity although in this study, a person agreeing to a group interview cannot expect anonymity but can require confidentiality.

I believe I also respected the truth as I had prolonged engagement (Lincoln and Guba, 1985) with the student groups which is concerned with spending time immersed in the case to understand its issues. This is essential to build the trust of those providing the data in an attempt to represent the truth, especially with the aim to avoid misleading ideas (Bassey, 1999).

Validity and Reliability or Trustworthiness

Consideration to the issue of validity, specific to qualitative research, can be addressed by considering the four criteria proposed by Lincoln and Guba (1985) for judging the soundness of qualitative research they also suggested that trustworthiness should be considered as an alternative to the established concepts of validity and reliability. Silverman (2001) argues that by referring to validity and reliability when discussing qualitative data does not reflect the value of the theoretical underpinning of interpretive

research or method, therefore, Lincoln and Guba's (1985) criteria will be used to judge this qualitative research.

The four criteria aim to explicitly offer an alternative to the more traditionally quantitatively oriented criteria of internal and external validity. They argue that their four criteria more closely represent the fundamental beliefs of qualitative research. Their proposed criteria and the comparable quantitative criteria are listed in table 5.

Traditional Criteria for Judging Quantitative Research	Alternative Criteria for Judging Qualitative Research
internal validity	credibility
external validity	transferability
reliability	dependability
objectivity	confirmability

Table 5. Criteria for judging validity (Lincoln and Guba, 1985)

The first alternative to judge qualitative research is credibility. This proposes verifying that the results of the research are credible or believable from the perspective of the students in the research. It is believed that as the purpose of qualitative research is to describe or understand the phenomena of interest from the participant's eyes, the students are the only ones who can legitimately judge the credibility of the results as they hold the data (Bassey, 1999). With these considerations in mind, the interview questions were developed through a pilot case study with students that had experienced EBL but were not part of the research. The interview questions were piloted to check the questions had meaning and relevance for the group and to ascertain if the pilot case generated themes for exploration that had previously not been considered. It was also an opportunity to practise my interview and transcribing skills and assess how long each interview might

take. Following the pilot interview, revisions were made to the original interview questions and I felt more confident that the interview would enable the students to describe and explore their experience of EBL.

The second alternative criterion is transferability and this refers to the degree to which the results of qualitative research can be generalised or transferred to other contexts or settings. From a qualitative perspective, transferability is the responsibility of the one doing the generalising. Bassey (1981) proposes the term relatability rather than generalisability as expressed below.

> 'An important criterion for judging the merit of a case study is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation to relate his decision making to that described in the case study. The relatability of a case study is more important than its generalisability' (pg. 85).

I can enhance relatability or transferability by doing a thorough job of describing the research context and the assumptions that are central to the research. The context of the discussion needs to be viewed within the groups' unique composition of the students which make up the groups and the dynamics of the groups as a whole. This is vital within an EBL approach due to the unique nature of the group development and how they grow to depend on each other for their learning. No claim is, therefore, made that these interviews are representative of all other PGCE students who utilise an EBL approach in their studies. However, their transformative experiences are worthy of note and consideration and are at least useful for any organisation interested in this kind of approach to learning.

The third alternative, dependability, emphasises the need for the researcher to account for the ever-changing context within which research occurs – the real world. The data collected is unique owing to the specific context and the specific individual involved which inevitable may have an adverse effect on reliability (Denscombe, 2003). Finally, confirmability refers to the degree to which the results could be confirmed or corroborated by others. There are a number of proposed strategies for enhancing confirmability and I invited another researcher to be a 'critical friend' with respect to the results. Additional support has an additive function of the process of selective analysis of salient statements and not a biased imposition of my value framework.

Analysis

Data was collected from the semi-structured group interviews which explored pre-determined themes generated from the literature review and research questions honed by the pilot case study interview. An aide memoire was produced following the pilot interview. The themes which were explored in the interviews are related to the research questions. The questions are therefore, based around the themes which make up each individuals expression of the experience of the process of EBL. The interview explores the students' perceptions of epistemological and ontological transformation during their experience of EBL in relation to the group as a community of practice and the development of leadership qualities.

The interviews were tape recorded and backed up by field notes. This was due to memory alone being unreliable and prone to partial recall, bias and error (Denscombe, 2003). Audio tape recording offered a permanent record but as it only captures speech and not non-verbal communication, field notes were used to note contextual factors, which were deemed important. The interviews were then transcribed. May (2001) suggests that transcribing taped material and simply listening to the conversations assists the important

analytic stage of becoming familiar with the data. Included in the transcriptions were informal notes taken from the field notes which annotated the transcriptions in order to give a richer meaning to the spoken words (appendix 4).

Analysis focused on identifiable themes and patterns of experience and/or behaviour. The next step to the analysis was to identify all data that related to the already themed research questions and to combine and catalogue any emergent sub-themes. Themes are defined as units derived from patterns such as conversation topics, vocabulary, recurring activities, meanings and feelings (Taylor and Bogdan, 1984, p.131). The themes had been broadly identified by the research questions and were brought together. From the transcribed conversations, patterns of experiences were inputted into a grid which arose from direct quotes in order to pull together the many separate pieces of data from all the interviews.

A grid was created with a row for each question and six columns, one for each group. The transcripts represented raw data and any words or phrases were pasted into the grid. The transcripts had row numbers next to the text in order to locate quotes. When a theme emerged; a reference code was given to each quote which included the student number and the lines within the relevant transcript to enable ease of locating the data. The words and phrases accrued against each question facilitated synthesis of the significant points. Any sub-themes emerging were colour coded to enable reference to the data. An example of the grid is included in appendix 5. The grid enabled me to see if there was consensus around themes whilst remaining open to contradictory evidence when it appeared. If this had not been done, commonality could have taken priority over variations and would not have provided a holistic account (Miles and Huberman, 1994).

As an additional measure to ensure true representation of the data I invited a 'critical friend' or 'critical colleague' (Stenhouse, 1975) to review the grid in order to discuss the

positioning of data within the themes and in an attempt to reduce researcher bias. Kember et al (1997) discuss critical friends in relation to action research; they state a critical friend acts as a partner who can give advice and is working with the teacher–researcher in the research. The critical friend was the external examiner for the programme and encouraged reflective dialogue in a supportive, cooperative manner and challenged any assumptions made to ensure the findings and discussion represents the students' voice to minimise researcher bias.

When presenting the findings, the respondent groups were assigned codes to represent each group G1, G2, G3, G4, G5 and G6. Quotations are from individuals within each group, therefore, each individual has been assigned a number within the group thus comments are followed by for example; (G1, 6) representing group 1, student 6. To give a quantitative explanation to strengthen the support for certain themes, I have used the words 'most' (to represent 75 per cent plus), 'majority' (60 –74 percent), 'some' (40 - 59 per cent) and a 'few' (less than 39 per cent) to the responses in the analysis.

An essential feature of this study was to place emphasis on describing the students' experiences of EBL. Rather than purely trying to explain the phenomenon which emerges from the data, my task was to depict the relevant experience in a way that is faithful to the original as possible (Denscombe, 2003, pg. 101). The analysis sought to represent the students' views and allowed themes to emerge for exploration and discussion.

Weakness in design

This study is a hermeneutic endeavour that seeks to make constructs capable of reflecting the social reality of the students' experience. The potential weakness identified was that only one method of data collection was utilised; semi-structured group interviews. I considered using a mixed methods approach using the Triangulation

Convergence Model (Creswell and Plano Clark, 2007, pg. 62). This approach was initially considered the most suitable due to combining the differing strengths of each approach and comparing and contrasting quantitative statistical results obtained from a questionnaire, with the richness of qualitative results obtained from a focus group (Johnson and Onwuegbuzie, 2004).

However, it was felt that the production of a questionnaire, whilst potentially supporting the qualitative findings, would not add sufficient depth or add significant new data on how the students expressed what they articulated as a transformational learning experience. Kimchi et al. (1991) define and advocate the use of triangulation to obtain a richer and deeper understanding of the topic being studied. In contrast, Creswell and Plano Clark (2007, pg. 64) warn researchers that collecting, analysing and comparing two sets of data is a huge task for one researcher as each set of data should ideally be analysed separately and independently of each other, using the techniques relevant to each type.

Summary

In this chapter I have aimed to provide an overview of the research design in order to clarify the research within wider philosophical frameworks to contextualise the ontological, epistemological and methodological position of this research. I have defended the single case study methodology utilised in this study and group interviews as the data collection method.

A key feature to be addressed is my role as the researcher and this was discussed alongside ethical considerations. I have supported my ethical approach with reference to Bassey's (1999) three values namely, respect for democracy, truth and the person to ensure ethical research practice. To justify the trustworthiness of this study, I have expanded on the extent to which credibility, transformability, confirmability and dependability are inherent to this qualitative study.

The process of analysis has been described and details of how the findings will be reported have been outlined. Whilst every attempt has been made to justify the overall research strategy, acknowledgment has been made to the weaknesses of the selected design.

The next chapter articulates the findings of the research and has been structured similarly to the literature review with each research question providing a heading within which the findings are presented.

Chapter 4: Findings

Introduction to the findings

This section presents the findings from the semi-structured group interviews with six student cohorts totalling collectively 59 students who have all undertaken a PGCE utilising an EBL approach. The findings are presented according to the research questions and are supported with quotations from the students. The topic area of each research questions is represented below in order to determine:

1. The nature of the EBL experience; this section explores the students' thoughts and feelings around the EBL process to provide context as to how the EBL process is experienced and whether it can be considered as a threshold process. It goes on to present the findings as to whether the EBL experience influences epistemic development and the barriers to engagement with the EBL.

2. Communities of practice; Wenger (2006) defines a community of practice as a group of people who share a concern or a passion for something they do and learn how to do better as they interact regularly. The students experience of learning within a community of practice is explored to identify if this influenced their development as educators.

3. Transformation; this section explores if the EBL experience leads to an ontological shift and explains what influences the students perceive as important in transforming their views.

4. The development of leadership qualities; this section seeks to identify the emergence of self-confidence, self-identity and self-belief as a consequence of

experiencing EBL. The students' narratives around their emergence as leaders is described and the perceptions of themselves as educational leaders is explored in relation to Gronn's (1999) leadership as a career framework to identify if parallels can be drawn between school educational leaders careers and healthcare professional educational leaders careers.

After the presentation of the findings, each research question is briefly summarised before being discussed in full in Chapter 5: Discussion of the Findings.

Presentation of the Findings

Research question 1: the nature of EBL as a threshold process and epistemic development

The findings in this section will be presented according to the students' exposition of EBL and the properties highlighted by Meyer and Land (2003) that constitute a threshold concept in order to ascertain whether findings suggest the experience of EBL has the necessary components to be considered a threshold process. The properties of a threshold concept are transformative, irreversible, integrative, bounded and troublesome and these will be considered as part of the EBL process. The findings that outline the barriers to engaging with EBL will also be presented.

The enquiry based learning process and threshold concept features

When asked to consider the nature of EBL or the EBL process the majority of students talked about it as a whole experience.

> "What is EBL? It's a whole thing, a whole experience; it's a process, a process of learning. It can't be broken down into parts. It's a huge, an overwhelming roller coaster and you just have to go along with the ride no matter how you feel about dangling upside down or feeling sick – gosh yes, I felt sick at times" (G5, 3).

> "It's not unique but it's one of those prized occasions where the process has been as rich as the end result. I think the fact that it happens in education when we are actually looking at trying to attain that, does create its uniqueness and exploits the very powerful nature of a group" (G1, 6).

> "One of the things that struck me was the way the EBL process itself allowed us, or me to run with ideas which previously I may have thought fairly obtuse and would not have developed them… actually, (my thoughts) are not that weird because it gives you the freedom to look at things in a completely different way" (G1, 6).

"I just want to say this has been a life experience and this has not felt like a class as this has not felt like an education programme but this has genuinely been a life changing experience for me" (G1, 8).

One of the key features that the majority of students identified as congruent about EBL was the fact it was utilised on a course about learning and teaching. Giving prospective educators the opportunity to engage in a truly student-centred learning experience that encourages critical questioning and synthesis of theory and practice was an important experience for them and this was expressed.

"I think that what struck me most about the EBL was that you can see the simplicity of it is it's defining point because it can be used in any course but I think the mastery demonstrated was using it in a course about education that not only were we allowed to use EBL but we were allowed to use it in a course about teaching and learning. I think that way you were able to see more than just the one side of learning, we were able to research learning" (G1, 6).

"I thought the delivery by EBL was the cleverest thing about the course, I had no experience of it, or any idea as to what it was but it's been brilliant. The concerns about starting with something you don't know, it should be assessed all the way through, because the learning curve has been massive and it's really changed the way I feel and think about teaching, because I'm ashamed to say I really thought there was only a couple of ways of doing it and I thought I did it ok but it's really challenged the way I think about it and I'm much more likely to try different things which I would never have done. In fact, I don't think I can go back to how I taught before" (G3, 2).

The majority of students identified they felt their knowledge had developed but they also express a deeper sense of meaning, not just that they had read the theories but they had understood and absorbed the knowledge, a cognitive reframing, as reflected clearly in the quotes below.

"I've learnt so much, I can't even express it. There's so much in my head that I've not even processed yet which will take me even further" (G3, 1).

"My teaching, my clinical work, my whole everything has changed – I suppose developed is a word but it doesn't seem to cover enough of what I've experienced, the word developed is not enough, it's definitely beyond that, the thinking and knowing and how it's filtered through everything" (G6, 9).

"I didn't know what I wanted from this course. I didn't really know me I suppose as I came along in a rush as usual, without thinking. Without thinking and now I can't stop thinking. I can't even imagine not thinking anymore. I've moved so much of my thinking; about me, about my work and about everything" (G5, 11).

"Being part of the EBL and being in the group you do read and you read willingly and it wasn't forced. I felt uncomfortable initially as I felt it shouldn't be like this as I didn't think it should be enjoyable but when I discussed what we were doing with a colleague who'd done the course elsewhere I realised I was thinking about things much more and in a different way" (G1, 7).

What the students describe is all encompassing as their new knowledge has been absorbed into all aspects of their lives and has the transformative feature of a threshold concept. This goes beyond a conceptual shift to something more inclusive.

Another characteristic of a threshold concept is that it is integrative in that it exposes the hidden interrelatedness of the experience. This is particularly beneficial in relating theory to practice as the students integrate information and see a broader perspective. The majority of students indicated their appreciation of the linkage of theory to practice and practice back to theory.

"I think teaching is something that is done, or something that you do to or with students whereas learning is something you, or the student, achieves. EBL makes us learn about the nature of learning but then we have to put that into practice so

it's also the applied nature of EBL that really helps, it makes the theory and practice intertwined" (G6, 7).

The majority of students expressed appreciation for the applied nature of EBL and that it reflected practice there is also recognition that EBL is not reducible to a teaching tool.

"It is so useful because it's not, you know, just a teaching tool or assessment, its one big experience that affects you in so many different ways that actually mirrors professional practice in lots of ways" (G2, 1).

"What I've really appreciated is the way we can apply what we learn immediately to our practice. When I read about stuff, I'm constantly relating it to what I do and when I bring it back here to discuss it we always link it to practice" (G4, 9).

The threshold concept feature of irreversibility is demonstrated by the fact the students express feelings of an internal change or not being able to revert back to how they were.

"I think it has caused an automatic internal change because it has totally changed my perspective. I just found myself thinking differently, I found my teaching was different: my previous focus was typically classical teaching and the EBL has helped me appreciate the true value of teaching and that's what this course has done for me and I am responsible" (G1, 8).

"It was bewildering at first, totally, but through the bewilderment came a wonderful dawn, a dawn of knowing, I felt an almost Epicurean tranquillity and knew my thinking had moved, not just moved, but moved profoundly" (G6, 2).

This suggests significant movement in the students' views of learning and teaching and of themselves as educators. When the students were considering the nature of EBL as a whole, some students countered the statements made that suggested the EBL experience was overwhelming.

"I disagree, it's not like freefalling, and I think we've had freedom, total freedom to explore what we've wanted to know but it's been set within the parameters of the course. We've all seen and worked towards the learning outcomes, although it's not really felt like that. It's like being a sheep in a flock with a sheepdog herding us although maybe that is too directive for a true analogy but what I'm trying to say is we've had the freedom to move around but we've always known where the boundaries are and if we push against them, we've been nudged back, not led back but made to go back until we get to where we need to be" (G5, 12).

This statement suggests the students have felt there were boundaries and whilst the EBL process allowed them freedom to explore concepts, those concepts were prescribed as part of the programme.

Universal to all responses about experiencing the process of EBL was the feeling of initial anxiety when commencing the PGCE due to what one student identifies as deconstruction.

"I don't think you realise, well I might speak for myself but I don't think I do, how much deconstruction of what you think you know occurs, and I didn't realise how much it would affect me. I thought it would be just something on the outside. Learning and teaching isn't everything I do, I'm a practitioner first but it did, it deconstructed what I thought I knew so much it affected everything; me personally and my own development and my internal processes" (G2, 2).

The majority of students however, expressed feelings of vulnerability and being exposed as everything they thought they knew was challenged.

"The course is a bit like, you know, you deconstruct so much of what you think you know about learning and teaching, I felt so exposed, as if I'd been a fraud for all those years" (G5, 3).

Most students identified that the anxiety around the uncertainty that was a necessary part of the learning.

"I think it was all just part of it, I think it's something you just have to go through, there was an element of uncertainty and there was a moment spent thinking, is it necessary. The sort of nervousness in the initial weeks thinking what's this all about then, in retrospect was all part of it and necessary and you wouldn't change it" (G1, 1).

Some of the students understand what they had to go through. Without reference to Meyer and Land's (2003) work on threshold concepts one student used the word troublesome.

"The all-consuming nature of it though is troublesome" (G2, 4).

In this exert, the student describes the experience of the responsibility for others learning as troublesome which highlights the difference between what is taught in the classroom and the reality of practice; it was the notion of accountability that this student felt troublesome.

Considering the nature of the process of EBL and the experience of this as portrayed by the students, the diagrammatic representation on the next page (table 6) suggests the relationship between how the experience of EBL is perceived and the features of a threshold concept which reflect the nature of EBL as a process of learning.

Portrayed experiences	Nature of EBL/features of a threshold concept
Shift in thinking Life experience	Transformative
Theory and practice integrated Applied nature of experience	Integrative
Permanent internal change Not going back	Irreversible
Boundaries	Bounded
Deconstruction Vulnerable, exposed, anxious Bewilderment Movement	Troublesome

Table 6: The relationship between the students portrayed experiences and the nature of the process of EBL aligned to the features of a threshold concept described by Meyer and Land (2003).

The majority of students expressed the process of EBL was fundamental in their knowledge development (epistemology) and their sense of being (ontology).

"The EBL process was indescribable really. The amount I learned and the amount it changed me is difficult to say but I feel deep down it has truly moved me. It has inspired me to be better and it's made me want to learn and learn beyond what is expected and to be creative and experimental… you know what, it's given me my freedom" (G2, 2).

