THE CURRICULUM IN MEDICAL EDUCATION: A CASE STUDY IN OBSTETRICS RELATED TO STUDENTS' DELIVERY EXPERIENCE

Veronica Mitchell MTCVER001

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University of Cape Town

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This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature:_____ Date:_____

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Acknowledgements

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Students in all my classes

My family

my sincere thanks

Abstract

The Obstetrics practical experience for Year 4 medical undergraduate students is a curricular task that is rewarding, demanding and challenging – characterized by much uncertainty. Furthermore tensions reveal how different values play out in the context of learning.

Drawing predominantly on Barnett and Coates' (2005) curriculum domains of knowing, acting and being, supported by Bernstein's (2000) concept of pedagogic discourse, this research project explores how shifting values reflected by the regulative discourse produce both integrating and disintegrating experiences for the students.

Through engaging with students and their reflective comments, I identify varying influences that shape the students' experiences. Some contribute to human flourishing in an integrative way by developing interconnections that facilitate students' awareness and negotiation of the dynamic curriculum, while others contribute in a negative manner that appears to undermine the aspirations of the curriculum and learning process. Although Faculty aims to develop competent doctors who have a high regard for upholding human rights, the dissonance that impacts on students as they traverse the curriculum plays out in different ways.

In this research project, the small sample of students displays varying experiences as they engage in the practical curricular tasks in Obstetrics. Their responses indicate the challenges they face which are exacerbated by uncertainty particularly when the university's chosen values contrast with those confronted in the broader context in which any curriculum operates. Exploring the shifts in the regulative discourse evidenced in the institutions that drive the curriculum reveals the different forms of knowledge production or modes of knowledge as outlined by Barnett (2009) and Savin-Baden (2008a).

The implications of this study lead to a recognition that a "troublesome curriculum" placed in a weak health system leaves students in a difficult position for managing their understanding of professional knowledge and values (Savin-Baden 2008a). By acknowledging the curricular gap between the intended, designed curriculum and the enacted, implicit one, I explore the students' experiences – a consideration for educators willing to actively engage in the process, and an adventure for the brave (Savin-Baden 2008a).

Chapter 1: Introduction

> Graduates are having to make their way in the world, a world that exhibits global features of challenge, uncertainty, turbulence, unquantifiable risk, contestability and unpredictability (Barnett 2000:262).

Uncertainty characterizes higher education in the 21st Century. Whereas university research outputs and curricula were previously the source of specific knowledge and skills unavailable in other places, these resources and processes are now threatened by a changing world in which knowledge and performance are shifting in unexpected ways (Barnett 2011). The information age with technological advances and global issues such as poverty and inequality contribute to the unpredictability and uncertainty faced by our modern society. Universities are perceived as "sites of open, critical and even transformatory engagement" with "multiple and competing interpretations of the world" (Barnett 2009:250). Contestations on all levels of knowledge production and transfer introduces on-going challenges. According to Barnett (2009:439) this knowledge within uncertainty and the "problems of being" in this changing world depict the prevailing "supercomplexity" of education. While complexity refers to "unclear, uncertain and unpredictable" situations, Barnett (2009:249) explains that supercomplexity describes a "world where nothing is taken for granted, where no frame of understanding or of action can be entertained with any security". He explains it further as "a world in which we are conceptually challenged, and continually so" (Barnett 2000:257).

This change is even driving traditional professions such as medicine to react and respond in finding alternative ways of doing and behaving. Within medicine, the roles and responsibilities of individuals operating in the health team are shifting. For instance, as approaches to healthcare are changing, the authoritarian powerful doctor is now expected to become a facilitator for health promotion and an advocate for change. From the perspective of medical education, these responses have impacted on curricular development. London, Ismail and Baqwa (2002:25) explain that the "shift in the curriculum is away from white-coated curative hospital care to activities that centre on the prevention of disease and the promotion of health". This "paradigm shift in the conception of health as the product of a range of social, environmental and biological factors" introduces, complex wider dimensions into the university's educational goals (London, Ismail & Baqwa 2002:23).

The curriculum forms the core component for education, defined by Barnett and Coate (2005:44) as "the set of organized processes and materials that, intentionally and unintentionally, are put before the students by their educators". The curriculum drives the students' experiences. A similar viewpoint is expressed by Higgs et al (2010:11) in their expression of the curriculum as a turbulent entity in which they claim that the:

> *Curriculum refers to the sum of the experiences students engage in and acquire as a result of learning at university, and the factors that create these experiences. This includes explicit, implicit and hidden aspects of the learning program, and experiences that occur incidentally (alongside) the formal curriculum. The curriculum is intentional teaching, content, assessment and inevitable as well as unintentional messages to learners created through role modelling by teachers and fieldwork educators, through assessment schedules.*

Faculty design teams develop an intended curriculum aligned with policies and objectives that are accredited towards achieving the desired graduates. However inevitable mutations occur. The curriculum is vulnerable to external and internal forces. The curriculum is modified within the environment in which the learning takes place and is furthermore shaped by students' own interpretations.

Curricular spaces (Savin-Baden 2009) generate educational opportunities in which the contained intended curriculum becomes uncertain. As asserted by Hafferty (1998:403), "[n]ot all that is taught in medical training is captured in course catalogs, class syllabi, lecture notes and handouts". The actual delivery of the designed curriculum is not fixed but fluid, becoming an enacted curriculum or the curriculum-in-action, in which the constituents are ambiguous, often not visible and not static. Hafferty (1998:404) clarifies three types of curricula that operate interdependently – the defined formal curriculum that is explicitly evident, the informal curriculum that develops through the interpersonal connections happening between students and between staff and students, and the hidden curriculum which tacitly evolves from the cultures and structures in the organization – the "taken-for-granted aspects of what goes on in the life-space we call medical education".

Resulting from the alternative curricula, different modes of knowledge are produced such as the formal disciplinary knowledge and the knowledge generated from experience in the learning context (Gibbons 1994). While assessment of students' knowledge and performance is rigorously measured in each discipline, other factors play out in students' learning, often not evident to the educators. When students learn a formal curriculum from their teachers which sharply differs with their engagement of that curriculum in the clinical context, they seem to navigate this curricular dissonance in various ways influenced by forces that play out in the learning situation. Underlying dilemmas frequently arise, evoked and exacerbated by the unexpected reality of practice in the unknown, undefined, dynamic curriculum-in-action. Because the curriculum-in-situ is governed by students' engagement and their own meaning-making, the classroom educator tends to have limited control over what the students are actually learning in the clinical platform. This complex interplay of relationships in the gap between the designed and the enacted curricula experienced by the students provides a curricular space and environment for rich inquiry.

As students develop the capacity and agency to become professional in their practice, there is a need to cultivate their skills and their dispositions to face the unknown knowns. Barnett's (2000) concept of supercomplexity seems particularly appropriate for medical training and specifically for the Obstetrics curriculum. Uncertainty in this supercomplex environment extends to the personal being of each individual who interprets it in his or her own way.

From a South African perspective, this supercomplexity is very relevant. In terms of the stark disparities in health care provision, the country's history of discrimination and different qualities of care continue to fuel difference. Furthermore the diversity in the student population is an additional consideration in exploring their personal experiences. Barnett and Coate (2005:132) point to the "many components that stand in complex relationships to each other" in curricula.

Moving from the broader context of supercomplexity, what follows is an explanation of the context of this research at three levels: firstly the changes in medical curricula then secondly an outline of the curricular context in the Health Sciences Faculty (HSF) at the University of Cape Town (UCT), leading on to the third context which is the site of my research study. I will then continue to explain my study which explores a particular section of the curriculum where

public service health delivery provides the contextual learning space for fourth year medical undergraduate students.

1.1 Contextual insight

In this study, I briefly view the historical landscape of the curriculum then focus into more detail of the curriculum within my working ambit. I then describe what sparked my interest in the research topic. From a historical perspective, education in the post 1994 era has reflected reformed curricula in South African universities including changes in medical education with an objective to promote a transition towards a unified health system. The uptake and commitment by the South African National Department of Health towards an integrated, intersectoral, multidisciplinary Primary Health Care (PHC) approach informed by the White Paper for Transformation shaped the undergraduate medical curriculum at UCT. In 1995 a PHC policy was adopted by the HSF (Draper & Louw 2007). With these policy changes, new needs became evident, such as for practitioners to be team players looking beyond the established biomedical approach to health, to broader social and political issues impacting on health outcomes.

Considering the context in which the curriculum gets enacted, the environment is complex. For instance variable levels of service delivery occur in our weak public health system – frequently exacerbated by limited human resources, a generalized overload of patients, inadequate material resources plus the prevailing HIV epidemic and high levels of violence in our society. In researching junior doctors' community service experiences, Stevens (2007) draws on Hirschman's (1970) framework of *Exit, Voice, and Loyalty* to explain how health workers are frequently silenced as a response to dissatisfaction in the health system. Erasmus (2012:657) points out systemic problems in the health system even suggesting that the "Human Rights Commission, an executive resource, should urgently investigate the human rights abuses in state health care". She describes the "forced labour and slavery-like practices" which the Government enforces on junior doctors. Such is the environment that our students face.

1.2 The curriculum at UCT

In 2002 a reformed medical undergraduate curriculum became operational in the Health Sciences Faculty – part of the transformation agenda aimed at "addressing the challenges facing our society" (UCT Mission Statement 2010). Non-discriminatory practices and accountability became goals for teaching at the university with a key objective to address the past inequalities and to integrate community-based teaching with clinical teaching (London, Ismail & Baqwa 2002). Previous disciplinary boundaries were extended to develop curricula that placed students in community sites beyond the traditional hospital workplaces.

This new set of values illustrating the revised thinking for the intended curriculum is demonstrated in courses such as Problem Based Learning (PBL) and Becoming a Professional (BP) that form part of the emerging integrated curriculum in the first three years of medical training at UCT. Incorporating a biopsychosocial approach to health care, PBL brings together the biological, social and psychological aspects of health and ill-health in which students identify their knowledge gaps. Alongside PBL are new courses aligned to the humanities such as BP in Year 1. A strong reflective component is included in this curriculum together with teaching that aims to develop students' communication skills and advocacy for human rights. The BP curriculum aspires to facilitate each student's development towards an Integrated Health Professional (IHP) by enhancing their skills for knowing, demonstrating empathy and reflection – the start of a spiral curriculum that aims to generate integrated graduates defined as "politically astute, culturally competent and emotionally mature with a strong professional identity" (Olckers, Gibbs & Duncan 2007:6). The course objectives indicate an intention to develop "the knowledge and technical skill dimensions of professional practice … inter-personal skills based on social understanding and moral-ethical sensitivity … the intra-personal dimensions of self-awareness and culturally sensitive attitudes" (Olckers, Gibbs & Duncan 2007:2). A visual tool (Figure 1) frames the IHP concept throughout the semester course. My role as facilitator in both PBL and BP has offered me an insider's insight into these integrated curricula.

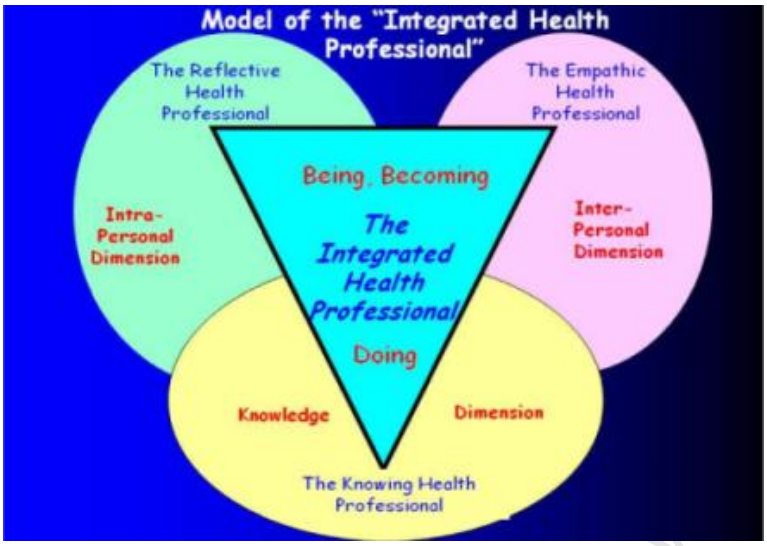


Figure 1: Model of the integrated health professional (Olckers, Gibbs & Duncan 2007:3)

While substantive changes have occurred in the first three years of study at UCT, the implementation of curricular reform has been more difficult in the clinical years where strong disciplinary boundaries tend to contain teaching within segmented areas. Faculty's innovative attempts to integrate curricula in the pre-clinical years appear to be limited by wider forces shaping students' experiences of the curriculum, and by a shifting value base within the institution and beyond. For instance, the institutional will to promote equity by the inclusion of human rights education (HRE) as a spiralling core curricular theme has faced operational challenges. What is valued differs in the curriculum-in-action to that which is intended. Findings from an evaluative audit of the Golden Thread of Human Rights (Mitchell 2007) illustrated that good intentions in the new curricular design are not necessarily operationalized. HRE was intended to be vertically and horizontally integrated in the disciplinary curricula yet was hardly evident in the clinical years. The buy-in or lack of buy-in of the new curriculum seemed to result in curricular changes in only some disciplines or with some educators. Hence the intended reform appears to remain incomplete.

1.3 Catalyst for interest and inquiry

Personal insights gained from this audit catalyzed my interest and inquiry into HRE. I recognized the different meanings and interpretations that educators assigned to human rights in general and to the curricular needs. Moreover it raised my awareness of the range

of values displayed in the delivery of the medical curriculum. For example, one educator felt affronted by the Faculty's curricular demands, informing me that human rights ought to remain a thread not a highway, thus its inclusion in any position in the curriculum is sufficient (Mitchell 2007).

Such personal experiences of hearing educators' voices and my own classroom interactions in which students shared their narratives catalyzed my further inquiry into curricula. Below I explore the context of this study in terms of the medical curriculum and the broader issues of South Africa's health system. Then I will elaborate on the triggers to my research topic. In Chapter 2, I review the literature that engages with the complexity of curricular matters. In Chapter 3, I focus on Barnett's conceptual framework supported by Bernstein's theory of pedagogical discourses. An explanation of my research methods in Chapter 4 is followed by a brief biography of the student participants leading on to the analysis of my research findings. In Chapter 6, I explore the students' experiences as they traverse the curriculum, with an emphasis on the gap between the intended curriculum and the enacted curriculum. Finally I suggest ways in which this study can impact on medical education before concluding.

1.4 Personal insights as an educator at UCT

Reflecting on my own personal journey, my emerging interest in HRE was enhanced by the Faculty audit. My subsequent interactions with students around issues of social justice alerted me to the curricular gap. Interactive dialogue revealed that students were frequently confronted with unexpected circumstances for which many felt underprepared. Their expectations were at times better informed by their colleagues than by the curriculum – the informal curriculum at work.

Individual conflicts surfaced during the Year 5 Health and Human Rights Abuse workshops when students shared their personal narratives. I began to question what knowledge is valued by these students as they traverse the difficult curricular tasks. As an educator I recognized the importance of curricular spaces that engage in contested topics relevant to Obstetrics such as termination of pregnancy. My Physiotherapy background offered a different dimension to that of the Obstetrician clinicians.

My curiosity converged on the Year 4 Obstetrics curriculum which provides a conspicuous example of a “liquid curriculum” where the dynamic curriculum embodies multiple tensions (Barnett & Coate 2005:131). In their practical curricular task students spend time working and living at the Maternal Obstetric Units (MOUs) learning how to deliver babies to become accomplished in the discipline. After one week of intense classroom learning when Consultants from the Obstetrics and Gynaecology Department share their knowledge and skills (guided by the fixed learning objectives defined for the course), students move out into the clinics. They spend three weeks in residence at a secondary hospital such as Somerset Hospital, one week living and working in a Maternal Obstetric Unit (MOU) such as Hanover Park MOU, then one week consulting at the MOU. Students rotate through this programme in their small groups with different individual time schedules.

