# Facilitating Enquiry Based Learning within Midwifery Education: A self study investigating my professional, knowledge and learning beliefs and their impact on the learning environment

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## Abstract

Midwifery education requires that rigorous efforts are made to link theory to practice for the benefit of women and families and yet research has shown that equipping students with scientific theory is not enough to ensure effective practice. For this reason, teaching and learning strategies which develop the student's knowledge and learning beliefs to enable them to appreciate the complexity of practice are encouraged. Enquiry Based Learning is one such approach and has been evaluated as effective in promoting higher order skills. However, it has been suggested that the position of the educator with regards to their professional, knowledge and learning beliefs will determine whether or not desired outcomes are achievable (Savin-Baden 2003). For this reason, educational researchers such as Elliott (1991) suggest that reflective inquiry into action is essential if practitioners are to realise the ends of their intentions. Utilising the work of Schön, practical action research allows the inquirer to engage in a process of self understanding and professional development (Konsik 2001) that looks not just at action but the motive for that action through self-study (McNiff et al. 1996). This research therefore utilised the conceptual framework of self-study and, through the use of dialectical reflection on three critical incidents in practice, investigated the question ""How might my professional, knowledge and learning beliefs impact on the implementation of EBL?". The study confirmed the work of Savin-Baden (2003) suggesting that positioning in relation to tacit beliefs about knowledge, learning and professional identity can undermine conscious attempts to promote complex student learning.

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# Chapter One

## Introduction

### 1.1 Introduction

Over the past year, I have designed, implemented and subsequently modified an Enquiry Based Learning (EBL) approach within a double, high-risk midwifery, module for second year undergraduate midwifery students on a pre-registration programme. No other modules within the programme utilise this approach. This process has coincided with my commencement as a midwifery lecturer and runs parallel to my development as an educator. It has prompted me to question and adjust my work and the values and beliefs implicit in those activities I promote as educational. Foley (2001: p 68) suggests that

> "We learn as we act, and our learning is both tacit and explicit. This is indeed a complex tapestry, difficult to unpick. But just to know that it is complex and needs to be unpicked is important for those of us concerned with understanding and facilitating critical and emancipatory learning. We can then let go of formulas that promise quick results, and get on with the difficult and rewarding work of trying to understand what people are actually learning…and, of course, considering the implications of that learning for our educational interventions".

In this dissertation, I will explore, through self study, the impact on my own practice of the process of developing, implementing and modifying EBL. Kosnik (2001) suggests that educators see themselves as agents for motivating, informing, guiding and preparing students but do not think that this process will also change and enrich them. Kosnik writes that, as a result of her own self study, her perception changed from only recognising the significance of the adjustments to the curriculum to realising the significance of those changes to her own growth and development. McNiff and Whitehead (2006: p.11) advocate self study as a form of action research

which places the researcher at the centre of their own enquiry and asks “What am I doing?” and “How do I describe and explain my actions to you?” Kosnik (2001: p.69) suggests that self study go further and also ask: “What is my response to the event saying about me?” and “What are the values inherent in my decision and the situation?” Kosnik (2001) drew these questions from the work of Schön (1983) who concluded:

> “When someone reflects-in-action, he becomes a researcher in the practice context. He is not dependent on the categories of established theory and technique, but constructs a new theory of the unique case” (Schön, 1983: p.68 cited by Kosnik 2001).

I have utilised the practical action research framework for this study where the influence of Donald Schön is highly apparent. The model incorporates reflection in and on action in order to consider means as well as outcomes (Elliott 1991). Its philosophical critique enables practitioners to reconstruct their concepts (Elliott 1991) thus facilitating personal and professional development (Kemmis 2006, Elliott 1991). I have chosen to employ Kosnik’s (2001) use of the critical incident technique for self study to identify those disjunctions between my expectations and the consequences of my actions which were positive, negative, puzzling or frustrating. Kosnik (2001) suggests that innovations often have unexpected consequences that can give rise to `critical incidents’, the nature of which will depend upon what the practitioner chooses and names as the things he will notice (Schön 1987). The decision to utilise critical incidents to inform self study rather than trying to measure success or failure in implementation in terms of student output or opinion is in an attempt to ground the research not in action but in motive for action which may give rise to both successful outcomes and knowledge (McNiff et al. 1996).

Initially, I will outline the context for the study and explore related literature. I will outline my rationale for the methodology chosen with underpinning epistemological and theoretical frameworks. I will then describe and analyse those critical incidents that helped me to illuminate and address fundamental values and beliefs in my practice against theoretical concepts, utilising the principle of Schön's theory of reflective practice within a practical action research framework. Finally, I will consider how this has impacted upon my practice and my development as a midwifery educator.

## 1.1 Background to the Study

As part of my M.Sc., I engaged in Enquiry Based Learning. My experience as a student participant led me to believe that EBL engendered deep learning through its process of identifying knowledge requirements, self-directed study and evaluative group feedback to enable the construction of knowledge grounded in individual and group experience. At interview to secure my first permanent post as a midwifery lecturer, I had postulated the benefits of EBL and its transferability to the midwifery curriculum. Upon appointment, I decided to implement it immediately in the practice-linked double module focussing on high risk interventions in labour and delivery. The cohort that would engage with EBL would comprise of year two semester one midwifery students from traditional (school leavers), non traditional (access to higher education) and graduate backgrounds. Other members of the midwifery team had employed PBL in the past. Neither it, however, nor its philosophical relative EBL (Price 2003) were currently used in any modules. Nevertheless, several midwifery programmes successfully employ forms of EBL within their curriculum (Brunt 2003, Price 2001, McNiven et al. 2002, Fisher and Moore 2005, Bloom 2005, Meddings

and Porter 2008; Brown et al. 2008, Lobb and Butler 2009). Students have rated it as a more enjoyable means of learning when compared to the lecture based format (Lobb and Butler 2009) or conversely as boring and pointless (Kitson and Reynolds 2009). Nonetheless, it is evaluated positively as facilitating life-long learning (Brunt 2003a) and enhancing links between theory and practice (Fisher and Moore 2005, Brown et al. 2008, McNiven et al. 2002). Carefully selected clinical triggers bring practice issues into the academic setting (Brown et al. 2008), prompting students to question their perceptions of observations and knowledge (Brunt 2003b) as they become immersed in the contextual issues impacting on practice (Price 2001). This produces joined-up learning by linking learning experiences in the university setting to the practice setting (Eraut 2006a) resulting in meaningful learning (Eraut 2006b). Additionally, EBL's evident enhancement of broader graduate skills; problem solving, critical analysis, project management, team working, communication, presentation and ICT skills and facilitation of deep learning (Kahn and O'Rourke 2004) appeared a convincing reason to implement it into the midwifery curriculum.

The early introduction of EBL in my career reflected a belief in its benefits but also prevented me becoming comfortable utilising more traditional teaching methods. Values and beliefs regarding the education of adults and EBL informed my initial decisions. I thought that EBL was encouraged in Higher Education Institutions (Kreber 2006) as implied in my own university's Strategic Plan. I understood EBL as student centred (Kahn and O'Rourke 2004) and underpinned by notions of andragogy (Porter and Meddings 2007) and Dewey's social learning theory (Dewey 1916). The theoretical premise for EBL is social constructivism (Morrone and Tarr 2005, Kitson-Reynolds 2009) but I knew that this is unable to completely explain how

learning occurs (Penman 2007). I believed EBL was a developmental pedagogy (Baxter Magolda, 1999; cited in Kreber 2006) as it encourages higher levels of cognitive ability (Hughes et al, 2004) and more sophisticated epistemological belief systems (Kreber 2006) moving from "simple, absolute certainty (in knowledge) to a multifaceted, evaluative system" appreciative of context (West, 2004: p.61). I enjoyed the prospect of a facilitative role rather than instructional (Morrone and Tarr 2005, Lobb and Butler 2009) not only because it reflected the principles of adult learning (Phillips et al 2002), but also because I felt more comfortable in this role. As theoretical knowledge arises from curiosity about practice and is thus purposeful (Long et al. 1999), the student takes responsibility for their learning (Lobb and Butler 2009) by locating information to progress the enquiry (Dalsgaard and Godsk, 2007). I was confident that students would be motivated and able to accept this level of responsibility. EBL involves cyclical planning, research and feedback with new layers of knowledge added during each cycle (Hughes et al 2004, Lobb and Butler 2009) and ends with the presentation of evidence to the rest of the peer group (Kitson-Reynolds, 2009). I found this an easy and personally rewarding aspect of the process as a student and expected others to feel the same way.