"The change in me from experiencing EBL has been phenomenal. Everyone's commenting on it as I'm so enthusiastic and motivated. It's changed me to the very core of my being" (G5, 5).

Barriers to engagement with the process of EBL were identified by a few students.

"I thought there would be more structure, a taught bit then an enquiry. At first I found it quite stressful as I spent time worrying that we were not on the right track, it makes you nervous as you don't want to waste time discussing something that's not relevant, it's the uncertainty, the constant 'are we there yet?'" (G4, 10).

"The lack of structure, or what feels like a lack of structure makes you anxious, you can go down a blind alley and it's the facilitation that's important and learning to trust the process, it took a while to get that" (G6, 6).

Another identified barrier was their perception of the programme and what it entailed before commencement. A few students stated they would have appreciated more information at the start of the programme.

> "I was really surprised with how deconstructed I became, maybe we need to know more about it in the beginning" (G2, 2).

This has potential implications for the preparation of students who come onto the programme. For the few students who did perceive lack of structure as an issue, it manifested itself in different ways. The most marked reaction was that two students left the programme citing the EBL philosophy as the reason for leaving. This has implications for me as programme leader as this could reflect adversely on my leadership and for the University as attrition is penalised. However, the exit interview account indicated the students questioned their motivation and appropriateness for the programme.

Summary

The majority of students spoke of developing new ways of viewing themselves and their practice through the nature of the EBL process. The experience of the EBL process appears to lead to new understandings of the embedded and contextual personal learning by exposing students to one another's thinking and practice. It has been identified that the students experienced the process of EBL as troublesome, integrative, irreversible, bounded and portrayed experiences that equate to liminality which, suggests it has the same properties as a threshold concept. The barriers to the engagement with the EBL process were considered as students often struggle to grasp the concept although nearly all the students identified they engaged with it before the end of the programme.

Research question 2: Influences of a community of practice on development

This section will discuss the findings in relation to the students' experience of a community of practice and its influence on their development as an educator. The findings will be related to communities of practice; the domain, the community and the practice (Wenger, 2006) and considers language and mimicry as outlined by Meyer and Land (2005) in relation to learning within a community of practice as a potential barrier to learning.

Communities of practice

Wenger (2006) outlines three characteristics of a community of practice; the domain, the community and the practice. The domain suggests a shared interest that sets them apart from other communities or groups. The majority of the students spoke of feeling unique.

> "I think we are special as a group, we are so much greater than the sum of our parts and we have developed our own unique interests" (G3, 8).

One student described this as feeling distinct from colleagues who had studied the PGCE at a different university.

> "…but when I discussed what we were doing with a colleague who'd done the course elsewhere I realised I was thinking about things much more and in a different way" (G1, 7).

The community that was created provided an environment in which students could stand back and extend their thinking and teaching practice.

I've really appreciated the enquiry, the EBL and how it has made the group, what this group has bought and what I've appreciated is you can learn so much from the group. It has really helped me to achieve much more than anticipated" (G1, 8).

"Other modules you expect something from the lecturer: for them to give you something; here we expect from the group and ourselves. I think it has increased my confidence as a teacher and a learner" (G1, 8).

"You can have discussions with your peers which you respect through the community we develop as a group, which is liberating because I can be quite cocooned in my thought processes" (G1, 6).

Finally, the members of a community of practice are practitioners. The majority of students identified how much they valued being practitioners, despite representing diverse clinical backgrounds.

"The fact here we've been recognised as expert practitioners and our knowledge has been respected has made all the difference" (G1, 5).

"I've been reading about communities of practice and that's what we are, the best bit for me is sharing ideas about practice, not just being able to share problems around teaching and learning out in practice but being able to share about teaching and learning, full stop and practice, full stop. I've learnt so much from you all" (G3, 10).

The group or community of practice is influential in the students' development and the groups became very supportive group with a degree of amicable competitiveness which meant they strove for excellence which impacted on the other group members, enhancing their developmental progression. All of students identified they appreciated the fact the members within the community of practice were from difference clinical backgrounds and different organisations as it enabled them to share practice.

"I can't describe it very well but it's the combination of the process and the group. Being in a group with other experienced professionals from different Trusts raises your game, you want to be credible yet the group is very supportive. I think there's a lot about who we are, we're determined to do well but also support each other" (G2, 3).

"Each of us will develop differently and reach different goals and objectives, it encourages us all to develop in our own way and develop personally, it has a lot to do with the group processes. It also helped that we are all from different practice areas and Trusts as it's been really interesting to know what each Trust does in relation to training and development. I think you get sharing with groups anyway but with this process the group is more powerful than what I've ever experienced" (G6, 2).

This could give rise for concern if the group dynamics created tension or impacted negatively. One student identified their concerns about this potential.

"A criticism of EBL, or really group learning, is that it's dependent on the group. If you have a poor group then it's not as rich. One of my concerns was I know how I work and I know how I think and I wasn't sure whether my style would be tolerated within the group yet what surprised me was, knowing how groups work, I thought it wouldn't be successful but it quickly became apparent everyone was contributing to the group and actually the group has become the key function and the best experience" (G1, 6).

There is a sense of surprise from this student that they fitted into the group however, there is a significant amount of time invested in setting ground rules when the group begins on its journey.

One of the most significant aspects of language in the interviews was the use of the word 'we', the groups all described themselves collectively and the word 'we' became part of the students' language.

"I think of all the things we've learned about learning and teaching we've actually experienced all that through this process and having shared things with each other. It has true resonance and will not be forgotten. All the theory we've learnt, we've experienced and how knowledge is constructed and embedded, it makes it more meaningful" (G1, 7).

"The group or community has been so important to us, we've grown so much together, the sharing of our knowledge, experiences, views, values, beliefs, attitudes… It's as if we've morphed into one homogenous being" (G6, 2).

One student identified the power the group had on their experience.

"On a personal level I have never felt or been made to feel, by this group, as a black African woman. Every person in this group has seen me as a person and I was quiet to begin with as I didn't think I had anything to offer but you made me feel, that although I am from Africa, my head is not empty and I have value and experience" (G1, 8).

This clearly identifies a sense of belonging which is central to group dynamics. The majority of students experienced a conceptual shift in their understanding of what it meant to be an educator through the experience of being part of a community of practice.

"I thought being a teacher was just, you know, sharing what you knew, giving out information, but it's not. I've realised through the group work that I am responsible for everyone else's learning, not just my own. This was really scary and a pivotal moment for me" (G5, 5).

"Being part of the group has turned everything on its head for me. I thought I knew about teaching but I didn't really appreciate the complexity of it, or the nuances that exist between what is teaching and what is facilitating learning. Being responsible for the groups learning made me see so much more and a different side to what it means to teach" (G6, 8).

"You made us responsible for each other's learning and it was really interesting because you couldn't just go away and not do any work, you had to know what you were on about because we had to bring it back and share it. It made me realise I was responsible not just for my learning but for everyone else's" (G3, 9).

The students have demonstrated a shift in their thinking about the purpose of teaching and are beginning to accept responsibility for being educators. This is a key developmental stage and the students go through this phase at different times yet by the end of the programme, most of the students have moved their thinking and practices towards a more facilitative view of learning from being part of a community of practice.

Language and mimicry

There are barriers to learning within a community of practice and one that was of concern was what Meyer and Land (2005) describe as mimicry although in their work this is not depicted as unique to groups however, I believe it is easier to use mimicry within a group. There was clear evidence that some students struggled with the process compared with others.

"It took a long time for me to get it, others seemed to just intuitively know and I was scared, scared of being left behind as I didn't get it but I didn't want to appear thick in front of the group so I pretended, and used fancy words. I've got it now, I think, but I felt I had to work harder and I'm not confident with it yet" (G4, 10).

"I have to confess I didn't really understand half of what we explored in the beginning. I was terrified of having to discuss and debate what we'd found in case I was challenged as I didn't really know it. I spoke to ____ and she felt the same so we went to see ____ and got reassurance, we were ok, we were getting it but we felt we were slower and couldn't let the rest of the group down" (G5, 6).

The students above struggled with the concepts presented to them but they articulated they felt they understood eventually. For one or two students they communicated a feeling of epistemic development but this was not always congruent with their behaviour within the group.

> "We all talk of it being transformative and I agree, it's changed the way I think about teaching. I'll definitely be a better teacher now as I know I have to involve the students more than I did before" (G5, 1).

The impression communicated above is that whilst the student has used the words the group used e.g. 'transformative', the subsequent sentence implies a more basic understanding. The student will be a better teacher as they will involve the students more but this does not necessarily imply a perspective transformation on education.

One student talks of the need to accommodate group members but by accommodating the group it led to feelings of inauthenticity as the student was merely acting for others and not for themselves.

> "I did enjoy the group work, I saw it was important and it is an important part of the EBL but I think I prefer to work or should I say learn alone. As a group we've had challenges and this made me feel like I wanted to retreat into my shell and be on my own but I had to get on as it was part of what we had to do" (G4, 10).

Another point of interest in terms of challenging a community of practice is whether the learning through a community of practice had any impact. The following student questions whether they would have achieved the same outcome working as an individual.

> "We've gone back into our respective areas and tried to make a change but is that us as a group, or me as an individual or is it the course? The other masters

courses I've done haven't led to a change like this so it must be something, maybe I'm a sceptic and I'm not convinced" (G4, 5).

Summary

This section has presented the findings on the impact a community of practice has had on the students' development. Each aspect of a community of practice has been considered; the domain, the community and the practice. Barriers to personal development within a community of practice have also been represented by presenting the findings relating to mimicry.

Research question 3: Transforming views, an ontological shift

This section will present findings on the students' perceptions of transformation to identify if the EBL experience leads to an ontological shift and the influences the students perceive as important in transforming their views.

The experiences of transformation were articulated alongside the students' motivating factors for undertaking the PGCE however, it did not seem to affect the outcome or their engagement with EBL, the community of practice or subsequent transformation.

> "Well it sounds awful but I had no expectations of it when I started because we'd been sent on it, in a manner of speaking, because we had to show we were educated to Masters level so we thought about what would we not mind doing and I suppose teaching was the obvious one, so we had a really low expectation of it and it's been brilliant. To come into something that you didn't think you were going to learn and end up changing everything you do has been amazing. To look at things from different perspectives" (G1, 1).

For a few students who were intrinsically motivated, there was a higher level appreciation of the process and their narratives of transformation were perhaps more profound.

> "I chose to do this course just to advance one area of my practice but it's actually helped to inform all areas of my work and it's given me confidence to lead professional development in my workplace. But I wonder whether that's about me as a person? It wasn't called on when I started the course, there was no expectation from the Trust for me to do this but I have come back, repeatedly, because I've been so interested" (G2, 2).

Most of the students on the PGCE spoke of transformation.

> "I like the word transformation, that's what it's been for me" (G5, 3).

> "I have drawn so much from the EBL process and I think 90% of my learning has come from this as it's motivated me so much and completely changed the way I think, it has transformed my practice so completely" (G1, 8).

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"It has been the process that's been the most interesting thing for me. The EBL process in itself is what has changed everything, not just my teaching and learning but the world as a whole" (G1, 4).

"Learning is not just about growth of knowledge it's about growth as a person and we all have our own stories of transformation from this course" (G1, 1).

This suggests a significant movement in the students' views of knowledge around learning and teaching as well as the integration of this knowledge into a deeper personal growth. The majority of students use transformative language and express feelings of an internal change or not being able to revert back to how they were and implies an ontological shift.

"By doing it this way it's about thinking it through to an extent that you never go back. And that's why I think it's different and better because it's got a permanent change and I think even when I've finished it, I will be reading because it awakes an interest in something that a different form of teaching wouldn't" (G1, 1).

"Because obviously my thinking has changed through this programme, it has been a very difficult time for me… once you've been liberated by knowledge you can't go back" (G1, 8).

A few students spoke clearly of an ontological shift in which they expressed a clear integration of their new knowledge into their consciousness.

"I can't quite describe the change in me, we were talking about it last week over coffee and we felt the same way. It's as if getting to know the knowledge in the way we got to know it has somehow transfused itself into our psyche and it's become so much more" (G3, 12).

"The process of learning has been so fluid it's as if it has seeped into every pore and changed everything, my values, beliefs, so much more than just teaching practice" (G6, 9).

This process was significant for many of them in re-evaluating their previously held views.

"I don't know; no other course has transformed me in a way that has made me go back and want to change things or see things as unacceptable because you see them differently" (G2, 4).

"I feel responsible, accountable if you like, not just for the learning here in the group but for spreading the good word or the 'gospel' about my new views on learning. It needs to be shared, not just with my students but with my colleagues so we're not subjecting any more students to 35 PowerPoint slides thinking we're educating them and getting cross when they text or fall asleep at the back" (G4, 9).

They had to develop an alternative frame of reference from which to view their new knowledge. This different frame prompted critical reflection into many different parts of the students' lives and their perspectives were decidedly shifting. Interestingly, some of the students spoke of a feeling of accountability.

"I believe that I have become more open-minded and aware of the "big picture" even with ideas I don't agree with. I just feel I've become more accountable for my thoughts and actions" (G4, 9).

"What's been really strange to experience is a sense of importance in my role. Before I viewed it as quite technical, operational I suppose but now I see it differently and I can see my responsibilities more clearly and I can't sit back and carry on as I was doing. I need to take ownership of my practice and act accordingly" (G3, 10).

Influences

The students' spoke of what they perceived influenced the transformation. The majority of students identified the EBL process as the key influence.

"The main thing that moved my thinking was experiencing the process of EBL, being allowed to explore all corners and all avenues really opened up the mind to lots of different possibilities. I think by opening up you allow transformation to take place. If you remain closed, nothing is going to happen" (G5, 8).

Others suggested it was the group that influenced the transformation, although as the group is integral to the EBL process it is less clear which is the fundamental influence.

"The group work was the most influential thing for me. It was being part of a bigger being as it dragged you along or chivvied you up when you were lost or down. It also showed other ways through the complexity of things, we could draw on each other's experience. It was the group that made it more for me" (G2, 3).

Summary

This section has presented the findings from the students around their perceptions of transformation and ontological shifting. Initially, the findings indicated that motivation was associated with transformation although it did not have a significant impact on the outcome. The students' narrative around transformation produced an unexpected factor in that it created an increased sense of accountability. Finally, the perceived influences that enabled transformation or ontological shifting were described.

Research question 4: Leadership qualities and emerging leaders

This section will present the findings from the students' narrative around the development of leadership qualities. The findings present the start of the process of development and go on to seek to identify the growth of self-identity and self-belief as leadership qualities and the students' perceptions of themselves as emerging educational leaders. Evidence around the exposure, engagement and enactment of leadership is also presented as a follow on to the emergence of leadership qualities.

Self-confidence, self-identity and self-belief

The feelings of exposure and vulnerability experienced during the time Meyer and Land (2003) refer to as the liminal space appeared to be the catalyst not least in their transformation but also the development of confidence. The majority of students appear to be deconstructing as they enter the liminal space where feelings of uncertainness prevail.

> "I can't believe how I felt, I felt so unsure of what I knew, everything seemed so complex when I didn't think it should, I felt like a novice, as if I was 16 again and new nothing" (G3, 7).

> "It felt as if I was driving into a big black tunnel with no light at the end, I knew I had to go into the tunnel to get out the other side and I knew everyone would be there to help me but I was still scared" (G6, 10).

> "It was white-knuckle, an adventure, a voyage of discovery – at last! Everything's seemed so boring recently, this was just what I needed" (G4, 12).

Whilst some students embraced this challenge with relish, others felt more cautious but accepted the uncertainty as they perceived it as necessary for growth. This was in contrast to the narrative from a few students.

"I had no idea how much of my life would be involved with this as I've done other Masters modules and courses that haven't impacted in the same way that this has, I found it very challenging and it made me nervous of my teaching, I was questioning everything and it was uncomfortable" (G4, 5).

The majority of the findings around leadership qualities centred on the narrative from the students around self-confidence, self-identity and self-belief.

"The programme was a confidence roller coaster. I had fleeting moments of feeling confident then spent a great deal of the course feeling overwhelmingly under confident, despite the constant reassurances that what we were doing with the EBL was okay but it wasn't about the EBL, it was about me as a person, the EBL just triggered something. I thought I was a confident person but this made me question my ability and competence as a teacher, even me as a person, or does that sound too pretentious? I'm not sure I can say what I want to say very well, sorry" (G6, 6).

One student described grappling with their newly constructed knowing and how it impacted on her self-belief and consequent identity.

"Because obviously my thinking has changed through this programme, it has been a very difficult time for me in my marriage and we are now on totally different wave lengths and I am trying to bring myself back to his level and I just can't. Once you've been liberated by knowledge you can't go back as I believe in myself and I believe in what I can do and he doesn't. We need to find new ground so we can move on together. This whole thing has made me rethink everything and I think all of us are looking sideways for new things" (G1, 8).

Some students spoke of how a sense of knowing themselves better had given them greater confidence although there is an awareness of the fragility of this new confidence.

"Because I seem to know myself better somehow after doing this course I have greater confidence in my abilities and believe in myself more. It's still quite a new feeling and it hasn't been tested yet but I feel ready to take on more and stick my neck out at work and try to improve the training" (G3, 3).

One student described the integration of the experience as the key component that changed their thinking and practicing and developed their self-belief.

"I was reading a quote the other day by John Locke about how reading furnishes the mind with the materials of knowledge but it's the thinking that makes it ours. I can relate to that but it's also the experience of it that's really important. I think the experiencing of it makes us more aware of it so we integrate it more and it is this bit, this bit of true knowing that has made me believe in myself as an educator and a role model or a leader even" (G2, 2).

A few students identified that leadership was an expected outcome of the programme although they related this to the competence aspect as the leadership element was within the prescribed domains set by the regulatory body.

"What's interesting for me is before I started this course if I'd looked at the leadership domain within the NMC standards I could have tick boxed all the criteria and yet I wouldn't have been an effective leader. You can't tick box it. It's about how you conduct yourself and how you are as a person and this programme has increased my awareness of this so much and there are unfortunately, many people in senior positions out there and all they have to do is tick boxes to prove they're a leader and yet you don't respect them, they're not role models for me but I think I have the confidence now and the self-belief that what I'm doing is right to strike out on my own" (G6, 10).

Emerging leaders

All the students reported they were sharing their new found knowledge with their colleagues or students back in their workplace. They stated they felt responsible for this sharing and that they felt they were leading their peers and students to engage with the professional literature and consider improving practice. Some indicated that after reflecting on their educational practice they had begun to seek advice and feedback about their performance in order to improve and assess their effectiveness as educators. This suggests a change in their professional behaviour.

Broadly the responses on the experience of EBL are in agreement with the findings of the literature review and there is a strong emphasis on the effect transformation has on the students and this effect seemed to elicit leadership qualities.