As students move into their clinic rotations they face new challenges sometimes transforming their thinking and acting. At times they are confronting who they are and what kind of person and professional they would like to become – ‘their being and becoming’. Students’ personal anecdotes vary from positive and uplifting learning experiences to very challenging clinical encounters in which they express feelings of shock, helplessness, powerlessness and even fear. For some, it becomes a traumatic experience. In practice, the curriculum calls for students to be “signed off” by midwives and consultants indicating the successful completion of the required curriculum tasks. Anecdotal accounts from undergraduate students indicate a feeling that if they antagonize their superiors in any way, there is a sense of victimization. Hence in many cases students are silenced to remain as complicit bystanders when they observe unprofessional behaviour. The clinical curriculum seems to disallow deviations and fluidity in the governance structures, a “solid learning environment” as termed by Savin-Baden (2008a).

My curiosity in the students’ experiences and the curricular conflict has led me to explore how students understand what they are learning beyond the fixed learning outcomes driven by a discipline-bounded curriculum. I question: how do these Year 4 students negotiate the gap between the fixed, intended curriculum and the fluid, enacted curriculum in their early delivery experience?

This introduction highlights the challenging terrain of medical education. To gain further insight into curricular matters, especially in medicine, I draw on several prominent contributors in the field of education and medical training. My focus lies on the integration of the curriculum and how that is managed or not managed by the students.

Chapter 2: Literature Review

Surprisingly, only limited literature is available on higher education curriculum development (Hicks 2007, Barnett & Coate 2005). Barnett and Coate (2005:131) point out how curricula tend to be elusive, partly invisible as they "are associated with values and interests of the different stakeholders". Curricula are seen to "live in hearts and minds … in intentions" within "educational structures … concepts … and in institutional and disciplinary cultures". The curriculum is viewed as "a shadowy concept" (Barnett & Coate 2005:132), one "that is difficult to pin down" and that "academics and others have no wish to be engaged [in]" (Barnett & Coate 2005:133).

Moreover there appears a paucity of information on curricular integration. It is frequently interpreted from a disciplinary point of view, either within a discipline or across disciplines (Fogarty 2002). From a medical perspective a definition for integration by Case in Goldman & Schroth (2012:1) suggests "any intentional uniting or meshing of discrete elements or features". The authors explain integration in medical education at three levels – the programme, course and session level.

In this chapter I explore curricular integration by outlining several other curricular perspectives. Drawing on critiques of the medical curriculum, I then focus on the discipline of Obstetrics. In the next chapter I describe the triple-fold schema in Barnett and Coates' (2005) conceptual framework followed by an explanation of Bernstein's (2000) theory of pedagogic discourse which assists in the illumination and interpretation of integration and the underlying and shifting value base of the curriculum. Different forms of knowledge inform my research through the project.

Taking an alternative stance, Dall'Alba and Barnacle (2007:687) state that higher education ought to take responsibility to promote the integration of knowing, acting and being, "developing awareness of these interrelationships among students and teachers. Incorporated in these "complex interrelationships" is an awareness of "opportunities, diversity, prejudices and limitations". They explain that the "[a]cquisition of knowledge and skills is insufficient for embodying and enacting skilful professional practice" (Dall'Alba 2009:42).

Dall'Alba and Barnacle (2007:680) question how "knowledge and skills are to be integrated into skilful practice or, more broadly, contribute to the transformation of the learner". They criticize the "self-contained components of a medical programme" and the assumption that knowledge transmittance is unproblematic. In agreement, Kneebone (2002) appeals for a wider perspective in medical curricula that includes alternative worldviews. Kneebone (2002) criticizes medical curricula that are merely filled with facts and details of practitioners' instructional knowledge. Referring to his many years in clinical practice, Kneebone (2002:516) explains that medical decisions "rely…on a complex amalgam of factual knowledge, personal experience, anecdote and empathy, played out against a background of professionalism and underpinned by a sense of care and compassion".

Savin-Baden (2008a) claims that curricula need to shift away from performativity and the static nature of set modules with fixed learning outcomes. She (2008a:7) refers to 'liquid learning" which is "characterised by emancipation, reflexivity and flexibility so that knowledge and knowledge boundaries are contestable and always on the move". According to Savin-Baden (2008a:6) learning spaces of engagement within the liquid curriculum provide "places of transition, and sometimes transformation, where the individual experiences some kind of shift or reorientation in their life world [and where] … issues and concerns are seen and heard in new and different ways". She (2008a:17) claims that the curriculum ought to be less bounded and structured, perceived rather as an "important site of transformation characterised by risk, uncertainty and radical unknowability".

Dall'Alba (2009:38) states that engagement with the ambiguities of practice "can open possibilities for enriching professional education". Creating such "spaces" that create opportunities for students to "experience some kind of shift or reorientation in their life world" is recommended by Savin-Baden (2007:9). She claims that "[l]earning spaces are often places of transition, and sometimes transformation, where the individual experiences some kind of shift or reorientation in their life world" (2008:6).

In agreement with Kneebone, Dall'Alba and Barnacle (2007:683) claim that "learning is not confined to the heads of individuals, but involves integrating ways of knowing, acting and being within a broad range of practices". The limited "focus on the intellect in conventional

higher education programmes overlooks the key role of the lived body and, more specifically, the embodiment of knowledge or knowing" (Dall'Alba & Barnacle 2007:687). "Learning to become professionals entails integrating what aspiring professionals know and can do with who they are (becoming), including the challenges, risk, commitment and resistance that are involved" (Dall'Alba 2009:37). This integration according to Dall'Alba (2009:43) is one of the most perplexing aspects of learning which is generally "left to the students themselves" rather than taken as the responsibility of the educator. Students tend to be unsupported "in situating and localising knowledge within specific manifestations of practice". The emphasis on acquiring knowledge leaves them "the difficult task of integrating such knowledge into practice" (Dall'Alba & Barnacle (2007:680). Barnett (2000:256) also emphasizes the importance of the "dynamics between the curriculum and its total environment" which needs to be made more explicit.

What is striking about the theorists described above is their common call for a curriculum that engages in alternative perspectives beyond performance. Dall'Alba and Barnacle (2007) state the importance of relationships while Barnett (2000), Kneebone (2002) and Savin-Baden (2008) recognize the complexity and dynamic nature of the curriculum, proclaiming the need to explore different worldviews and interpretations.

Tronto (2010) admits that an ideal of an integrated process is rare because of the inherent conflicts and limitations that prevail. She (1993) claims that caring professions ought to engage in a discourse that is more explicit about power issues. She reveals the political realities impacting on professions, such as medicine. Her alternative philosophy of the ethics of care suggests that a care perspective offers "a more integrative approach" (1993:134). Like others, Tronto (2010) argues for training beyond competencies that engages with the disposition of those involved.

For the purpose of this study, I focus on the Obstetrics curriculum which can be considered as a "site of acting alongside *knowing"* shifting into a "curriculum manifestly as a site of *being" (*Barnett & Coate 2005:118). Through an apprenticeship approach, students learn a discourse of doing, being and becoming, similar to "an identity kit" (Gee 1996:127). Dall'Alba (2009:37) concurs that "[b]ecoming a professional … involves transformation of the self through embodying the routines and traditions of the profession in question". In my view, the

practical Obstetrics curriculum falls into Savin-Baden's (2009:8) category of "troublesome curricula" that she describes as those "characterised by learning opportunities that prompt engagement with disjunction".

There is risk and uncertainty as the students engage in their practical Obstetrics block. It is a curricular component frequently acknowledged by students as a rite of passage into the medical profession. Draper (2006) describes it as the "induction of newcomers into the obstetric profession". Students claim that delivering babies enables them to feel at last like real doctors. In Gee's terms, they are entering the Discourse developing "ways of being in the world … integrating words, acts, values, beliefs, attitudes, and social identities, as well as gestures, glances, body positions and clothes" (Gee 1996:127).

From within the Obstetrics and Gynaecology Department at UCT, Draper's (2006) Master's thesis explored students' situated learning at the Maternal Obstetrics Units (MOUs). As a clinician educator he researched students' developing roles, identities and relationships as they are introduced into a Community of Practice (CoP) through their debut experience of their first delivery. In their doing, belonging and becoming part of a CoP, the students' identities are influenced and changed by their actual experiences and responsibilities in bringing a new life into the world. Draper (2006:10) suggests that "[q]uality of patient care and professionalism are important medical or clinical issues which should be regarded as contextual givens". Draper (2006:75) expresses his concern that students seem to shift "from involvement to detachment and from care to cure". He appeals for more research that explores students' personal transformations that result from their Obstetric experiences. Draper's (2006) findings point to the possibility of unintended consequences of the gap between the intended and the enacted curriculum – a key focus in my research.

Adopting a student-focused perspective on the curriculum recognizes that students act as individual acquirers of knowledge using their own wills that determine their choices. According to Barnett and Coate (2005:109) it is "by and large absent from much thinking and reflection on higher education" because curricula are more frequently interpreted from the educators' viewpoint.

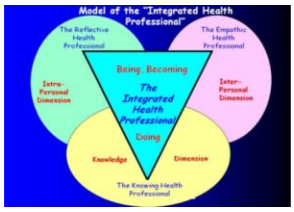
When students face uncertainty and professional dilemmas, they need to make difficult choices sometimes balancing the weighting of different values. Boelen (1993) coined the term “five star doctors” to describe socially accountable practitioners who aspire to promote equity by demonstrating certain values and dispositions – providing a high quality of healthcare towards an integrated approach that is relevant to the particular needs of individuals and populations. London (2008) as a human rights activist for the medical profession urges for recognition of agency where individuals have the capability and choice to act for the promotion of social justice. However he admits to the lack of clarity in the human rights framework regarding the responsibilities of health care workers. Dual loyalty situations provide an example of workplace dilemmas in which loyalty to a patient may be subjugated to loyalty to a third party, such as a person in authority. In my understanding our students are sometimes placed in situations of direct dual loyalty, where loyalty to their own studies and self-advancement conflicts with their loyalty to uphold the patients’ rights.

The key themes that emerge from this review of the literature are the complexities and uncertainties that play out in curricula. In medical education there are frequently curricular disjunctures and dissonance that lead to gaps and conflict. Although integration is a desired option for curricula, students are exposed to varying values. What follows is a more detailed description of Barnett and Coates’ theoretical framework to aid my exploration of these dynamic curricular matters. This is complemented by Bernstein’s pedagogic discourse with a further explanation of knowledge production before moving on to my detailed research.

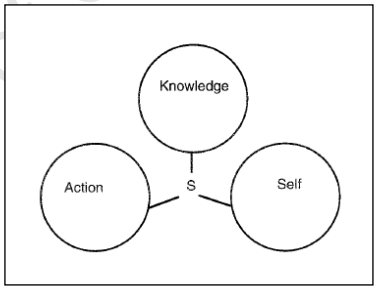
Chapter 3: Conceptual Framework

Barnett (2009:429) suggests that a curriculum in higher education can be understood as "a pedagogic vehicle for effecting changes in human beings through particular kinds of encounter[s] with knowledge". Investigating these interactions and how they happen, informs my research.

Drawing on the visual tool framing the first year BP course at UCT, there are clear links to the theoretical tool developed by Barnett, Parry and Coate (2001). Whereas the IHP model aims to teach professionalism in an integrated manner, Barnett, Parry and Coates' schema unpacks the curriculum in terms of circles representing knowledge, action and self (Figure 2). Below I explore the theoretical concepts explaining these curricular circles followed by further understanding of integration in terms of Bernstein's (2000) concepts together with Savin-Baden's (2009) knowledge categories.



The IHP visual model
(Olckers, Gibbs & Duncan 2007:3)



Curriculum: a general schema
(Barnett, Parry & Coates 2001:439)

Figure 2: Diagrammatic similarities

Barnett and Coate (2005:26) question "what kinds of human development are being promoted through a curriculum?" They note the invisible "underlying presuppositions", referring to the beliefs, values, insights and choices made by curriculum developers that are underpinned by their educational ideologies. Furthermore Barnett and Coate (2005) suggest the concept of "curriculum ecology" to encapsulate the dynamic nature of what students learn while traversing the educational landscape. The curriculum's design becomes weathered by known and unknown forces that re-orientate it to the curriculum-in-action. The curriculum-as-intended is exposed to uncertain relationships and forces influenced by societal, institutional

and personal factors all impacting on "minds at work … and even persons" (2005:133). Barnett (2011) calls for the "ecological university" that engages in societal matters with authenticity and responsibility, in line with Boelen's (1993) social accountability approach. Barnett (2000:257) urges curricular adaptation to the changing higher education terrain in a globalized world, a "*supercomplex* world …one in which the very frameworks by which we orient ourselves to the world are themselves contested".

Barnett's concept of a "liquid curriculum" further illustrates the unstable nature of curricula immersed in "a dynamic set of forces … representing the balance of the interplay of the separate interests" (Barnett, Parry & Coate 2001:438). Barnett (2000:260) explains curricula as:

> *being lived by rather than being determined … [with an] elusive quality about them. Their actual dimensions and elements are tacit. They take on certain patterns and relationships but those patterns and relationships will be hidden from all concerned, except as they are experienced by the students*.

Because curricula are open, fluid and varied with exposure to the numerous forces that drive and shape them, Barnett and Coates (2005:133) critically assert that traditional curricula geared towards the acquisition of knowledge, skills and attitudes are inadequate because they limit the intricate embedded relationships which occur within the learning environment and the students themselves. They argue that the "traditional over-emphasis on the knowledge domain" underplays the students' personal engagement with curricula (Barnett & Coate 2005:136). By examining the curriculum through the lens of their triple-fold schema in terms of Knowing, Acting and Being, an alternative language and discourse can encapsulate a more meaningful understanding of the curriculum.

3.1 The General Schema

This triad of circles provides a conceptual tool "to distinguish curriculum components and relationships" (Barnett, Parry & Coate 2001:437). In their curricula research across several disciplines including Nursing Studies at six different universities in the United Kingdom, "the 'knowing/being/acting' domains emerged as ways of organizing the human qualities that were being discussed in relation to curriculum" (Coate, 2010). This triple-fold schema offered

a “frame through which to understand and communicate different patterns of curricula across disciplines, courses and curricula” (Barnett & Coates 2005:70).

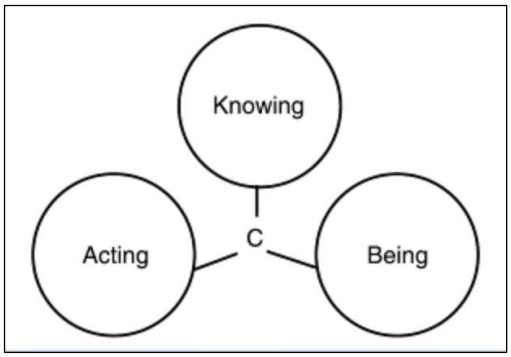


Figure 3: General schema
(Barnett & Coates 2005:70)

According to Barnett, Parry and Coate (2001) there are three aspects to theorizing curricula through this framework. Firstly the weighting is variable as the importance and prioritizing of each component is viewed from different perspectives. Secondly the degree of intersection of the domains can demonstrate the extent of overlap or integration that is evident -- a particularly relevant aspect for this study. Thirdly the patterns of change of the curricula tend to be driven by “epistemological differences in the knowledge fields” (2001:439).

Barnett (2009:433) recognizes the value of students’ personal qualities as they are “coming-to-know”. A fundamental component to integration, he claims, is the students’ disposition. He adds that the capacity of students to be resourceful depends on their disposition which in turn determines their ability to practice in uncertainty. In other words the curriculum has a role to play beyond the delivery of knowledge and skills in preparing students for future practice. As Savin-Baden (2008a) asserts, a curriculum with a focus on learning outcomes and organization encourages students to claim knowledge retention and application whereas emerging curricula aimed at “liquid learning” promote the autonomy and agency of students as critical independent thinkers who can actively engage with uncertainty and dilemmas.

Using Barnett’s theory, I perceive the curriculum-in-action as one which is malleable and porous, moving in different ways into different spaces. How students engage with it signifies the degree of integration happening. For instance, in a delivery experience a student may feel personal discomfort, responding by distancing herself from the event either physically or

emotionally by moving out of the room or feeling desensitized to the Obstetrics curricular task. In this way the Being component of the curriculum may be viewed as separating from the Acting and Knowing. However if that student then critically reflects, evaluating the circumstances, an integrated, overlapping relationship could evolve.