I was aware of criticism of EBL, such as Mayer (2004) and Kirschener et al. (2004) who question the efficacy of discovery learning, particularly for novices and intermediates. Conversely, Morris and Turnbull's (2004) and Oliver's (2007) studies found that undergraduates developed the meta-cognitive abilities to engage with the process, if supported. I knew that, as a social constructivist strategy, EBL's success depended upon the collaborative effort of all learners engaging in and contributing to discussions involving active thinking, explaining, interpreting, questioning and co-

constructing new knowledge (Morrone and Tarr 2005, Fisher and Moore 2005). The process depends upon active, self-regulated work from all students (Dalsgaard and Godsk, 2007) and I was aware that individuals can potentially jeopardise the learning environment for all (Fisher and Moore, 2005). I was conscious of Phillips et al.'s (2002) argument that self-regulation is a pre-requisite for EBL, whilst Morrone and Tarr (2005) propose that students will become self-regulated learners if they are responsible for their learning. I knew that prior knowledge, experience, emotional maturity, values, learning style and expectations would mediate their response to both content and method. I was aware that, to increase meaning, motivation and thus learning, the intrinsic rewards for engaging must be incorporated in the learning strategy, for example allowing students a measure of choice (Eraut, 2006b). This makes the demands of planning and facilitation challenging (Fisher and Moore, 2005). As facilitator, I needed to select an appropriate trigger to focus students' attention on specific issues and identify resources and a framework to support the process but the open-ended nature of EBL makes it impossible to pre-determine students' activities (Dalsgaard and Godsk, 2007). I took the advice of Long et al. (1999) in liaising with another midwifery team whose study I had read (Brown et al. 2008) to avoid making mistakes. My only real concern related to Fisher and Moore (2005) and Brunt's (2003a) advice that EBL is most effective when used as an educational philosophy. Kreber (2006) suggests that this enhances developmental learning outcomes by the full facilitation of self regulation and Morris and Turnbull (2004) found that a combination of both self- and teacher-directed approaches led students to trust that lecturers would provide answers, negating any need for personal enquiry. This element concerned me. I could not implement at programme level, nor was I comfortable with full implementation at module level in view of my

inexperience of facilitation, the most difficult element of EBL, which takes time to develop successfully (Kahn and O'Rourke, 2004). I was advised not to "go it alone" but I followed Morrone and Tarr's (2005) strategy of including an eclectic range of teaching and learning methods to enable convergence of learning strategies. I was supported by the midwifery team and only the question of how much curriculum time to assign to EBL remained. I decided to run two enquiries of approximately four sessions each (see appendix twelve) but could assign another session if required. One enquiry would focus on induction of labour and the other on caesarean section.

# Chapter Two

## Literature Review

### 2.1 Introduction to the literature review

Savin-Baden (2003) suggests that the choices and interventions that tutors implement emerge from their pedagogical stance, formed by previous learning experiences and notions of learning and teaching. However, Savin-Baden (2003) also found that where tutors positioned themselves within the learning environment in relation to knowledge production and transmission and professional identity as a clinician was significant. This affects their facilitation of those higher order outcomes achievable through problem based learning (PBL) and this is further complicated if the tutor is managing her own transformation from teacher to facilitator whilst also supporting student transformation in their learning and knowledge beliefs (Savin-Baden 2003). Whether these findings can be transferred between PBL and EBL is worth consideration. Brunt (2003a) suggests the terms are used interchangeably and they share a number of philosophical premises and practices (Brown et al. 2008, Price 2003). However, there are subtle differences, such as the broader approach in EBL (Khan and O'Rourke 2004) where triggers in PBL are orientated towards individual patients or situations but which in EBL will be orientated towards practice and the discovery of implicit and tacit knowledge (Price 2003). This suggests that the basic principles of Savin-Baden's findings are transferable to this study. This literature review will therefore consider three aspects: Professional Identity, Knowledge Beliefs and Learning beliefs.

## 2.2 Professional Identity

Midwives, at registration, must be safe, effective and able to assume full accountability for their practice (The Nursing and Midwifery Council (NMC) 2009). Therefore, the NMC (2009) states that, midwives' preparation must include; a sound, evidence-based knowledge of the physiology of childbirth and neonatal adaptation to include deviations from normal, education to recognise impacting psychological, social, emotional and spiritual factors, appropriate interpersonal skills and critical decision-making. In addition, students must develop skills to enable them to be; autonomous, professional, adaptable, and responsive to cues, clinically effective and efficient, able to work collaboratively and to provide holistic, respectful, equitable care within NMC regulatory and legal, local and ethical frameworks. Finally, students must be equipped as life-long learners, able to recognise and rectify knowledge gaps by locating, analysing, critiquing, using and disseminating evidence in practice (NMC 2009). Competence in practice is measured through achievement of NMC standards, supported by attainment of essential skills clusters and engagement in prescribed incidences of care, for example acting as accoucher at 40 births (NMC 2009).

Regulation of midwifery education to this extent raises many issues. Firstly, as midwifery education is driven by prevailing whims of government and regulatory bodies which promote task orientated skills, Mason (2003) argues that midwifery is reduced to less than semi-professional attracting entrants with minimal academic attainment which will impact upon what may be achieved in education. Secondly, Fraser (2000) argues that midwifery education should acknowledge the complexity and unpredictability of professional practice rather rising to the lists of skills and

competencies since this promotes task orientated practice (Jacob and Georgiou 2004). Furthermore, equating competency in the performance of skills to actual ability in professional practice is questionable since effectively performing a skill does not signify understanding of it (Fraser et al. 1998). Finally, Phipps (2003) and Fraser et al. (1998) argue that prescriptive midwifery curricula are not conducive to adult learning theories. The Fraser et al. (1998) study of midwifery education found curricula were content and outcome driven rather than process driven, despite presenting themselves as not so, focussing on what students should know rather than how they should learn. This firstly demonstrates a narrow view of expertise as essentially a matter of content knowledge (Margetson 1997) but also leads tutors to feel bound to denote valid knowledge and experience and apply reductionist approaches to professional practice (Savin-Baden 2003). The resulting reliance on the transmission of facts, particularly in the first year, encourages passive learning which impacts on academic self-concept and limits students to a surface or strategic approach to learning (Fraser et al. 1998). The impact of clinical practice on students' self-conception is also apparent in midwifery education. Dialogue with mentors may position and affect student's perception of evidence and practice (Phillips et al. 2002). It may undermine motivation, because mentors do not support graduate entry (Jacob and Georgiou 2004), or autonomy through actions demonstrating compliance in practice (Phipps 2003). Alternatively, mentors may provide the coaching that students need to equip them with skills to reflect in action (Schön 1987).

The Peach Report in 1998 states that, for all midwives to be fit for practice on registration, the critical relationship between theory and practice must be addressed (Darra and Norris 2006). Midwifery education promotes the application of scientific

theory to practice (Mason 2003, Phipps 2003, Richens 2002) and is largely indifferent to political, philosophical and aesthetical knowledge (Mason 2003). Thus, professional knowledge dominating curricula is based on positivist epistemology (Fraser et al. 1998) which supports the technical rationality model of professional practice (Phillips et al. 2002, Fraser et al. 1998) and results in curricula with no tangible connection with women on a conceptual or emotional level (Clinchy et al. 1985). This model is often adopted by professions seeking higher academic status (Schön 1987) such as midwifery. However, Schön (1987) questions whether this yields useful professional knowledge because it does not provide answers to indeterminate zones of practice; uncertainty, uniqueness and value conflict. Richens (2002) argues that, although the application of theory to practice positively changes outcomes, supporting physiological birth requires artistry rather than theory. Schön (1987) describes artistry as an exercise of intelligence and a form of knowing which is crucially different from professional knowledge based in technical rationality. Artistry may be achieved through engaging in several levels and kinds of reflection (Schön 1987). Thus, Phipps (2003) argues that humanistic andragogical theories need to be utilised within midwifery education to encourage reflection and reciprocity. Nevertheless, research suggests that higher order thinking skills are required for complex reflection, and minimum-entry students are unlikely to possess them (Love and Guthrie 1989). Phipps (2003) argues that if midwives are to engage in the complex learning required to meet the extensive requirements for registration discussed earlier, then a failure to achieve this level of thought processes means that students will not have achieved the intellectual skills or knowledge beliefs necessary for safe practice. The requirement to employ reflection as a higher level skill after registration to engage in the emotional practice of unlearning in the light of

new knowledge is important (Macdonald 2002). An unwillingness or inability to reflect leaves practitioners as nothing more than "automatons following a dubious set of rules or principles" (Cranton and King 2003: p.33). Enquiry based learning may provide the means to link theory to practice and aid critical decision making as it values all knowledge (Phipps 2003). It makes the learning activity, not just the content, important and places the woman and baby at the heart of knowledge and the student at the centre of learning (Fraser et al. 1998)

## 2.3 Andragogy

The attention of adult education practitioners and researchers has moved from developing more effective teachers to producing more competent learners following research findings showing that 'indirect' teaching contributed more to student learning than 'direct' (didactic) teaching (Foley 2001). The resulting theory, often termed andragogy, is considered appropriate in meeting the needs of undergraduate learners (Jinks 1999, Forrest and Peterson 2006) and Rachal (2002) and Cowan et al. (2004) suggest that andragogy should permeate the curriculum. Andragogy is a learner-centred paradigm (Forrest and Peterson 2006), defined by Malcolm Knowles as "the art and science of helping adults learn," (Knowles, 1980: p.43 cited by Merriam 2001) as opposed to pedagogy, the art and science of helping children learn (Ozuah 2005, Merriam 2001). Pedagogical learners are represented as passive recipients of knowledge, motivated primarily by external pressures, such as fear of failure, and orientated to learning that is subject-centred and not immediately relevant (Bale and Dudney 2005). In contrast, Knowles' andragogy gives status and responsibilities to students as adult learners (Jinks 1999). Based in humanistic psychology (Merriam 2001), andragogy is premised on crucial assumptions about

the nature and characteristics of adult learners (Ozuah 2005). The learner is presented as autonomous, motivated and growth- and problem-oriented (Merriam 2001), whose rich compilation of life experiences should be used as a resource (Merriam 2001, Ozuah 2005, Bale and Dudney 2000). The topic studied needs to be relevant (Ozuah 2005, Bale and Dudney 2000) and participation in the learning environment voluntary with control over learning objectives, process and success criteria resting with the learner (Rachal 2002). However, where pedagogy assumes uniform teachable moments, this is not the case in adults, thus flexibility is crucial and motivation needs to be intrinsic (Bale and Dudney 2000). EBL meets these andragogical criteria (Porter and Meddings 2007).