> "I think EBL is becoming more significant, especially in my field of psychiatry but it is not widely used as yet and now I feel I am at the vanguard so to speak so just to be there when it's starting to be introduced adds so much more resonance" (G1, 6).
>
> "We are champions for practice education having had a positive learning experience and the confidence that brings" (G1, 1).
>
> "Not just students but practice based staff, I've been able to get on with them and lead them in some ways that I would never of had the confidence without this course" (G2, 4).

The students are exposed to leadership and there is a sense they are engaging with their new roles as educational leaders with some inference to enactment.

Some students had difficulty articulating what they perceived as leadership qualities which is expressed by this student.

"I didn't think I was a leader perhaps until I did this course. Because I never went into management, I didn't think I was a leader. But now I see things differently and feel that I can lead but I don't know what it is that makes me think that now, I don't know what's changed other than I've learnt about learning and teaching" (G6, 3).

"I know I feel more confident somehow, I mean not massively confident, just quietly so as I feel I have the knowledge to defend myself and what I do if I were challenged. Is that leadership? Standing up for what you think is right, for what you believe in?" (G5, 12).

As mentioned in the findings relating to transformation, there was narrative around accountability and this related to the engagement and enactment of leadership qualities and a sense of frustration and perceived lack of leadership within their professional and within their organisations.

"Well we all know what's been in the press recently and it frightens me that no-one takes responsibility or is held to account. Where's the leadership? Again it's the frustrating culture of end competence and tick boxing, nobody seems to look at the bigger picture and I do now and I can see as an organisation it has issues. No-one is motivated to do well as there's no sense of pride in their work as no-one focuses on them as individuals or their individual learning needs that would improve them. All the staff will be up-to-date with their mandatory training, they'll all have had their boxes ticked yet they're not performing as they should. It's depressing and yet I want to get in there and make a difference, I feel I can now and feel I would be a positive role model" (G6, 10).

"It just seems to me that the NHS view of education is so limiting, these KSF's are all about showing you can do your job but the bit on development is ignored and it should be the major part of it, I mean the KSF is supposed to be a framework or structure for development and it doesn't exist. It needs to be changed and I suppose we're the guys for the job?" (G1, 7).

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"But sometimes you look and there is a formula but there's a rigidity to that formula, you think of the KSF and it should be good but it ends up as a tick box exercise which should work but nobody looks at the latitude within the gateways. You won't get uniformity as what you do will be different from person to person yet this is not allowed. Where's the innovation? Where's the individuality? Where's the accountability? Where the hell is the leadership?" (G1, 6).

Whilst the majority of students articulated their grasp of the complexities of leadership there were a few students who did not appear to fully engage with what Belenky et al. (1986) describes as real talk. An example of this is expressed in a seemingly confident statement.

"I've been accused of being too challenging back in practice since doing this. That's what confidence to challenge can do." (G5, 8)

This student stated they felt more confident and expressed it through being challenging but there was no sense of purpose to what was said and this statement was brandished or announced in a manner that suggested the student was not confident but did not want to be challenged. Whilst they had acquired new knowledge, it perhaps was not embedded or integrated enough to give the student the confidence to express their real feelings.

In contrast, some of the students interviewed were expressing more open views, including feeling liberated and wanting to try something new, wanting to engage with leadership.

"I just feel liberated, I don't know what I'm going to do now and I don't care. I really just want to reflect on what I've been doing and why I've been doing it. I want to make sense of what I think I know now, although I'm not sure of what I know anymore. I've always felt so, like my life, or career has been planned, I've always done what was expected of me and now I want to look at different things, it's scary but it feels good, a time to prepare for the future" (G3, 7).

This student describes being part of a system and doing what was expected. Although they talk of uncertainty about what they know and the future, they are seeking to think and explore outside the system and there is a sense that they are considering leadership.

The majority of the students viewed themselves as leaders of their own learning as well as practising the skills of leadership when learning within the community of practice and this allowed an exposure to leadership.

> "I never really thought of it before as other courses I've done I've not felt in control or that I've really had anything to do with it but with this course I've felt I've led my own learning and I've been in charge. I've also felt that we're all leaders within the group as we've all led by example and taken on areas of responsibility throughout the enquires" (G3, 8).

Approximately a quarter of the students went on after graduating the programme and took on leading roles in education which indicates engagement with and enactment of leadership.

> "What I've done is look at different things and look at those things differently, I was taken on because I was forward thinking and I was able to lead on learning and teaching despite my lack of experience. Colleagues have approached me about it and I'm the new girl" (G2, 2).

> "My expectations of myself have increased because I've become more self-confident and realise the opportunities that I have before me. I wasn't looking for a new job but just knew I had to do something" (G6, 9).

The students that took on new roles generally expressed surprise as they had not anticipated moving jobs as an outcome of the programme or the experience. One student questioned whether it was anything to do with the programme or about them personally.

"I've taken on so many roles that weren't called on because of my personal development after this course and I wanted to make a difference, but is that about me as a person? Or is that about EBL? If someone else from my work place did this course, would they have done the same? Would they have thought oh I know, I'll do this, this and this?" (G2, 1).

For those who did not take on new roles, a further quarter of the total number of students expressed that they believed they were beginning to think of themselves as leaders and were proposing engagement with leadership. There was evidence of role confusion for some students who recognised themselves as leaders in their clinical role but not in their educative role and this could pose a barrier to educational leadership development.

"Well being a clinical nurse specialist I lead a service but I don't think of myself as an expert or leader of education" (G4, 1).

The reduction of leadership as a concept to leading a service was of interest as it alludes to the somewhat technical approach to leadership that is perpetuated within the NHS.

Summary

This section has presented the findings in relation to the development of leadership qualities by firstly identifying the students' growth in regard to self-confidence, self-identity and self-belief. The narratives that suggest the students are emerging as leaders have been included to provide a picture of the overall development of leadership qualities although there is recognition of conflict with their perceptions of their clinical role.

There is also evidence of the students beginning to engage with educational leadership in practice and in some cases, there was evidence of enactment of educational leadership, specifically in relation to the students who had taken on new roles as a result of the programme.

The following chapter will discuss the findings and each research question will be considered in relation to the findings drawing on the literature to inform the discussion.

Chapter 5: Discussion of the Findings

Introduction

This chapter provides an analysis and discussion of the findings identified in the preceding chapter. Each research question is addressed in turn integrating the findings with the theory identified in the literature review to frame conclusions and implications which are addressed in chapter six of this study. This integration will indicate the new knowledge gained in addressing the research questions and to outline how this research can contribute to the development of leadership qualities through a transformational learning experience by presenting a framework illustrating how EBL as a threshold process engenders the development of leadership qualities.

Research question 1: The nature of EBL as a threshold process and epistemic development

What is the nature of an EBL experience? To what extent may EBL be considered a threshold process? To what extent does it influence epistemic development?

This section will explore the students' experience of EBL and to what extent it may be considered a threshold process. The focus of the discussion of the findings around the EBL experience and Meyer and Land's (2003) threshold concepts will study issues central to EBL, threshold concepts and explore the properties used to describe threshold concepts in order to understand or make sense of the complex nature of the learning process in order to address the research question.

The EBL experience

The EBL experience was undoubtedly challenging for the majority of the students yet the students speak of their experience as transformative (Cousin, 2010; Meyer and Land, 2005). Crabtree (2004) notes that students may find the tension resulting from the open-

ended nature of an EBL experience too challenging whilst others enjoy a sense of freedom when learning (Jackson, 2003).

Cross (1999, pg. 262) notes that in developmental theory, the periods of greatest personal growth are thought to lie in the unnamed and poorly-defined periods between stages. From this statement it can be proposed that it is the learning and development between the stages that are the most significant and this would signify that it is the process that is important rather than the outcome (Timmermans, 2010). As identified in the literature review, a framework for epistemological development such as proposed by Perry (1970) and Belenky et al. (1986) implies educational development as an entity rather than a process and does not recognise the fluidity that is an essential aspect of development. Meyer and Land (2005) refer to oscillation within a liminal space and this more clearly represents the fluid nature of development. From this study it is clear there is common ground in the students' experience of the liminal space (Land et al., 2010; Meyer and Land, 2005; 2003) as the terms they use reflect the notion of feeling lost in the liminal space as they deconstruct, absorb new knowledge and reframe their perspectives (Mezirow, 1978).

As presented in the findings, one student commented that 'it's one of those prized occasions where the process has been as rich as the end result (G1, 6)'. This implies that the student has experienced more than the outcome of achieving a PGCE and indicates the process or movement through stages of development, and Cross's (1999) development between the stages.

It is clear from the findings that the students embraced the EBL and began to think and practice as educators; it involves entering the liminal space to deconstruct existing knowledge before reconstructing new knowledge (Meyer and Land, 2005). This was anxiety provoking for students who had succeeded up until this point with relatively

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dualistic views (Perry, 1970) of giving the teacher, as the authority, what they considered 'the right answer' and in replicating it without thought or challenge as described as ''I've never really struggled before with learning, I can churn out essays and pass exams but this has been something else'' (G5, 8). The students shifted from their perspective of how they think academics wanted them to think (Perry, 1970) which was constructed through their own experience and that of others, in an attempt to integrate knowledge that they felt intuitively was personally important; they talked of integrating objective and subjective knowledge (Belenky et al., 1986). The process of EBL enables the students to learn from and about their teaching practice and enables their development as an educator. The process involved experiential knowledge, conceptual knowledge and a strong emotional dimension as the student identified with both the subject and their perceived capabilities.

As mentioned previously, teaching is not their primary area of professional practice and this creates further complexity. As part of being a professional they are required to facilitate students and others to develop their competence (NMC, 2008) and there is an implicit expectation that professionals can do this with little recognition of the fact teaching is a profession in itself. Whilst the concepts or theories of learning and teaching may not appear to be considered troublesome, they are in a sense alien (Perkins, 1999) to healthcare professional students who generally teach as they were taught (Distler, 2007) which was articulated by the students when they described their concerns regarding their previous teaching practice. This creates a duality of troublesome knowledge which has not been considered before as not only are the concepts or theories of learning and teaching troublesome but the process by which they are learnt as part of the process of EBL is troublesome. As the students wrestle with this duality, what appears to emerge is a holistic view of learning which is illustrated by this extract.

> "I began to see everything as a whole, not in isolation. It wasn't just about being a
> teacher and imparting my clinical expertise, it was about motivation and learner

engagement and the fact I was responsible for that, not just teaching as an authoritative figure – the expert. If I want my students to learn, I have to engage them, not just give them stuff, make them engage" (G6, 1).

The students view their learning and their learning experience holistically and somehow the EBL process enables them to contextualise their experiences, grounding their learning and thinking in professional healthcare practice as well as professional teaching practice as supported by Jackson (2003).

One student described the experience of the EBL process as getting on a bus without a driver and the other students enjoyed this analogy and explored it in relation to their learning and can be related to the features of a threshold concept. The student claimed on their previous courses of study the teacher had been the driver and took the learner from A to B, highlighting various points of interest on the way and explaining the relevance of the point of interest (imparting knowledge) before finally arriving at destination B as the point of learning. Here the learner disembarks having engaged in a journey and here the students' spoke of what the learner would look like or know. They discussed the knowledge acquired through this journey and articulated it would be dependent on whether; the learner listened to the teacher as they highlighted the points of interest on route (absorbed the imparted knowledge), if what the learner heard had any relevance (perceived application of the imparted knowledge), if the learner engaged in dialogue with other learners on the bus about the points of interest (sharing knowledge) or if there was any point or relevance to the learning on arrival at the destination (assessment of knowledge). The route is potentially insignificant as the learner has no requirement to remember the route as they are driven by the teacher. The students felt this description reflected a surface approach to learning and ignores deeper learning when knowledge can be applied to real-world situations (Rowland, 2006; Price, 2003).

In the case of an EBL experience, the learner gets on the bus with other learners. The teacher is on the bus but does not necessarily drive it and encourages the learners to consider their destination, although the group who created the analogy recognised this was pre-determined in the case of the PGCE as the outcomes are prescribed by the NMC and University. These readily prescribed outcomes can be associated with being bounded or as described by Meyer and Land (2003) as having 'terminal frontiers'. On working out how they are going to get to their bounded destination the learners have to pool their resources and knowledge in order to be able to; find the points of interest and reach the destination. The students felt this was the most troublesome aspect of the journey as it involves opening up, sharing experiences and operating as a community of practice. This relates to the troublesome aspect of a threshold concept as the experience is counter-intuitive to their previous experiences (Meyer and Land, 2003). However, each stage of the journey is potentially more memorable as the learners have considered what they need to get there, how they are going to get there, what they are going to do when they get there and why they want to get there. This relates to Belenky et al.'s (1986) reference to a midwife-teacher, a teacher who draws out knowledge with the learner as opposed to banker-teachers who deposit knowledge in the learners head.

The students identified the significant difference between the two buses; in the case of the non-EBL bus, the learners did not need to engage with the destination or how to get there whereas on the EBL bus the learners had to decide, collaboratively, their destination and how they would get there. The students felt this element could be considered as experiential learning as outlined by Kolb and Fry (1975) but did not want to pigeon hole the difference as merely experiential. The crux of the analogy for the students was the potential notion of the process of EBL being a vehicle. They discussed the term vehicle as suggesting transportation and the students' talk of transformation yet they grappled with the notion that the non-EBL bus would still transport the learners to a destination as the teacher would be driving (or driving the learning). The students argued that it seems to be

what happens on the bus that is the transformative component. The non-EBL bus teacher imparts information to the learners with the expectation it will produce knowledge for the learner which may be considered as conceptual knowledge (Rittle-Johnson and Seigler, 1998) or Benner's (1984) 'know that'. The EBL bus also generates conceptual knowledge through student discussion or dialogue (Wenger, 2006; Meyer and Land, 2005; Friere, 1970) as to where they plan to go and how they will arrive at their chosen destination, which is then integrated with experiential knowledge (Kolb and Fry, 1975) as the learners' experience driving their own learning and this relates to the integrative component of a threshold concept.

The students felt this would suggest that it is the discursive or generative component of conceptual knowledge as well as the experiential element of the journey that enables transformation (Meyer and Land, 2005; Mezirow, 1990) and is generated through the process of EBL. That said, the students identified many examples of programmes of study that involve conceptual as well as experiential learning and not all of these programmes would claim transformation. This may be due to the fact these programmes do not explicitly integrate experiential knowledge and conceptual knowledge which highlights the theory-practice gap (Webster-Wright, 2010; Brown and Duguid, 1991; Benner, 1984; Dreyfus and Dreyfus, 1980). The students related this to undergraduate healthcare programmes by suggesting the non-EBL bus would drop their learners off at a bus stop on route for them to engage in an experiential learning experience (Richards, 1992; Boud, et al. 1985; Kolb and Fry, 1975). The bus would then collect them and continue on its journey of imparting theoretical knowledge followed by another experiential learning experience or their final destination. Whilst the imparted knowledge may relate to the experience, they are not integrated and the learners experience them as separate entities. The students proposed this somewhat naïve analogy could represent the majority of healthcare programmes where the non-EBL bus is the university and the bus stop is

the clinical practice placement. This separation or disassociation accentuates the theory-practice gap.

This theory-practice gap relates to the discussion in the literature regarding the separation rather than integration of pedagogy when considering the troublesome knowledge encountered within a threshold concept. Gilvary (2012), Yip and Raelin (2012), Meyer et al. (2006), Meyer and Shanahan (2004) and Meyer and Norton (2004) all utilise constructivist learning theories to engage their learners with threshold concepts however, whilst the students may have a greater input into their learning, they are not taking full ownership although it is acknowledged that the majority of studies listed related to undergraduate students. In this study the PGCE students are learning about learning therefore, through the EBL, they are active in engaging with all the features of a threshold concept as they learn about learning through learning.

It is the realisation that they are learning about learning through learning that the students articulated as troublesome. This is highlighted by the majority of students who identify problems grasping the deconstructive nature of the initial process of EBL, as they share their knowledge and attempt to reconceptualise, they describe feeling lost and isolated (Land et al., 2010). This process can be likened to Perry's (1970) move from dualism through to relativism. In Perry's (1970) chart of development position one is basic duality which is described as embeddedness. Students move from simple to complex dualism onto relativism which is where they accept multiplicity finally through to a commitment to relativism with the ultimate goal of position nine as actualisation. The students' talk of deconstruction and the majority of students accepted this and grew to see it as a necessary part of the process whilst recognising the anxiety it creates.

Belenky et al's. (1986) separate knower is similar to Perry's (1970) dualistic student in that their views are narrowing and discriminating (Arnold, 1992). A few students expressed how challenging they felt the process was, the EBL forced them to engage with

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their learning in a way they had not previously experienced and they found it uncomfortable. In trying to move them from their dualistic or separate knowing perspective, it catapulted them into Meyer and Land's (2003) state of liminality. This is arguably the most critical part of the process. The groups became altered by their experience and the individuals within the group acquire new status and identity within the community (Meyer and Land, 2005). This however, can lead to what Meyer and Land (2005) describe as the humbling of the participant which relates to the exposure and vulnerability the students expressed.

This is the critical time for support from the community of practice and the facilitator to engage the students and enable them to progress through the vulnerable phase and reconstruct their knowledge. Meyer and Land (2005) refer to this point as critical to avoid the students becoming stuck in the liminal space. It is from this point the students begin to express their development and this is when the connected knower begins to develop (Belenky et al., 1986) as they are more expansive and inclusive as they begin to accept ambiguity and develop a more grounded view of teaching practice. It is important to recognise that deconstructing does not necessarily imply abandoning all previously held conceptions of teaching, the students carry on with their teaching practice throughout the programme although the majority of students articulated their teaching practice evolved during the programme.

It is interesting to note that a few students expressed under confidence in their ability to express themselves adequately. In contrast, some students did not appear to fully engage with what Belenky et al. (1986) describe as real talk. Opposite to real talk is didactic talk in which the speaker's intention is to hold forth rather than share ideas (pg. 144).

A minority of students expressed confidence but this was doubted and I believe it relates to Belenky et al's. (1986, pg. 127) talk around 'leaving the system' as well as mimicry (Meyer and Land, 2005). The student talked of development through the programme but

from observation during the interview, there was superficiality to the narrative, there was a lack of conviction in what was said. Belenky et al. (1986, pg. 127) describe those who rely on procedural knowledge as systematic thinkers as their thinking is contained within systems, this means they can criticise the system but only in the systems terms and only according to the systems standards. This student stated they felt more confident and expressed it through being challenging but there was no sense of radicalism, she was still situated within the system or had not reached the liminal space (Meyer and Land, 2005). In contrast, the majority of the students expressed views of frustration with the constraints of the system or of breaking out.

Belenky et al. (1986) and Mezirow (1990) encourage students to learn and to move outside the frames and systems provided to make their own frame. They move from constructed knowing in an attempt to reclaim the self, to integrated knowing and describe this as 'weaving together the strands of rational and emotive thought and of integrating objective and subjective knowing' (Belenky et al., 1986, pg. 134).