To better understand integration, Barnett's framework will be examined in more detail exploring each domain and their inter-relationships.

3.1.1 Knowledge

The knowledge domain within the triple-fold schema encapsulates the structure of the curriculum, the topics that are included in the knowledge field and the techniques required for the knowledge field. Barnett (2009:432) refers to knowing as "an individual's personal hold on the world", while knowledge is viewed as "a collectively attested set of understandings in the world". The knowledge component of the curriculum, often termed as the epistemological refers to the "discipline specific competencies" (Barnett, Parry & Coate 2001:438). Due partly to the social construction of knowledge, the knowing domain is "never static … always in a state of flux", as agency, ownership and the will to act contribute to the purposeful act of knowing (Barnett & Coate 2005:59).

In the medical curriculum, the discipline of Obstetrics carries a speciality status contributing to strong curricular boundary maintenance. However in students' learning a "collective interplay" of "contending forces" plays out (Barnett, Parry & Coate 2001:442). For instance what is familiar to students in their personal experiences may be very different to others. The contrasting knowledge of what is available for mothers in public clinics where limited resources and constraints are common compared to private care is likely to impact on students' experiences as they progress through their clinical years.

Barnett, Parry and Coate (2001:440) classify three forms of knowledge. The first relates to the nature and structure of the course curriculum. Obstetrics as indicated by the course handbook is about hard facts and skills supported by scientific evidence indicating what is correct, directing students to develop the core competencies in becoming safe doctors. The second knowledge component is the dynamic, moving element resulting from personal and

social processes, contrasting with the static object filled with facts, figures and theories – the fixed syllabus. Barnett and Coate (2005:65) explain that "[w]hat matters ultimately is the sense of immediate personal encounter and of an individual wrestling and interlocking with the material at hand – that material, the knowledge corpus, being itself always in flux". This dynamic concept is evident in birthing procedures where the needs of the moment determine what knowledge is called upon. For instance, in Obstetrics when the foetus is in distress, different knowledge is needed to a normal delivery. The third knowledge component includes research and development bringing "new techniques and new forms of realization energy". (Barnett, Parry & Coate (2001:441).

Barnett and Coate (2005) expand their description of knowledge to Modes of knowledge production grounded on Gibbon's (1994) construction of knowledge. While the epistemological knowledge field illustrates Mode 1 knowledge that is formal and bounded by rules, the Mode 2 knowledge is produced and formed through solving problems-in-action expanding to the wider world – open to contextual influences. Recognizing that epistemological gaps are inevitable, Barnett (2004:251) suggests a Mode 3 knowledge which he terms "knowing-in-and-with-uncertainty" where multiple perspectives provide an alternative view incorporating an ontological approach, one which "sets out to provide the human wherewithal to live with anxiety" (2004:252). Signs of recognition of uncertainty and the capacity for criticality indicate students engaging in Mode 3 knowledge. It is this Mode 3 type of knowledge that unfolds in my research project – one in which dilemmas play out in the students' engagement with the curriculum, when students confront uncertainties and challenges.

An expanded view of knowledge recently introduced by Savin-Baden (2008a) through her social reform perspective brings in higher levels of knowledge production. Through her (2008b:157) curricular research on alternative pedagogies afforded by internet technology, Savin-Baden suggests Mode 4 knowledge as that "in which uncertainty and gaps are recognized" from a critical perspective. According to Savin-Baden (2008b), the value of identifying the different knowledges and their hierarchies is important in developing student resilience and individual growth. Furthermore Mode 5 knowledge is linked to transformative learning in which the curriculum is flexible and student-led demonstrating inclusivity and insights into "the interrogation of frameworks and knowledges" (2008b:157).

Looking back at curricular design, educators choose what knowledge is transmitted that results in students positioned in different ways. According to Savin-Baden (2008a) there is a significant difference between students using Mode 3 knowledge production to find connections as they deconstruct knowledge structures, to students engaging with higher levels of knowledge in Modes 4 and 5 where they critically identify gaps and actively venture into dilemmas. From my understanding, lower level knowledge production as reflected in Mode 1, reveals a routine with a single focus on learning outcomes. Students tend to assume an inert, contained stance as opposed to higher levels characterized by an active alertness associated with uncertainty and disjunction as boundaries are dissolved. It appears that our Obstetrics practical curriculum is shifting upwards by creating a "fuzziness and porousness" of the discipline (Barnett, Parry & Coate (2001:441).

In my research I explore students' integration of the knowledge components drawing on insights gleaned from their personal and professional experiences. In acknowledging the students' individual perspectives of knowledge acquisition, there appears to be a process – a personal and social construct which Barnett and Coate (2005:60) claim has "all too often been overlooked". Barnett (2007) explains that students' interpretation of the knowledge fields is influenced by their dispositions and qualities. Savin-Baden (2009:2) states that "the continuing focus on competence to practice in many professional curricula has downgraded the value of thinking, reasoning and the position of criticality within the curriculum".

3.1.2 Action and performance

Barnett argues for praxis in action, recognizing the practical dimension as students develop their self-identity in their learning. He (2009) claims that the ontological self trumps the epistemological self as students become "agentic learners" with a will to respond to the tensions resulting from the complexity of practice. Viewing the curriculum as a project of acting with its challenges, Barnett and Coate (2005:135) question how students "act in the world, to engage effectively with others".

Learning from role modelling is an expectation in the clinical years of the medical curriculum. This apprenticeship approach in Obstetrics means that midwives and other experts in the

knowledge field (as well as senior students) demonstrate their expertise to students who then develop their "practical skills and know-how" to perform the specialist skills needed for the delivery process (Barnett & Coate 2005:94). To become competent, the curriculum indicates that the numerical value of 15 deliveries is the requirement for students to display an adequate acquisition of the necessary delivery skills. Barnett and Coate (2005:63) warn that a curriculum dominated by skills acquisition and 'performativity' undermines other values peculiar to the situation such as "reflection, due care and empathy".

Barnett and Coate (2005:62) explain that by "acting out the practices of a discipline, the student has to become the author of her own actions". Although "part of the currency of curricula" (Barnett, Parry & Coate 2001:442) is to develop skills and behaviours, multiple interpretations emerge as different students determine their own actions in their curricular journey as they learn by doing to achieve the Faculty's graduate competencies.

Barnett, Parry and Coate (2001) affirm the value of students' self-reflection to promote personal accountability and self-regulation. Our students' end-of-block reflective commentaries have provided a valuable tool for interrogating curricular matters. Such reflective tasks can provide opportunities for students to integrate their learning through linking their knowledge and personal identities. By embracing Mode 3 and higher levels of knowledge, students can develop this constructive approach. How students make their connections between their actions, knowledge and self to inform their being and becoming a health professional as they traverse the curriculum is an important component of this research project.

3.1.3 Self – the Being and Becoming component

> A world of uncertainty poses challenges not just of knowing and of right action but also, and more fundamentally, on us as beings in the world (Barnett & Coate 2005:108).

Although problematic and controversial, Barnett and Coate (2005:108) call for curricula in higher education to be viewed as "educational vehicles for developing the student as a person" to acquire the prescribed knowledge and skills. This emerging consciousness of the students' mode of being draws partly on Heidegger's theories. For instance his term 'Dasein" refers to 'being-there' which can be interpreted as a pedagogy of place, the site of the

student as a learner, from the student's own unique situation (in Barnett 2007:28). As Barnett and Coate (2005:64) suggest "the language of *being* … attempts to do justice to the inner lives of students" thereby shifting the objectivity of students as receptors of the curriculum towards critical subjects with a voice and a will determined by their own life-worlds.

Barnett (2009) states that whether, and to what extent, students are able to engage with knowledge acquisition and actions depends on their own dispositions and qualities. On the one hand "[t]he self, the being, makes possible the knowing" (Barnett & Coate 2005:110). On the other hand "a way of knowing may shape the student's way of being" (Barnett & Coate 2005:111). The emergence of this new way of thinking about higher education in which the students' will to learn influences their being and becoming is a significant new development for curricula. Barnett and Coate (2005:135) seek to understand how students "come to have a firm sense of *themselves* in a world which is open, fluid, and full of contestation even as it is full of opportunity … [and how] … they come to be capable of monitoring themselves, so that they may guide themselves towards right action and courageous knowledge acts".

As students work through the curriculum they interpret their learning from their individual standpoints. Yet students' "own sense of self" changes while they move through the knowledge fields of higher education (Barnett, Parry & Coate 2001:446). Examining students' being dimension describes how students perceive their sense of self and how they learn about themselves, through questions such as, "[h]ow do I orient myself?" (Barnett & Coate (2005:108).

This ontological component of the curriculum integrates the personal involvement of the student. An open mind willing to explore alternative dimensions, an authenticity where connections can be made and reliance of personal judgement all contribute to students engaging in a curriculum through the dimension of their own being.

Barnett appears to privilege being as a corrective for the over-emphasis on knowledge. University curricula impact on students' being – who they are and who they become. In South Africa the medical curriculum confronts national challenges such as the high burden of disease and the legacy of apartheid, further driving curricular development to change and respond to the country's needs and to promote unity, equality and integration.

3.2 Integration

> Learners are the integrators of their learning from different parts of their lives. Integration not only embraces what has gone before (the concept of life-long learning) but also what is happening simultaneously in a person's life (the concept of life-wide learning)
> (Barnett 2010:14).

Integration in terms of the domains of the triad will be discussed followed by my understanding of the role of boundaries in the curriculum as informed by Bernstein (2000).

3.2.1 Barnett and Coate's perspective

Barnett and Coate (2005:106) suggest that the:

> *domains of knowing, acting and being are indicating processes that should, to a certain extent, be developed together and be working together…. A certain level of integration is required between the dimensions of knowing, acting and being in order for the students to embark on a fuller level of engagement with curricula involving themselves, their knowledge and the activities they are required to undertake*.

The relationships between the three domains in curricula do vary. While Barnett and Coate (2005) point out the inter-relationship, there are however different forms of relationships. In an integrated curriculum close links with an interwoven overlap are evident while a fragmented curriculum displays components as separate entities. For instance when students' write up their reflective commentaries purely as a task to be ticked off on the register without truly engaging in self-awareness, it can be viewed as a stand-alone product where the student is acting "in the sense of performance" (Barnett & Coate 2005:105).

Barnett and Coate (2005:106) warn that "*complete* integration or overlap" of all three domains is unhelpful. It implies that the student is unable to take on a critical perspective – there is conformity, compliance and a lack of criticality. In their view, total overlap of the domains suggests conformity through "uniformity and compliance" that undermines opportunities for curricular spaces that enable the student voices and identities to be developed (2005:136), In agreement Fogarty (2002) terms such a configuration of total

overlap as “nested”. In conversation with Barnett (2012) he explained his preference for a pedagogy of risk as opposed to a pedagogy of comfort – one in which there is opportunity for students to move in spaces of conflict that develop the requisite dispositions and qualities.

According to Barnett and Coate (2005:136) such opportunities can diminish the “separateness [that] leads to performativity” resulting in a “fragmentation of experience”, rather than developing *“some* measure of integration … [to enable the] three domains … to engage with each other, within the design and the enacting of the curriculum. Yet there is a cautionary warning that:

> *[a]t the heart of a curriculum ecology lies not just a student’s knowing, acting and being, but more especially her [his] being. It is her [his] unfolding being that will determine whether the intensions of the curriculum will be realized*
> (Barnett & Coate 2005:134).

In a learning world of uncertainty, Barnett (2009:439) claims that students’ being may be “dislocated” as the ontological perspective grapples with their personal “moments of insecurity or even anxiety” further influenced by the epistemological perspective in which the supercomplexity of practice is challenged by unknown knowledge. Barnett (2011:151) considers what he visualizes as the ecological university as, “one which understands itself as living out the sense of the Other” and as an institution “both *without* boundaries and *with* boundaries” (2011:150). What Barnett implies is that open spaces enable curricular to be dynamic in stretching the students into uncertainty while holding on to firm institutional standards (Barnett 2011).

An alternative insight into integration leads to an exploration of perspectives on the boundaries in medical curricula. While Barnett and Coates’ (2005) triple-fold schema is useful theoretically and analytically for unpacking the components of the curriculum, this framework provides no theory for choice-making, contestation, shifts or gaps. To better understand how power plays out in the curriculum I draw on Bernstein’s (2000) pedagogic discourse which exposes the norms and values which underlie the curriculum as a form of social practice.

3.2.2 Bernstein's perspective

Bernstein's (2000:32) pedagogic discourse is defined as "the principle by which other discourses are appropriated and brought into a special relationship with each other". Singh (2002:576) explains it as the "set of rules for embedding and relating two discourses; namely, a discourse of competence (discipline specific knowledge) into a discourse of social order". Furthermore the rules (Bernstein 2000:3) that influence "the social construction of pedagogic discourse and its various practices" are categorized as the instructional discourse (ID) and the regulative discourse (RD). According to Bernstein (2000:4) they "shape consciousness differentially". However Bernstein (2000:13) claims that "the instructional discourse is always embedded in the regulative discourse".

Instructional discourse

Regulative discourse

The ID is described as "rules of discursive order", referring to the specialized skills, facts and instructions and the way they relate to each other (Bernstein 2000:13). This includes visible teaching practices such as learning material, rituals and routines. It reveals the implicit influences of the RD. In comparison the RD governs the moral and social order in a regulative manner, "[creating] order, relations and identity", explaining rules and norms of the established practices (Bernstein 2000:32).

While some pedagogic discourses illuminate the rules of the ID and RD, in others these rules are not clearly evident, remaining invisible and tacit. In general the RD is the invisible set of norms that implicitly operates to influence and control the ID. A curriculum with strong framing tends to demonstrate a clear ID and RD as seems to happen in the classroom, whereas weak framing carries an ID and RD that are more implicit.

In terms of levels of integration, there are shifts of the RD. Within a complex curriculum situated in different contexts, with ownership by transmitters of the curriculum at different levels, there are values and norms that inevitably vary or shift. For example a midwife may be punitive to a teenage mother while a student trained to offer respect, dignity and autonomy to all patients may be shocked by such behaviours.

Even within the HSF at UCT shifting values are evident in two ways. Firstly, resulting from Faculty transformation processes, the curriculum in the early years seeks to develop an integrated approach which upholds human rights in the RD, however in the later clinical years there appears a contradictory RD as the epistemological and practical perspectives seem to dominate in curricular spaces. The impact of contestations in pedagogic discourses is experienced by senior students as they consequently negotiate a slippage between a new RD and an established old RD – a dissonance played out as they are immersed in the curriculum traversing the gap between new and old, from the classroom to the context of their clinical encounters. Secondly, what is valued in the classroom as the RD is frequently different from the norms and standards acceptable in the clinical workplace. There is a clash in RD between the theory learnt and the implementation of service delivery.

Bernstein (2000:32) asserts that "every time a discourse moves from one position to another, there is a space in which ideology can play … and it can be ideologically transformed". He (2000:33) explains pedagogic discourse as a recontextualizing principle due to the changes occurring when the pedagogic discourse moves. In the context of Obstetrics and Gynaecology, by learning the knowledge and skills of the discipline the students become proficient in the theoretical and practical aspect of the speciality; however, because unforeseen dimensions characterize the curriculum-in-action, (for instance when unprofessional practices occur), students are faced with a RD unfamiliar to them in that learning environment. When midwives take on the role and responsibility of trying to impose their moral position on their patients (such as teenage girls) and threatening them into compliance, they use their powerful positions within the medical hierarchy to undermine the vulnerable girls (Jewkes, Abrahams & Mvo 1998). Perhaps they also wish to demonstrate to the students as future doctors, their power, values and beliefs.

To further understand the context I draw on Bernstein's curriculum coding that identifies collection codes characteristic of curricula with strong boundaries and integrated codes that indicate weakened boundaries that are open to the impact of contextual influences. Shay (2012:317) points out how "[c]urricula that cohere conceptually are not devoid of contextual concerns".

In this project I seek to explore the students' experiences in the context of clinical Obstetrics including the knowledge and value shifts that accompany the curriculum-in-action. Because the task reveals much more than delivery competence, I attempt to unravel the students' curricular engagement in terms of Barnett and Coates' (2005) schema supported by my interpretation of integration using Bernstein's pedagogic discourse. I explore the norms and standards of the RD and the curricular codes. My data analysis feeds into a discussion followed by the implications of my findings for medical education.