However, Rachal (2002) criticises the premises and methods employed in the name of andragogy. Firstly, how adults learn is an elusive concept since the process of learning and impact of context is poorly understood (Merriam 2001). Rachal (2002) suggests that, despite its primacy, there is no single operational, researchable definition of andragogy. Thus, a medley of theories, models, principles and explanations (Merriam 2001) and anecdotal, expositional and polemical writing informs the field (Rachal 2002). This has created paradigm devolution where followers of the ideal are unable or unwilling to follow its original form, instead altering it to fit their purposes and transforming it into ideology. This new ideology, whilst still called andragogy, incorporates violations, contradictions and variants (Rachal 2002). Hence, the terms andragogy and pedagogy are used incorrectly (Forrest and Peterson, 2006) and andragogical practice sits somewhere along a pedagogy/ andragogy continuum depending upon the concepts and values of individual lecturers (Rachal 2002, Jinks 1999). This results in a distorted view of

learner control (Rachal 2002, Jinks 1999) or restricted application of concepts due to quality control, professional constraints or general course goals. These impact on voluntariness and alter response to learning (Rachal 2002) causing conflict between the adult's deep psychological need to be treated as self-directional and the reality of being taught as a child. This causes resentment, resistance and frustration (Ozuah 2005) and a varying level of dependence on the teacher for structure (Merriam 2001). Bale and Dudney's (2000) study found that, despite responding positively to andragogical methods, students required immediate gratification and feedback.

Traditionally, undergraduates were not considered andragogic (Rachal 2002) since adult learners should adopt culturally and socially defined roles of adulthood which cannot automatically be assumed at eighteen. Thus, even allowing for widening participation, the assumption that all students can engage with andragogy is unhelpful (Kell and Van Deursen 2000, Forrest and Peterson 2006, Rachal 2002). Knowles agreed that there are degrees of androgogyness (Rachal 2002) where level of teacher dependence, type of motivation and transferability of life experience will vary perhaps even creating barriers to learning (Marriam 2001, Marton and Trigwell 2000). Hence, the idealistic assumptions that Knowles makes about adult learners are problematic (Rachal 2002). Knowles himself eventually agreed that andragogy was more a model of assumptions transformed into a conceptual framework than a theory of adult learning (Merriam 2001). Nevertheless, Merriam (2001) argues that learners needs are best met through a learner-centred approach, such as andragogy, where educators involve them in as many aspects of their education as possible to create effective learning environments.

Despite appearing opposites, andragogy and pedagogy are not mutually exclusive paradigms (Ozuah 2005) but philosophical frameworks to which a teacher looks for guidance when selecting strategies to convey specific knowledge (Forrest and Peterson 2006). Thus, learning and teaching strategies are neither pedagogical nor andragogical; both philosophies can and do use all strategies, but implement them in different ways (Forrest and Peterson 2006). For example, the pedagogic approach of providing information in a dependant way may be implemented in situations where adult learners have no relevant prior experiences. However, where pedagogic practitioners may sustain this approach indefinitely, andragogic practitioners gradually facilitate the learner toward increasing autonomy and self-direction (Ozuah 2005), becoming less intrusive as the educational process continues to develop the student's adaptation, free inquiry and self-sufficiency, (Forrest and Peterson 2006). Thus, implementation of andragogic strategies can be complicated, requiring mutual learning of student and facilitator and reducing anxiety by avoiding replication of schooling experience (Rachal 2002). Forrest and Peterson (2006) conclude that, if educators wish to use methods in a learner centred way, they need to have more than good intentions; they need a learner-centred philosophical outlook.

## 2.4 Self directed study

The development of self-directed learning skills is a primary aim of all adult education (Williamson 2007) to enable individuals to control and change their everyday world (Merriam 2001). However, Kell and Van Deursen (2000) suggest after Dubin (1972) that the half-life for medical knowledge is about five years. Thus, pressure on individuals practicing within a professional code to develop these skills is heightened (Kell and Van Deursen 2000, Williams 2004). While not necessarily

suggesting learning in isolation (Kell and Van Deursen 2000), it does require learners to take increased responsibility for their learning and to be proactive rather than reactive (Williamson 2007, Cowan et al 2004). Self-directed learning relates to Knowles' first assumption that learners become increasingly self-directed as they mature (Merriam 2001) in order to adopt social roles (Forest and Peterson 2006). However, as identified above, whilst students are chronologically adult, not all are adult learners and those entering educational programmes without having learned skills of self-directed inquiry experience anxiety, frustration and often failure (Williamson 2007). Additionally, even adult learners may equate education with pedagogical schooling and feel more comfortable accepting dependant roles (Forrest and Peterson 2006). Thus, educators should not presume that self-direction is easily transferable (Merriam 2001). Williamson (2007) and Kell and Van Deursen (2000) found that self-directed learning increased as students progressed through their degree but that more experienced adult learners were immediately more self-directed in their learning processes. This demonstrates the multifaceted role of prior experience in new learning through self directed activities (Clapper 2007). Interestingly, Kell and Van Deursen (2000) identified that the preference for teacher-structured learning increased in the second year when course demands grew and the anxiety of impending clinical practice intensified with a simultaneous decline in reliance on self-direction in mature students. Assuming a readiness and a desire by the student to control their own learning may lead to insecurity and stress (Morrone and Tarr, 2005) and irrational or unpredictable reactions (Schommer-Aikins and Easter, 2006).

## 2.5 Epistemology

West (2004) defines epistemology as related to knowledge beliefs as classified and described by Perry (1970), Belenky et al. (1986), Baxter Magolda (1992), King and Kitchener (1994). All suggest that epistemological beliefs move along a constructive developmental path from absolute certainty towards a complex, multifaceted, evaluative world view (West 2004, Schommer-Aitkins 2004, Bråten and Strømsø 2005). Epistemological perspectives are not fixed, exhaustive, or universal (Love and Guthrie 1999). However, as a constructive process, where individuals use perceptions from preceding stages to inform the following stage (West 2004, Savin-Baden 1998 ), one must pass through all perspectives en-route to a higher epistemology (West 2004). This may be confusing and painful in adulthood (Schommer-Aitkins 2004) especially when related to the nature of personal responsibility and agency within a learning context (Savin-Baden 2003).

Schommer-Aitkins (2004) proposes that individuals hold multidimensional epistemologies where knowledge concepts can be developed independently and non-synchronously. This may reflect contrasting beliefs about intelligence, teaching and learning (Buehl and Alexander 2001) and may be affected by the personal epistemology of the tutor. For example, encouraging accurate fact recall embodies a simplistic personal epistemology, whereas encouraging synthesis and application of knowledge is more likely to encourage a complex personal epistemology (Schommer-Aitkins 2004, Savin-Baden 1998). Moreover, students might use one epistemological position for one task, for example, when reproducing “appropriate” material but a different one for another (West 2004). Thus, student’s normative epistemological approaches may not reflect their ability to perceive knowledge at a

higher epistemological level (West 2004). Bråten and Strømsø (2005), Schommer-Aitkins and Easter (2006) and Paulsen and Fieldmen (2005) consider knowledge epistemology as forming one domain within an overarching concept of personal epistemology, which emerges from prior knowledge, experience, emotional maturity, values, learning style and expectations (Morrone and Tarr 2005). It is defined as a system of more or less independent beliefs, conceptualised as notions about the simplicity, certainty, and source of knowledge, as well as beliefs about the control and speed of knowledge acquisition (Bråten and Strømsø 2005) and will mediate responses to content explored and methods utilised (Morrone and Tarr 2005). It is unclear how or when these epistemological beliefs form and how education and maturity affects them (Buehl and Alexander 2001). However, awareness that personal epistemology affects classroom performance and self-regulated learning (Schommer-Aitkins 2004) can aid educators in designing the learning environment to encourage transition in self-concept (Schommer-Aitkins and Easter 2006, Paulsen and Fieldmen 2005).

Various taxonomies for stages of development exist (West 2004). The lowest epistemological position, as identified by Belenky at al. (1986), is silence (West 2004). This does not describe the act of silencing subordinates through culture or actions but that which occurs when one has no sense of self and no internal dialogue and is incapable of knowing and thinking, being intensely dependent on external authority (Love and Guthrie 1999). The Received Knower is the simplest epistemological position seen in higher education. Here individuals perceive teachers as an infallible authority (West 2004, Schommer-Aitkins 2004) and one, right, unambiguous answer to every question (West 2004, Love and Guthrie 1999).

Knowledge is passively learned by listening, memorising and reproducing (Love and Guthrie 1999, Schommer-Aitkins 2004) and this engenders a surface learning approach (Entwistle and Entwistle 2003) where underlying principles or patterns are not questioned (Beattie et al 1997). Received Knowers believe that learning is heavily influenced by innate ability and will cease to try if they do not learn quickly (Schommer-Aitkins 2004), thus personal knowledge construction is problematic as students do not engage well in self-directed learning, particularly if ambiguity or paradox in concepts arises (Love and Guthrie 1999). However, where tutors encourage critical thinking, students may revise their beliefs about the certainty of knowledge, reduce their unquestioning acceptance of the expert's word and lessen their passivity as learners (Schommer-Aitkins 2004). Students become Subjective Knowers where uncertainty in knowledge and expertise means that unexamined personal experience and authoritative evidence have equal status (West 2004). A dualistic orientation of right-wrong is retained, but logic, analysis and abstraction are distrusted, thus learners choose intuitively whom they perceive to be right and to whom they will listen (Love and Guthrie 1999). The beliefs of these groups will not support higher order thinking (Schommer-Aitkins and Easter 2006). Subjective knowers account for the majority of the general population (Love and Guthrie 1999).