The difference between those who are constructed knowers who seek real talk and to 'leave the system' compared to those who retain a degree of procedural knowledge is significant. Some students engage with the EBL, the community of practice and appear to experience a degree of uncertainty and deconstruction but they choose what Perry (1970) describes as alternatives to growth, either temporising, retreat or escape. Temporising is defined as a pause whilst the student gathers themselves; retreat happens in the early stages and involves resentment at being exposed to alternative views and to the suggestion that authority can be challenged and finally, escape generally occurs during the middle positions and involves a deeper avoidance of personal responsibility known as alienation (pg. 198).

Perry (1970) talks of self-trust versus self-doubt and stresses the poignancy experienced when moving through the stages as the students previous experiences were grounded in

their absolute belief that what they knew was the truth. To let go for a less certain truth takes confidence and can lead to disorientation and self-doubt. The student who described feeling exposed and deconstructed went on to express her shock at her previous dualistic position and belief which is demonstrated in the following extract.

> "Scratch the surface and I didn't know anything, it was shocking. I was just repeating the practices of those before me, pretending to teach, thinking I was an authority when I wasn't. It wasn't a nice feeling the feeling of deconstruction, but it motivated me to learn and it made me want to change but also change the teachers around me, they needed to be enlightened as I had" (G5, 1).

The student articulated that she felt she was 'pretending to teach' and this demonstrates crossing the threshold of understanding from didactic teaching to facilitating learning. This process can be transformative, irreversible and integrative (Meyer and Land, 2003) but as the narrative reveals, it is also troublesome as they battle within the liminal space associated with realising a threshold concept when the concept is troublesome and they are forming new understanding. Students have to be able to cope with troublesome knowledge to venture beyond their safety zone as this is fundamental to their progression.

Meyer and Land (2003, pg. 1) describe threshold concepts as a way of opening up a new and previously inaccessible way of thinking about something and whilst threshold concepts are generally associated with discipline specific theories, I believe the experience of EBL is a threshold process as it has the outcome of a threshold concept which is to 'transform internal view of subject matter… or world view' (Meyer and Land, 2003, pg. 1). This has been described by the majority of the students as 'my teaching, my clinical work, my whole everything has changed' (G6, 9).

EBL as a threshold process

The students learn about learning through learning. Timmermans (2010) states:

'As educators and as disciplinary experts, we must consider that we may hold either explicit or implicit expectations regarding the 'appropriate' response or adaptation to the troublesomeness or discrepancy introduced by a threshold concept' (pg. 14).

This view is an interesting perspective as Timmermans (2010) has separated out the two roles of educator and disciplinary expert. For the PGCE students they have an education aspect to their role and are aiming to become educational experts therefore, the two roles cannot be separated. King (2004) suggests that teachers who are engaged as learners can discover how this may impact on their perspective of education as well as their practice. Experiencing and helping to produce new knowledge as part of the EBL process becomes as powerful as utilising existing knowledge. Being involved as a student and a teacher generates new knowledge and broadens the scope of thought and action.

The criticisms of learning through experience levelled by Kirschner et al. (2006) do not appear to affect the PGCE students although they do find the initial exposure to EBL problematic. The students' previous learning experience has generally been that they have been taught a body of knowledge rather than learning a discipline by experiencing the processes and procedures of that discipline. Kirschner et al. (2006, pg.78) warn that it may be a fundamental error to assume the pedagogic content of the learning experience is identical to the methods and processes or the epistemology of the discipline however, the PGCE students experience indicates that the pedagogic content was enhanced by experiencing the process of student centred learning. Kirschner et al. (2006) go on to warn that educators confuse the teaching of a discipline as inquiry or the research process within the discipline, with teaching the discipline by inquiry or using the research process of the discipline as a pedagogy. Despite the distinction between learning and practising a discipline, in the case of the PGCE students, the process is central to the discipline.

Meyer and Land (2003) speak of how threshold concepts lead to a transformed view and represent how students think in a particular discipline. The interrelatedness of experiencing a student centred approach when learning about teaching produces a powerful experience and has all the properties of a threshold concept as identified by one of the students.

> "What was particularly interesting was we got to experience learning whilst researching learning whilst learning learning, it took a while for it to dawn and a while for us to realise but when the light bulb went on, we could see it, we were right at the centre of our learning" (G2, 2).

Rather than solely delivering skills or content, they experienced an epistemic development and perspective transformation and developed a new way of learning which led to an ontological shift (Cousin, 2010; Belenky et al., 1986; Mezirow, 1978).

Yip and Raelin (2012) discuss their use of action learning sets as a suitable pedagogy to enable students to realise the threshold concepts of shared and situated leadership. There are certain salient features of action learning such as questioning and learning with peers (Revans, 1979) that are congruent with the EBL approach. Yip and Raelin (2012) view action learning as a pedagogical tool rather than a threshold concept. Similarly, Gilvary (2012) introduced EBL into an arts based programme where he placed the responsibility of learning onto the student. The EBL approach was successful and his conversation around threshold concepts was related to his reflections on the introduction and delivery of the programme via EBL rather than on the students' experience of the EBL process. However, Gilvary's (2012) paper on reflection as a threshold concept is the closest I have found in support of the EBL as a threshold process and links to Meyer and Land's (2005, pg.386) comment that 'we hope that the idea of a threshold concept will serve to operate, in itself, as a threshold concept'. Meyer et al. (2006), Meyer and Shanahan (2004) and Meyer and Norton (2004) focus on the use of metalearning as a pedagogical tool to enable students to engage with threshold concepts and claim when

students focus on how they learn whilst learning a threshold concept, their performance improves and enables them to grasp the concept more easily. However, despite all these papers proposing more student centred pedagogies to engage students none of them unite or integrate the pedagogy within the threshold concept and that is what emerged from the findings within this study. The students were learning about learning through learning.

From the findings and the literature, two key points were raised. Firstly, the PGCE students learn about learning through learning so it would seem valuable if the pedagogy and the subject could be explored or considered holistically as although these points can be considered distinct, in reality they both overlap as one is concerned with how the students learn and the other with what the students learn. Secondly, the EBL experience has all the features of a threshold concept yet the term concept does not embrace the suggested activity of a process. As discussed in the literature review, it is proposed that the theory building around threshold concepts focuses on a concept as an entity and this can miss capturing the ontological shift that is widely discussed by Meyer and Land (2005) and Cousin (2010). It was the PGCE students' narrative around the process that made me contemplate EBL as a threshold process in actively uniting pedagogy with the concept being learnt which enabled them to transform and integrate their epistemological and ontological development.

In developing a framework from the findings, I have conflated Land et al.'s (2010) relational view of a threshold concept and woven EBL through as an integrative pedagogy. This can be seen in figure 3 (page 168) which is presented and examined within research question four later in this chapter.

Summary

The discussion has aimed to extrapolate the students' experience of the nature of EBL and the majority of students have defined it as a process. The journey through the

process has been aligned to the theories of epistemic development (Meyer and Land, 2005; Belenky et al. 1986; Perry, 1970) in an attempt to understand how the learning process was experienced and how the stages of epistemic development were achieved. The findings suggest that students do move through stages of epistemic development and transform their understandings of educational practice as part of the EBL process.

Whilst the literature I reviewed on threshold concepts focuses on the content of a threshold concept rather than on the process (Yip and Raelin, 2012; Timmermans, 2010; Meyer and Land, 2005) and the delivery through constructivist learning theories separately from the threshold concept (Gilvary, 2012; Yip and Raelin, 2012; Meyer et al., 2006; Meyer and Shanahan, 2004; Meyer and Norton, 2004), through exploring the experiences of the students' journey through the process of EBL they have identified the properties of a threshold concept by describing their experience as transformative, irreversible, integrative, bounded and troublesome.

It has been identified that a noun-based approach to epistemology such as a threshold 'concept' could be considered inadequate for engaging with ontology since it is unable to capture its essence (Thompson, 2011). The word process is both a noun, which addresses the epistemological dimension, and a verb which addresses the ontological dimension therefore, the term threshold process more accurately reflects the EBL experience as an integrative and active pedagogy.

Research question 2: Influences of a community of practice on development

What influences does learning within a community of practice have on student development?

The research question seeks to extrapolate the extent to which the students perceive sharing their experience through a community of practice was important to their development. The findings indicate that learning through a community of practice was a key component of the students experience of EBL and that it enhanced their educational development through collective knowledge building above what they anticipated by individual endeavour alone. The community element of a community of practice suggests the group works towards the same interests, members engage in joint activities and discussions, help each other, and share information (Wenger, 2006). The EBL process revolves around functional group dynamics and the fostering of an appropriate environment in which co-operative learning can take place (Kahn and O'Rourke, 2004).

The students clearly articulated that the knowledge developed through the community of practice exceeded their existing knowledge and the knowledge they expected to gain by engaging with the programme. This is supported by Bereiter (2002) who claims that a knowledge community that is set up to exceed the limits of existing knowledge will create the essential component necessary for knowledge creation. However, there is a concern here that the community of practice created by the EBL group is contrived as it is not self-selecting although in Meyer and Land's (2005) work, the communities of practice referred to are generally groups of students on an undergraduate degree and therefore, there is no sense of engagement with the community of practice being optional.

What has emerged from the literature and is supported by the findings is the importance of the situation within which learning takes place: the context for learning is key. A community of practice consists of a shared domain, community and practice. The EBL

group share an identity as PGCE students which automatically implies a shared interest, commitment and competence which makes the domain unique (Wenger, 2006). The community works towards their joint interests and they build relationships that enable them to learn from each other (Wenger, 2006). They also share elements of their practice, whilst their clinical practice backgrounds are varied, they share the same educational practice which the students clearly appreciated.

There is a significant amount of preparatory work involved with establishing the EBL group and this may have an influence on its functionality, as Wenger (2002) suggests, it is vital that all members of the community develop a common understanding and overcome conflicting priorities which can take extensive preparation. Cumming (2010) suggests that the more cohesive a group is, the better the outcomes in terms of achievement and satisfaction. As mentioned in the findings, one student was surprised at how well they felt integrated into the group as in previous group work, they had felt isolated. All of the students spoke of the impact of the group. For most of the students it was a powerful and positive experience with comments such as 'learning as a group was the best thing about it' being verbalised at every group interview. For one or two students they identified they appreciated the group and group learning but felt they would rather work alone yet there were features of the group they appreciated. Belenky et al. (1986) discuss the connected class in which students nurture each other's thoughts and there are no apologies for insecurities.

Communities of practice enable practitioners to take collective responsibility for managing the knowledge they need (Wenger, 2006) and this was fundamental for each group. The groups could take advantage of the shared expertise as outlined by the following statement.

"We feel as if we've learnt more on this course than any other as we've learnt not just by and for ourselves but we've shared that knowledge which each other and many heads are better than one as we've heard each other's perspectives" (G3, 4).

Wenger (2006) suggests that practitioners within a community create direct links between learning and performance and this was evident within the groups as the majority of students felt that the group had improved their performance. They developed what Dall'Alba and Sandberg (2006) describe as a shared repertoire of resources to share practice and highlight the embedded nature of practice.

Tillema and Orland-Barak (2006) consider communities of practice as a key element of their views on the nature of professional knowledge and knowing. The three main views are reflective (Schön, 1983), situated (Lave and Wenger, 1991) and constructivist or transformational (Bereiter, 2002) all link to the findings. The reflective view suggests a personal understanding that is fostered utilising reflection through social exchange and dialogue to develop new understanding and the majority of students expressed the view that critical reflection on practice within the group enhanced the level of the new knowledge (Jackson, 2003). The situated view produces knowledge through conversations with colleagues suggesting that professional learning is collaborative and developed through active participation (Wenger et al., 2002). The constructivist or transformative view is based on collaborative knowledge building (Bereiter, 2002) or as Tu (2004) outlines, collaborative learning improves thinking and deepens understanding. Collaborative knowledge building enabled interactive experiences that involved autonomous thinking, critical reflectivity and critical articulation (Mezirow, 1997). As the students worked together they pooled their collective knowledge and understanding and created new contextualised knowledge (Jackson, 2003).

Gunter (2001) talks of leadership as a paradigm shift and quotes Kuhn's (1970) argument that knowledge is located within epistemic communities 'a paradigm is what the members

of a scientific community share, and, conversely a scientific community consists of men who share a paradigm' (pg. 176). In discussing these communities, Gunter (2001) highlights they share a tacit knowledge and understand the rules and assumptions of their subject. A paradigm shift occurs when the epistemic community accept a new way of thinking. The EBL groups described themselves as learning communities and they experienced a paradigm shift as they developed as a community of practice and developed new ways of thinking.

The most profound outcome for the students from the community of practice was the realisation they were each accountable for the groups learning. Their initial conception of the programme was they would be taught and given information to learn individually. When they engaged in the community of practice, they had to research learning and share their findings with the group who were dependent on the information they gathered. This shift of responsibility from being learners to becoming not just active students but generators of knowledge gave the students their first experience of being accountable educators which also emerged when the students discussed transformation.

When considering the barriers to engagement with group work, the PGCE students were from diverse clinical backgrounds and worked across a wide geographical area however, they created connections across organisational and geographic boundaries (Wenger, 2006). In some instances, the students worked in potentially conflicting areas such as operational management for a clinical area in which another group member worked. Despite this potential conflict, the foundations of the group ground rules were respected and confidentiality maintained. There were no expressions from the students of problems with engagement with the group work based on the work roles of the students although it is recognised as a potential weakness of the method. The utilisation of semi-structured group interviews would not necessarily allow the students to freely express their views on the group students as they were present at interview.

Mimicry

Mimicry can enable students to act or perform as if they are transforming their perspectives by either adopting the appropriate language within the group or hiding within the group. Meyer and Land (2005) talk of mimicry when considering threshold concepts and this was of concern within the community of practice. As the students were responsible for each other's learning there is a danger that their interpretations, or the information they bring back to the group is not at the required level or depth necessary for a PGCE. This can lead to some students not fully engaging with the material or not being challenged sufficiently to change their view. For a few students this was evident where it seemed their views had not moved and whilst they used the correct language, they communicated a sense of greater understanding than they actually possessed (Meyer and Land, 2005). However, there is some evidence that mimicry might be used whilst the students resolve any conceptual difficulty (Meyer and Land, 2005). A few students expressed fear that they were the only ones did not seem to grasp the difficult concepts and suggested they used mimcry to buy them time until they felt they caught up with other group members.

Summary

When a community of practice is established and the processes of sharing knowledge in a supportive, non-judgmental, creative environment is fostered the learning can be rich and diverse. The development of knowledge through sharing and negotiation builds cooperation and cohesiveness which is fundamental to the success of EBL.

For the students, the main influence they articulated that affected their development was the fact they were responsible for each other's learning. It caused them to reflect on their role as an educator and transformed their views from teacher as information giver to teacher as facilitator of learning with responsibility for engaging the learners. A further

influence the community of practice had on their development was sharing practices with other practitioners from differing organisations. This enabled the students to discuss and share education practices to inform each other's practices.

In summary, the belonging to a community of practice influenced learning through highlighting their responsibility as educators and sharing practices. Their development was enhanced through a community of practice in the way in which educational practice is understood, in an embodied sense, and was considered fundamental to their development.

Research question 3: Transforming views, an ontological shift

Do the students experience an ontological shift as a result of experiencing EBL? What influences do students perceive as important in transforming their views?

This section aims to explore the student experiences to ascertain whether they experience an ontological shift from participating in the EBL process and what they perceive the influences to be.

Meyer and Land (2005, pg. 373) discuss transformation as a property of threshold concepts that lead to new ways of understanding, interpreting or viewing something related to subject matter, subject landscape or even world view. The students discussed their experience of the EBL process as transformational and linked this to their motivation to undertake the programme. Boyd and Myers (1998) state that for transformation to occur, students need to be open to it and be able to recognise it and this could link directly to motivation. Within all the groups there were two predominant motivating factors for undertaking the PGCE. For one set it was external motivation as the programme was prescribed by their employers, it was either a necessary part of their development or was written in their job description with typical comments such as 'I was sent on it' or 'it's an expected part of my role'. However, from their narrative, it did not seem to have any significant difference on their discussion around transformation.

For the second set, it was internal motivating factors that had brought them to the programme. Although several students within the second set had already engaged in gaining a full Masters, few of them expressed studying the PGCE for career advancement or that they had any particular career in mind. The students expressed a desire for something different or they had an interest in working with students and staff and wished to promote education. All of them expressed the wish to make a difference which is congruent with the findings of Cowie and Crawford's (2009) study. In some way, this

could link to Mezirow's (1978) notion of personal transformation with the objective of learning to 'become' and to achieve a transformative goal, rather than to simply know about something (Natanasabapathy et al., 2011; Servage, 2008). The notion of becoming relates to the ontological shift associated with liminality and appears to denote externally defined change (Meyer & Land 2005, pg. 376).

Mezirow (1978) describes a 'disorienting dilemma' needed for transformational outcomes and the students supported this view by describing their feelings of exposure, vulnerability and bewilderment associated with their initial knowledge deconstruction which would indicate the students have entered a liminal state. The interviews were conducted at the end of the programme and the students could reflect on the experience as a whole and could therefore contextualise their initial feelings of disorientation and rationalise them as part of the whole EBL experience. It would have been interesting to conduct interviews at critical stages throughout the programme although this may have caused conflict with my role as the researcher and groups' facilitator. O'Leary (2005) and Bassey (1999) suggest immersion into the culture can enable a rich picture to be drawn from case studies and being the groups' facilitator I felt immersed in each group's unique culture.

Liminality is understood to be experienced individually although threshold concepts generally include a community of practice. It is also defined or treated as an entity and in Land et al.'s (2010) relational view it is a mode that exists alongside the features of a threshold concept. It is when the students are in the liminal state they spoke of a change in identity through a change of knowing. Mezirow (1978) speaks of existentialism in relation to perspective transformation and shaping individual destiny, whilst the majority of students' spoke of a transformational learning experience, its wider impact in a longitudinal sense is unknown and beyond the limits of this study but could be the focus if further research.

For transformation to be successful, Boyd and Myers (1998) argue learners need to be open to it and there is clear evidence of the students willingness to open up and accept change. Boyd and Myers (1998) also talk of a stage of loss and this sense of loss features in Land et al.'s (2010) relational view of threshold concepts and is labelled discarding. They expand on discarding and talk of metamorphosis suggesting that much of metamorphosis is about decay and loss before transformation occurs.

The students could not identify one defining point or influence that triggered their transformation, it was their experience of the whole process and as Timmermans (2010) suggests it is the periods of change that characterises the learning process yet this remains nebulous. Timmermans (2010) highlights the 'complex continuum' of emotional responses that exist within the liminal space. The students evidence this by their references to rollercoaster rides and the fact they refer to their feelings frequently. There is no sense of them trying to hide their emotions therefore, the impact on their emotional state is evident.