3.3 Focus on the question

This research aims to interpret, understand and analyse the dissonance and resonance experienced by the medical undergraduate students in Year 4. As previously explained, obstetrics is a pivotal moment in the curriculum. The labour ward is a demanding environment. Students are challenged by the competing needs of the fluid curriculum further compounded by their personal cultural beliefs, ethical and moral standpoints. As students grapple with their observations and experiences, they appear to implicitly negotiate what is valued by the university and what is available to them in the delivery of health care.

By gaining insight from the students' viewpoint, I attempt to reveal the generally unexplored curriculum created through individual students' meaning-making of the enacted curriculum. The students' engagement with uncertainty and their consequent interaction and integration of the relationships of knowing, acting and being form the basis for my research.

In the next chapter I refer to the question that shapes this project, then I explain my research design, the methods used for data collection and the limitations of this study.

Chapter 4: Methodology

In this qualitative research, I explore the students' initial delivery experiences in their Obstetrics block, a core component of the medical undergraduate curriculum and a place where compounding forces play out in their learning. The nature of the Obstetric experience poses many risks and pressures, (particularly the safety of the baby and the urgency for an uncomplicated delivery) which foreground students' personal challenges and uncertainties.

4.1 Research Design

My interest in the curricular conflict has led me to explore how students understand what they are learning beyond the fixed learning outcomes driven by a discipline-bounded curriculum. My research focusses on the curriculum, relationships, integration, disintegration and the shifting values that are apparent in a curriculum of uncertainty.

4.1.1 Question

I question: How do students negotiate the gap between the fixed, intended curriculum and the fluid, enacted curriculum in their early delivery experience? In this qualitative study I seek out the students' voices to interpret their perspectives of their actions and inactions as they engage in the curricular task by analysing their Knowing, Acting and Being, and how they perceive the connections and relationships of these domains – their personal levels of integration of the curricular components and their shifting perspectives that appear to be revealed. I draw meaning from this social practice with a view to inform curriculum development.

4.1.2 Ethics

Ethics approval was obtained from the School of Education and from the Faculty of Health Sciences (FHS). In the FHS the proposal was passed through the rigorous control procedures of the Obstetrics Department, first by Dr Chantal Stewart, a consulting clinician, then by Prof Silke Dyer, acting Head of Department. It was forwarded to the Faculty's Human

Research Ethics committee who approved the project on 23rd May 2011 – reference HREC REF 235 / 2011. Further approval for interviewing students was granted by the Executive Director of Student Affairs.

4.1.3 Research participants

Participants are undergraduate medical students who completed their 4th year of study in 2010. As Year 4 marks the start of the clinical years, students are divided into five groups or blocks that rotate through the different disciplines.

4.1.4 Initial data

Data for this study were collected from one block of 27 students after their Obstetric encounter. Interviews were conducted with five students across two blocks. The initial pilot interviews were conducted with two students from a separate block. They emailed me their reflective commentaries (initial data) before we met.

4.2 Data Collection

The designed curriculum and the students' experiences of the enacted curriculum contributed to the data acquired for this project.

4.2.1 The curriculum

The Obstetrics curriculum is set by Clinicians then printed in the Year 4 departmental booklet (2010). It outlines the course objectives, process, instructional components and student requirements for learning and assessments. Included in the required end-of-block hand-ins is a reflective commentary from each student. The booklet (2010:23) clarifies that the reflective task is not for assessment; "it is intended to make [students] stop and think about [their] experience in the knowledge that this facilitates learning. It also provides important insights into [their] entry into the obstetric community of practice." Students are requested to keep their commentary simple and brief – to about one page. Informality is suggested in the genre of the instruction – "More is OK if you feel what you have to say is important".

In the booklet the text reads “drawing on your recent experience, reflect on, and discuss how your early delivery experiences have:

- Affected you as a person
- Shaped your understanding of the role of the midwives and medical colleagues as teachers and models, and
- Given you insight into the needs of mothers in labour.”

This reflective component to the course was introduced by George Draper, an Obstetrician who wrote his thesis on reflective practice in Obstetrics for his Masters studies. His reflective approach to teaching and learning that helps each student unpack their experience in their own way has inspired me. He recognized the transformative nature of the Obstetrics experience in the students’ learning trajectory. My own experience with the students has resonated with Draper’s (2006.3) in which he shares that he was “awakened through interactions with medical students and the real life experiences they go through in coming to terms with the demands made on them during their introduction into obstetric practice”. In sharing his thesis with me before I began my research and in conversations of mutual concern, he has encouraged me to work further in this relatively neglected and needy area. Personal communication with another educator, Melanie Alperstein (e-mail 2012) indicated that reflective journals were introduced in the 4th year MBChB Primary Health Care community-based block in 1996. She explained that “reflective practice was encouraged to assist students understand issues affecting communities and themselves personally, as they were sometimes in very unfamiliar environments”. She added “traumatic issues related to their Obstetrics block were raised in these journals, and through reporting this to Dr George Draper, reflective journals were then introduced as a tool for improving Obstetrics care”. As a person responsible for curriculum development within the HSF, she was also instrumental in developing the first year curriculum in which tasks and reflective exercises assist medical students to advance their professionalism.

4.2.2 The physical space

My interviews with the five students took place in a tutorial room in the New Learning Centre on the Faculty of Health Sciences campus. These rooms are used for small group learning from first year onwards so are familiar to the students. The room offered privacy and an opportunity to record the conversations.

4.2.3 Drawing on the students' experiences

Initial phase: autobiographical accounts

Students' reflective commentaries are stored in envelopes per block. Initially I randomly selected an envelope from 2010 containing 27 students' reflective commentaries. These personal reflections offered me insight into their experiences.

Second phase: individual interviews

Below I explain the selection of participants followed by an outline of the interview process. Because a number of students declined to participate in the study, I chose to offer a monetary incentive and to mention that my iPad would be used in the interview.

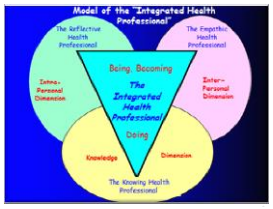
To organize my pilot interviews in 2011, I contacted a white male student and his girlfriend (class colleagues) however they declined the possibility for participation, choosing rather to refer me to others. I then located two white female students as my pilot interviewees – one who had just completed Year 5 while the other had chosen to take a year out but intended returning to Year 5 in 2012.

Further interviews occurred in 2012 when I purposefully selected students from different racial groups with a balance in gender representation. Because I anticipated extra insights through these lenses, I communicated with certain coloured and black students[1] through email or in person – those whose commentaries were significant in demonstrating critical insight or personal change. Although coloured students who I approached chose not to be interviewed, three black students accepted. Two of these participants were in Year 6 and the third in Year 5. In their block reflections, one student had noted how he "sat outside and had a cup of coffee and just thought about – replayed the whole thing". I felt he had more to offer about his experience than what he had written. The second student indicated that the block had changed him in ways he felt he could not write about. The third student showed unusual insight into the curriculum design.

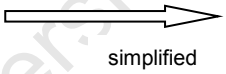
[1] Reference to official race designations used under apartheid but still used today for purposes of equity. These terms are to some degree still serving as proxies for disadvantage.

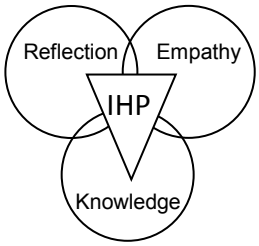
The individual interviews comprised two distinctive parts. Initially the students reflected on their experiences, as I probed them to consider their good and challenging moments. They described their personal anecdotes, thoughts and feelings, and the impact of their different teachers. Students then engaged with the Keynote application on Apple iPad. This visual modality enabled students to shift images assisting their interpretation of their experiences through the triad framework. By introducing this multimodal approach to my study, the tablet afforded a participatory component to the research.

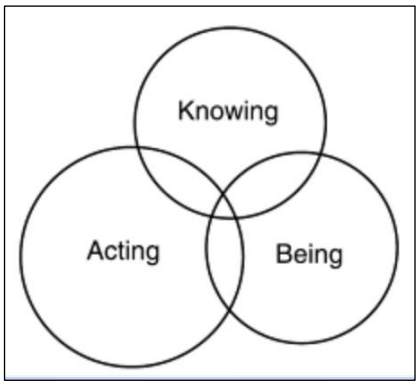
Drawing on the IHP visual tool with the three balanced, equal and overlapping circles, I explained Barnett and Coates' (2005) research findings indicating the visual similarities to students' curricular input at UCT. In preparation I extracted a few phrases from the students' reflective commentaries, then pasted these into the circles of the schema to represent the appropriate domains as indicated in Annexure A. In this manner I used scaffolding to enable students to familiarize themselves with the triple-fold schema then to work with it as a representation of the curriculum rather than the competencies.



The IHP visual model
(Olckers, Gibbs & Duncan 2007:3)







Curricula in professional subjects (Barnett & Coate 2005:77)

Figure 4: Explanatory images to facilitate the process

For each student I prepared a PowerPoint slide on the iPad containing three coloured circles symbolizing Knowing, Acting and Being as indicated in Figure 5. In my images the domains were rotated in their positioning so that the circles were in a similar relationship as they appear in the Year 1 IHP framework. The circles were symmetrical with a stable composition. This setup is described by image reading experts Kress and Van Loewen (2006.80) as being "equal distance from each other, given the same size and the same orientation towards the horizontal and vertical axes". The students' completed representations created a valuable visual component aligned to Barnett & Coates' themes that enabled me to draw further insights into their triple-fold schema.

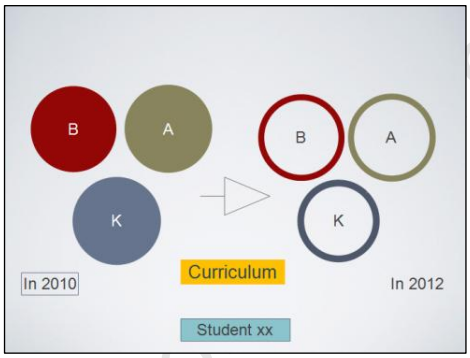


Figure 5: Slide used for interview

On the left I placed the triad symbolizing students' Year 4 past Obstetric experience, an event familiar to the students. On the right was the anticipated symbol of what is to come in Year 6. Each domain had a different colour carried through between the two components which were labelled 2010 and 2011/ 2012 depending on when our interview took place. The curriculum was represented as a text label to remind students of the context. An arrow indicated the move to a higher level of study. Each student's abbreviated name on the slide personalized it to encourage their ownership of the image. Students were asked to actively position and adjust the size of the triad of circles while sharing their thoughts.

4.3 Analysis of data

The students' reflective commentaries informed the development of questions for the semi-structured interviews. What follows is an explanation of the analysis process.

4.3.1 Initial Phase

Using Bernstein's (1996:135) notion of a language of description as a "translation device whereby one language is transformed into another", an external language of description (LoD) was developed to guide the initial process of analysis. Significant elements were categorized with examples from students' commentaries related to their curricular encounters.

Codes and key themes were identified from the students' reflections. Using the circle triads I aggregated students' comments that fitted into each domain with additional sections for identifying the push and pull forces that influence the students' integration of their learning. Because transformative learning seemed to be happening through the students' experiences, I developed this theme for interpreting their agency.

4.3.2 Second phase

Once students responded positively to my invitation for participation in this study, I sent them information on the project with a request to send me their reflective commentary from 2010. Their voluntary participation was emphasized. As an incentive to be involved in my study and as a respectful thank you for sharing their personal experiences and their time with me, I chose to pay each interviewee R200 for the session.

Interviews were conducted in a tutorial room in the New Learning Centre on the Health Science Campus – rooms familiar to students and private during non-teaching times. I explained to students that I would teach them how to use the iPad if necessary.

Interviews were recorded with the permission of the participants and with anonymity assured. These recordings were emailed to a transcriber, a trusted person who frequently works for the HSF Education Development Unit. She assured me of confidentiality. Our correspondence was mostly electronic with a brief one-to-one meeting and several phonecalls.

Both sources of data (the commentaries and the interviews) offered me awareness into the curriculum through students' lenses. Further understanding was gained as students engaged

with the images. In my write up I have chosen to begin the analysis from the visual perspective moving on to knowledge gained in the interviews.

The actual Interviews were divided into two sections. During the first 20 minutes I explored the students' narratives of their Year 4 experiences. Taking a retrospective approach enabled them to look back using their memories of their learning from Year 4. A semi-structured interview question guide was used.

Using the technology component with active learning for the second half of the interview, I explained Barnett & Coate's theory showing students their circle representations of humanities, technology and professional studies. Each student then became familiar with the iPad before engaging with the circles to resize and position them for their Year 4 experience.

Following on from the past I then asked students to anticipate the future using the same representative circles. During this active participatory component of the interview I asked students to share their thoughts with me. I prodded them to consider the relationships of the circles in terms of size and the overlap they were creating. Because both the past and the present images were correlated, students were able to observe any changes that were evident in their perceptions of their experiences.

4.4 Transcript Analysis

Interview transcripts were analysed according to key themes with a view to accessing the relationships and integration of the curriculum. Phrases relating to the LoD were prioritized with a highlighter both manually and online using different colours to denote Knowing, Acting, Being, Integration and Disintegration. A further classification enabled me to identify a hierarchy in the codes. Lower level codes were distinguished from higher level codes which were subdivided into reflective insights and critical viewpoints (Annexure B). Key concepts were identified. Excel spreadsheets were also used to organize the data.

The images on the iPad were explored in terms sizing for each of the three circle elements and the positioning of the triads exploring general features and specific relationships with regard to the components' sizes and overlaps.

4.5 Audit trail

Students' reflective commentaries, interview transcripts and Excel spreadsheets used in the analysis are filed on my computer. The Keynote images from each student were emailed to my desktop computer to be placed in the same file.

4.6 Limitations

Several limitations were evident in this study. I draw from three perspectives below.

4.6.1 Researcher

My motivation to interrogate established practice is informed by my own teaching philosophy that may be considered as social reform (Pratt 2001). From this personal perspective I could introduce bias into the data because my interest in human rights education and concern for violations in the workplace might influence my reaction to the student's comments and my interview questioning. However the systematic application of my theoretical concepts in terms of the schema enables me to re-interpret the data through this distinct framework providing an alternative perspective.

Direct observation of the curriculum-in-action could have offered me personal insight into the students learning in-situ. However this was not possible due to issues of confidentiality, patient consent and Facility protocol.

The rich learning ecology in the HSF has influenced my sensitivity to the students' own vulnerabilities and the impact that has on their emerging professionalism and engagement with curricular issues of social relevance. Furthermore I recognize that the abstract nature of the research may be challenging for students particularly in their use of Barnett & Coates' (2005) circles.

4.6.2 Interviewees

By recognizing the subjective nature of the students' experiences I hope to draw tentative conclusions from this research project. Verification of the reliability of students' narratives is not feasible. The retrospective nature of part of this study relies on the students' memories. There may be discrepancies in what students recount from their experiences in 2010 and what truly occurred.

This case study approach may demonstrate limited insight. Only five students were included in the study. Their varying experiences cannot be generalized beyond these individual students.

The student sample was initially planned to be individuals from the block of reflective commentaries that I had examined. However the rich data obtained from the two students in the pilot study (who were not in that sample) and my challenges in drawing in willing students led me to use the data from the pilot interviews with three student interviews from the initial block of students. Out of four other students who were emailed, three did not respond to the initial mail nor to a follow up mail, and one student explained that he was too busy to participate in the study. Another student was approached in person but he declined.

The students who participated did so willingly and without coercion. One student stated his acceptance as conditional to his viewing my proposal which I sent to him, and to his request for the study results on completion of my degree. He noted satisfaction for my proposal and accepted the assurance that my presentation PowerPoint or summary would reach him in due course. However he did not arrive at our first arranged meeting despite my attempts to connect with him on email and cellphone. He later emailed me to make another arrangement.