Students who become aware of the fragility of their unexamined perceptions having learned specific methods to review evidence are Procedural Knowers. Procedures and skills to explain "how to" and not "what to" think and intellectual authorities offering techniques to process the accuracy of external truth are prioritised (Love and Guthrie 1999). Procedural thinkers are active learners who embrace changing facts, complexity and ambiguity (Schommer-Aikins and Easter, 2006) but disparate

concepts or competing interests prove difficult for them to evaluate (West 2004). They engage in deep learning, critically interacting with subject matter, examining evidence and the logic of arguments (Beattie et al 1997, Entwistle and Entwistle 2003). This correlates positively with the belief that learning takes time and results in improved academic performance (Schommer-Aitkins and Easter 2006). Procedural knowers are either separate knowers or connected knowers. Separate knowers evaluate knowledge claims as doubtful until proven, implying that one is separated from the object of knowing. Connected knowers seek understanding by trying to understand from the perspective of the other and deriving truth from the commonality of experience (Love and Guthrie 1999). Connected learners shy away from asking questions in class but will be productive in group work with their peers (Schommer-Aitkins 2004), whereas separate knowers are critical and interrogative (Love and Guthrie 1999). The constructive knower represents the most advanced thinker. Being intensely reflective, they construct knowledge through inquiry and evaluation (West 2004) in a constant process of construction, deconstruction and reconstruction, where former ways of knowing are valued to show that different perspectives and points in time produced different answers (Love and Guthrie 1999). The connection between the knower (self), the known (mind) and the communication of the known (voice) is accepted as is the impact, complexity and contradiction of internal and external contexts on knowledge (Love and Guthrie 2004). The constructed knower engages in careful listening to others, where reciprocity and cooperation leads to mutual encouragement and exploration of ideas. However, constructivist women are no more immune to the experience of feeling silenced than any other group of women (Love and Guthrie 1999).

## 2.6 Self-regulation

Self-regulation forms one concept within one's personal epistemology (Paulsen and Feldman 2005, Bråten and Strømsø 2005). It influences learning and achievement (Boekaerts and Cascallar 2006) and is heavily influenced by knowledge epistemology, learning beliefs, the belief and practices of the tutor and institution (Bråten and Strømsø 2005), the task and the environment (Hadwin et al. 2001). Self-regulation also involves volition to comply with social processes and rules and to overcome barriers (Boekaerts and Cascallar 2006). Self-regulated learners set task-related, reasonable goals, take responsibility for their learning, monitor progress and maintain motivation (Boekaerts and Cascallar 2006, Heikkiläa and Lonkab 2006). Boekaerts' dual processing self-regulation model suggests two main pathways; the growth pathway and the well-being pathway. Growth orientated students identify intrinsic goals, such as increasing their competence or helping others, and put energy into its pursuit. This emphasises that entertainment and belongingness goals may also initiate self-regulatory behaviour (Boekart and Cascallar 2006). However, Clinchy et al. (1985) warn that women's need to fulfil social expectations may prompt them to work hard but achieve little of academic substance. However, on the whole, self-regulated students are more likely to have sophisticated epistemologies, value learning, maintain motivation, feel confident about their learning abilities and perceive an internal locus of control (Paulsen and Feldman 2005). They will also employ adaptive and deep approaches to learning to accomplish academic tasks (Heikkiläa and Lonkab 2006). In contrast, well-being orientated students focus on cues in the learning environment that signal unfavourable learning conditions, obstacles and drawbacks and will easily disengage from the task when difficulty or distraction such as negative peer comments or teacher control necessitate external

adjustment (Boekaerts and Cascallar 2006). These students are more likely to hold naïve epistemological beliefs (Bråten and Strømsø 2005), are less adaptable and use a surface approach to learning. They may encounter serious destructive frictions and feel completely lost (Heikkiläa and Lonkab 2006). Why students self-regulate their learning and motivation is uncertain. However, Boekaerts and Cascallar (2006) found that, in relation to classroom activity, clarity and pace of instruction, autonomy granted and teacher expectations about students' capacity influenced behaviour as did group composition and size, relationships within the team and with the teacher and the general orientation of the group to self-regulation. Motivational and emotional frustrations can be constructive or destructive for all types of learner (Heikkiläa and Lonkab 2006). Thus, Pokorny and Pokorny (2005) caution against assumptions of student motivation and ability to engage in self-regulation since confidence, preparedness and drive in relation to learning are crucial. Heikkiläa and Lonkab (2006) and Paulsen and Feldman (2005) suggest that it may be possible to change negative belief systems by designing learning environments that promote active knowledge construction and personal goal-setting working toward greater sophistication in epistemological beliefs.

## 2.7 Facilitating transformative learning

As previously discussed, the importance of constructed knowing to midwifery is noted by Phipps (2003) and, whilst epistemological belief (Morris and Turnbull 2004) and ability to self regulate (Phillips et al. 2002) can affect engagement with EBL, EBL can aid epistemological development (Kreber 2006) and the development of self-regulation (Marrone and Tarr 2005). However, this involves more than skill acquisition and information gathering, but a transformation of knowledge views,

identity and relations with others and with one's inner voice (Baxter-Magolda 2007). It may initially be accompanied by negativity but ends with confidence and skills in self-direction (Lunyk-Child et al. 2001). 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. It gives the ability to see oneself outside the collective and question its norms (Cranton and King 2003: p. 32). However, professional educators often do not know how to teach those skills (Schön 1987). Friere's (1971) subjugating, banking model of education, is criticised by Clinchy et al. (1985) and Phipps (2003), in relation to midwifery education. The responsibility for identifying true knowledge falls to the teacher who then banks deposits of knowledge within the recipient (Clinchy et al. 1985). It supposes that all knowledge can be predetermined and delivered by lectures or required reading to a passive recipient who will learn it in this way (Phipps 2003). This traditional education is rarely seen as containing gaps (McNiven et al 2002) but its process does not promote critical thinking skills, which then must be deliberately taught (Phipps 2003). Dewey (1916) and Schön (1987) both argue that a content based curriculum will not achieve this development. Dewey (1916:p. 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 some thing 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. Schön (1987) describes this phenomenon as artistry which manifests as knowing in action. This is revealed in our intelligent action but is not easily verbalised (Schön 1987).

Whilst claims are made that PBL and EBL can deliver this (Margetson 1997, Price 2003), Kreber (2006) suggests that knowing that EBL supports learning and graduate skills is only marginally more important than knowing how best to facilitate the process and, even so, implementing plans for optimum facilitation will not ensure that students will have the intended learning experiences. Savin-Baden (2003) agrees that a commitment to the values of PBL does not always translate to the implementation of them. The position of the academic in relation to professional expertise is crucial (Margetson 1997) as is the notion of knowledge for competent practice (Savin-Baden 2003). Savin-Baden (2003) suggests that this is evident in the amount of learner control the facilitator will allow students, with an inverse correlation of more control leading to less epistemological development and cognitive skill. Effective facilitation might be explained in general terms as showing students that a self-directing persona is valid, acceptable and often needed in the learning process (Forrest and Peterson 2006) and, through orientation, support and guidance, in the first stages of a learning project (Merriam 2001). This represents a constructivist approach which looks at not only the acquisition of shared understanding but also the development of the process of knowledge acquisition, through developing shared objectives and probing for hypotheses to facilitate the learning process (Ozuah 2005). An alternative approach, espoused by Foley (2001), traces its origins to Carl Rogers and his concept of group facilitation to promote interpersonal learning and self-development. It is based on assumptions that individuals participate in learning

communities daily, employing physical and conceptual tools and relying on and supporting each other to make use of rich material, intellectual, and linguistic resources (Marton and Trigwell 2000) and that people have a natural tendency to learn, which will flourish, if nourishing and encouraging environments are provided (Ozuah 2005). Tutors work with learners to support, provide resources, challenge and extend them, but never to patronise or control. Thus the teacher-learner relationship is democratised and lecturers participate rather than control, leaving to trust that the group will grow in a healthy direction, promoting openness and safety, enabling affirmation and validation and thus learning (Foley 2001), satisfying the learners' need for professional and personal growth (Ozuah 2005). However, Dewey (1916) argued that the teacher-pupil relationship is not a social group; no matter how close their activities touch because there is an inherent power relationship, particularly when motivation needs to be fostered.

The power relationship is of particular interest when facilitating a group of women due to lack of confidence and fear of patronisation (Clinchy et al. 1985). Belenky et al. (1986) describe women's cognitive development as dependent on the evolution of identity (through self); the interrelationship of the self with others (voice); and the understanding of truth and knowledge (Love and Guthrie 1999). Clinchy et al. (1985) discovered that women require external confirmation, that they are capable of intelligent thought, that they can be trusted to know and learn and that others trust that they know and have experienced something worthwhile already. Women require curricula that explore concepts of which they have first-hand experience, where connection is emphasised rather than separation, understanding and acceptance over judgement and assessment and collaboration over debate (Clinchy et al. 1985).

This means that models such as the adversarial role, where the lecturer points out flaws in the student's argument to encourage debate and cognitive development (Clinchy et al. 1985) or the discernment model, where teachers present different perspectives of subject matter to enable students to sense features of the physical, cultural or symbolic world as something more or less different to their tacit perception (Marton and Trigwell 2000) are not useful. The former model magnifies existing self-doubt and the latter does not allow women to articulate and explore their tacit knowledge to find connections to new concepts (Clinchy et al. 1985). Discernment here does not describe the active dialogue with oneself that aids transformative exploration and restructuring of practice (Macdonald 2002). Instead, Clinchy et al. (1985) advocate a midwife-teacher who draws knowledge out within a connected education model, where teachers and students construct knowledge together and provide a culture where no one apologises for uncertainty as evolving thought must be tentative. The balance of power over knowledge shifts so that all can have a say. The teacher is objective, she trusts the opinion of the student and, whilst not always agreeing, uses it to illuminate concepts further, so that all learn from each other's experience (Clinchy et al. 1985). Cranton (2006) suggests that it is easier to maintain the habits of expectation. However where transformation enables the critical reflection required to invoke artistry, Tolliver and Tisdell (2006: p.37) suggests this will lead the individual to sense a greater "ability to make a difference in the world" and will lead to a greater sense of purpose and meaning.