The students' conversations support Baxter-Magolda (2007) views on transformation as self-authorship as they discuss outcomes related to self-reflection, identification of self-beliefs and the integration of that consciousness into awareness (Baxter-Magolda, 2010), the terms consciousness into awareness links to the process of an ontological shift. The purpose of self-authorship is to answer the questions within the dimensions to heighten awareness of personal perspectives and determine why they are held. This may lead to the critical thinking, complex problem solving and mature decision making which I propose are sought after attributes in today's healthcare professionals.

Transformation leads to new ways of understanding, interpreting or viewing something (Meyer and Land, 2005). The findings from this study support this view of transformation with most of students experiencing a significant shift in their understanding of educational practices and how they interpreted their own educational practice. The frequent language

used was change or internal change. Meyer and Land (2005) express the importance of language as students realise a threshold concept. Whilst referring to change in this context it is not discipline specific it is indicative of transformational language which is a property of a threshold concept.

The narrative around internal change did not merely focus on perspectives of learning and teaching, rather they indicated a wider internal change. One student spoke of such a shift in thinking that they felt on a different level from their partner and their marriage was in jeopardy. This relates to some of the stories within Belenky et al.'s (1986) work on women's ways of knowing as well as to the principles behind Perry's (1970) movement through his positions. This was not merely due to an incremental increase in knowledge but the realisation when moving through stages of epistemic development the challenges to perceived structures and authorities can unbalance the student. The talk of change also relates to the features of reconfiguration enabling the perspective shift that brings new understanding which enables transformation of the learner (Land et al., 2010).

There was also dialogue around the students' excitement and readiness to go out into the clinical areas and change or influence educational practices. As Mezirow (1978) identifies they changed their frames of reference through the EBL process of problem solving, dialogue and critical reflection. This would also suggest they have gone beyond the post-liminal phase ad are now viewing leadership as a mode or place of existence. There is evidence from the students that with their new emergent frame of reference, or ontological perspective, of a sense of accountability beyond that expressed as part of being a community of practice. They viewed it as their role to go into their clinical areas and change practice. This accountability is an essential component of the stage 4 standards outlined by the NMC (2008) which requires qualified teachers to set professional boundaries and be accountable for their decision making around students being fit for practice. The narrative from a few students suggested a more complex perspective of

accountability rather than the instrumental and technical aspects of accountable practice competence as outlined by their regulating profession.

A potential concern is what Fullan (1991) terms 'group think' where students adopt the values and beliefs of others within the community of practice. I raise this as a potential issue as the discourse around accountability linked to transformation was unexpected and alerted me to the potential only one student within the group may have felt an increased sense of accountability but because this was voiced within the group the other students may have adopted this as their belief. This point is made as an observation and is not substantiated by the students narratives although it relates to the issues of mimicry (Meyer and Land, 2005) as outlined in the discussion around communities of practice. This point is in contrast with the philosophy behind an ontological shift as the adoption of others views is transactional rather than transformative.

However, the findings of an enhanced view of accountability are timely. The Francis Report (2013) discusses accountability in relation to nurses as care givers and embraces senior managers and leaders. Whilst the findings in this study relate primarily to the students greater acceptance of accountability to educate in a way that engages the learner rather than enhanced professional practice accountability, an assumption may be drawn that if healthcare students experience better education, then professional practice might improve.

Summary

The findings indicate the students engage in a transformational learning experience regardless of their motivation to undertake the programme, in which a significant proportion of the students experience an ontological shift. The influences the students perceive as important are less clear and remain largely undefined but there is clear

evidence that their experience whilst in the liminal state is fundamental to their transformation.

In relation to Mezirow's (1978) existential aspect or meaning of life and Natanasabapathy et al.'s (2011) notion of becoming, the findings suggest that the EBL process assists students in making meaning and engenders a process of epistemic transformation crucial to enabling an ontological shift (Cousin, 2010) that empowers them to develop their abilities as an educator.

Research question 4: Leadership qualities and emerging leaders

How does the experience of the EBL process develop leadership qualities? What impact has this had on the students' perceptions of themselves as emerging educational leaders?

This section considers the EBL process and whether it engenders the development of leadership qualities as the purpose of this study was to capture the student voices as they describe their initial development as educational leaders. The leadership qualities that emerged from the findings are centred on self-confidence, self-identity and self-belief. These qualities will be discussed with specific reference to Gronn's (1999) leadership career framework and the emerging literature around self-belief as an effective modifier for leadership development (Rhodes, 2012).

The impact these findings have had on the students' leadership development will be discussed to include not only their emergence as leaders but their exposure, engagement and enactment of leadership as they develop into future educational leaders. A framework outlining the relationship between the thoughts discussed within the findings will be presented that indicates the relationship between the students' engagement with a threshold process, the development of self-confidence, self-identity and self-belief that enable exposure to, engagement with and enactment of educational leadership within the healthcare arena.

EBL process and leadership qualities

The EBL process acted as a trigger for students which projected them through the preliminal, liminal and postliminal states as identified by Land et al.'s (2010) relational view of threshold concepts depicted in figure 1. On entering the liminal state Goethe (2003) talks of stripping away the old identity and being laid bare and this resonates with the students' narrative around deconstruction. Timmermans (2010) recognises that some

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learners view thresholds as if looking over a cliff which fills some with terror while others feel exhilaration which is clearly expressed as one student used the analogy of entering a tunnel with no light at the end and another spoke of an adventure. The students also discussed a sense of loss and this relates to Land et al.'s (2010) reference to discarding as a feature within the relational view.

The term threshold conjures up a line to cross and students referred to this as if 'I've crossed a line, as if I've gone out into the beyond and I felt stuck out there but then I couldn't imagine coming back' (G5, 3). Meyer and Land (2005; 2003) describe oscillating within the liminal space but the reference to not coming back does suggest an altered state or a shift in their thinking away from how they have felt before. This can link to a change in identity through a change of knowing as the students become more confident. However, Meyer and Land (2005; 2003) warn of a temporary regression, although once a state of liminality is entered, there can be no return to the pre-liminal state. There is no mention of what occurs after the post-liminal state and the students spoke of moving on and some had already applied for jobs that involved increased educational leadership responsibility. There is a suggestion here that the students move on from the post-liminal mode and this may be argued as them entering a leadership mode.

The findings suggest the importance of the community of practice remaining supportive and being able to recognise that some students will cope well with liminality whilst others will require support and guidance. Central to CEEBL's (2011) definition of EBL, amongst other entities, is the concept of leadership and the ability to recognise when peers need support which can promote leadership qualities. Facilitation is also key while the students experience liminality, the students need to experience it to grow but equally if they become too disorientated they may decide to withdraw. This was evident during the study when two students withdrew from the programme citing the nature of the EBL experience as the reason for leaving. Meyer and Land (2003) refer to students becoming stuck in the liminal space in which understanding slows and students can adopt a kind of mimicry or

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lack of authenticity (Meyer and Land, 2005). The students identified the barriers to learning through EBL as lack of structure and preparation which suggests a nervousness of the process and entering the liminal space.

Liminality embraces ambiguity which can be important for leadership. Wilkinson (2006) in his work around ambiguity and leadership suggests that an issue for learners can be separating out new facts and beliefs from old facts and beliefs. This is congruent with the narrative from the students around their experience in the liminal space. They felt they had crossed a line and felt they could not return to where they had been. This is the point where a new identity is constructed as the learner now holds new knowledge and beliefs (Meyer and Land, 2005; 2003). This also relates to my previous discussion around what happens after the post-liminal space. If the students can embrace the ambiguity associated with existing within a liminal space they can use this experience to deal with ambiguity after the post-liminal space.

Entering the liminal state instigates perspective transformative (Mezirow, 1978) and enables epistemic and ontological development (Cousin, 2010). The findings support Meyer and Land's (2005) assertions that as the learner acquires new knowledge the transformation of identity, or a learner's sense of self evolves. Rhodes (2012) and Browne-Ferrigno (2003) talk of role-identity transformation as an integral part of leadership development not merely learning development.

In Perry's (1970) discussion of self-trust versus self-doubt he alludes to a sense of loss as the student lets go of previously held beliefs. This was supported to some extent by the students' narrative around self-doubt and feeling unconfident however, what eventually emerged was a feeling of increasing confidence and a sense of self-belief. The key stage of Gronn's (1999) leadership development framework that appears to relate to the PGCE students is the second stage: accession. The reasoning for this centres on the students conversations around self-belief, entailing a sense of personal efficacy and self-esteem

which is integral to the accession stage of the leadership development framework. These findings support the emerging literature from studies on leadership talent management which have identified self-confidence and self-belief as important components of leadership development (Rhodes 2012; Rhodes et al., 2009; Rhodes et al., 2008; Rhodes and Brundett, 2006).

Griffiths (1993) explains two theories of self-esteem that have been linked to achievements and suggest that either high self-esteem leads to high achievement or high achievement leads to high self-esteem. The students' narratives are predominantly centred on issues of confidence and some of the language used relates to the concept of liminality and self-identity. In a study by Cowie and Crawford (2009) they identify self-confidence and self-belief as qualities that require nurturing at all stages of a leaders journey, rather than at just one point which relates to Griffths' (1993) theory of life stories. Griffiths' (1993) theory may be associated with Meyer and Land's (2005; 2003) work on self-identity as an emergent property from the liminal state although Griffiths (1993) work is related to individuals creating their own self-identity from stories constructed by themselves of their lives rather than during a single educational experience which is in contrast to one learning event. I would argue as the students refer to the PGCE as a journey it becomes part of the students' biographies, hence self-identity.

Griffiths (1993) suggests self-identity is a complex milieu of social, cultural and psychological constructs and this complexity is evident when the students describe their experiences of being in the liminal space which is an essential component of identity formation. Gronn (1999) talks of the connections between actions or human agency and the social structures within which they take place. A key element of this suggests Griffiths (1993) is a sense of belonging and how this can impact on self-identity. As the students learn together as part of a community of practice, the findings that support the group work suggest a feeling of belonging which encourages the learner's sense of self to evolve. This relates to Brown-Ferrigno's (2003) framework for professional growth which identifies

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initial socialisation into a new community of practice as essential for leadership development and leads on to role-identity transformation.

The development of self-belief goes on from the features outlined by Land et al. (2010) in their relational view of a threshold concept (see figure 1). I propose that with the integration of EBL into a threshold concept it creates a threshold process which represents a dynamic learning journey and goes beyond the consequential features of transformation, irreversibility, crossing conceptual boundaries and altered discourse to the feature of embeddedness which espouses the development of self-identity, self-confidence and self-belief as the type of features that emerge as part of the mode of leadership. This is outlined in figure 3 on the next page. In figure 3, the EBL process runs underneath and alongside the relational view although in reality it is woven within each section including mode, type of feature and feature.

Mode	Troublesome knowledge	Integration Discarding Ontological and epistemological shift	Transformation Irreversibility Crossing conceptual boundaries Changed discourse	Selfbelief Self confidence Selfidentity
Feature	Preliminal	Liminal	Postliminal	Leadership
Type of feature	Instigative	Reconstitutive	Consequential	Embedded
Process	EBL			

Figure 3. Representation of a threshold process adapted from Land et al.'s relational view of a threshold concept.

Figure 3 represents a threshold process where the EBL is integrated through the relational view. The students' progress from the post-liminal space into the mode of leadership and the types of features seen are self-confidence, self-identity and self-belief. These features are embedded.

On considering self-identity, I felt this related in some way to Gronn's (1999) accession stage of his leadership career framework as it alludes to the preparation stage for leadership. The students talk of growing self-belief, self-identity and self-confidence as they see themselves as leaders of their own learning. This could be related to the

students becoming aspirant leaders and as they believe they lead their own learning, they take this forward and this becomes embedded and they begin to see themselves as leading others learning, enabling exposure to leadership.

Within Gronn's (1999) accession phase and Browne-Ferrigno's (2003) elements for professional growth, the aspirant leader begins to test their leadership skills and there was evidence of this from the students and within the community of practice and represented engagement with leadership although within the confines of the community of practice as a safe environment. This can be a confusing time for the students as all the students are experienced healthcare professionals (a necessary requirement by the NMC before being allowed to register for Teacher status) and some students are in senior positions so they have already spent a significant part of their careers in healthcare, undertaking certain aspects of leadership. Whilst healthcare professionals are expected to facilitate the learning of student healthcare professionals, their role after completing the PGCE students bears much greater educational responsibility. As Haughton (2012) points out, this contrasts with most teachers whose only career has been education. Haughton's (2012) study considers Gronn's (1999) leadership career framework in his work on leadership of maritime education and training which demonstrates the applicability of the framework outside of school leadership. The majority of PGCE students have undertaken the programme to change their career paths from a clinically focused role to an educationally focused role. This requires the students to relinquish the comfort and confidence of a known role and experience the discomfort and uncertainty of a new, less well known role (Browne-Ferrigno, 2003, pg. 470). Within the literature, the impact this may have on their ability to lead is less clear although the findings suggest that after initial deconstruction, as their self-identity evolves, they emerge as potential leaders of education and there is varying evidence of their exposure to, engagement with and enactment of leadership.

To note, the PGCE students already have some experience of leadership in clinical practice although this is at differing levels according to role. They are however, mostly new to educational leadership and whilst this study did not ascertain the students' life histories up to the point of undertaking the programme which, would relate to the formation phase of Gronn's leadership career framework, it does consider the accession phase. Haughton (2012) suggests the formation stage should not bear too much weight as childhood and early adulthood experiences cannot be repeated therefore, cannot be changed.

Emerging educational leaders: exposure, engagement and enactment

As part of achieving teacher status with the NMC, students have to consider leadership as one of the domains within the Standards to Support Learning and Assessment in Practice (NMC, 2008). As a professional, statutory and regulatory body, the standards outlined by the NMC are essentially competence based. The leadership domain within the standards is subdivided into criterion that the teacher students have to achieve in order to register as a teacher. The criterion focuses purely on the technical aspects of leadership in terms of programme delivery and do not necessarily reflect leadership qualities.

Day's (2001) perspective on leadership development recognises the need to go beyond the technical aspects of leadership and promote affective skills within a community of practice.

> In addition to building leaders by training a set of skills or abilities, and assuming that leadership will result, a complementary perspective approaches leadership as a social process that engages everyone in the community…In this way, each person is considered a leader, and leadership is conceptualized as an effect rather than a cause. …Leadership is therefore an emergent property of effective systems design …..Leadership development from this

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perspective consists of using social (i.e. relational systems) to help build commitments among members of a community of practice (pg. 583).

This description of leadership development recognises the importance of engaging everyone within a community and the findings would support this view. The majority of students felt they were all leaders within the classroom and viewed leadership as an effect rather than a cause although there was some ambiguity around what leadership was with one student asking if it was standing up for what they believed in.

NMC registered teachers are expected to take the lead on the development of education programmes in academia and practice to ensure the production of safe and effective practitioners (NMC, 2008). The students discussed their views on this and the tensions that exist between managing education and training whilst trying to instil the concept of leadership. Day (2001) notes the overlap between leadership and management and proposes that management tends to focus on enhancing task performance, whereas leadership involves building the capacity of individuals to help staff learn new ways of doing things. The students expressed their frustration with what they perceived as the overt management focus of their educative roles and the tension it created, although interestingly this only emerged as an issue during and after the programme which suggests that cognitive dissonance (Festinger, 1957) was created through participating in the programme. Another source of tension was the focus on the technical and competence aspect of their practice, including their leadership practice which is supported by Wells and Hanja (2009). Before starting the programme, some students identified that how they were practicing as educators did not make them feel they were performing well in the role. The findings suggest that engagement with the EBL process, as a transformative learning experience, alters the students' conceptions of learning and as they reflect on their educative roles in practice, for the majority of students, they realise the technical, skill and competence based nature of the training they have been involved with and managing. This creates a cognitive dissonance for the students (Festinger,

1957) and whilst this is an essential component of their epistemic development (Belenky et al., 1986; Perry, 1970) they transpose their new understandings, values and beliefs and find their previous educative practice incongruent to their newly emerged epistemology.

Out of this cognitive dissonance (Festinger, 1957), during the periods between stages as outlined by Cross (1999) or when the students oscillate in Meyer and Land's (2005; 2003) liminal state, there appears to emerge the greatest movement in epistemic thinking, ontological shift or personal growth. Personal growth or learning may be a more subtle and complex process than previously considered and this is inexorably linked to leadership (MacBeath et al., 2009). The findings point to the power of transformation through change and the development of additional leadership capabilities as they leave the post-liminal state and enter the mode of leadership, this creates opportunities for learning to enhance leadership and set in motion a virtuous circle (MacBeath et al., 2009).

For some students the progression to new jobs and roles extended their leadership and enabled them to be exposed to and engage with leadership which is supported by MacBeath et al.'s (2009) personal growth linked to leadership. The students did express they felt the community of practice had enabled their initial exposure to and engagement with leadership and this group testing ground is beneficial to students (Jackson, 2003). Their conceptions of their new roles was not explored due to the timing of the interviews as the majority of students had not been in their new roles long enough to enable them to form a realistic impression.

Summary

This section has discussed the findings in relation to the literature to explore the emergence of leadership qualities as part of experiencing EBL as a threshold process. It has discussed liminality as a mode within a threshold concept and has proposed the students articulate this as they progress beyond the post-liminal state. It is at this point

that the leadership qualities of self-confidence, self-identity and self-belief appear and this relates to the feature of embeddedness. This has been depicted as encompassed within a threshold process in figure 3 which is an adaptation of Land et al.'s (2010) relational view of a threshold concept.

There is acknowledgement of the context of healthcare leadership and the frustration the students expressed as to their role confusion and the technical focus on competence rather than developmental learning. This is significant as whilst the students have experienced a transformational learning journey they are bounded by their organisation, employer, and professional body and tensions between these competing factions influence their exposure to, engagement with and enactment of leadership in practice.

Overall summary of Chapter 5

This chapter has focused on the discussion of the findings in relation to; the nature of EBL, epistemic development, whether the experience of EBL can be considered a threshold process, the influence of learning within a community of practice, transformation, ontological shift, self-belief and emerging leadership qualities. As mentioned previously in this study there is a paucity of literature as well as a lack of formal career development for healthcare professional educationalists that focuses beyond the technical and instrumental aspects of healthcare educational practice and healthcare educational leadership. On this basis, a framework conflating the model of a threshold concept with the additional feature of embedded leadership is presented to represent the experience of undertaking a threshold process that leads to leadership (figure 3).

The students' engagement with EBL was transformative and they articulated all the features of a threshold concept although they articulated them in an integrative way where they could not separate out the process of EBL, their learning and their development as educators. The narratives express EBL as a whole experience.

The community of practice influenced their learning and gave the students a sense of responsibility for others and they appreciated the opportunity to share practices. Their development was enhanced through a community of practice and this is supported by Wenger (2006) in the way in which educational practice is understood, in an embodied sense, and was considered fundamental to their development.

The findings present evidence of the students' experience of an ontological shift. The influences the students perceive as important to enable this shift remain largely undefined but there is clear evidence that their experience whilst in the liminal state is fundamental to their transformation. This links to their narrative around EBL being a whole experience

where they found it difficult to articulate any sense of when or how they developed, they just knew they had.