4.6.3 Visual Representations

These conceptual images are probing "beyond the surface" to explore "some deeper hidden truth" (Jewitt & Oyama 2001.151) exploring a type of modality, which refers to the level of reality or certainty. The authenticity of the images is difficult to discern. How the finished

images of the circles appear is at times different to the messages that the students portrayed. For instance in the fourth interview the student's circles were evenly distributed and sized yet his narrative indicated clear variations.

What follows is an analysis of the collected data moving on to my discussion in which I refer back to educational theory.

Chapter 5: Analysis

Before moving into the data analysis that examines the information gleaned from this research, I present a cameo shot of each of the study participants using a pseudonym chosen to reflect their gender and race. Although gender and racial issues are not a focus of this project, the mix of participants indicates the diversity of our student group. Admissions policies at UCT HSF ensure positive discrimination of black students in order to redress the imbalances of the past; however the legacy of Apartheid plays out in subtle ways in the students' learning as they traverse the weak public health system in which teaching takes place. For instance for many white students who have only experienced private health care themselves, exposure to the public clinics is a surprise and a shock. For others originating from rural regions where access to resources is very limited, the response may be influenced by their acceptance of what is normal.

5.1 Research participants' narratives

Each of the five student participants seemed eager to take part in this study. They willingly shared their thoughts, feelings and experiences some were more vocal than others. The depth of reflection and degree of critical insight and personal agency varied.

5.1.1 Interview 1: Student Joan

Joan is a mature white student who has been married for a number of years. Before entering medicine she graduated with a degree in Psychology and Social Anthropology. She also brings previous experience of nursing. Her critical insight is evident as she identifies the birthing process in the Obstetric clinics as "a very structured, unnatural, prescriptive and regimental event".

Although disappointed by the culture of nonchalance and abuse in the labour wards, Joan managed to develop a relationship with the healthcare team. In so doing, she was able to understand the broader social issues impacting on the environment and the workers themselves, admiring their resilience and ability to cope.

Joan is cognisant of the strict boundaries she has put in place to preserve her personal priorities. She chooses to be content with mediocre assessment marks rather than top marks by limiting her studying periods indicated by her commitment to keep evenings and weekends without study.

While recognizing her own vulnerability, Joan strategizes ways in which she can act as a change agent as she responds to unwelcome behaviours of those from whom she is meant to learn. Her "self-preservation" is further supported by her own network and social capital. Joan feels strongly about the injustices evident in her training. She was conscious of possibilities for change such as a "calmer and more comfortable" setting and the positive impact that birthing companions could bring. She sought out moments to challenge the "ethical and moral violations".

5.1.2 Interview 2: Student Rose

Rose has just returned from a year away from medical school. She is a white female student who entered medicine straight from school. Although her academic performance was good with comfortable passes, she decided she needed time out to reflect on her position and to cement her newly established marriage.

Her Obstetrics block had a "difficult" beginning with two intrauterine deaths. Her analytical approach in her reflective commentary demonstrated a shift away from her own personal stresses. She chose to compare her experiences at the two clinics and to comment on the varying behaviours of the women in labour. She valued her role in assisting the mothers and their openness in responding to her warmth.

She expressed her lack of confidence writing: "I think I was terrified each time that the baby wouldn't breathe". Overall she appreciated the "miracle of new life". She chose to accompany the good role models who seemed to offer her support. Teaching input from an outside consultant during the block helped Rose integrate her learning by understanding the legal issues related to teenage pregnancies.

5.1.3 Interview 3: Student Sipho

Sipho brings a humbling perspective to my research. He is a quiet black student who has steadily moved through the curriculum. He states that the Obstetrics block was “by far the most enjoyable and challenging experience in my life as a medical student thus far”. He shares his emotions. He was “frightened, scared but proud”. He recognized how he grew as a “human being”.

Sipho admits that he felt “overwhelmed” as he engaged with the complexity of the learning. He recognized the many facets that made up the curricular block. As he reflected on his own involvement he expressed excitement and pride considering his present and future roles and responsibilities.

Although Sipho acknowledged some of the challenges evident in the clinics, he did not make any suggestions for change or seem to take on any ownership to bring change. It seemed he chose to distance himself from the social difficulties such as when he took himself outside to reflect and drink coffee.

5.1.4 Interview 4: Student Thabo

Thabo brings a confident male perspective to my study. As a black man he prides himself on his strength of character and leadership ability and experiences. He found it hard to understand how a woman can “lose the will” not to keep pushing out her baby as one of the patients became weak and non-compliant. He felt a sense of guilt and shame for her. The nurses’ stress was a concern; he suggested they could benefit from counselling. He was “grateful” that no complications arose during his deliveries.

Thabo reveals that the curricular task changed him as a person. Perhaps a chauvinistic approach to women has softened to one with more empathy. In the interview he shared that his sexual behaviour in relationships had changed.

He appreciated the teaching from the nursing staff and doctors as he became more proficient at the required skills. He appears to be more passionate about his future career with a desire

to specialize in Obstetrics. Generally it appears that Thabo pushes aside any unpleasantness as he claims the power and pleasure and privilege of the discipline.

5.1.5 Interview 5: Student Mimi

Mimi's journey through her medical studies has been arduous with repeats in her first and fourth years. She is a black student who used to be carefree and confident but now feels she is far more sensitive to her own position and vulnerability.

Mimi has learnt to be strategic as she traverses the curricular tasks. Her reflective commentary handed in to the department seemed mostly positive and optimistic yet she appeared to be covering up much of the reality. In our interview she explained: "There is a lot more that I could have written, but chose not to. They never informed us who was going to be reading them and for what purpose". In our initial email communication (2012).she said: "I was not upfront about the challenges I faced as this was not an anonymous reflection and thus may have been quite censored". She expanded on her approach in our interview: "I have written I think the most positive sides that I felt – my very best days, because I knew someone from the faculty would be reading it so I didn't want to sound too negative".

She reflects on the Obstetrics block as one which was "tough, enriching and filled with blood!!" Mimi showed deep empathy with the needs of the mothers realizing the impact of even a glass of water. Her sensitivity to the value of an "extra human touch" to relieve the fear and anxiety of the patients was evident.

She felt that the curricular task gave her "a taste of independence" and an opportunity to deeply engage with others with very different personal narratives to her own. Notwithstanding the respect and admiration that Mimi shares for her clinical teachers in her commentary, her interview revealed some very uncomfortable experiences. In many respects her practical block was a traumatizing and disintegrating experience for her. By repeating Year 4 she was compelled to re-enter the experience. She has grown in confidence now able to reflect on her different choices and behaviours.

5.2 Data Analysis

Medicine is a degree that exposes students to a copious amount of life experiences and uncertainties. Particular to this research project is the time spent working day and night in the Maternal Obstetrics Units (MOUs).

In this interpretative section of my research, I will give a brief insight into the students' experiences in the Obstetrics block then unpack more details in terms of the triple-fold schema. Insights gleaned from these components will inform my understanding of how students negotiate the curricular integration amidst the contextual influences that play out in their learning to be and to become doctors. Use of the images and the study's interview themes drawn from the transcripts will guide my analysis. Insights gained from my five years facilitating students' conversations in human rights workshops and reading their reflective commentaries from the curricular block will contribute to this analysis.

From the students' viewpoint Obstetrics is a highly valued slice of the curriculum. As **Thabo** puts it: "If you fail Obs and Gynae you repeat the year, it is automatic, no discussion". The momentous impact of the block was indicated by **Sipho**'s claim: "This was the first time ever looking after real patients and looking at real situations". Caring becomes a reality for the students rather than a theoretical concept.

As students engage in this Obstetrics practical task they feel the intensity of the programme which includes both learning the theory and practicing the skills of the discipline. It is described by **Mimi** as "an educationally enriching experience". Although there is much excitement at the start, there is also a great deal of trepidation especially around the uncertainty of the practice and the context. From our classroom discussions it appears that students with experience in the field, both first hand, when they have spent time in labour wards or second hand, when they have become acquainted with the context from family or friends, seem to enter the task with more confidence and perceived better coping skills than those who move into an unknown learning space. What students hear from their colleagues both uplifts them and adds to the fear that seems to tacitly pervade the anticipation of the task.

The curriculum is very full during this period – perhaps overloaded. This block can be viewed as an expanded curriculum due to the extended time commitments. Alongside the practical elements are theoretical learning tasks usually in the form of tutorials. **Rose** explained: "[The facility] was um quite intense at having tutorials everyday and calls in between". Students frequently sit up through the nights doing deliveries whenever they are needed then attend theoretical sessions when they are "post-call" before moving away for much needed rest. Sleep deprivation is an accepted aspect of the block that appears to affect students in varying ways. For some it is just part of the process and they manage it well while for many others it influences their actions and decisions, as suggested by **Rose** who claimed that her struggles were exacerbated by her tiredness. **Sipho** shared: "I didn't have time to think because I had, like when you do all these deliveries you have to prepare the equipment and everything".

"The nature of the work itself is quite strenuous," admitted **Mimi**. In addition the precarious nature of deliveries contributes to the stress. The importance and urgency of the process is very real as **Thabo** points out: "Now you know very well there are two passengers, there are two lives you are dealing with here". Students' varying experiences unfold in the process. Amongst the five students interviewed three shared moments of Obstetric difficulties. Two students faced intra-uterine deaths and one observed a manual Caesarian manoevre that assisted a woman unable to push out her baby.

The complexity of the curriculum in the context of the maternity units is further complicated by relationships that are influenced and amplified by social, political and cultural forces that play out in the Obstetric service provision and teaching arena. This relational aspect of the curriculum has developed as a prominent theme in my study. It also encouraged me to explore Tronto's (1993:104) theory of care in which she asserts that care is "both a practice and a disposition". Although care and kindness prevail and effective birthing procedures occur, other unwelcome behaviours frequently permeate the environment. For instance students often say that they are surprised by the amount of shouting they witness from the health care providers. All levels of the medical hierarchy appear to demonstrate variable behaviours and attitudes as **Thabo** suggests "a lot of guys would put a warped mind to the curriculum and what not because of experiences with consultants. I would not lie, some of them are not the nicest of people, but they are very busy people".

Although performed at the final stage of my data collection, I choose to begin my data analysis with an interpretation of the circle images. This visual dimension provides a valuable vehicle to understand the students' experiences within the framework of Barnett and Coates' triple-fold schema. Jewitt and Oyama (2001.152) suggest that interpreting experience through circular frames may represent a microscopic view of the personal and affective aspects of a study. By using a design component, students' personal meaning-making moves beyond conversation mode into a visual element in which they can choose and shift their interpretation. It may be viewed as a narrative interpretation in which the students as research participants are the actors. Yet they also take on the role of producers of a completed product that portrays their meaning.

By introducing a visual and tactile component into the research project, the novel technology factor appears to be appealing for the students. All participants seemed to appreciate an opportunity to use the iPad and become familiar with how it worked. As students made sense of their experiences through the visual images, their active participation seemed to encourage their reflective process. There was a palpable sense of pleasure and satisfaction as each student completed their task. **Joan** suggested that "it was fun".

The composition of the graphics in terms of position and arrangements of the circles indicated valuable information when modified by the students. The image on the left guided students' review of their past experiences in Year 4, while the right hand image offered them an opportunity to anticipate their present or future work in Year 6. In Figures 6 – 10 the use of the letters "K", "A" and "B" represent the domains of Knowing, Acting and Being.

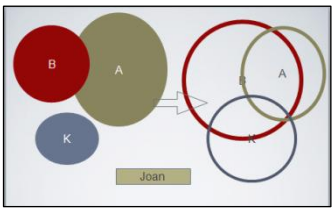


Figure 6: Interview 1 with Joan

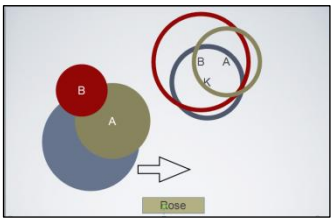


Figure 7: Interview 2 with Rose

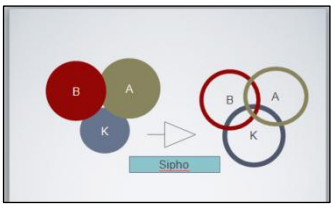


Figure 8: Interview 3 with Sipho

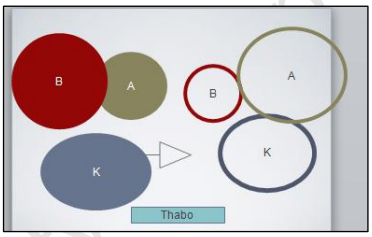


Figure 9: Interview 4 with Thabo

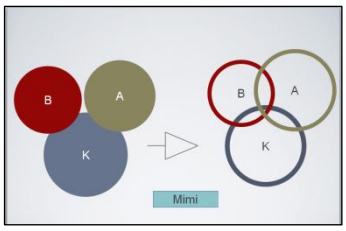


Figure 10: Interview 5 with Mimi

Taking a macro view of the images on the Keynote slides, students **Sipho** and **Mimi**'s circles were close to the configuration of the IHP framework that they learnt in Year 1 and also resembled the balance and overlap that Barnett and Coates indicate as symbolic of professional studies. They are keeping to the familiar with little individuality or initiative to break away from the expected. Both students shared their challenging experiences with me; however this negative exposure was not revealed in their reflective commentaries that were

handed in to the department. Furthermore both students admitted a sense of helplessness in Year 4 as they recognized what they observed was not what they perceived as professional caring practice.

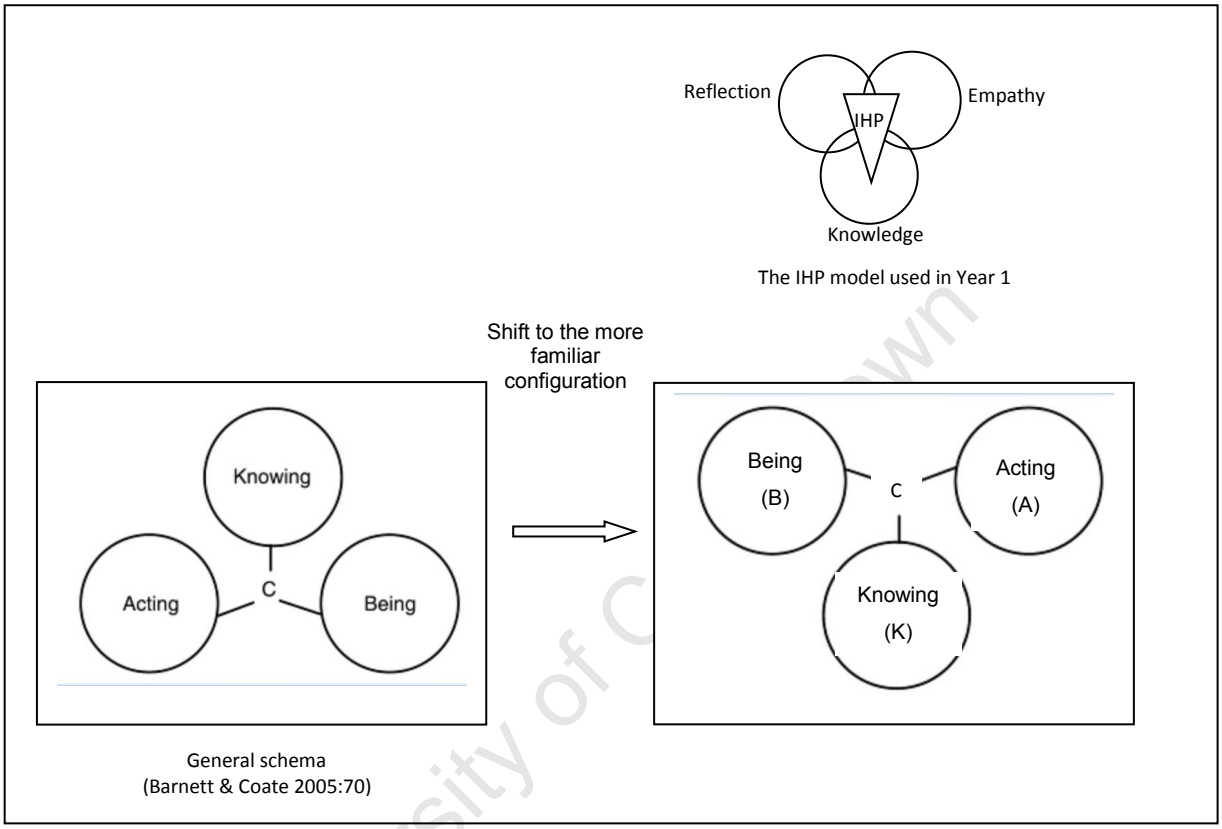


Figure 11: Rotating spatial positions of circles

What students said to explain their judgements as they sized and moved the constituent parts of the triads indicated the multiple factors influencing their experiences. Their comments and their actions illuminated their thoughts and feelings about aspects of the curriculum particularly in terms of the varying degrees of integration or disintegration. For instance **Sipho** surmised: "so I would say the Being and Acting part were equal, but the Knowledge was not so much but they all had to overlap … they all have to come together, they are all integrated".