# Chapter three

## Methodology

### 3.1 Rationale

The historical practice of insulating oneself against student grievances is no longer practicable or desirable (Baker et al. 2006). The practice of formative evaluation which gains insights into the actual student learning experience (Cowan et al. 2006) combined with calls for scholarship in teaching and learning, encompassing critical reflection on content and process of teaching, learning and assessment (Kreber 2006) have altered custom (Baker et al. 2006) and led to an expectation to commit to professional development (Cowan et al. 2004). This study is designed to respond to these calls with the main objective being to enhance my personal practice and thus the quality of the educational experience offered. My research question is:

> "How might my professional, knowledge and learning beliefs impact on the implementation of EBL?"

### 3.2 Epistemology, Theoretical Framework and Methodology

When designing research, Crotty (2003) proposes four main considerations: epistemology, theoretical perspective, methodology and methods. Each element informs the others and all must be addressed to justify every aspect of the research process (Whitehead, 2004). Epistemology describes the philosophical nature of knowledge, defining what kinds of knowledge are possible, adequate and legitimate (Crotty, 2003) to inform the nature of the study (Creswell, 2007). Objectivism, the epistemology underpinning most experimental methodologies, assumes that meaningful reality exists apart from human consciousness and is awaiting discovery

(Crotty, 2003). Subjectivism, a postmodern epistemological position, considers meaning to be embedded in generalised discourse and imposed on objects by subjects (Crotty, 2003). Constructivism, suggests that reality is constructed by the conscious mind, not discovered, and varies across history and culture where all truths are situated (Kingdon, 2005). Epistemologies give rise to theoretical perspectives which provide a means for "critically understanding phenomena" (Silverman 2005 p99). Typical attachments link objectivism to positivism, subjectivism to postmodernism and constructivism to social constructivism (Crotty 2003). From this partnership arises the methodology (Crotty 2003) which shapes how the research is conducted generally (Silverman 2005) and dictates the specific methods (Crotty 2003). These are then used as a basis for inference and interpretation, explanation and prediction (Cohen et al. 2000). My own epistemological preference is Constructivism and the theoretical framework I will utilise is social constructivism where the complexity of perceptions formed through the process and context of social interaction are explored (Creswell 2007). Critics of social constructivism debate both the importance of language in our construction of the world (Reason and Bradbury 2006) and the impact of the axiological assumption of the researcher (Creswell 2007) in creating knowledge that fits their situated political and cultural groundings (Reason and Bradbury 2006). However, as a self-study, I must explore my own personal biography and the cultural and political groundings which affect my ideas and the questions I ask (Denzin and Lincoln 1998). My own impact on the issues investigated and acted upon will be considered in light of my own gendered and multiple identities (Maguire 2006).

### 3.3 Educational Research

There is much debate within educational research focussing on insider / outsider approaches. Whilst authors such as McNIff and Whitehead (2006) couch their preference for insider research in positive terms, 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 practitioners’ experience or judgements. Elliott (1991) concludes that only insider curriculum research will resolve this theory-practice gap, where practice is accepted as a form of inquiry and where research is carried out during, not in advance of, practice (Elliott 1991, Zuber-Skerritt 1992). This seems reasonable if, as McKernan (1996) proposes, critical evaluation and hypothesis testing occur naturally in education and if the practitioner is able to objectively question and reflect upon practice (Koshy 2005). However, the form of reflection on practice will determine the types of ends that might be practically realised (Elliott 1991). Hence, Zuber-Skerritt (1992), Lomax and Parker (1995) and McNiff et al. (1996) warn against a technocratic approach which uncritically applies educational theories and procedures to one’s own practice. Such an approach focuses on technical rather than fundamental practice where action but not motive for action is questioned and which, without praxis, gives rise to successful outcomes rather than knowledge (McNiff et al. 1996). This implies the need for a joint consideration of both the product and the process and this kind of joint reflection is called reflection in action (Schön 1987) or Action Research (Elliott 1991).

### 3.4 Choice of methodology

Action Research methodology claims not only to resolve the theory / practice issue by bringing together action and reflection, theory and practice (Reason and Bradbury 2006) but also, through its process of self reflective enquiry, improves practice and aids professional development (McNiff at al 1996, McKernan 1996). Practitioners utilise their subjective, insider knowledge (Lomax and Parker 1995) to consider the whole context of practice (Cohen and Manion 1980) to include the influence of the setting, roles, traditions and norms (McKernan 1996). This provides authentic descriptions of educational practice (Lomax and Parker) and, through reflection upon feelings, narratives and values (McKernan 1996), provokes exploration of the educational values and theories that underpin it (Elliott 1991, Lomax and Parker 1995) while seeking to change them for the better (McNiff et al. 1996). It is this level of critical enquiry into personal practice which engenders professional development (McNiff and Whitehead 2006 and Zuber-Skerritt 1992). McNiff et al. (1996) promote this feature of the methodology, however, criticisms of Action Research relate to its context-bound elements such as the utilisation of restricted and unrepresentative samples, little or no control over independent variables and ungeneralisable findings (Cohen and Manion 1980). Nevertheless, Action Research is predicated on its insider, practitioner focus and generalisability is not its purpose (Lomax and Parker 1995). Even transferability to a new context within one's own practice requires a reinterpretation to ameliorate the effects of contextual and value judgements (Elliott 1991). Nevertheless, some transferability, where others draw out implications for their own practice, is possible (Lomax and Parker 1995). This reflects a measure of theory generation where grounded theoretical knowledge may be developed (Cohen and Manion 1980, McKernan 1996) to illuminate significant aspects of the case

(Elliott 1991) but whose validity is measured in terms of utility in aiding practitioners act more skilfully, effectively and intelligently (McKernan 1996). Elliott (1991) and Cohen and Manion (1980) agree that Action Research is particularly useful when implementing innovative practice such as “discovery” learning as it fully acknowledges the reality of the complexities encountered by practitioners (Elliott 1991) revealing constraints and competing interests (Cohen and Manion 1980). Consideration of the these properties suggests that Action Research fits the purpose of my research because it unifies the seemingly disparate processes of teaching, curriculum development, evaluation, educational research and professional development (Elliott 1991). Foley (2001) comments that Action Research is radical because it uncovers, and acts on, what is generally hidden and untouched.

### 3.5 The Action Research cycle

The purpose of Action Research is to construct knowledge through reflection on action (Elliott 1991). The Action Research model is logical and intentional (Lomax and Parker 1995) and provides a means of disciplining the research (McNiff et al. 1996). Strategic action hypotheses to resolve issues are reflectively tested and evaluated (Elliott 1991) through planning, acting, observing, reflecting and modifying practice in a cyclical process (McNiff and Whitehead 2006, Koshy 2005) (see appendix 1) in an attempt to improve practice (McNiff et al. 1996). Action Research models allow for non-linear and unpredictable events (McNiff et al. 1996) and incorporate them into planning for future cycles (Lomax and Parker 1995).

### 3.6 Models of Action Research

There are three types of Action Research: technical, practical and emancipatory and each are underpinned by a different epistemology and theoretical framework (Kemmis 2006). Kemmis (2006) and Cohen et al. (2000) relate the three types to Habermas' (1972) knowledge interests. Technical Action Research, such as Lewin's model is related to the empirical-analytic interest (Reason and Bradbury 2006). Critics suggest, however, that Action Research underpinned by positivism advances a form of technical rationality aimed only at functional improvement of technical skills (Kemmis 2006, Elliott 1991) promoting a commodity driven curriculum to passive students (Cohen et al. 2000). It does not necessarily question the goals themselves or the context in which the problem has occurred (Kemmis 2006). Support for the technical model lies in its ability to provide a logical, rigorous approach to data collection and analysis (McKernan 1996). Thus, utilising this type of Action Research is generally pragmatic (Kemmis 2006).

The practical form of Action Research, such as Elliott's model, relates to Habermas' hermeneutic interest and is concerned mainly with process (Cohen 2000). This can derive from a social constructivist theoretical framework (Reason and Bradbury 2006). Desired change is shared equally in terms of professional development and educational experience (Kemmis 2006). This model is more able to integrate

> "teaching, teacher development, curriculum development…
> evaluation, research and philosophical reflection into a unified
> conception of reflective educational practice"
>
> (Elliott 1991) p54.

The influence of Donald Schön is apparent as the model incorporates reflection in and on action in order to consider outcomes as well as means (Elliott 1991),

facilitating personal and professional development (Kemmis 2006, Elliott 1991). Such philosophical critique enables practitioners to reconstruct their concepts and progressively illuminate practical problems and possibilities (Elliott 1991). The research must resolve issues of worth rather than procedure (McKernan 1996) and work towards implementing ideas that arise from deep-seated values (McNiff et al. 1996). Practical Action Research has evolved to include self-study where the researcher is placed at the centre of their own enquiry and asks “What am I doing?” and “How do I describe and explain my actions to you?” (McNiff and Whitehead 2006, p11).

The third form of Action Research, which includes Kemmis and McTaggart’s participatory model, is emancipatory and relates to Habermas’ (1972) critical knowledge interest (Kemmis 2006). It is grounded in a postmodern theoretical framework (McKernan 1996) and employs critical pedagogy to expose ideological interests that support hegemonic and suppressive power discourses to enable transformation of the curriculum for collective, egalitarian good (Cohen et al. 2000, Kemmis 2006, Creswell 2007). Cohen et al. (2000) further argue that, other than mediation of the effects of mandated agendas (such as may be seen in practical Action Research, there is little evidence that emancipation through ideology critique in Action Research actually occurs as practitioners do not hold sufficient power. Reason and Bradbury (2006) thus conclude that the usefulness of emancipatory Action Research is in asking whose knowledge is important and what or whose interests does this knowledge serve (Reason and Bradbury 2006).