The findings and discussion from the first three research questions led onto the fourth and the development of leadership qualities. The EBL process enabled epistemic development and the community of practice had a positive effect on their socialisation and belonging which, according to Rhodes (2012) enables identity transformation and allows the enactment of leadership. They demonstrated a sense of becoming as outlined by Mezirow (1995) which is indicative of an ontological shift (Cousin, 2010). From; the experience of EBL, belonging to a community of practice, epistemic development and ontological shifting the students articulated a sense of leadership through greater self-confidence, self-identity and self-belief.

This led to an adaptation Land et al.'s (2010) relational view of a threshold concept by representing this as a threshold process with EBL underpinning and intertwining the progression through the stages. This enabled an additional mode of leadership as students emerge through the post-liminal state. This leadership mode has the features of self-confidence, self-identity and self-belief and this type of feature is embedded (see figure 3).

The addition of the leadership mode that brings out the qualities of self-confidence, self-identity and self-belief to the threshold process promotes and recognises the professional nature of educational leadership. The features within the threshold concepts described by Land et al. (2010) are theoretical and relate to the word concept. Whilst the features of transformational, integrative, irreversible and bounded suggest action, in the context of a threshold concept, they represent theory being applied to practice. It is the engagement with EBL as a pedagogy that enables epistemological and ontological development that empowers the students to emerge with leadership qualities from the threshold process. A further framework outlining the relationship between preparation for leadership and the

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practice of leadership is proposed to represent ongoing development of PGCE healthcare students. This is based on the narratives from the students as they espoused their new roles as educational leaders, see figure 4.
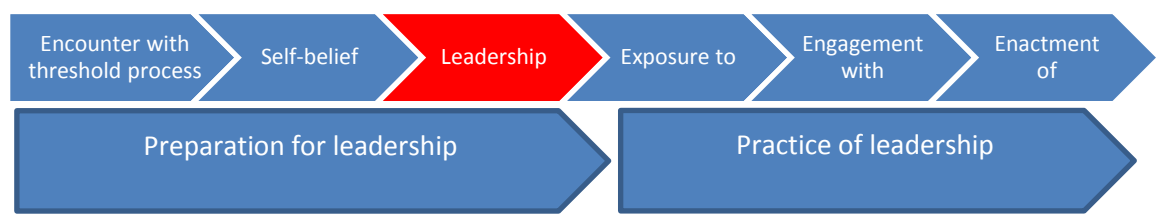
Figure 4: The proposed relationship between the process of preparation for leadership and the ongoing practice of leadership.

Figure 4 has emerged from the findings of this study and depicts the relationship between the process of preparation for leadership and the ongoing practice of leadership alongside the engagement with a threshold process and how this brings about self-belief and leadership. The first three arrowed sections relate to figure 3 which is the threshold process developing self-belief which brings about the embedded feature of leadership. This relationship is critical to enable the transition of preparation for leadership and the resulting practice of leadership and is offered as a tentative conclusion for this study.

Chapter 6: Conclusion

This case study has enabled the exploration of the experience of healthcare professional educator students undertaking a PGCE with an EBL philosophy. The EBL process has been theorised as a threshold process which has led to epistemic development and an ontological shift resulting in the development of leadership qualities. As a result, an interpretation of how leadership qualities may emerge from a transformational learning experience can cautiously be drawn.

This study argues that healthcare professional educators develop leadership qualities as a result of engaging with and experiencing a threshold process. With exposure to, engagement with and enactment of leadership, the students have a way forward to develop their leadership capacity. However, this study also reveals that for some, a threshold process approach generates embryonic leadership skills that may not fully prepare healthcare professional educational leaders for a role or career that is not fully defined.

In this concluding chapter, the research questions will be studied and addressed to draw out the contribution to new knowledge with acknowledgement of the gaps in order to highlight areas for further research to develop the field. This chapter will close with an overall summary of the study.

The four research questions posed were:

1. What is the nature of an EBL experience? To what extent may EBL be considered a threshold process? To what extent does this influence epistemic development?

2. What influences does learning within a community of practice have on student development?

3. Do the students experience an ontological shift as a result of experiencing EBL? What influences do students perceive as important in transforming their views?

4. How does the experience of the EBL process develop leadership qualities? What impact has this had on the students' perceptions of themselves as emerging educational leaders?

Research question one is addressed under the heading 'The nature of EBL as a threshold process and epistemic development' followed by research question two which is 'Influences of a community of practice on development'. Research question three is addressed under 'Transforming views: an ontological shift' and finally research question four under 'Leadership qualities and emerging leaders'.

Research question 1: The nature of EBL as a threshold process and epistemic development

The nature of EBL is undoubtedly troublesome for students and acts as a trigger for the PGCE students' epistemic development. The troublesome nature of the EBL process for learning reflects the discourse around Meyer and Land (2006; 2005; 2003) and Meyer et al.'s (2010) papers on threshold concepts which have been analysed within this study.

The students articulated that the nature of EBL is in the experience of it is as an overriding process of learning. The students' exposition of the experience of EBL reflected the features of threshold concepts as outlined by Meyer and Land (2003) as transformative, integrative, irreversible and bounded (see table 6), operating within a community of practice. The salient feature of the experience of the EBL process was that it mirrored the notion of liminality (Meyer and Land, 2003). The students' experiences of the liminal space were divided although the majority expressed feelings of deconstruction,

vulnerability, exposure and a sense of loss which reflects Meyer and Land's (2005) and Land et al.'s (2010) analysis of the liminal space. This affected the students in different ways with the majority eventually embracing the experience of liminality and appreciating the freedom to learn, recognising their learning had been enhanced by such an experience.

The EBL process has all the constituent features of a threshold concept and despite increasing amount of literature around threshold concepts that has expanded to include doctoral research and professional development (Gilvary, 2012; Yip and Raelin, 2012; Cousin, 2010; Land et al., 2010; Meyer at al., 2010; Timmermans, 2010; Meyer and Land 2006; 2005; 2003) there was no evidence of thresholds being considered as processes rather than concepts. Meyer and Shanahan (2004) propose metalearning as a pedagogy for engaging students with threshold concepts and recognise the importance of students being aware and in control of their learning. This requires students to learn about their learning as well as learning the discipline specific threshold concept content. By proposing EBL within a PGCE as a threshold process this unites the pedagogy with the threshold concept.

In the literature review, the difference between the words concept and process were considered and the proposal was that a noun based epistemology such as a threshold concept would not capture the essence of what is being researched. For the essence of epistemological development to be captured it needs to have a physical dimension (noun) and a temporal dimension (verb) and a threshold process can capture both. The characteristic features of a threshold concept (transformational, integrative, irreversible, bounded) are predominantly verbs and are converted into adjectives and suggest activity: to realise a threshold concept the student has to be dynamic yet the term concept does not imply activity. I conclude that the nature of an EBL experience should be considered as a threshold process. The significance of this statement expands the view and range of threshold concepts and opens up the discussion as to whether a threshold process is a

more accurate term for researching students' epistemological and ontological development.

There is clear evidence of students' epistemic development through the EBL process. The journey through the process was aligned to theories of epistemic development (Meyer and Land, 2005; Belenky et al. 1986; Perry, 1970) to understand how the learning process was experienced and how the stages of epistemic development were achieved.

The literature review considered models of professional skills development (Dall'Alba and Sandberg, 2006; Benner, 1984) which are more commonly associated with healthcare professional learning however, as the PGCE students were exploring education, the epistemic development models of Perry (1970) and Belenky et al. (1986) were deemed more appropriate as they focused on knowledge development rather than professional skill. There was some debate within the literature as to whether staged epistemic development fails to capture the essence of an experience (Thompson, 2011); by considering epistemic development alongside an ontological shift (to be addressed under research question 3) it does go further in capturing both the temporal and fluid nature of development. To conclude, the findings suggest that students do move through stages of epistemic development and transform their understandings of educational practice as part of the EBL process.

Research question 2: Influences of a community of practice on development

The literature around communities of practice reflects a diverse range of disciplines and organisations where they can exist. The characteristics of a community of practice are the domain, the community and the practitioners (Wenger, 2006) and each component has an integral role in making the community of practice function and the PGCE students engaged fully with the community of practice. Enquiry based learning theorists all

emphasise the importance of cohesive group work for EBL to be not just successful but enriching (Jackson, 2003; Price, 2003).

A criticism levelled at communities of practice is that the communities are essentially situated within their own organisation or practice and therefore, the community of practice may be too embedded in its own practice to acknowledge learning or development opportunities and will not prove to be drivers for change (Osterlund and Carlile 2003). This has particular resonance for healthcare professionals in light of the Francis Report (2013) which clearly implicates organisational culture as a key factor that led to poor standards of care. A community of practice that operates within a damaging culture may only serve to replicate that culture. The PGCE students created a community of practice that crossed organisational boundaries as they all worked in diverse clinical settings for different employers. The students unanimously expressed their appreciation for this cross-organisational community as it enabled sharing of practices and identification of areas for improvement. As there was no one organisation represented, the culture created within the community was one of openness and sharing. The students identified that sharing practices within a community of practice influenced their development as educators.

However, the predominant influence on the students' development within a community of practice was the responsibility the students felt for each other's learning. This sense of responsibility affected their development by highlighting the collaborative nature of learning (Tu, 2004) and challenged their dualistic views of the teacher as authority (Perry, 1970) as they were all equals within the community. This had a significant impact on their conceptions of learning and teaching as they began to view learning as collaborative within a socially situated environment and this relates to Browne-Ferrigno's (2003) discussion on transformation and the importance of socialisation within a community of practice to enable this to occur.

To note, a minor concern with the communities of practice was whether the less able students could hide within the group by being able to utilise what Meyer and Land (2005) describe as mimicry. This was apparent in only a few cases and I would agree with Meyer and Land's (2005) suggestion that some students might adopt a form of mimicry whilst they are still grappling with new knowledge and forming their ideas. However, the overwhelming evidence was the students development was enhanced by learning within a community of practice and less able students found working with more able students beneficial.

To conclude, the significant influences the students identified as enabling their development as educators within a community of practice were the opportunities to share practice across different organisations and being responsible for each other's learning. For the vast majority of the students learning within a community of practice was a positive experience and enhanced their development as an educator.

Research question 3: Transforming views, an ontological shift

The discussion around research questions one and two have identified the students' engagement with EBL as a threshold process which evidenced enhancement of their epistemic development within a community of practice. One of the features of Meyer and Land's (2003) threshold concepts is transformation and Cousin (2010) extends this further by suggesting that whilst in the liminal space, students experience an ontological shift. The liminal space is characterised by the students using emotive language as they describe their feelings of vulnerability, exposure and sense of loss.

There is significant evidence to support the fact the PGCE students undergo an ontological shift as they have changed the way they think about educational practice and this new way of thinking becomes embedded and this is evidenced through their talk of

changing their practice. Land et al. (2010), Cousin (2010) and Meyer and Land (2005) identify that transformation occurs in the liminal space and this study would support that view. What is less clear are the influences the students perceive as important in transforming their views. The students could not isolate specific influences that transformed their views rather they experienced the EBL process as a whole and therefore, engaged holistically with the complete experience. No conclusions can be drawn as to any specific influences that enable transformation.

An unexpected outcome from the experience of an ontological shift in the students was the discourse around accountability. When transforming their knowing or adapting their frames of reference about educational practice, a prevailing sense of responsibility entered the students' consciousness which for some students affected their views of accountability. This could be as a result of learning within a community of practice as if learning is shared and students are discussing a sense of responsibility in relation to their transformed views of educational practice, it is feasible others will adopt this view. However, this is a tentative observation and cannot be substantiated although the adoption of others views and beliefs from learning within a community of practice has been cautioned against (Fullan, 1991).

In conclusion, there is definite evidence the students experienced an ontological shift as a result of experiencing EBL. This supports the literature that espouses engagement with a threshold concept transforms perspectives and enables an ontological shift (Land et al., 2010; Cousin, 2010; Meyer and Land, 2005). The influences that students perceive as important in transforming their views were not identifiable; rather, they described their transformation of views as a holistic experience and could not define any specific influences.

Research question 4: Leadership qualities and emerging leaders

Through the process of EBL it is apparent from the evidence within this study that the students experience epistemic development and an ontological shift within the liminal space involving a repositioning of the self as a reconstitutive effect. As the student goes through the reconstitutive process there is evidence from the students' narratives that self-confidence increases leading to greater self-belief.

The students relate their thoughts and experience of educational leadership to feelings of self-confidence and increasing self-belief as their knowledge increases through the EBL experience. This supports Gronn's (1999) research into leadership and the development of self-belief and Rhodes (2012) work on self-belief as an essential aspect of talent management. The students talk of being leaders of their own learning as a result of the EBL experience which supports the work of Jackson (2003) and Price (2003). The difference with the PGCE students is they transfer this across to leading others' learning although they do not articulate the qualities of leadership that this entails.

The impact this has on their perceptions of themselves as emerging educational leaders is mixed. The findings suggest around half the students begin to consider themselves as leaders and, as evidenced within the findings, around a quarter of the students have gone on to be employed in roles that involve leading healthcare professional education in practice either during or at the end of the programme. This provides evidence of exposure to, engagement with and enactment of leadership although whether this is directly linked to the experience of EBL is difficult to extrapolate as the students articulate the EBL experience as a whole entity. However, there is some evidence to suggest that the exposure to and engagement with leadership as part of the community of practice does embed the leadership qualities that emerge.

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The students are studying a PGCE which is a regulatory body approved teaching qualification for healthcare professionals which would indicate the students, by participating, are steering their careers towards education. It has been recognised in the literature and discussion that there is no clear career framework for healthcare education leaders and this may influence the students' engagement with educational leadership. There appears to be a mismatch between their seniority within their clinical role and their educational role which supports Haughton's (2012) preposition that they feel challenged with regards to their identity in interactions outside of their clinical, or more familiar, role.

The overall conclusion is that the development of leadership qualities through experiencing EBL is in evidence although its impact on the students as emerging educational leaders is less clear. There is evidence the EBL experience motivates the students to want to develop their educative practice but it is less clear whether this translates into leadership. The opportunity within the community of practice to expose themselves and engage with leadership goes some way to embed the emergent leadership qualities. I have developed a framework for healthcare education professionals that outlines the relationship between the process of preparation for leadership and the ongoing practice of leadership. It goes onto to tentatively propose that educational leadership develops with exposure to, engagement with and enactment of leadership.

This could provide the basis for the development of threshold processes in healthcare education to develop leadership skills in order to develop a career in healthcare education leadership. The threshold process does not necessarily have to be an EBL experience. It is perceived that any threshold process that engages with pedagogy that unites epistemological and ontological development (the concept) with the process of learning will engender leadership qualities to enable the aspirant leader to begin their career. With reference to self-confidence, self-identity and self-belief (Rhodes, 2012; Meyer and Land, 2005; Gronn, 1999) it is proposed that these emergent leadership qualities become an

embedded feature of a threshold process. This has informed the framework which proposes that exposure to, engagement with and enactment of leadership will enable the development of a healthcare educational leadership career. This is supported by Willis (2012) who reported the need for a national nursing career framework which demonstrates synthesis of practice, education, management and research to enable suitable career pathways in order to retain nurses in all areas where they practice.

Implications of the findings to the overall study

The development of leadership qualities in healthcare educationalists comes at a critical time as the UK healthcare system is facing unprecedented challenge and change due to government policy (Health and Social Care Act, 2012) and as a result of independent inquiries into poor standards of care (Francis Inquiry, 2013). The majority of recent healthcare policy refers to the need for high quality leadership from all healthcare professionals at all levels (King's Fund, 2011). Healthcare professionals are accountable to professional, statutory and regulatory bodies for their professional practice, continuing professional development and teaching practice alongside organisational or employer expectation to develop quality services by being creative, innovative and critical thinkers. These demands require the support of higher education institutions to deliver high quality learning experiences to undergraduate and postgraduate professionals. The Willis report (2012) recommendations are explicitly about nursing but this can be related to the other healthcare professions. He recommends there needs to be a clear vision of the future for healthcare education in full partnership with the NHS and independent sector as well as a clear career structure. For this to happen, higher education institutions, healthcare organisations and the professional, statutory and regulatory bodies need to agree a way forward.

The findings of this study propose the use of a threshold process to engage PGCE students with not only their learning but the process of learning to develop a

transformational, integrative, irreversible and bounded learning experience to enable leadership qualities to emerge and become embedded. This has implications for the NMC and PGCE curriculum writers to embrace a holistic approach to learning to enable students to fully engage with educational leadership to avoid the competence based educational leadership that exists within healthcare (Wells and Hanja, 2009). I suggest PGCE curriculum designers consider adopting a threshold process approach to enable their students to engage with a holistic learning experience to support the development of leadership qualities that are vital for contemporaneous professional practice.

The interpretative view of this research has allowed the experience of PGCE students engaging with EBL to be explored and how learning within a community of practice has influenced their learning. A richness of data is gained by taking this qualitative approach as I have been able to establish answers as to what the nature of EBL is and how it can be considered a threshold process. The engagement with a threshold process within a community of practice has enabled an epistemological and ontological shift in the students' development which has led to the emergence of leadership qualities which become embedded as part of threshold process. As a result, an interpretation of how the students experienced a threshold process and developed leadership qualities can tentatively be made within the context of healthcare education. As a result, the research could be considered authentic and applicable to enable enhancement of knowledge and theory generation.

It is important to acknowledge weaknesses of any study and as Creswell (1998) and Yin (2009) stress, the relatively small sample size and the individualised setting contributes to the extent to which the findings may be generalised. The role of the critical friend went some way to avoid what Silverman (2001) warns against as the tendency to select data that fits with the researchers preconceived ideas about the nature of the material rather than the indicative content. With this acknowledgement, this study presents a contribution

to how PGCE students can learn to lead education in practice by engaging with EBL as a threshold process to promote epistemic development and ontological shifting to enhance the emergence of leadership qualities.

This study concludes that the EBL experience has been found to have the features of a threshold concept but has been presented as a threshold process in order to fully engage with epistemological and ontological development. The influences of learning within a community of practice for the students found that sharing practice across organisations and being responsible for others learning were impactful. The leadership qualities that emerged were a repositioned self-identity which enhanced self-confidence and self-belief however, the students' perceptions of themselves as educational leaders were not clearly articulated as there was some evidence of role conflict with their primary role as a healthcare professional. For those students who had exposure to, engagement with and enactment of leadership, there was evidence of an emerging educational leader.

The findings from this study also inform the evolving research into self-belief as a key component of leadership and supports the findings from other studies (Rhodes 2012; Cowie and Crawford, 2009; Rhodes et al., 2009; Rhodes et al., 2008; Rhodes and Brundett, 2006). Whilst the other studies explore self-belief within differing frames, the findings support self-belief as a central tenet to educational leadership development.