Providing an additional lens through the semi-structured interview discussions, a further view of integration became evident. What follows is an exploration of the students' experiences. Although the students' images are valuable in themselves their dominant usefulness proved

to be as a vehicle to aid the students' reflection on their experiences. While I expected the students' images to be similar as indicated by the generalization offered by Barnett and Coates (2005), they were in fact very different indicating each student's individuality.

5.3 Analysis through the Triple-fold Schema

Using the triad I identify and interpret the three components and the varying levels of integration that contribute to human flourishing. I move on to understand the negative influences and dynamic forces that create boundaries supporting disintegration of the curriculum leading to unintended consequences which appear to undermine Faculty objectives to develop the competence and professionalism of the students. Before engaging in my discussion of my findings, I examine the shifts experienced by the students as they traverse the curricular task. A degree of resilience and vulnerability becomes evident.

5.3.1 Knowing

Drawing on Barnett (2009) and Savin-Badin's (2008a) knowledge Modes, I interpret the students' explanations of their learning. Barnett and Coates' (2005) Knowing dimension includes information related to the discipline of Obstetrics both formal and informal. This includes teaching as indicated by the full timetable and learning from others. Students gain theoretical Mode 1 knowledge from Consultants, Registrars, Nursing staff and Year 6 students supplemented by their own self-directed learning. They learn to be answerable to their teachers, taking on self-responsibility in acquiring the necessary knowledge and skills and developing the capacity to transfer the skills into practice. Their acquisition of the requisite knowledge is very important and frequently tested. As **Mimi** points out: "I did a lot of reading because I knew that that ward round was coming the next day and someone was going to ask me something that they expected me to know". The Mode 2 knowledge that is context-driven and directed at problem solving becomes evident as the students observe role models and learn from their expertise. This apprenticeship approach is in line with most training in the clinical years. Mode 3 knowledge, that embraces alternative perspectives enabling connection to be made, varies according to each student's uptake of these alternative frames of reference. Mode 4 knowledge was revealed at times when students

identified the gaps in a critical manner. When students ventured into the challenges of dilemmas, they approached Mode 5 knowledge.

In this research project students viewed the weighting of their Mode 1 knowledge in different ways. In Year 4, two students saw it as a small component while others identified it as the biggest domain (of the block). **Joan** compared the Obstetrics curriculum to other disciplines. She pointed out: "The Obstetrics block it is not, knowledge-wise it is not as challenging as other blocks like Anaesthetics". While **Rose** said: "There was a lot of stuff that we had never been exposed to before, so I think knowing was a huge part, well of the whole of fourth year; each block you started off knowing nothing and by the end we knew a lot". **Thabo** connected with Mode 2 knowledge when he suggested: "Knowing was very big because you had to know – because it wasn't just about me delivering babies", you had to know everything about Obstetrics and Gynaecology". He was illuminating the expanded view of knowledge that is necessary for the practice such as the problems of vulnerability of the women.

Considering Mode 3 knowledge, both students **Joan** and **Thabo** recognized the nurses' perspectives. While **Joan** mentioned her conversations with them in the tearoom and beyond, **Thabo** questioned: "You do not know what working environments these nurses have, you don't know what pay problems they have, you don't know what happened at home". He was keen to know whether nurses get the benefit of counselling, "I mean regarding bad stuff", and to suggest that it ought to happen.

Mimi identified the disjuncture between the teaching she received in the "new" curriculum and the old knowledge-based curriculum in which many consultants now still practice, an element of Mode 4 knowledge. Although the curriculum in the first three years has changed considerably, little is different in the clinical years particularly when practitioners in full time practice are the teachers rather than those based in the University. She critically ventured into the curricular gap indicating sensitivity to the shifting institutional RD. **Mimi** did realize why old ways were valued, acknowledging the importance of the biomedical approach because it "save peoples' lives", yet recognized that it "is not ideal". She negotiated Mode 3 knowledge as she reflected on alternatives in her comments: "You have to know your treatment, you have to know what you are doing, so maybe that is why they emphasise it so much because the person's actual life can be threatened, whereas the psychosocial

[approach] is more to do with their quality of life and dealing with the illness that they have, so I do understand that we have to ja we have to master the Knowledge as well, so I quite admire the senior consultants and the registrars that seem to know they have all the facts and they know the biomedical side". She felt she gained from experiencing the different perspective saying "I learnt from both sides of the stick". **Mimi** recognized the value of Mode 1 knowledge despite her initial perceptions.

Thabo introduced the imagery of a battle as he realized the power of his knowledge and explained: "You are in the front line". He spoke about the messy business of delivering when patients produce more than a baby and how different this is to the simulated theory that they learn as students in the classroom on dolls. His knowledge led him to connect the appearance of faecal matter with "a warning sign that actually the head is there". This connecting Mode 3 knowledge contributed to his developing skills which he valued as part of his growing professionalism.

In essence, as students work through the curricular task, they appear to sense the shifts that are demonstrated in the way in which the curriculum is taken up in the classroom versus clinic and the early years as opposed to later clinical years. Influenced by internal and external forces, students react to the different dynamics playing out in each situation as they seek alternative meaning-making that directs their actions which is what I will now explain.

5.3.2 Acting

The Acting domain refers to the skills and performances enacted within the discipline. **Joan** enlarged her Acting circle describing it as "huge" as she placed heavy weighting on the performance component. All but one student agreed with her as they viewed Acting as large. **Thabo** even extended his circle for Year 6 beyond the boundary of the frame, perhaps indicating his passion for the discipline beyond the usual confines of the required tasks.

The Year 4 curriculum demands that students deliver 15 babies which puts pressure on them to achieve that objective. **Rose** was sensitive to the implications of needing to accomplish this goal and the frustration when the expectation of a delivery at hand did not materialize. She explained "You would sit with someone for ages in labour and you would sit with them for five or six hours and then they would go for a Caesar and then you don't get that counted

as a delivery, and so you would be with kind of several people at the same time, two or three".

Some students felt that they worked with an ideal team who displayed impressive ways to act and to be in the situation while other students were thrown amidst the chaos of tensions and stresses prevailing at the time and undermining levels of professionalism from which they expected to learn. Students identified both behaviours although the impact varied with individuals. For instance, when witnessing unprofessional communication skills, **Sipho** remained silent reflecting on the exposure and the consequences while **Thabo** chose a dismissive approach.

Sign-offs from supervisors in individual students' logbooks provide the mechanism to indicate to the UCT course convenor that the student's curricular task is complete within the allocated time at the clinics. Therefore students need to demonstrate their competence as required and to have it valued by those with authority; as **Mimi** claimed: "You have to kind of prove yourself biomedically". Such strategic acting in which students recognize the power of the medical hierarchy and the powerlessness of their own vulnerability, enables them to fulfil the course requirements, sometimes through further manners of negotiations.

Drawing more insight from the situation, it is clear that students rely on the facilitation by persons in authority, such as the midwives, to reach their target of 15 deliveries and to obtain that person's signature in their books as proof that the delivery was performed by the students themselves. Students have remarked that at times this requirement for recognition, recording and signature is problematic.

There is a political undertone that impacts on the students' curricular experience. At times some students are favoured and then given more delivery opportunities than other students. While at other times there are repercussions such as the system inhibiting students from speaking out against unprofessional practices. In line with research within the UCT Health Sciences Faculty (Vivian, Naidu, Keikelame & Irlam 2011), students are concerned about victimization; consequently the system encourages students to be compliant with the system. In this way although disintegration and dissonance prevail, there appears to be a fabricated integration as students engage in strategies of self-preservation in order to achieve the

curricular objective. **Joan** spoke extensively about the measures she took to build up her defence of patients' rights. She also suggested that Acting ought to recognize more about performance "like how you portray yourself". It seems that students develop a sensitivity to the context as they gain Mode 2 knowledge, then ascertain how best to negotiate the inhibiting forces that prevail.

5.3.3 Being

What was striking were the varying ways that students understood their Being – described as their introspective self – their conscious awareness of their own narratives. By adopting an ontological approach I encouraged students to interrogate their experiences from their own frames of reference. **Mimi**'s emotional state was a key driver in how she traversed the block. She chose to interpret her behaviour as she reflected on her Being. She reduced the size of the Being circle as she explained "I think my problem is that I didn't acknowledge what I was feeling until the very end, so I dealt with it in the wrong way; running away and spending as little time there as possible, so that is why I am making my Being small and not making it overlap with my Knowledge".

As indicated in students' reflective commentaries, this Obstetric block is pivotal in the full 6 Year curriculum in that many students identify it as their moment of transforming into being a Doctor, assuming a real professional identity. **Sipho** admitted: "it was the first experience for me that said like okay now I feel like I am becoming a doctor, I am doing something'. **Thabo** found the block reinforced his passion for Medicine and catalyzed his interest in Obstetrics. His personal goals and confidence in becoming a Doctor were affirmed. He shared: "I handled it pretty well I think and it was nice experience you know and of course I mean, the only thing I can say was um my highlight of it was delivering my babies, catching it and of course you have your own secret ambitions".

Joan understood that the Being domain was "about how you cope with things". As she progressed through her years of study she sensed how she learnt to have greater equanimity, to hold [her]"self together more" with more conscious insight. While **Sipho** explained: "In fourth year all I could do was just keep quiet because I also didn't want to be shouted at for doing something". Responding to the notion of noise from shouting staff and

crying mothers, **Sipho** admitted: “You get used to it, but it is quite noisy. It’s – when you go back in the morning to go sleep it’s like your head is just buzzing”.

Mimi’s sense of her own vulnerability was visible as she described her role: “I felt like [the patients’] protector in a way and um but also inadequate because there were so many senior people that could penetrate my protection in a way”. **Mimi** sensed the responsibility of her position in a transforming environment by asserting: “We are the pioneers, but it is quite a heavy responsibility coming from the bottom up, like as juniors to try and teach the consultants the new system”. **Sipho** noted his role and responsibilities as he proudly stated: “I am becoming a doctor and I am becoming a professional and I am becoming competent in all those things”.

The diversity of the students appears to be amplified as they traverse this important slice of the curriculum. While **Joan** as a mature student draws support and inspiration from her large and established social network, Sipho chose to sit alone after a difficult incident. He sat drinking coffee and “just thought about” his experience in the Unit without any mention of containment through other avenues. He said he “felt confused and quite numb and shocked”. Now in Year 6 he feels he has gained confidence and knows what to expect as he re-enters Obstetrics.

A wide range of emotions were elicited by this Obstetric experience. **Rose** stated: “It is hard, it is a very difficult time”. Reflecting on his first delivery **Sipho** admitted: “It was very challenging … I was very nervous … I didn’t believe when it was all over that okay so okay now it has been done”. **Mimi** identifies the emotional load that she carried in her comment: “They [patients] share the responsibility of the weight of the emotional side and they are so vulnerable and in so much pain that they depend almost completely on you”. She describes the experience as “just very traumatising”. **Joan** explained how the students’ well-being strongly influences their engagement with the curriculum. She said: “I tell you when you are depressed and anxious, when this is out you cannot learn, you cannot do anything”. Referring to her interaction with a team member, Joan was “quite shaken” saying: “wow, shoo that was hard to stand” …. “I was scared I was going to get her on duty again”.

5.4 Relationship of Components

Moving beyond the individual domains of the triad, I now explore the relationships of these components, further associations between people and other influences that drive the students learning as they immerse themselves in the curricular requirements. The complexity of the birthing experience is further complicated by other forces such as the power dynamics that operate in the clinics. Students differed in their capacity to gauge their experiences and make choices in their responses.

My investigation of the students' integration and disintegration provides a glimpse into students' views of their experiences. Elements of changes and shifts in the students are revealed as they reflect on their navigation through the curricular task.

5.4.1 Overlap and Integration

Considering the alternate viewpoints for integration, I choose to refer to the "coming together" of different components that may contribute towards human flourishing. This happens when boundaries become porous to enable such integration – a shift away from a collection coded curriculum. In this study I identify integration as the links and the connections made between the domains of Knowing, Acting and Being within the curriculum that facilitate the students' professional development. In terms of pedagogic discourse, integration happens when there is an alignment of the value bases in terms of the regulative discourse, at the different curricular sites.

Although the Year 1 curriculum incorporates integration for students' developing professional profiles, here I draw on the familiarity and comfort of that model to explore the curricular components through the triple-fold schema. Differing values surface in the findings adding to the supercomplexity of practice.

In terms of overlap (of the circles), which is used as a symbolic expression of integration in the images, the relationships of the three domains varied. For instance **Thabo** suggested: "In fourth year from what I understand, the Knowledge and the Being were big, and then Acting was less, but they are all interrelated". He added "Acting was with Knowing, I mean they are

all a part of each other". **Rose** proposed: **"**I think in some ways ideally they [the circles] should all just be on top of each other". However her own personal perceptions were different as she criticized the curriculum for a structure that did not take her Being into account – keeping it very separate. Yet **Joan** expressed pleasure connecting her Knowing to her Acting by using her skills and gaining competence. She explained: "I really enjoyed delivering, using my hands and doing practical things".

Sipho overlapped the Knowing and the Acting as he praised the teaching he received in the block pointing out: "The nurses there they taught us, because we didn't know, we had no idea like what should be prepared, what does it means to be delivering a baby … all the practical components of it, but they actually took us step by step. Yes, they were very helpful, ja". For **Rose,** the Being domain was large as she identified the position of power she assumed in being a student Doctor. She explained the impact of the white coat and the beliefs that mothers associated with it. "If you've got a white coat on they call you doctor and they think that they can tell you anything and they usually do tell you anything". She explained how patients talked about rapes, murders and other happenings while in the Obstetrics units: "it's such a crazy degree because you get such access into people's lives". The privilege and joy of the miracle of birth is valued by **Rose**.

The true impact and lasting impression of the students' experiences in this practical block is reflected in **Sipho's** comment: "This block is the first place where we have had a real contribution to make and have felt purposeful and part of it is because people higher up have included us. I want to remember this so that one day when I'm in a higher position I will be able to make the new, anxious, less experienced students feel purposeful".

Developing relationships within the health care team deepened **Joan's** insight into the broader societal issues. She offered a lift home to a disempowered nurse who was left stranded after her car was stolen. This enabled **Joan** to engage with the wider social dimensions as she said: "Sitting and chatting with them [nurses] between things and hearing about their lives and why they feel the way they do about teenage pregnancies and actually getting an understanding about where they were coming from, I think that really helped me".

Joan's choice to interact with the nurses in an informal manner beyond sharing the delivery tasks helped her develop meaningful bonds. She explained the impact of getting to know an unpopular nurse: "because I knew her and knew the way that she was, I was able to work with her easier, and I actually found that she was a very competent sister, but she was very harsh with patients". In this way **Joan** was enhancing her learning experience by gaining insight through building relationships within the team.

Feeling valued was a theme that promoted the students' positive experiences. Students recognized how their presence contributed to the mothers' well-being. **Rose** explained: "One thing that amazed me about all of the mothers, almost all of them, they were really open to sharing their story with me and really open to me being part of their labour and – it is actually quite an intimate, vulnerable time for them, but a lot of them were just so happy that someone was stopping to talk to the them; they were really happy to share everything".

Thabo gained from strict teaching of the course convenor who reprimanded him for arriving late at the first session. His personal habits were challenged as he learnt the importance of being a health professional who is punctual and accountable. He realized that the experience encouraged him to be conscious of the impact of his conduct. It left a memorable marker as an important learning from the block. He dismissed the myths that he had heard and the possibility of unprofessional colleagues enabling him to embrace the Obstetrics task as a positive experience for himself, judging it as one of the best moments of the curriculum and one in which his own needs were comfortably met.