### 3.7 Choice of model

The study will utilise a practical Action Research framework to implement changes to the EBL approach where the underpinning theoretical framework of social constructivism will prompt critical understanding of phenomena (Silverman 2005). I have chosen this model due to its fundamental interest in a positive change in practice through a reflective consideration of process. Dewey (1916) argued that reflection in experience is the discernment between what we try to do and what happens in consequence. Dewey (1916) p148 also showed that reflection on action or thinking

> "is research, and all research is native, original, with him who carries it on, even if nobody in the world already is sure of what he is still looking for "

I intend to follow the self-study aspect of the practical Action Research model for purposes of self-understanding and professional development (Kosnik 2001). Concern in my own practice arises from Dewey's (1916) concern that educators tend to take those things that are personally inspiring and set them up as ends regardless of the capabilities of the students. Cranton and King (2003) suggest that the most meaningful way to understand what you do and why you do it is to question your values, beliefs, and assumptions about teaching and ways of seeing the world. I thus needed to explore my practice by questioning the structure of my knowing in action and by reflecting on both the incidents that seemed critical to the success of EBL and on the prior understandings that led to them (Schön 1983). Mezirow (1991) cited by Cranton and King (2003) suggests that one can engage in content, process or premise reflection. Process reflection checks the problem solving activities we engage in to see whether we are overlooking something such as the learning styles

of students. Thus, my research will follow Elliott's (1991) Action Research cycle (see appendix one) but the reflection will be on my own practice in relation to the implementation in an attempt to ground the research not in action but in motive for action which may give rise to both successful outcomes and knowledge (McNiff et al. 1996) and the opportunity to investigate my "habits of mind" to give the insight necessary for transformation in my practice (Cranton and King 2003; p.37).

### 3.8 Participants

The study's main focus is self-study. Hence students are involved only as members of the 2 cohorts engaging in EBL within the study period. These students are year 2 semester 1 undergraduate midwifery students from the institution in which I work. Other characteristics of the students include being female adults of various ages from varying educational backgrounds. Whilst the views of the students are welcome in focussing implementation, their views will not be explicitly sought, nor will their work be used to inform the analysis in exploring my own tacit assumptions.

### 3.9 Data Collection Methods

The data gathered will relate to the developing educational influence of my own learning and episodes of practice that show my educational influence on others (McNIff and Whitehead 2006). I intend to keep a reflective diary which will include personal accounts of informal observations, feelings, reactions, interpretations, hunches, hypotheses and explanations (Elliott 1991). Within the diary, I will also keep analytic memos to record formative and summative evaluations of progress during and after each cycle (Elliott 1991, McNiff et al. 1996). No additional resources will be required.

### 3.10 Data Analysis

I have chosen to employ Kosnik's (2001) critical incident technique for self-study to identify those occasions where my expectations and the consequences of my actions were surprising, puzzling or frustrating. The critical incidences will be selected from my diary on the basis that they represent sustained issues which suggest something significant about my practice (Kosnik 2001) rather than isolated phenomena. I will then explore the incident utilising a dialectical approach to discern my tacit assumptions asking "what am I doing?" and "why am I doing it?" (McNiff 1988), "what is my response to the event saying about me?" and "what are the values inherent in my decision and the situation?" (Kosnik 2001). The issues of credibility, transferability, dependability and confirmability have been attended to through methodological rigour as much as possible (Silverman 2005). Utilisation of dialectic procedures should allow critical dialogue and assist in providing credibility in concept formation. This will result in a transparent account which communicates intentions, actions, reflections and limitations so that the audience can draw its own conclusions (Lomax and Parker 1995) which may then aid transferability. Essentially, the work is a representation of my own values and beliefs thus external auditing of data analysis would not be helpful as the work is positioned.

### 3.11 Ethical Considerations

Whilst I am studying myself in relation to providing learning experiences, the centrality of the students as a catalyst to the exploration of my practice is acknowledged. The students are not subjects of enquiry but at times they will comment upon my influence on their learning (McNiff and Whitehead 2006). These comments may inform reflections but they will not be used directly as data. At the

beginning of each semester, the students will be informed that they will engage in EBL and that their opinions will be valuable in optimising their learning experience. EBL is not an intervention for research purposes and it will continue after the study finishes. I will not collect personal data, opinion, correspondence or work. References to the teaching and learning environment will not include any inferences or specific information through which individual students could be identified.

# Chapter Four

## Critical Incident findings and Discussion

### 4.1 Introduction to the critical incidences

I kept a diary throughout the year of the study which charts my journey of planning, implementing, monitoring, reflecting, analysing and amending EBL. I recorded reflections about sessions, discussions and evaluations. These entries were, at times, emotional when I struggled to understand the resistance I was encountering. I needed a structured way of conducting my self-study and so utilised Kosnik's (2001) model of critical incident analysis to evaluate key events that were significant in highlighting my facilitation of EBL. The analysis was dialectical to explore my tacit assumptions and related to the questions noted in the methodology (McNiff 1988) (Kosnik 2001). On reviewing my diary to inform the critical incidences, I could see that some of my entries demonstrated tacit assumptions that may have been critical to the success of EBL. I have included three critical incidences, with a brief description of the event, followed by reflection and analysis of the tacit knowing implicit within the actions I took (Schön 1987) to highlight what the learning and teaching activities I promoted said about me as an educator.

### 4.2 Background to the first critical incident

The first cycle of EBL was underpinned by a great deal of literature research and contemplation related to how to be an effective facilitator and how to present the enquiry to the students, how much information to include in the student guide and which trigger to use, how many feedback sessions prior to presentations, what format feedback sessions and presentations should take and whether to use a wiki

for communication between sessions. I have included the session plans (see appendix two and four) to show my plan of implementation. The reconnaissance that occurred prior to the first implementation has been outlined in Chapter 1: Background to the study. I made no changes to my introduction to EBL between semesters except to use more simplistic language in the student guide The first critical incident identified is the very first EBL session focussing on induction of labour (IOL). I have included the excerpt from my diary entry following the session (see appendix three and five) to illuminate the incident and my analysis of it.

## 4.2 Critical Incident One: Promoting EBL

I began the initial session for EBL in both semesters by explaining the process of EBL and my rationale for its use. I did this in order to inform and enthuse the group. I had produced a detailed booklet (which I simplified between semesters) and I revisited this in the session explaining that they would gather evidence on directed study days, committing a nominal 2 hours per directed study day and feedback on their findings during sessions. Neither group had engaged in EBL before but both had participated in group projects that involved research and presentation. I assumed that this would have prepared them for self-directed study but I still offered tutorial support to search for and analyse literature. I explained that I understood that there was a lot to learn but that they would need to do it anyway so they could either learn about induction of labour now or later when they were qualified, when it might be disadvantageous to themselves and the women in their care. I told the students that, whilst they would not experience EBL in any other semester, it was a strategy employed by other midwifery programmes and that students enjoyed it and found it useful.

As identified in the background to my study, I had enjoyed a positive experience as a participant in EBL. This was the basis for many of my subsequent decisions and the point from which much of the rest of this analysis will emanate. Thus, whilst I knew that EBL was evaluated as enhancing the links between theory and practice (Fisher and Moore 2005, Brown et al. 2008, McNiven et al. 2002) and the development of graduate skills (Kahn and O'Rourke 2004) and more complex epistemological beliefs (Kreber 2006), I implemented it because I, like those in Lobb and Butler's (2009) study, found it an enjoyable way of learning. In understanding why my enjoyment might impact on my actions I need to consider why I found it so. Overwhelmingly, this was because I saw the process as meaningful (Eraut 2006b). I was undertaking the M.Sc. under my own volition and for my own benefit, although, as Rachal (2002) suggests, engaging in EBL was not voluntary as it contributed to my degree. Nevertheless, I was motivated to learn by internal factors. I was taking the higher degree to improve my professional practice by applying new concepts to those experiences I had gained in my professional role reflecting andragogical assumptions as identified by Merriam (2001), Ozuah (2005) and Bale and Dudney (2000). However, engaging in andragogical strategies also requires an independent self-concept and an ability to self-direct learning (Kell and Van Deursen 2000, Forrest and Peterson 2006, Rachal 2002). I believe I have developed the metacognitive abilities to engage with EBL as recommended by Morris and Turnbull (2004) and Oliver (2007), displaying the necessary skills suggested by Boekaerts and Cascallar (2006) for self-regulated learning. I feel confident about my ability to learn (Paulsen and Feldman 2005) and, when motivated, I adopt deep learning strategies as described by Entwistle and Entwistle (2003) and vary my learning

strategies to accomplish academic tasks (Heikkiläa and Lonkab 2006). I cannot overlook the motivation to engage that came from belongingness to the social group (Boekaerts and Cascallar 2006) or the fact that the success of EBL, as a social constructivist strategy, depends upon the collaborative effort (Morrone and Tarr, 2005; Fisher and Moore, 2005) and the active, self-regulated work of all students (Dalsgaard and Godsk, 2007). Dewey (1916) suggested that when learning is of common interest, individuals work together as a social group, formulate a consensus, regulate their behaviour and communicate progress and purpose to each other. This maintains social support and the meaningfulness of the task (Marton and Trigwell 2000). This was my experience of EBL. I was a member of a focused, committed, supportive group. Nor should I underestimate the impact of the skilled facilitation of the EBL in which I participated (Kreber 2006) to open up different possibilities for learning (Savin-Baden 2003) which had a profound effect on my professional identity. Lastly, Paulsen and Feldman (2005) and Bråten and Strømsø (2005) suggest that epistemology plays a central role in facilitating or constraining the effectiveness of students' self-regulated learning with a direct correlation existing between increasingly sophisticated beliefs and increasing self regulation (Paulsen and Feldman 2005). My epistemological position resonates, more than ever, with the constructed learner (Love and Guthrie 1999), which even Mayer (2004) and Kirschener et al. (2004) would agree was advantageous to my ability to engage in EBL. Yet, despite assigning myself to the highest echelon of knowing, I had not fully engaged in the intense self–reflection that would enable me to see that my own knowledge perspectives were not necessarily shared or how I, as learner and knower, impact upon the learning of others.