This study concluded that engagement with a threshold process, within a community of practice, leads to epistemological and ontological development which engenders the development of the leadership qualities of self-identity, self-confidence and self-belief. The relationship between the process of preparation for leadership and the ongoing practice of leadership has been proposed to show the effects engaging with a threshold process can have on the development of leadership qualities and ongoing educational leadership development.

The findings are not intended to be generalisable to all settings however, the study seeks to provide key insights to inform the ongoing research agenda which should now be broadened to include other PGCE programmes within the healthcare arena.

The contribution and further research

This study has been successful in making a contribution to the knowledge on the development of educational leaders in the healthcare setting through engagement with a threshold process. The findings from this research have clarified understanding about:

- the nature of an EBL experience;

- EBL as a threshold process;

- how a threshold process enables epistemic development;

- the influences to development as an educator through studying within a community of practice;

- EBL enabling an ontological shift;

- the influences that students feel are important in transforming their views;

- how the experience of the EBL process develops leadership qualities which were found to be self-identity, self-confidence and self-belief;

- the impact self-identity, self-confidence and self-belief had on the students as emerging educational leaders;

- the importance of exposure to, engagement with and enactment of leadership to further develop the leadership qualities that emerge.

The research has led to the development of a model of a threshold process (figure 3) and a tentative framework for healthcare education leadership (figure 4). This will go some way to enable PGCE students to conceptualise their development and position themselves within an educational career framework even if the context of that career is unclear. It is suggested the contribution could influence future curriculum design of PGCE's to adopt a threshold process approach in order to fully engage students and create future educational leaders.

Suggestions for further research

This interpretive study recognises that single case study methodology does not necessarily lead to the results having the same level of certainty as an objective or positivist approach although it does allow for an in-depth exploration of the students' experiences. The approach does place limitations on the extent to which the knowledge gained in this research is transferable to other specialities and localities.

It would be useful to draw upon PGCE students from different professional backgrounds to establish whether EBL, as a threshold process, replicated the same results. Alternatively, repeating the study with healthcare professional PGCE students studying on a programme that does not utilise an EBL approach would be worthwhile to ascertain whether the development of leadership qualities are an emergent feature from a PGCE regardless of the pedagogic philosophy.

I believe it would be of benefit to further this research with follow up interviews with the graduates to gain a longitudinal view of their development as educational leaders and whether the transformative experience has lasting impact on their conceptions of learning and leadership capacity. This could support the framework outlined in this study as to whether the practice of leadership for educational leaders in healthcare is enhanced by exposure to, engagement with and enactment of leadership.

One of the unexpected outcomes from this study was the enhanced accountability students felt as a result of a transformational learning experience, however, this can only be considered from the data originating from this study. It would be valuable to explore what impact, if any, this expressed accountability had on practice.

Further exploration on the notion of threshold processes rather than threshold concepts would widen the debate and discussion around this area and could further establish linkages to ways of thinking and practicing within a discipline.

Final summary

What emerges from this small-scale study of 59 healthcare professionals undertaking a PGCE is a potential contribution to leadership development research, suggesting that it lies in the nexus between EBL as a threshold process promoting changes in epistemological and ontological perspectives that enhance and develop self-identity, self-confidence and self-belief prompting growth and readiness for leadership practice. A potentially important use of leadership research is to enable the development of those who engage in it through progressing their learning emancipation.

This study has highlighted a gap in the threshold concept literature regarding the issue whether the term concept as a noun reflects the true nature of ontological development. The recommendation that EBL is considered a threshold process opens up a new debate for researchers within the threshold concept field and promotes discussion around integrating pedagogy within a threshold concept rather than viewing them as separate entities. This could impact on the curriculum design of PGCE's in order to adopt a threshold process approach to enable a holistic learning experience that generates leadership qualities for professional practice.

The framework outlining the relationship between the preparation for leadership and the practice of leadership is aimed at generating educational leadership development for healthcare professionals. The findings from this study demonstrated some students' engagement with the practice of leadership and there was evidence that this was as a result of experiencing EBL.

By preparing future educational leaders through engagement with a transformative learning experience it is hoped they will go into practice and transform elements of their educative practice although the realities of this cannot be offered or assumed. Whilst it would be too ambitious to state the findings from this study will improve professional practice and subsequent standards of care, it is anticipated that the enhancement of the PGCE graduates' ability to lead education in practice will have a positive impact on the students and professionals they lead and teach. The Francis Report (2013) suggests organisational culture was at the heart of poor standards of care. The PGCE graduates, as senior healthcare professionals, will play an important role in leading and shaping practice based education. Whilst there is no definitive career road map for the PGCE graduates to follow, they have the embedded quality of self-belief to apply when they have the opportunities to practice leadership through exposure to, engagement with and enactment of leadership.

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Appendix 1: Aide memoire for interviews

Purpose

The purpose of the semi-structured group interviews is to gain a fuller understanding of the experience of learning for leadership and leadership for learning. The research endeavours to look more closely at what best supports and inspires students to learn and lead. There are, therefore, no wrong answers. Each member's opinion and perspective is as valid as another.

All proceedings are confidential. Recordings and written notes will be destroyed following the production of the thesis. No students will be identifiable, by reference to name or other means.

Format

The interview will last no longer than 2 hours.

The facilitator will ask some broad opening questions and students are invited to discuss. The facilitator may expand upon these questions and will endeavour to ensure that students do not stray off the discussion point in question, unless useful to the discussion. The facilitator may also ask students follow up questions for the sake of clarity.

Questions

1) Can you describe your experience of EBL?
    a) What specific features make you excited, what bits of EBL did you like?
    b) What parts of EBL didn't you like?
    c) Do you think it's expanded your knowledge?
2) What was it like learning as part of a group?
    a) What was the most influential thing from group learning?
    b) What made learning most effective for me was?

3) Would you describe the course or learning as transformative?

   a) What influenced your transformation most?

4) Do you feel the EBL has encouraged you to develop leadership skills?

   a) What are those leadership skills? How would you describe them?

   b) Do you see yourself as a leader?

Appendix 2: Ethical approval

Institute of Health and Society

Ruth Pearce

University of Worcester

Dear Ruth

Your proposed study entitles 'Learning for leadership, leadership for learning' has now been reviewed by the Institute of Health and Society Ethics Committee.

The ethics committee is happy for your study to proceed and we wish you well with your research.

Your Sincerely

Dr. Jon Catling

Chair of IHS Ethics Committee

Appendix 3: Letter of consent

Dear Student,

I am currently studying at the University of Birmingham, undertaking a Doctorate in Education and would like to invite you to take part in a research study I am undertaking for my thesis. I have provided some written information below about the proposed study, so you can make an informed decision whether to participate or not.

- If you consent to involvement in the study, you will be asked to participate in a taped group semi-structured interview asking you to discuss your experience of the PGC – Teacher in Health and Social Care programme. The tape recording will be transcribed and erased after completion.
- I will be conducting the interview and anonymity cannot be guaranteed however, all information you provide will be treated in the strictest confidence and individuals will not be identified in any publication or presentation of this study.
- If you agree to participate in the study, you have the right to withdraw at any time.

If you would like to participate in this study, please sign the consent below.

Thank you for your time,

Kind regards

Ruth Pearce

Lead for Continuing Professional Development

Institute of Health and Society

CONSENT TO PARTICIPATE IN RESEARCH STUDY

I have read and understood the written information provided to me about the research and agree to participate in this study.

Signed (student):

Name (please print):   Date:

Appendix 4: Transcript of group interviews

Line no.	Dialogue	Notes
	What was your experience of the EBL process like, can you describe it?	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	1: Well it sounds awful but I had no expectations of it when started because we'd been sent on it, in a manner of speaking, because we had to show we were educated to Masters level so we thought about what would we not mind doing and I suppose teaching was the obvious one, so we had a really low expectation of it and it's been brilliant. To come into something that you didn't think you were going to learn and end up changing everything you do has been amazing. To look at things from different perspectives. 2: And to have the confidence to change and look at what we were doing. To look at the involvement with a group of students and it's difficult when given a certain environment in which to teach and you're aware you're not doing the class justice but to then have the knowledge and awareness of the effect of the environment and how this can be changed. 1: But I think we've changed the concept of looking at teaching and learning and presenting and I think we spent too much time presenting before. 3: I suppose prior to starting I'd not long finished the degree here and I was thinking or leading up to it a few weeks prior to starting I wasn't sure what it would be like and my experience of other tutors, trying to be diplomatic here, that it would be like the degree and we'd come along, well I say come along but in the past, nobody turned up to every lecture, students just wanted to pass the assessment and there was no sense of group bonding. And this experience has been completely difference with a group that has worked together, gelled and we've learnt a lot from each other. My expectations were mundane I suppose, you'd come along almost ad hoc, do an assignment and that'd be it. And this has changed all of that, the group work has been key. Right the way through my degree group work has been put in there as it's recognised and researched as good practice but they just put it in there, they pay lip service to it: it's not proper group work. At the beginning, you said I seemed fed up and in all honesty I was, with my job and with education. I manage NVQ training as you know, and I had to deliver training on so many competencies that really are meaningless. The attrition or should I say, non-completion rate was sky high but with this course, from the early days I've completely changed everything, all the sessions I deliver; from what I've done inside the group sessions to how I engage them because I've learned so much about	Sitting, leaning forward, open body language from all the group

47	the value of real group work and my thoughts on learning	
48	and education. It's been amazing, I feel totally re-	
49	energised and hopeful for the future.	
50	**How about the group work as part of the EBL process,**	
51	**how was that for you?**	
52	1: I suppose the enquiry helped the group gel more.	
53	2: From the 3rd time we met we started to gel and form	
54	bonds and really know each other.	
55	1: I didn't expect it to be fun either. I thought it would be	
56	tick box but learning should be fun and this has been.	
57	7: I was expecting it to be stressful, I wasn't expecting fun	
58	or enjoyable or to make friends and it's been really good.	
59	We've definitely learnt so much and not just from the	
60	assignments. Most previous learning seems to have been	
61	from assignments as that's what you focus on whereas	
62	this has been about learning from each other.	
63	3: Sorry to jump back in but with assignments, I don't know	
64	from the receiving end but you get 20 assignments that	
65	are all the same but you don't know what they've learnt or	
66	what they're thinking.	
67	8: I've really appreciated the enquiry, the EBL and how it	
68	has made the group, what this group has bought and what	
69	I've appreciated is you can learn so much from the group.	
70	It has really helped me to achieve much more than	
71	anticipated. I think it has caused an automatic internal	
72	change because it has totally changed my perspective. I	
73	just found myself thinking differently, I found my teaching	
74	was different: my previous focus was typically classical	
75	teaching and the EBL has helped me appreciate the true	
76	value of teaching and that's what this course has done for	
77	me and I am responsible. I have had the opportunity to	
78	experience both types of learning, at the same time from	
79	doing the other Masters modules. The other modules you	
80	expect something from the lecturer: for them to give you	
81	something; here we expect from the group and ourselves.	
82	I think it has increased my confidence as a teacher and a	
83	learner. I feel like I'm preaching!	
84	1: It has been like that. It's the sort of course you tell other	
85	people to come on.	
86	**Had you heard of EBL prior to commencing the**	
87	**course, in relation to the groupwork?**	
88	8: No, never. I thought it was lazy lecturing, that you just	
89	got us to do all the work you couldn't be bothered to find	Background
90	the information.	laughter
91	Fac: That's why some lecturers struggle with it: not being	
92	in charge and allowing the students to explore the subject	
93	in their own individual way.	
94	2: It's mastering inactivity for the lecturer as they call it!	
95	1: I can see that, most people who teach tend to be	
96	extrovert by nature and they may not like keeping quiet	
97	and like to stand up and speak.	
98	**What did you think of the EBL process, was it**	
99	**valuable?**	
100	1: I think it was because what you do for a traditional	
101	course you do short term memory assessments but 2	

102	years later you've probably forgotten it. But by doing it this	
103	way it's about thinking it through to an extent that you	
104	never go back. And that's why I think it's different and	
105	better because it's got a permanent change and I think	
106	even when I've finished it, I will be reading because it	
107	awakes an interest in something that a different form of	
108	teaching wouldn't. 6, Can you say it better?	
109	6: No! Em, I think that what struck me most about the EBL	Group laughter
110	was that you can see the simplicity of it is it's defining point	
111	because it can be used in any course but the I think the	
112	mastery demonstrated was using it in a course about	
113	education that not only were you allowing us to use EBL	
114	but you were allowing us to use it in a course about	
115	teaching and learning. I think that way you were able to	
116	see more than just the one side of learning, we were able	
117	to research learning. I think it was important when we were	
118	looking at the issues that we came across, not least this	
119	idea of reflective practice and when you look at the EBL it	
120	accommodates both, not least reflection in practice when	
121	your doing it but also the reflection on practice after you've	
122	done it, and for me it's an example of true Masters level	
123	study and for me the EBL was perfect for this course. In	
124	terms of other expectations, my expectations were low but	
125	I wasn't sure what I was coming to. I had studied at	
126	Masters level in other Universities but not here. I had no	
127	preconceived ideas. I saw the course as a means to an	
128	end. Lots of the work I do is on an individual basis or	
129	couples and previously my work has been in groups and	
130	when you're in groups you recognise the power of learning	
131	in groups and this group has reminded me of this. The	
132	power of the group and the power to learn. It also made	
133	me recognise that I've been in situations and have said	
134	nothing as I've not had the confidence to say what I	
135	wanted to say and I think on a personal level that again is	
136	part of the group issue and with this group I have had	
137	many experiences including the piss ripped out of me but I	
138	still wanted to come back, and frequently, and still wanted	
139	to contribute so on a personal level, that for me was very	
140	significant. Em, what a marked contrast from turning up on	
141	the 31st August 2006 to the taster day and being talked at	
142	for a day and thinking 'have I made a mistake?' and then	
143	actually coming here and from day one just experiencing	
144	something entirely different from the what had been	
145	outlined. I think that's you and em, the identification and	
146	knowing when you can use EBL and be successful but	
147	also not excluding the use of PBL and knowing it's not	
148	negative and that there are things that lend themselves to	
149	PBL so not excluding it. But EBL is new and exciting and	
150	you hear what other people have to say and you do think,	
151	if only more courses could be taught this way, and this is	
152	what we should be doing but not having experienced it	
153	before this and now I have participated in it I am more	
154	sensitive to hearing about it and value being able to give	
155	an informed opinion about it. I think EBL is becoming more	
156	significant, especially in my field of psychiatry but it is not	

157	widely used as yet and now I feel I am at the vanguard so	
158	to speak so just to be there when it's starting to be	
159	introduced adds so much more resonance.	
160	3: I'd just like to say, I know we take the mickey	
161	sometimes, but certainly myself I want to hear what you've	
162	got to say, you have such a deep perspective on things	
163	(group agrees), whatever light you shed is valuable.	
164	8: I still wonder how you think as you do!	
165	6: The sky is a different colour in my world!	Group laughter
166	4: It's very difficult to follow what has been said, as ever. I	
167	wanted to echo what everyone has said. It has been the	
168	process that's been the most interesting thing for me. The	
169	EBL process in itself is what has changed everything, not	
170	just my teaching and learning but the world as a whole. It	
171	has given me the confidence to challenge practice and	
172	truly think differently and hopefully at Masters level. I feel I	
173	have achieved that and just to echo what everyone else	
174	has said to thank you _____ for enabling that process to	
175	happen and I do remember some of the reading for the	
176	presentations we had to do and reading about facilitation	
177	and that it's not about being the sage on the stage but the	
178	guide on the side and you have guided us and have been	
179	with us but have not been centre stage. I have enjoyed the	
180	process as a whole and have wanted to come back each	
181	week to be with the group and have felt the responsibility	
182	to the group but have enjoyed that element of the process.	
183	8: Although you did not take centre stage I have always	
184	felt your presence your guidance is there even though you	
185	don't take centre stage. You have changed my idea of the	
186	lazy lecturer because even though you were on the side	
187	we knew you were there, I don't know how, it's still an	
188	amazing thing.	
189	**But when you were going through the stage of not**	
190	**being sure, not the deconstruction part of it but the**	
191	**part were you were seeking more guidance, how did**	
192	**you cope with that part?**	
193	1: I think it was all just part of it, I think it's something you	
194	just have to go through, there was an element of	
195	uncertainty and there was a moment spent thinking, is it	
196	necessary. The sort of nervousness in the initial weeks	
197	thinking what's this all about then, in retrospect was all	
198	part of it and necessary and you wouldn't change it.	
199	3: I remember coming to you in the car park asking if	
200	everything was okay but it was.	
201	6: One of the things that struck me was the way the EBL	
202	process itself allowed us, or me to run with ideas which	
203	previously I may have thought fairly obtuse thoughts but	
204	would not have developed them, but I remember when we	
205	were all on the top floor of the library and we were all in a	
206	state of oh my god what are we going to do and coming up	
207	with some fairly left of center ideas about trying to make a	
208	particular point in EBL and thinking, actually, this is not	
209	that weird because it gives you the freedom to look at	
210	things in a completely different way that an assignment	
211	wouldn't. You can have discussions with your peers which	

212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266	you respect through the community we develop as a group, which is liberating because I can be quite cocooned in my thought processes. 4: I think when you do a more traditional course the framework is more rigid whereas with EBL it isn't rigid at all, in fact there barely is a framework. So that allows you to develop a more natural and creative thought process. 6: Yeah, but to have an awareness to enable you or to let you think that way and I can remember writing a diagram and we were taking about how to present something, 'a fact', and how you go about presenting 'a fact'. So you have 'a fact' so you draw a crude diagram, so on one side of the page you have The Sun newspaper with a massive bold headline and a spurious photograph and it takes you to get to the 19th paragraph where you finally get 'the fact', but then you get the other side of the spectrum, say the FT and 'the fact' is the thing that's developed for the rest of the article and it made me think that actually sometimes the methods that we use are because we're aiming at Sun readers and sometimes the methods we use are very appropriate because we're not aiming at Sun readers and then trying to draw it all together and recognise sometimes the fact is pivotal and other times it isn't at all, it's how you deliver it. 4: It's about permission giving as well, you know for that delivery and it's about you can deliver it and how you want to as there's nervousness about it. So long as you back it up! **I remember at the start there was nervousness about** **what was Masters level and you as a group discussed** **what it was and how you demonstrated it and I am** **intrigued as to how you feel the assessed EBL fits into** **your discussions back then.** 7: I think partly due to the day we went on before we started and we were told that Masters level is something very hard and you'd have to do all this reading and it would be so much effort and I thought I didn't know if I could do it. But being part of the EBL and being in the group you do read and you read willingly and it wasn't forced. I felt uncomfortable initially as I felt it shouldn't be like this as I didn't think it should be enjoyable but when I discussed what we were doing with a colleague who'd done the course else where but I realised I was thinking about things much more and in a different way. 1: But that was interesting as on that day in August thinking was mentioned at all it was all about slogging. 6: It strikes me is that the emphasis maybe wrong on that day and it should be about meeting people who've been on the course so they can explain what the course is really about rather than being told how bloody awful it was. 3: But then these modules with _____ are different from the other Masters modules because they're EBL. How do you find the other Master's modules? 8: I questioned myself a lot and I have found I learnt more from these modules than at any other point in my life. The	