Student agency was evident as a positive force towards integration. For instance **Rose** chose to be with good role models: "the one sister was especially positive and I think I just stuck to her". **Joan** recognized the value of her strong social capital. She reflected on the strength she drew from her personal structures: "I've got a lot of support structures on many different levels, of um people that I could go to for encouragement, for prayer, to um kind of debrief after something hectic, to help me, to help guide me in kind of ethical situations, going to them whenever I've got issues". She also mentioned Faculty support, particularly one educator who she met through her student Christian activities and who "has been a great soundboard for me for many years".

Students seem to shift to higher modes of knowledge. They recognize the connections, drawing together multiple facets of their lives and the broader influences on the delivery process, which sometimes illuminate the gaps and dilemmas. These enablers facilitate integration of the curriculum for the students. Notwithstanding such positive optimistic approaches, there are simultaneous contributing factors that frequently limit the benefits gained from the task by disintegrating the experience, such as a shifting RD in the institutions and the curriculum. Below I expand on this theme.

5.4.2 Disintegration

Student dissonance leads to disintegration of the curriculum and a conflict in terms of RD. When theory shows limited correlation to practice and when professional lapses are witnessed, students differ in the trajectory of their responses frequently leading to unintended consequences such as guilt and frustration. During my teaching interactions with students, some have even shared how this Obstetrics curricular task has traumatized them. In this study, students shared variable emotions from excitement, happiness and fulfilment to anger, frustration and helplessness.

Contributing factors towards the dissonance experienced by the students are the design of the curriculum without acknowledgement of the students' possible struggles, general class discourse in the hidden curriculum, actors choices regarding what is needed and what is valued as well as individual students' own ability and capacity to understand their dissonance by reasoning through their experiences. It seems that when students are stuck in Mode 1 or 2 knowledge, they are not making the shift to higher levels.

When **Rose** worked with the visual tool she recognized a distinct separation of elements: "like here was the curriculum and then there was my own learning that was quite separate and learning how to be a human being and be a human professional". This disjuncture between Being and the curriculum she explained: "Being I think for me that happened quite separately in some ways, very separate from the curriculum I suppose, in certain aspects. I think I learnt more from a spiritual point of view just from my own walk with God. But in terms of what they are teaching us in terms of Being, there wasn't very much in the actual block".

Varied opinions of what is valued in the curriculum contributed to the students' experience of disintegration. **Mimi** explained how she felt vulnerable as a student who had learnt the skills of an integrated curriculum during her first three years of training and was then exposed to a predominantly biomedical approach. For instance, she described how she was mocked for her expanded viewpoint when the contrast between the old and new was not appreciated: "If I even try and say anything psychosocial you get comments like 'oh are you going to be a psychiatrist? She explained: "The bubble that we live in here, where you are educated here, really enforces seeing patients holistically… the first three years they emphasise just seeing yourself as knowledgeable clinician, you know empathy, self reflection and it does sink in [laughs] even if you don't do it to a tee, even if you don't have a self-reflective journal, we do reflect amongst ourselves so – we have the language and the skills to just communicate with each other as peers … I don't remember ever being asked about, you know, ward round, about anything psychosocial that the patient may be experiencing, um it is always biological, how would you treat this patient". **Mimi** is explaining how the old and the new curricula place her in a position of dissonance. She observes a gap between theoretical concepts learnt and different practical realities. She is orientating herself and at times victimized for the curricular conflicts. She identifies the Mode 4 knowledge and the varying RDs.

Before even entering the Obstetrics block students gain informal knowledge. There appears to be an extensive discourse among the students and their peers highlighting the uncertainty and supercomplexity of practice. **Mimi** admits: "I had heard from people what it is like, but I just learnt to take everything people say with a pinch of salt because sometimes people over-exaggerate. You just never think it is going to be that bad". She added: "I don't think any video can prepare you for just, I won't say gruesomeness, but just the yuckiness". **Sipho** seemed quite unprepared as he reflected: "When I went there I had no idea what was going to happen and yes you don't know; you know you go to the hospital sometimes and you do a course and you kind of expect this is what is going to happen, but there in Obstetrics, you also, it was very intimidating to go and deliver babies". **Sipho**'s observations of the nurses' communication skills illustrated unfortunate evidence of poor professional behaviour.

The many demands placed on the students meant that they had to make choices. Physically the practical block is demanding particularly as students learn to cope with the long hours. They frequently comment on their tiredness which limits their usual coping mechanisms. The

pressures of the block play out in the students' experience as **Rose** explains: "From being tired the whole night and then having to have tuts the next day … I think that is part of where my struggles came from, of not being able to be as objective as I normally am and being tired and being so quite vulnerable". The need for self- regulation in terms of time commitments and priorities was explained by **Joan:** "You are constantly having to play the balancing act".

Although some students felt empowered to act in ways to advocate for the dignity of the patient there were consequences. For example **Sipho** was scolded for responding to cries for help from a mother-to-be. He shared: "She was in pain and there was no-one there and I decided to sit on the bed and like she asked me to rub her back and one of the nurses passed and she shouted at me and she said: 'No, you shouldn't do that, you are not her husband".

Moreover the behaviour of other members of the team appeared to exacerbate the situation as **Mimi** observed: "There were one or two interns who would stand up to the midwives, but I saw a lot of registrars and consultants just turn a blind eye and let the sisters do what they are doing. That was the more difficult side of Obstetrics". **Joan** grappled with Mode 5 knowledge as sensed unprofessional practice by a midwife who was not using an anaesthetic in stitching a patient. This student pensively measured her response, being acutely aware of the insensitivity of the midwife and her own vulnerability as a student. She said: "Now you face this dilemma, seeing something that is very different and you are knowing that it is wrong". She was acutely aware of the importance of self-preservation as indicated by her comment: "Often all you are thinking about is, how can I survive in this environment". She realized too how her actions could influence future practice. **Joan** noticed a shift in the attitude of the midwife (after she had suggested that an anaethetic may be a kind option for the patient) saying: "The next time she was a bit more open to it and I was like okay can we try an anaesthetic this time?"

Uncertainty by students was at times not welcomed. As **Sipho** pointed out: "You get shouted at if you don't really know what to do". Coping with the uncertainties seemed more comfortable for some students. While **Joan** distanced herself from an incident and took a stand on another occasion, **Sipho** seemed traumatized as he explained: "I felt – I didn't know what to feel about it, I felt confused and quite numb and shocked like I was – and I was so

worried about what is it that it is going to happen next. And also like what is it that I stand up for because it was, ja it was very shocking and I couldn't go on delivering babies, I think for like - I couldn't go back into the ward for like an hour or so".

Mimi spoke at length about her experiences of witnessing unprofessional behaviours. She stated: "I definitely witnessed some practices that weren't desirable, um just too many to mention". She attempted to unpack her observations: "There would be this abuse – not abuse, but looking down on patients and talking however you want to talk to them".

Some students seem to be immobilized by the unexpected. **Sipho** said: "I just sat outside and had a cup of coffee and just thought about – replayed the whole thing in my head and yes so that was that, it was not nice". A sense of guilt appears. For instance **Mimi** explained: "So that was one aspect that was difficult, where I felt like I let the patient down because I let them be treated in a certain way".

Mimi tried to show compassion although it was difficult: "I was there to be kind and show kindness, especially the very vulnerable ones, the ones of low socio-economic status where maybe their family would have loved to be there and I could hear them on the phone, but it is not the same as being there. And that was quite difficult, it was quite a difficult side of it".

Difficult experiences were unsettling for students. **Rose** explained: "there were lots of various issues that were just horrendous to deal with" describing how she was confronted by multiple intra-uterine deaths. **Joan** offered more detail in her comment "it was just awful …We had three stillborns within the first two hours of being on duty". Birthing complications such as these were events that students had been warned about yet the reality of confronting these eventualities was challenging. The acquisition of this Mode 2 knowledge appeared to contribute to students' dissonance. Notwithstanding the conflict when the institutional and curricular RD's differed, in some cases the student's consequent disorientation contributed towards an integrating experience aided by students' ability to identify the connections and forces playing out in the context. For instance **Joan's** critical reflection of her discomfort and measured responses indicated her engagement with higher levels of knowledge production referred to as Modes 3, 4 and 5 by Savin-Baden (2008a).

Developing and learning strategizing to cope with the context seemed to be an understandable response by students. Some chose protective strategies to adapt to the system. **Mimi** explained: “If a member of staff was rude to a patient there wasn’t a lot that I could do, given that nurses could refuse to sign for a delivery and I needed my log book to be finished and there were no real channels exposed to us that we could talk to, to report anything”. She elaborated how she chose to fit in with the system in her comment: “If I didn’t buy into that [talking down to patients] I was marginalised and I chose to appear neutral to the midwives and be kind to the patients”. She explained how those who didn’t adapt to the system were victimized: “I saw one of my friends um who tried to stand up to the midwives um, they didn’t make it easy for her. She wouldn’t get called for extra deliveries… they made life more difficult for her”. **Mimi** elaborated: ”You have to fit into the system and there is almost like a code amongst the people that have been doing this for decades that they just stick together so there is no real channel”. For instance, **Mimi** explained: “The only problem with that is the nurses are more experienced and there will come a point at the delivery that is too expert for me … you kind of have to go back to the people that you stood up to, but they have to do their job as well so you just have to ask them and also put your pride aside, so it was quite an interesting experience”.

When **Joan** had spoken out during a procedure she recognized her fear of repercussions. She explained: “Shoo I was scared [laughs] I was scared I was going to get her on duty again”. Although reassured by an intern, she was very conscious of the need for self-preservation as she heard that the registrar has indicated disgust at students’ intervention saying: “how dare these medical students come to me and make a scene”.

Reflecting on the link between students’ emotional state and level of learning **Joan** explained: “I tell you when you are depressed and anxious, when this is out you cannot learn, you cannot do anything”. She feels age is a strong factor in giving more maturity to cope with the curriculum. She values her maturity having empathy for those younger than her saying: “I think that people are very young. I could not have coped with what the students are coping with at their age”, then adding, “emotionally you couldn’t learn as much in those environments because it was so intense”.

When considering the Acting aspect of the curriculum and the impact of her medical training so far, **Rose** suggested: “we are often human doings and not human beings”. She claims: “At the beginning of medicine I could write poetry and now I can write very efficient lists, lots of lists, but no poetry”.

5.5 Student shifts

Shifts were evident in the students’ images as well as their discussions, symbolic of their understanding of a variable RD that shapes the curriculum-in-action and influences the curriculum design. Students learn to negotiate the dissonance to conform to the prevailing RD. Consequently students’ own values frequently appear to shift in consonance with the institutional RD. For instance **Sipho** made sure that he kept out of trouble, not doing anything that may antagonize a midwife and what she valued.

The developmental progress through the years is indicated by all the students as they worked on the triads. Students **Sipho** and **Mimi’s** images show little change from Year 4 to Year 6 with just a small move to overlap more, while more movement is evident from the other students in the study. **Joan and Rose** have shifted their circles significantly in both images as they recognize the centrality of their Being once in their final year of studies. Both these students mentioned several times how their religious beliefs and their support systems, particularly their husbands play, an important part in their role as a developing doctor. **Thabo’s** initial separation of the Knowing component is later linked although he then subordinates his Being to a position on the periphery. **Thabo** enlarges the circles moving them away from each other to the extent that Acting even goes beyond the boundaries of the frame. As **Joan** moved the circles together representing her future work she suggested: “by the end of six years you have kind of learnt to hold yourself together a lot more, you’ve got a better understanding of yourself, I think and there is more insight”.

The rewards of Medicine seem to override many of the challenges students experienced as **Sipho** shared, “I tend to enjoy Medicine no matter what happens”. **Mimi** summed up her growth: “The professional [Mimi], she ran away I don’t know, but she was unsure of herself and now I am getting more confident and by the time I graduate hopefully the doctor [Mimi] will be in place and she will be able to be there whether I am performing something, a

delivery or assisting with a Caesarean section or Knowledge-wise when I have to talk to patients or other clinicians about a case. So that is why that Being is overlapping more".

Students made strategic choices and developed their personal agency illustrating how Being and Becoming appear to trump other curricular elements. For some students the passage through the curricular task was made more comfortable by their purposeful decisions, such as a choice to align themselves with positive role models, seeking a familiar RD. For instance **Rose** explained: "I didn't have that many experiences of people shouting at patients or abuse … and the one sister was especially positive and I think I just stuck to her". **Mimi** noticed herself gaining courage as she explained: "I was braver when it came to standing up to nurses". She recalled on one occasion: "I had to face the wrath of the sisters; they would shout at times and I remember being very gentle with a patient and just being mocked by them, in my home language".

Sipho felt that Obstetrics was very different to his previous learning although he explained: "before you get to fourth year you are just studying … you don't interact with patients and you don't really know much about like clinical practice and also the whole thing of like um birth".

Joan identified the stressful challenges related to "how you cope with things and how you cope with the pressure and the tiredness and people". **Mimi's** repeat of the curriculum allowed her to make comparisons. She explained: "I knew that there would be long hours involved and I knew that the next day we would have to go to tuts so the day before you make it an early night so you are two steps ahead because you can't deal with it anymore; so I think the first time around I would go back to Res most nights, which was a mistake, because I just craved that support and that normalcy away from the hospital whereas the second time I just bit the bullet and completely moved into work fraternity and just accepted my fate in a way".

Cultural and social issues were identified by students as they considered the broader forces that play out in the curriculum-in-action. **Thabo's** view about women was shifted as he confessed: "Even my knowing more about the females outside from just you know, I mean it changed my Being you know, so that involves my Knowledge, you know, and in terms of

Acting, every time I interact with the patient it is a part of my Knowledge, throughout the life – throughout the cycle of learning".

The politics of employment and employer was highlighted by **Mimi** as she gained insight into human resource issues. She noted: "Whether the nurses belong to the clinic or are employed from an agency appears to influence their attitudes and behaviours". Her claim was substantiated by saying: "If there is five or six midwives on duty, four of them have that attitude and two are neutral and the two that are neutral would be the ones that are agency nurses but they don't really seem to really care what's happening, they are just there for the money and they don't get involved in the politics of the labour ward". **Mimi** shared her anxiety of the frequent night time scenarios when the nurse who is assigned to be present is actually asleep. "There is a feeling of just being anxious that something beyond your Knowledge base will come into play".

Joan learnt to understand the midwives' life-worlds when she helped drive a team member home after a car break-in. It opened her eyes to their daily reality. But **Sipho**'s negative experience witnessing poor quality of care seemed to be normalized. He reasoned: "I think it is just expected for them [patients] to be in pain in those hospitals and to just bear with it".

The problem of the abundance of teenage pregnancies and the moralizing they frequently encounter when entering the health facilities was highlighted by **Sipho**. He felt frustrated by the nurse's attitude and behaviour leaving the block with an uncomfortable sense of helplessness knowing that the vulnerability of the girl was not protected. **Rose** referred to her growing awareness of the legal implications of early pregnancies when an outside Consultant guided her understanding of the ramifications of the legalities. She reflected: "That was a really weird experience when you suddenly realise 'hey he should actually be in jail because what he did was illegal".

Several notable dualities are evident. Students' assumptions are challenged. **Mimi** explained: "the way it is taught you just think it is set in stone because everyone knows about patient rights and there are posters around the ward, but many a time a blind eye is turned".

Students observed good and bad practices as indicated by **Sipho's** awareness of good teaching from the midwives yet witnessing their unprofessional communication skills when they undermined a teenage mother by talking to her mother about her in front of her in a demeaning manner.

Students' values and beliefs are challenged as they negotiate their responses to the different RDs that underpin their experiences. Even from the initial data in the reflective commentaries some students developed strategic skills. **Mimi** explained how her reflective commentary was filtered for hand-in, thereby lacking authenticity. She "was very cautious about what [she] wrote" explaining: "what I have written is I think the most positive sides that I felt – my very best days, because I knew someone from the faculty would be reading it so I didn't want to sound too negative. Reflecting on the past in our interview, **Sipho** admitted: "I felt the most difficult thing was feeling helpless". He recognized his growing confidence in his sixth year and suggested that I encourage students not to be scared in Year 4.