Nevertheless, despite my own excitement and commitment, the group did not seem enthusiastic and I was concerned about this. I reflected at the time that their lack of eagerness was due to information overload. I don't think I was wrong in principle but, on closer refection, the tacit assumptions which led to my action probably had a deeper impact than the information overload cited in my diary. Eraut (2006b) suggests that, to increase meaning, motivation and thus learning, the intrinsic rewards of engaging must be addressed within the learning strategy. At this point, I had only addressed this in terms of telling the group that they would need to engage in order to learn content to enable them to be safe, effective practitioners and able to assume full accountability for their practice (NMC 2009). My goal was for them to appreciate the need to take responsibility for their own learning, now or later, but it could be argued that I was actually following the common theme in midwifery education of prioritising content and outcomes (Fraser et al. 1998) rather than promoting the complexity and unpredictability of professional practice as a motivating factor (Fraser 2000). By focussing on what the student should know rather than how they should learn I may have encouraged them to adopt a surface or strategic approach to learning (Fraser et al. 1998) where they direct their efforts to meet tutor expectations (Entwistle and Entwistle 2003). This may have had deeper effects. I had not only specified what counts as valid knowledge by telling them that they must learn theory but had also applied reductionist presumptions to midwifery practice (Savin-Baden 2003). By insinuating that knowing the facts, which could all be learned together, would enable them to be effective midwives, I may have implied notions about the simplicity, certainty, and source of knowledge as well as beliefs about the control and speed of knowledge acquisition (Bråten and Strømsø 2005). This concept would do little to progress student's knowledge epistemology. At worst,

I promoted received knowledge by giving the impression that I considered myself an infallible authority on necessary knowledge (West 2004, Schommer-Aitkins 2004) and that they would achieve understanding once they could recall a list of facts (Schommer-Aitkins 2004) supporting the concept that they needed to reproduce "appropriate" knowledge for my benefit (West 2004). At best, if they were procedural knowers, I may have overwhelmed them with the weight of work needed to be an effective midwife in such a short time frame. (Schommer-Aitkins and Easter 2006). Boekaerts and Cascallar (2006) identified that, when trying to encourage self-regulatory learning behaviour, classroom practices such as sharing teacher expectations about students' capacity encourage learners to focus on desirable or undesirable aspects of the learning environment. Promoting my expectation of hard work as a component of EBL, rather than a requirement for midwifery registration, may have encouraged Boekaerts and Cascallar's (2006) well-being pathway for self-regulation by drawing attention to the barriers and limitations of EBL. One of these would have been competition with assessed tasks on directed-study days which can de-motivate even the brightest student (Heikkiläa and Lonkab 2006). Whatever the impetus, articulating my expectations and being prescriptive about student engagement in self-directed study is conducive to neither adult learning theory (Fraser et al. 1998, Phipps 2003) or feminist theory. Clinchy et al. (1985) suggest that womens' need to do things for others and to fulfil expectations prompts them to work hard but achieve little as extrinsic motivational factors distract them from the intellectual substance of the work and the student worries only about pleasing others. Moreover, self-directed learning, although an integral part of midwifery (Kell and Van Deursen 2000), can lead to insecurity and stress (Morrone and Tarr, 2005), particularly in 2nd year undergraduates, due to anxiety about acquiring sufficient

knowledge to meet the expectations of clinical practice (Kell and Van Duersen 2000) Nevertheless, because I had assumed that all students would approach EBL in the way that I did meant that my only means of engaging apparently disinterested learners was by excitement, punishment or rationale reflecting aspects of control (Dewey 1916). This, coupled with my pedagogic justification for knowledge acquisition as valuable at some later date, would do little to enhance andragogic principles (Bale and Dudney 2005) and may have precipitated personal conflict (Ozuah 2005). Thus, my behaviour may have served as little more than a motivator to engage in teacher-structured rather than self-directed learning. My facilitation, even at this early stage, had adopted a hierarchical stance where I had positioned myself to maintain control and had, unwittingly, undermined the learning possibilities of the process before we had even started (Savin-Baden 2003).

### 4.3 Background to the second critical incident

For my trigger for the first session, I had chosen a photograph of a woman and man holding hands with the first cohort looking at induction of labour (IOL) (see appendix six). The trigger was selected to prompt reflection on issues of autonomy in both the woman and the midwife. Following this session, I decided to use a different trigger for the IOL enquiry with the next cohort (see appendix seven). To introduce the caesarean section enquiry with the first cohort, I had used a trigger which encouraged critical thinking using a self-selected story from practice as a prompt to explore deeper issues. The trigger had worked well and so I decided to use the same trigger with the second cohort to introduce the IOL enquiry.

## 4.4 Critical Incident Two: The Trigger

I introduced the picture trigger and assumed that the students would identify that they needed a solid theoretical base in induction of labour to promote autonomy in women and midwives. Once introduced, I requested volunteers to scribe and to lead "exploding" the enquiry but was unsuccessful. I was persuaded to act as lead to model this role, however, I was concerned that students might not feel ownership of the process and ideas generated. Their ideas focussed on the midwife-mother relationship but, since this is explored in another module, I asked them to consider the information required to reassure women undergoing IOL. We stopped for lunch. When we resumed, in order to steer the group back to considering obstetric procedures, I changed the trigger focus. Using themes generated from the pre-lunch session, I asked them to brainstorm concepts related to the term IOL. This generated the themes I had expected. I used a critical story as a trigger for the next group. Unexpectedly, this produced disparate themes and, as I could see no connection, I again altered the focus of the trigger to relate to the term IOL.

The change in trigger and suggestions to generate themes reflects the fact that it is impossible to pre-determine students' activities in EBL (Dalsgaard and Godsk, 2007). My surprise at the themes which the students generated led me to abandon the triggers on both occasions and re-orientate the enquiry. Thus, as already identified, I had adopted a hierarchical stance which undermined the learning possibilities of the process (Savin-Baden 2003). By adapting the trigger to generate acceptable themes after launch, I had demonstrated that I needed to be in control of knowledge (Savin-Baden 2003). My intention was to ensure that students looked at the theory that would underpin their practice as expected in midwifery education

(Darra and Norris 2006). However, I was promoting the technical-rationalist model of practice (Phillips et al. 2002, Fraser et al. 1998), by suggesting that scientific theory can address all the complex issues inherent in induction of labour (Schön 1987). Richens (2002) proposes that effective, autonomous, midwifery care arises from professional artistry, which Schön (1987) suggests is achieved through reflection. This, Phipps (2003) argues, requires humanistic, andragogical approaches. My implementation of EBL demonstrated that I had positioned myself away from the role of traditional lecturer to enabler of learning and that I desired to reposition my students (Savin-Baden 2003). Yet, as Savin-Baden (2003) discovered, wanting to promote student autonomy by offering them more power over their learning, does not always equate to actually achieving that aim. Thus, whilst I moved away from engaging in passive transfer of knowledge, my actions in relation to the trigger, coupled with issues arising from the first critical incident, meant that I was orientating students' learning as subject-centred and not immediately relevant as consistent with pedagogical learning (Bale and Dudney 2005). The variations and contradictions to the original form of andragogy identified earlier are widespread (Rachal 2002) and andragogical practice is implemented according to the concepts and values of individual lecturers (Jinks 1999, Rachal 2002). In my case, it would be fair to say that the topic was highly relevant to students (Ozuah 2005, Bale and Dudney 2000) but, as suggested by Jinks (1999) and Rachal (2002), I thought I was giving more learner control than I actually was. The issue relating to my leading the first part of the trigger session is less concerning than my interference in the theory generated through the trigger. Andragogy and pedagogy form a philosophical framework that provides guidance when selecting strategies to convey specific knowledge (Forrest and Peterson 2006). Ozuah (2005) suggests that, where adult learners are truly

dependent and have no relevant prior experiences, an initially pedagogic approach may be appropriate. In this case, I assumed the role of guide rather than conveyer of information and, had I been less intrusive in the educational process, I could have assisted the student in developing in adaptation, free inquiry and self-sufficiency, (Forrest and Peterson 2006). Instead, my interference may have replicated the school experience (Rachal 2002) and produced a barrier to learning (Merriam 2001) by encouraging a dependent role (Forrest and Peterson 2006). Compromising learner control occurred even before the session started. Knowles advocates collaboratively determined objectives and learning contracts. This level of control was not possible due to validated learning outcomes already in place (Rachal 2002). However, within the enquiry, learners were outwardly encouraged to do this and were invited to peer and self assess success in learning. Nevertheless, interference on my part meant that my good intentions were not supported by a learner-centred philosophical outlook (Forrest and Peterson 2006) and I demonstrated a lack of trust that the group would grow in a healthy direction. I did not promote openness and safety, enabling affirmation and validation and thus learning (Foley 2001) or satisfy the learners' need for professional and personal growth (Ozuah 2005). I did not give students full confirmation that they could be trusted to know what they needed which Clinchy et al. (1985) view as fundamental to avoid patronisation. I wanted to explore obstetric knowledge with no philosophical 'connection' with women, rather than start by looking at the relationship between the midwife and the woman, which was something of which they had direct, relevant experience (Clinchy et al. 1985). Thus any attempt at transformative learning, where the habit of expectation for failure to knowing valid knowledge was confirmed, would have been undermined (Cranton 2006). My actions demonstrated that I again prioritised content over process,

ensuring that students acquired the right knowledge as defined by me. In this way, I undermined one of the fundamental principles of EBL that theoretical knowledge arises from curiosity and is thus purposeful (Long et al. 1999).