267	other Masters modules I think you are treated like an	
268	empty vessel where they have to give you the information	
269	where as here you have to draw so much on your	
270	experience. I have drawn so much from the EBL process	
271	and I think 90% of my learning has come from this as it's	
272	motivated me so much and completely changed the way I	
273	think, it has transformed my practice so completely.	
274	3: But if we were to go in on a taster day and discuss EBL	
275	and it's only on this course then people will be	
276	disappointed.	
277	6: I agree but if you look at the curriculum writing going on	
278	due to what's coming from the NMC. PBL is being used in	
279	a much more constructive way and EBL is being used in a	
280	much more innovative way so then that's what drives the	
281	process. I wasn't suggesting that ex-students dominate the	
282	taster day but I think a balance needs to be stuck and I	
283	think getting that balance will give students a much	
284	stronger idea of what is happening and what's needed and	
285	give a real 'taste'.	
286	8: There also needs to be further guidance on	
287	assessment, I have appreciated the help given here during	
288	any assessment.	
289	2: But isn't that due to the fact we have been learning	
290	about assessment and how it drives learning but that it can	
291	have such a negative impact on learning. I think we've had	
292	additional guidance through our assessments so we can	
293	focus on the learning much more. We've asked for and got	
294	guidance on our assessments to reduce our anxiety so we	
295	can focus better.	
296	6: I really do not like videos! I have always hated videos, I	
297	had to be videoed as part of my psychiatry as they were	
298	compulsory. Being videoed for this was necessary and you	
299	know you get over it, but what was really beneficial for me	
300	was watching the replay and I think that session _____ led	
301	was excellent and how informative that was, so I'm not	
302	quite sure what I'm trying to say but…I really did think that	
303	was going to be 'oh my god' but everyone was so	
304	constructive about each others work and it was very rich	
305	and if that could be done earlier it would have been	
306	beneficial.	
307	Fac: Well that's interesting as I'm videoing the new cohort	
308	next week and we begin the next module by reviewing the	
309	videos. That's what is so valuable about evaluative	
310	feedback, you can respond, act and improve.	
311	1: In fact we could have spent more time looking at it and	
312	we could have analysed them in more detail than we did.	
313	6: I think we hit the right level thanks!	Laughs
314	8: The words 'critical analysis' will haunt me for the rest of	
315	my life, just 2 words I struggled with until undertaking the	
316	EBL process and really learning about it and watching the	
317	videos and realising you can articulate it.	One student
318	**What were your expectations of the course?**	walks in late
319	5(late arrival): My expectations were it would be a	
320	traditional course with more depth at a different academic	
321	level and I would be reminded of me of being a student	

322	nurse and I expected to be made to feel stupid. We were	
323	always threatened with a discontinuation of our training	
324	and I expected that kind of culture. The fact here we've	
325	been recognised as expert practitioners and our	
326	knowledge has been respected has made all the	
327	difference. We've learnt about learning and teaching styles	
328	and there needs to be a recognition of that and EBL	
329	seems to appeal to or can suit the majority of learning	
330	styles. The key point for me from EBL has been the focus	
331	on learning rather than teaching and there's not been	
332	endless lectures.	
333	**How about barriers to engaging with the EBL process**	
334	**or points for improvement?**	
335	5: I don't know how you get round this but when we first	
336	heard we thought it sounded too good to be true and we	
337	couldn't get our heads round it but then I don't know	
338	whether it's just an evolutionary process. I don't know how	
339	you get round this as when we first discussed it with others	
340	it was difficult to articulate but then they just don't get it.	
341	7: The process isn't stressful as learning's enjoyable but	
342	there's always the stress of assessment but then that's	
343	inevitable and it maybe of benefit as you get a sense of	
344	achievement.	
345	6: A criticism of EBL is that it's dependent on the group. If	
346	you have a poor group then it's not as rich. One of my	
347	concerns was I know how I work and I know how I think	
348	and I wasn't sure whether my style would be tolerated	
349	within the group yet what surprised me was, knowing how	
350	groups work, I thought it wouldn't be successful but it	
351	quickly became apparent everyone was contributing to the	
352	group and actually the group has become the key function	
353	and the best experience, for the first time during a course,	
354	I've felt I belonged.	
355	1: What's interesting within EBL is if we had done a	
356	traditional course we'd have been exposed to lots of	
357	different lecturers but here we've only had 2 or 3 external	
358	people and we have spent a lot of time analysing them	
359	and how they have approached the group.	
360	6: But does that not just say more about us and how we	
361	are? Isn't it just the EBL process that means we are more	
362	challenging and more critical? We've developed the	
363	confidence to do these things. I mean John's session: that	
364	was the best ice breaker I've come across in a long, long	
365	time, the art work was fantastic, it really was very good	
366	and you could take it as simply or as complex as you liked.	
367	I'll use that technique, put it in the bank as such! But that's	
368	true of most weeks and considering we've only had 3	
369	outside speakers, I think that's a credit to what's happened	
370	here, and not just the facilitation but what we've all brought	
371	to it. Everyone has attended every week and brought	
372	something.	
373	3: I think that's a very basic indicator of the success of the	
374	course is the attendance.	
375	8: Wanting to attend! I'd find an excuse to avoid other	
376	lectures but if I ever had to miss a session here I would	

377	feel awful.	
378	**So, in terms of what you've learnt from the course,**	
379	**you mention transformation: how are you going to**	
380	**take this forward? I know over half of you already**	
381	**have new jobs.**	
382	1: That in itself is an interesting point and surely positive	
383	feedback as to the success of the programme. And I	
384	nearly got sacked for being too challenging! I certainly	
385	never thought I'd be getting another job when I started.	
386	8: I haven't shared this with the group yet but _____ is	Student was
387	aware. Because obviously my thinking has changed	asked if she
388	through this programme, it has been a very difficult time	wanted the
389	for me in my marriage and we are now on totally different	tape stopped
390	wave lengths and I am trying to bring myself back to his	due to the
391	level and I just can't. Once you've been liberated by	confidential
392	knowledge you can't go back as I believe in myself and I	nature of what
393	believe in what I can do and he doesn't. We need to find	she was
394	new ground so we can move on together. This whole thing	revealing but
395	has made me rethink everything and I think all of us are	she but
396	looking sideways for new things. On a personal level I	decided it
397	have never felt or been made to feel, by this group, as a	would be
398	black African woman. Every person in this group has seen	relevant and
399	me as a person and I was quiet to begin with as I didn't	put tape
400	think I had anything to offer but you made me feel, that	recorder back
401	although I am from Africa my head is not empty and I have	on
402	value and experience. I thought of dropping out a few	
403	months ago and somebody external said to me that I am a	
404	gold standard now as such a small number of African	
405	women have a Masters, people can look up to me. When I	
406	go home, I will be taking you all to Africa with me in my	
407	thoughts. It's interesting how things come round as nurse	
408	education in Kenya is going all degree and I have been	
409	offered a job as a lecturer there and I hope this will be a	
410	new lease of life for me and my husband. I just want to say	
411	this has been a life experience and this has not felt like a	
412	class as this has not felt like an education programme but	
413	this has genuinely been a life changing experience for me	
414	and I can't thank you all enough.	Applause from
415	2: I remember after the first module when we came back	group
416	you said how happy you were to see us all again and how	
417	we were your friends and it meant so much.	
418	3: As 6 says every session there has been something to	
419	take away and I think what you've just said will stay with	
420	us all.	
421	6: I can only speak for myself and what you've said is	
422	humbling but the pleasure has been knowing you.	
423	1: 6 and I were talking about it last week and our sessions	
424	have become like therapy sessions as we wouldn't have	
425	had the time in a traditional course to build the group	
426	we've had to here, we've had the relationship building	
427	here. Learning is not just about growth of knowledge it's	
428	about growth as a person and we all have our own stories	
429	of transformation from this course.	
430	6: It's not unique but it's one of those prized occasions	
431	where the process has been as rich as the end result. I	

432	think the fact that it happens in education when we are
433	actually looking at trying to attain that, does create its
434	uniqueness and exploits the very powerful nature of a
435	group.
436	3: We've mentioned about evidence in the past for QAA
437	purposes and you think of a normal course evaluation and
438	you fill in a form and your out the door as fast as you can
439	and even the evaluation of this course has been different
440	and fulfilling, just at a different level. Just like the
441	timetabling and making our own timetable.
442	5: If this was classically timetabled it would all be crammed
443	in but we wouldn't have time as a group and time to think.
444	1: It's very hard to quantify how much time we've spent
445	thinking through and the continued thinking through and
446	the application of it to our own settings.
447	6: One of things that has struck me as a process and a
448	method is it is a very useful method to use as the facilitator
449	because it's not 9-5 with every slot covered and fully
450	timetabled to get you off the hook but it's about the
451	confidence you have in the EBL facilitation process. So
452	that if people do start to go off at a tangent you can be
453	more guiding but the process is still occurring and you
454	don't have those safe pieces of paper or PowerPoint to
455	hide behind. It allows confidence as a teaching method.
456	7: I think of all the things we've learned about learning and
457	teaching we've actually experienced all that through this
458	process and having shared things with each other. It has
459	true resonance and will not be forgotten. All the theory
500	we've learnt, we've experienced and how knowledge is
501	constructed and embedded, it makes it more meaningful.
502	1: We are champions for practice education having had a
503	positive learning experience and the confidence that
504	brings.
505	7: It certainly makes you question other things that you
506	see happen, you see people gathering information for their
507	KSF's (you think NVQ's are bad!) but they're gathering
508	meaningless evidence.
509	6: God! NVQ, KSF, AOC, BBC, B&Q, P&O …the whole
510	culture weighs you down.
511	7: And you see people frantically going around and
512	gathering all this information for their KSF and you wonder
513	at what they're doing as they're not really reflecting…
514	1: That's dangerous talk! You'll get accused of being too
515	challenging.
516	7: It just seems to me that the NHS view of education is so
517	limiting, these KSF's are all about showing you can do
518	your job but the bit on development is ignored and it
519	should be the major part of it, I mean the KSF is supposed
520	to be a framework or structure for development and it
521	doesn't exist. It needs to be changed and I suppose we're
522	the guys for the job? Oh god, is that what you've done to
523	us? Made us responsible to go out and improve things?
524	6: But sometimes you look and there is a formula but
525	there's a rigidity to that formula, you think of the KSF and it
526	should be good but it ends up as a tick box exercise which

527	should work but nobody looks at the latitude within the	
528	gates. You won't get uniformity as what you do will be	
529	different from person to person yet this is not allowed.	
530	Where's the innovation? Where's the individuality?	
531	Where's the accountability? Where the hell is the	
532	leadership?	
533	2: A problem indeed.	
534	**Do you want to say anymore about the programme or**	
535	**EBL? I'm aware we've been talking now for 2 hrs and**	
536	**you may want a coffee…**	
537	4. I think we could talk forever about it but I suppose we	
538	just want to thank you for introducing us to EBL and what	
539	a difference you've made to us all.	
540	1. I think we'd all echo that.	Group agree to
541	Fac: Well thank you but I believe it's yourselves you	finish session
542	should be thanking, you as the group have made the	
543	process work and you have achieved the learning.	
544		

Appendix 5: Analysis grid research question 2

Research Question 2	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
What influences does learning within a community of practice have on student development as educators?	I've really appreciated the enquiry, the EBL and how it has made the group, what this group has bought and what I've appreciated is you can learn so much from the group. It has really helped me to achieve much more than anticipated (8, 67-71). Other modules you expect something from the lecturer: for them to give you something; here we expect from the group and ourselves. I think it has increased my confidence as a teacher and a learner (8, 79-83). The power of the group and the power to learn (6, 131-132). …wanted to come back each week to be with the group and have felt the responsibilit	I can't describe it very well but it's the combination of the process and the group. Being in a group with other experienced professionals from different Trusts raises your game, you want to be credible yet the group is very supportive. I think there's a lot about who we are, we're determined to do well but also support each other (3, 54-61). I've been more imaginative as we've worked together well as the feedback's been so good, so the course lets you take those risks and then you can take them out into practice. (4, 73-76). It's the group process, I think you get that with groups anyway but with this process the group is more powerful than what I've ever experienced (1, 92-95). It has relevance , its	I've been reading about communities of practice and that's what we are, the best bit for me is sharing ideas about practice, not just being able to share problems around teaching and learning out in practice but being able to share about teaching and learning, full stop and practice, full stop. I've learnt so much from you all (10, 49-53). We feel as if we've learnt more on this course than any other as we've learnt not just by and for ourselves but we've shared that knowledge which each other and many heads are better than one as we've heard each other's perspectives (4, 54-57). This programme	We've gone back into our respective areas and tried to make a change but is that us as a group, or me as an individual or is it the course? The other masters courses I've done haven't led to a change like this so it must be something, maybe I'm a sceptic and I'm not convinced (5, 66-69). It's interesting as this is quite a prescribed course due to the NMC standards as well as the HEA and the university has its say yet its own of the most liberating I think due to the group work. It doesn't feel prescribed. I've had a say in how I learn, I've been allowed to experiment and I've never had so much feedback as I've had. I can see	We all talk of it being transformative and I agree, it's changed the way I think about teaching. I'll definitely be a better teacher now as I know I have to involve the students more than I did before (1, 49-51). I thought being a teacher was just, you know, sharing what you knew, giving out information, but it's not. I've realised through the group work that I am responsible for everyone else's learning, not just my own. This was really scary and a pivotal moment for me (5, 55-58). Working and learning as a group makes you more forgiving, as you understand how complex things are. I've so enjoyed exploring the policy and politics, both the macro and micro, it's been fascinating and really opened my eyes (3, 62-66). I have to confess I didn't really understand half of what we	Being part of the group has turned everything on its head for me. I thought I knew about teaching but I didn't really appreciate the complexity of it, or the nuances that exist between what is teaching and what is facilitating learning. Being responsible for the groups learning made me see so much more and a different side to what it means to teach (8, 53-60). The group or community has been so important to us, we've grown so much together, the sharing of our knowledge, experiences, views, values, beliefs, attitudes… It's as if we've morphed into one homogenous being (2, 61-65). I love the fact we can

y to the group but have enjoyed that element of the process (4, 180-182). You can have discussions with your peers which you respect through the community we develop as a group, which is liberating because I can be quite cocooned in my thought processes (6, 211-214). …but when I discussed what we were doing with a colleague who'd done the course elsewhere I realised I was thinking about things much more and in a different way (7, 252-255). The fact here we've been recognised as expert practitioners and our knowledge has been respected has made all the difference (5, 325-327). A criticism of EBL, or really group learning, is	contextualised, at home and in the group we have learnt how to learn and how to teach, it really has relevance (2, 101-104). The group work was the most influential thing for me. It was being part of a bigger being as it dragged you along or chivvied you up when you were lost or down. It also showed other ways through the complexity of things, we could draw on each other's experience. It was the group that made it more for me (3, 110-115).	has given me the yes moment, the light bulb. This way can make learning fun although I know it's not for everyone but our groups been amazingly supportive and rich (2, 60-65). You made us responsible for each other's learning and it was really interesting because you couldn't just go away and not do any work, you had to know what you were on about because we had to bring it back and share it. It made me realise I was responsible not just for my learning but for everyone else's (9, 71-75). I think we are special as a group, we are so much greater than the sum of our parts and we have developed our own	there's a lot of prescription yet, it's felt free individually and as a group (8, 72-81) I did enjoy the group work, I saw it was important and it is an important part of the EBL but I think I prefer to work or should I say learn alone. As a group we've had challenges and this made me feel like I wanted to retreat into my shell and be on my own but I had to get on as it was part of what we had to do (10, 85-91). It took a long time for me to get it, others seemed to just intuitively know and I was scared, scared of being left behind as I didn't get it but I didn't want to appear thick in front of the group so I pretended, and used fancy	explored in the beginning. I was terrified of having to discuss and debate what we'd found in case I was challenged as I didn't really know it. I spoke to _____ and she felt the same so we went to see _____ and got reassurance, we were ok, we were getting it but we felt we were slower and couldn't let the rest of the group down (6, 71-78). We could have gone to each other and helped as that's the point of the group – to support each other as students and as teachers (4, 79-81). It was a transformational journey due to the self-motivation inspired by the EBL and the group (7, 82-83).	go away and explore things and discover things and come back and share how we want to. I haven't been told things we have learnt for ourselves and shared as a group. (3, 72-78). Each of us will develop differently and reach different goals and objectives, it encourages us all to develop in our own way and develop personally, it has a lot to do with the group processes. It also helped that we are all from different practice areas and Trusts as it's been really interesting to know what each Trust does in relation to training and development. I think you get sharing with groups anyway but with this process the group is more powerful than what I've ever experienced (2, 121-130). I feel like an adult learner, I've been taught as an

	that it's dependent on the group. If you have a poor group then it's not as rich. One of my concerns was I know how I work and I know how I think and I wasn't sure whether my style would be tolerated within the group yet what surprised me was, knowing how groups work, I thought it wouldn't be successful but it quickly became apparent everyone was contributing to the group and actually the group has become the key function and the best experience (6, 345-353). On a personal level I have never felt or been made to feel, by this group, as a black African woman. Every person in this group has seen me as a person and I was quiet to begin with as I didn't think I had		unique interests (8, 76-78). The group has been the most fascinating part of this for me. I've loved being with everyone and learning from each other. I can imagine us all staying in touch for a very long time (3, 232-235)	words. I've got it now, I think, but I felt I had to work harder and I'm not confident with it yet (10, 93-99). I enjoyed the group, it made the course and I think learning as a community has really helped me to develop my teaching as we've practised on each other (7, 102-104). I come from a very different background abroad. I came from a totally taught structure, I've never done group work and this was very different, to come across EBL was very frightening but equally exciting. I really want to go home and change education where I'm from so they can experience true liberating education (1, 245-252). I feel responsible ,		adult or I've been allowed to learn as an adult within a group, a community of adults if you like (7, 133-139). The group is important, you need the support. And the tutor's key as you could be detached and not interested and not part of the process. You can generate content but the facilitation is key too (6, 141-145).

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	anything to offer but you made me feel, that although I am from Africa, my head is not empty and I have value and experience (8, 396-402). I think of all the things we've learned about learning and teaching we've actually experienced all that through this process and having shared things with each other. It has true resonance and will not be forgotten. All the theory we've learnt, we've experienced and how knowledge is constructed and embedded, it makes it more meaningful (7, 456-501).			accountable if you like, not just for the learning here in the group but for spreading the good word or the 'gospel' about my new views on learning. It needs to be shared, not just with my students but with my colleagues so we're not subjecting any more students to 35 PowerPoint slides thinking we're educating them and getting cross when they text or fall asleep at the back (9, 259-264).		