### 4.5 Background to the third critical incident

The initial feedback session was planned to mirror my own experience of participating in EBL (see appendix eight). The session ran as I intended in format, however, its process was not as I expected (see appendix nine). Whilst the students presented their findings they did not discuss, contrast or question the content unless I strongly facilitated it. I felt at the time that it was that they were unsure of what I expected from them, particularly in relation to the trigger, however, as discussed above, the ambiguity of the first session probably caused this. This same theme of student reluctance or inability to engage in critical debate remained evident (see appendix eleven) despite my attempts to promote criticality through the trigger (see appendix ten) within both groups.

### 4.6 Critical Incident Three: Discussing Evidence

During feedback sessions, students talked about their research findings and were able to identify areas where further research was needed. However, they were not happy to put questions to each other about the evidence found. I was concerned that students would not progress the enquiry so I asked questions to elicit their responses to give them something to consider when locating new areas of enquiry. This is not to say that students had not already evaluated evidence before coming to sessions and thus engaged in critical analysis, but it meant that the students did not engage in a group process and thus construct induction of labour as a problematic

part of midwifery practice. They did not discuss the underlying issues and thus achieve consensus about how midwives should consider and practise in relation to medical intervention.

Dewey (1916) suggested that the self-conscious, embarrassed and constrained learner is not immediately concerned with subject matter. Whether these students were unwilling or unable to question each other as a result of my actions is thus worthy of consideration. Love and Guthrie (1999) suggest that constructivist women are no more immune to the experience of feeling silenced than any other group of women. This raises the question of whom or what was silencing them. Foley (2001) and Clinchy et al. (1985) suggest that the democratisation of teacher-learner power relations is achievable only when teachers work with learners to support, provide resources, challenge and extend them, but do not patronise or try to control them. I do challenge student's decisions and evidence but the form that this challenge takes is vital. Challenge which adopts an adversarial role where the lecturer points out flaws in the student's argument to encourage debate and cognitive development is not considered helpful for women because it magnifies self-doubt (Clinchy et al. 1985). However, this role is not reflected in my questions which seem to share more features with Marton and Trigwell's (2000) model of discernment in that the teacher, through analysis and critique, presents different perspectives on subject matter. Discernment is closely related to previous experience but learning occurs after a sense of variation or the experience of difference (Marton and Trigwell 2000). However, this does not completely explain the questions I ask because I always try to relate them to the student's experience. In this way, I reflect the midwife-teacher who encourages students to articulate and explore their tacit knowledge (Clinchy et

al. 1985). My aim in questioning is to construct knowledge together and provide a culture where no one apologises for uncertainty and no one is silenced or patronised (Clinchy et al. 1985). Savin-Baden (2003) suggests that a balance is required. Not engaging as a facilitator can be just as damaging to the process as over-engaging and being directive. On reflection, I do not feel that the way I pose questions is the cause of the problem but, more likely, the ambiguous messages that I give in relation to control and participation. Dewey (1916) concludes that the teacher-pupil relationship will never be a social group due to the "giving and taking of orders" (Dewey 1916: p. 5). As already discussed, my pedagogic rationale for the use of content, coupled with my position as expert and controller of their knowledge needs, would have been confusing. It may have led to insecurity resulting in increased teacher dependence particularly at this stage in their education (Kell and Van Deursen 2000). Morris and Turnbull (2004) observed that students placed a lower value on their own and peers' contribution than their lecturers, positioning the lecturer as expert and assuming that, as an authority figure, they will assume responsibility for group actions. Penman (2007) defines this as the attitude of the novice learner who seeks answers from an expert. Whether this was a cause cannot be known. However, Bråten and Strømsø (2005) conclude that differing expectations of student responsibility for knowledge construction will affect student effort. My confusing actions of control and participation would have done little to clarify my role and thus the student's expectations.

It is possible however, that I was not responsible for the processes described in the diary entries and whilst I cannot know the learning and knowledge beliefs of the students I worked with it seems reasonable to see whether other explanations may

exist for the difficulties in this aspect of the enquiry. Whilst I have considered the importance of the social group and construction of knowledge in my own experience of EBL, Dewey (1916) suggests that employing social learning strategies for knowledge construction might not work if individuals do not recognise a common end or interest. The perception of interest may have been affected by the task or the environment (Hadwin et al. 2001) or by past learning experiences. These may trigger expectancies and beliefs, such as passive transfer of content, which will affect the effort invested (Boekaerts and Cascallar 2006). It may be that students did not ask questions because they could not. Procedural knowers may be able to critique analogous research, but cannot apply this critique to complex, overlapping concepts (Love and Guthrie 1999) and connected learners may be tentative in asking questions in class but be productive in group work with their peers (Schommer-Aitkins 2004). Nevertheless, whilst it is unclear how education affects epistemological beliefs (Buehl and Alexander 2001), this transition will be affected by the personal epistemology of the tutor, so encouraging accurate fact recall will engender a simplistic personal epistemology whereas encouraging students to synthesise and apply knowledge is more likely to encourage a complex personal epistemology (Schommer-Aitkins 2004, Savin-Baden 1998 ). I was inadvertently doing both which may explain why I had not been successful in implementing effective EBL. However, the tutor's responsibility in trying to promote adult learning theories is clear (Cowan et al. 2004). Baxter-Magolda (2007) suggests that students must learn to negotiate and act on their own purposes, values, feelings and meanings rather than those uncritically assimilated from others. She suggests that this will involve more than skill acquisition and information gathering but a transformation of students views of knowledge, their identity and their relations with

others so that they engage in self-authorship. This is an extremely pertinent suggestion in relation to the needs of the women in midwives' care and relates well to Phipps (2003) argument that midwives (and thus student midwives) must be able to engage in higher order thinking and knowing to be safe, effective and accountable and thus part of the profession.

## Chapter Five

### Conclusion and recommendations

This self-study has provided insight into the three belief elements underpinning my practice as identified in the literature review: professional, knowledge and learning. My own knowledge beliefs were not sufficiently developed to allow me to fully reflect in action on my own impact on the learning experience since, whilst I engaged in dialogue with students to try and improve process, I could not see the obvious contradictions inherent in my practice. Moreover, when I received evaluative feedback at the end of the semester and the contradictions were evident in the students' comments I saw only those parts that I could comprehend at that time. Thus, my action research looked at process but from a blinkered perspective and I made assumptions about the needs and desires of the students as I perceived they should respond when identifying issues and implementing strategies. I utilised EBL, in part, because I found it meaningful and I assumed that students would share my intrinsic motivation and be prepared to invest the necessary time. I was unaware that motivation could be so diverse when self-regulating as to prevent engagement to protect well being. Thus, when I articulated my expectations, I did not expect that students would be less enthusiastic than I was. This did not extend to expectations about cognitive ability and I enjoyed facilitating discussions in feedback sessions that highlighted connections between theory and practice as well as the students' experiences. This study has shown me that I do adopt the midwife-teacher model and I am committed to transformative learning that will engender self-authorship and eventually artistry, both for the sake of the student but also for the benefit of the women that midwives care for and in order to change the current status-quo in

practice. However, I did not realise the ambiguities in my practice regarding participation and control and thus its mediating effects upon epistemological development and self-regulation. My learning beliefs also proved to be detrimental to my facilitation of EBL. Whilst I ensured the relevance of the topic area for practice, I promoted the pedagogical view of knowledge as useful at some later date. However, I addressed this to some extent by grounding the trigger session in student's stories. I failed to recognise that not all of my students might be ready or willing to engage with andragogical strategies and, more worryingly, some of my approaches were not consistent with andragogy at all. I did not demonstrate trust in the students' knowledge or experiences or in their ability to identify their own learning needs. This may have been particularly damaging to members of the group who were already under-confident learners and it would have heightened anxiety and reliance on didactic, traditional approaches for passive transfer of crucial knowledge for practice. My professional stance was one that unconsciously prioritised content over process and a technical rational model of care. This led me to utilise strategies of control to shape and direct the enquiries, reflecting the deeper issue within midwifery of positivistic foundations for practice that do not recognise that artistry as much as scientific theory is required to facilitate physiological birth. This was perhaps the most shocking and upsetting revelation of all, that my tacit construction of midwifery was so medically orientated. I discovered the paradox of midwifery education that is that learning strategies which can help achieve artistry through theory generation starting from and connecting to experience, a feminist reflective stance, are undermined as soon as constraints are applied which prioritise midwifery curriculum outcomes of safety, effectiveness and accountability as defined by the NMC and interpreted in light of the technical-rational evidence base espoused by educators.

Whilst I would not advocate an enquiry that did not consider theory-practice links, I would, from my later experiences, suggest that students are trusted to steer the enquiry to uncover those elements that make practice safe and accountable even if they begin by first considering the woman and her midwife.

Following these critical incidences, I again changed my approach to facilitation of EBL. The final enquiry of the year involved looking at caesarean section. The trigger was clear and focussed and again based in student experience and I did not alter it. I was insistent that the group led all of the sessions and I asked the student lead to sit in the tutor's place, whilst I sat in amongst the group. I did not direct the shape of the enquiry but answered questions, when asked. I did not believe myself to be a full participant and did not position myself so. I facilitated the group rather than tried to steer them towards what I had intended for them. The evaluation of the module was more positive and students seemed to engage more deeply with contextual issues. I felt much more comfortable with facilitation this time and this particular group were excellent communicators, which must have impacted positively on the process. I am confident that this exercise will have illuminated those areas of dichotomy sufficiently for me to avoid them (where I have control to do so) in the future and to make positive changes to the way I present knowledge to the group in the hope that I can help them achieve the artistry required for midwifery practice.

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