The prevalence of shouting in the facilities led **Sipho** to question as he states "I don't actually believe that they should actually shout at you or anything because there were other people who would tell you – even if it's an urgent situation and there is something that needs to be done, they can still tell you in a nice way … I mean like they could still say 'no don't do it that, do it like this', but they really shout and like angry and it's not nice that way".

What is striking in **Rose**'s visualization of her future professionalism image is her positioning where she has shifted the triad up and outwards for Year 6. She had taken time away from her studies and seemed to be returning with a renewed, refreshed and perhaps idealistic viewpoint of how she anticipated her re-immersion in the curriculum.

Generally the students show remarkable resilience with energy and enthusiasm to continue with their studies. Despite her difficult experience **Joan** said: "I am quite excited to get back to it". **Sipho** assesses his position in Year 6 saying: "I know a little bit of what to expect and also in terms of like behaving more maturely now, not being scared". He adds: "now I have a much better understanding and ja so I will do things differently". In using Barnett and Coates' (2005) circles **Sipho** interprets his goal "I would like all the three circles to become more solid and to be much firmer and … they will all come together, they are all integrated".

Chapter 6: Discussion

"Knowledge remains a fundamental building block within curricula" (Barnett & Coate (2005:84).

Barnett and Coate (2005:72) identify "patterns of curricula across three broad subject areas" namely Arts and Humanities, Science and Technologies and Professional subjects such as Nursing. Intended to be used "to communicate and understand the main components of the curricula", these patterns have guided my interaction with the students in this research project (Barnett & Coate 2005:79). From the Nursing perspective Barnett and Coate (2005:78) point to the integration of self and action domains:

> *"As students advance through their course their sense of self is shaped by this [the reflective] component of curricula, as they take on new professional identities and begin to reflect upon their practices".*

While a student population at a specific stage of the curriculum may be viewed through a single lens, an acknowledgement of their different uptakes is important. This study illustrates Gee's assertion that students' own "certain ways" (1990:xviii) of being and doing and what they value, play out in their learning. By drawing on students' individual experiences I have sought to gain insight into their engagement with the Obstetrics curriculum.

Below I draw on common threads from my findings to discuss my interpretation of the curricular components of Knowing, Acting and Being followed by an examination of the varying degrees of integration of the curriculum. Because Barnett's framework seemed insufficient to explain the broader context of the educational implications, I have elaborated on the kinds of knowledge production that seem relevant in this context and drawn on Bernstein's pedagogical discourse.

Although the triple-fold schema enabled students to share their perceptions of the weighting and relationships of the three domains, it also acted as a valuable vehicle or channel to encourage students to engage in a dialogue on their critical reflections of the curriculum that foregrounded the changing values reflected in the institutional RD. For instance, the revised curriculum attempts to shift the RD towards one that is integrated and that upholds human

rights, yet these research data reveal boundaries confronted by students in their curricular interactions as explained through the domains of the triad.

6.1 The three domains

6.1.1 Knowing

From my understanding, the formal knowledge objectives reflecting the Mode 1 knowledge of the discipline are achieved by all the students. Although coping with a heavy workload, the five study participants seemed to acquire the theoretical grounding needed to carry out the curricular requirements. The contextual, applied knowledge reflective of Mode 2 knowledge, both in preparing for the learning block and through peer discussions during the block seemed to positively supplement the students' theoretical base. However anecdotal narratives of the difficulties in Obstetrics do impact on the students' experience. Some students like **Mimi** feel intimidated while others like **Thabo** consider the myths that abound as immaterial and lacking substance.

Gaining new knowledge beyond the disciplinary facts appears as a common thread with all the students. Barnett's Mode 3 knowledge which recognizes multiple perspectives and uncertainty within an overall context seems to be most relevant in understanding my data. I note the value students placed on gaining knowledge of external factors such as the home environment of the nurses in **Joan**'s case. Getting to know the health team and developing those professional relationships seemed to strengthen their knowledge. For instance **Rose** chose to stay with one midwife and avoid others by evaluating who was a good role model by using her own theoretical understanding.

Most crucial from my interviews was the value of personal critical reflection that impacts on the students experience. **Sipho** reflected on his observations of poor communication between the nurse and the teenager to the point of realization and consciousness that he did not like or agree with the practice that he observed. He seemed to stick in that space rather than move beyond to develop critical insight into the different perspectives through an understanding of the interrelationships impacting on the situation.

Joan's effective attempt to encourage the midwife to consider alternative treatment strategies indicated a tactical strategy that **Joan** employed to aim for positive change yet maintain self-preservation as she was aware of the power of the medical hierarchy. Her critical stance indicative of Mode 4 knowledge helped equip her with agency. **Thabo** drew on Mode 3 knowledge. His sense of power was supported by his awareness of different perspectives. He offered advice in terms of his perception of the nurses' needs, and suggestions to me for alternative research processes. His confidence and leadership background appeared to enable him to make recommendations for others.

6.1.2 Acting

Despite the challenges of life and death, students moved through to continue the tasks required of them. While fear and a sense of unpreparedness seemed common, students all appeared to cope well with the task at hand. There was no indication of under-performance or lack of expertise although some students relied more on others or drew more heavily on experts' skills when required. Acting is a vital component of the curricular task; however for this research it has proved not particularly significant apart from the issues of power and responsiveness which we are warned about in Tronto's (1993) political interpretation of caring.

Achieving the goal of 15 deliveries is crucial to the students. As indicated, the power of persons in authority can either facilitate the likelihood of students achieving this goal or not. There is an implicit tension to reach the target and curriculum objective. **Joan** mentioned her frustrations when a clear case of a possible delivery is lost when unexpected and unavoidable complications arise. At times the will to reach target even seems to override the value of the process.

Perhaps the tensions resulting from the sign-off procedures detract from the true experience of caring that ought to be taking place in the clinics. I question who should be doing the judging and what politics is involved in the interpretation of needs. Students' recognition of the value and priority of the sign-offs above the care of the patients, indicates insight into the acting out of the curriculum in which certain ways are privileged reflecting Mode 3 and 4 knowledges. My understanding is that these preferences indicate an institutional RD that is

not consonant with the ideals of the curriculum presented to students in the earlier years – an instability that adds to students' uncertainty of the curriculum-in-action.

6.1.3 Being

As anticipated**,** the students' personal growth during this practical task was particularly evident. They could feel the real meaning of being a doctor. There was a sense of fulfilment and pride as they stepped into the roles and responsibilities entrusted to their profession. They grew in confidence and seemed to develop their own coping mechanisms and resilience in different ways. **Sipho** and **Mimi** quietly managed on their own while **Rose** and **Joan** drew on their social capital. **Thabo** seemed to feel that his leadership skills and experience empowered him through the process. They all drew from their varied frames of references which also influenced the degree of uncertainty they felt comfortable to face.

A common thread through this demanding curricular task was students' high level of personal growth. Also evident was their will to learn about themselves and the environment, attributes that Barnett (2009) claims are necessary for engaging in unknown situations and for the development of a professional will to care for others. The students also demonstrated the qualities that Barnett (2009) suggests are essential for the world of uncertainty, such as the resilience to cope with the supercomplexity of situations.

6.2 The relationship of components

6.2.1 Integration

From my viewpoint Barnett seems to place student Being as all-important, at times at the expense of developing concepts such as integration. As indicated earlier I draw additionally on Bernstein's curricular codes, in particular the less bounded integration code which reflects the integrated shift of the HSF's reformed curriculum, as opposed to the tightly bounded collection code. I explore the interrelationships and associations made by students as they identify an integrated curriculum as one incorporating personal, social and political issues. Connections are made through the diffused boundaries, and an alignment with higher levels of knowledge production. Such criteria for integration appear to lead to positive outcomes

frequently accompanied by transformative learning. Judgements seem to be another important considerations in understanding how the students are negotiating their curricular task. Tronto (1993), a political theorist, points to the complexities of the moral boundaries of care which are generally kept tacit and silenced. She (1993:136) states that care requires "a deep and thoughtful knowledge of the situation, and of all the actors' situations, needs and competencies". She adds that the "judgements require an assessment of needs in a social and political, as well as a personal, context". Although students attempt to be non-judgemental, much occurs unconsciously (1993:137). For instance when **Rose** learnt about the legal ramifications of teenage pregnancies, she realized how different her approach to young girls delivering babies will be in the future.

Where students engaged critically with the context of practice and had the power to be in control, their curricular task seemed to be more manageable. **Joan** made great efforts to empathize with the nursing staff. This broader understanding was revealed as she measured her responses to uncomfortable experiences. In other words, **Joan** identified her own dissonance yet she was able to negotiate the competing forces in order to develop strategies to respond in a manner that led to integration – a transformative process.

Rather than a binary of integration versus disintegration, taking a continuum approach seems useful to indicate the different levels for integration. A tool for self-assessment could be valuable for students to assess how their reasoning and judgements link with the broader forces that impact on the uncertainty of the curriculum.

6.2.2 Disintegration

Disintegration is identified when dissonance, conflict and contraindications dominate in the student's experience of the curricular task. For instance when students experience the divergence of the designed curriculum with the curriculum-in-action, the gap between the theory and practice is illuminated. The RD is quivering with conflicting messages through the curriculum. Students face uncertainty with a negative undertone. Moreover when tension is apparent between earlier learning and clinical learning, this contrast appears to undermine an established RD in which patient-centred care and collaborative team work are valued.

Socio-economic-historic factors appear to contribute to and give permission for abuse,

possibly a reflection of the high levels of violence in our society particularly related to the vulnerability of poor women. Furthermore a culture of compliance within the health system maintains the status quo. Complaining and voicing dissatisfaction were are not welcomed nor acceptable. Both patients and students fear detrimental consequences.

While exploring how students make sense of these experiences, it appears that some students struggle. For instance **Mimi** felt that moving out of the situation would enable her to escape the difficulties. Yet she indicated that it rather exacerbated her challenges. **Sipho** endured the challenge on his own by reflecting on the difficulty. Only later in future years did he recognize that his fear of authority and inherent cultural respect for those in positions of power actually disabled him in taking on the caring role that was his preference. **Rose** chose to keep away from dissonance as much as possible while **Thabo** seemed to consciously take a stance to ignore the RD also as he appeared to discard competing values.

Because the curricular task is so demanding, students learn to juggle the needs of the curriculum with their own needs and those within the context. This is one of the most burdensome aspects of the Obstetrics block. Where students seemed to process their experience on their own with little support such as **Sipho** demonstrated, an integrated approach with positive emotional forces seemed distant.

In agreement with Barnett and Coate (2005) the interrelationship of the curriculum and pedagogy are important considerations. Because institutional cultures vary, it is inappropriate to generalize or make judgements, however what is clear from this research is that the individual actors play a key role in establishing the RD and enacting the curriculum. In some institutions there appears to be weaker framing that possibly enables more dissonance to be present.

When a students witness unethical behaviours, the dissonance in the curricular RD's seems to create more uncertainty unless the students engage with the wider influencing issues. It is apparent that without Mode 3 knowledge, where there is "synthesis across boundaries" or higher levels of knowledge that engage with gaps and diverse knowledges, students may sit with disjuncture (Savin-Baden 2008b:157). This is "not only a form of troublesome knowledge but also a 'space' or 'position' reached through the realization that the knowledge is

troublesome" (Savin-Baden 2007:14). The experience of disjuncture may result in students "becoming stuck" when there is [c]onflict between expectation, identity and belief: a contested RD (Savin-Baden 2007:16). Recognition of this dissonance is facilitated through dialogue and exploration that enables spaces to shift as in a "liquid curriculum" (Barnett & Coate 2005:131).

Chapter 7: Impact on Practice

"We have the task as professionals to design spaces that pull students in different ways" (Barnett 2012 in conversation).

Figure 12: Ronald Barnett and Veronica Mitchell in discussion at UCT, June 2012

As students experience the curriculum in Year 4 Obstetrics, they face many competing forces, some contributing to integration and others contributing to disintegration. Resulting from my findings on this project, I will offer ideas to shape a curriculum that shifts towards the needs of the 21st Century, exploring the perspectives of the students, the Faculty and the educators.

7.1 Facilitating integrations

In understanding the context in which the curriculum is placed, the University carries a responsibility to recognize the needs of multiple actors. In agreement with Stevens (2007) the Faculty ought to place more emphasis on preparing students for the health system rather than simply the individual doctor-patient relationship. Although social responsiveness is a key feature of the Transformation mission and vision of the HSF, a more integrated approach to student learning on the clinical platform could be better achieved by adopting an expanded perspective for the clinical curricula, one in which the economic, social and political forces are embodied. Where students have the capacity to integrate these multiple influences, there appears to be a positive outcome towards the RD desired by the Faculty that develops the kind of Doctor identified in the graduate attributes.

Integration happens in different ways. A prominent enabling condition is the recognition of the need for consonance of values rather than values that conflict. Because the RD is tacit, a curriculum can aspire to enable students to develop the capacity to recognize, negotiate and challenge the RD when they confront dissonance, one that encounters Mode 5 knowledge. Such a practice could be underpinned with education for and about human rights.

A more coherent integrated approach is likely to reap benefits for the university and for the community in which the university works and provides a service of healthcare delivery. A caring curriculum could engage with the needs of the students, the university and the community with recognition for the power dynamics interfacing with social and cultural influences, rather than having students faced with unexpected dissonance and disintegration in their learning experiences.

7.2 Curriculum adjustment

The student diversity can be a resource contributing towards a curriculum that is responsive to societal needs. As Blommaert (2005) points out, we need to be cognizant of the importance of recognizing the different uptakes of messages. If we value the students' interpretations of their experiences which are influenced by their individual frames of reference, values and interests, the curriculum can develop into a more fluid one. This "liquid learning" can provide a curriculum that is directed towards an ecological University – a perspective that addresses care for the world (Barnett 2011). Barnett (2011:143) goes on to suggest that we question the amount that our university is "helping communities and society to flourish". Referring to Heidegger's Dasein, Barnett claims that "it is through the things that are cared for that our being discloses itself". He claims that the "university has both the position and thence the responsibility to care about and care for the world" (Barnett 2011:144). To be an ecological university "connected with its wider environment …seek[ing] to develop those interconnections" it should embrace the "personal, social, cultural, institutional, technological environments *and* knowledge of these environments" (Barnett 2011:143). Perhaps curricular design ought to adopt a three dimensional approach (Figure 9) to assess how the curricular components are addressing the needs of the Faculty, community and the students.

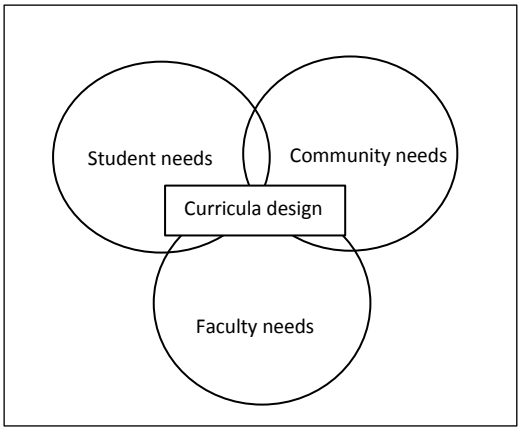


Figure 13: A broad curriculum perspective

Exploring the unwelcome experiences of the students, it appears that many seem to confront an apparently hidden disequilibrium that is challenging for them both personally in respect of their culture and in their professional identity. In order to move away from a sense of helplessness, numbness or an unwelcomed transition from "care to cure" (Draper 2006) the Faculty ought to aim at shifting knowledge production to higher Modes that better prepare students to face the clinical challenges. By actively and explicitly engaging with Mode 3 knowledge, students can develop the capability to feel empowered to connect their practice with broader institutional and societal issues beyond the designed curriculum – perhaps a life-wide curriculum. Fogarty (1993:24) suggests that integrated curricula "serve as *gateways* to lifelong learning – not as gatekeepers". Moreover Modes 4 and 5 knowledge can promote a critical perspective that enables students to be and become confident in working within uncertainty and supercompolexity (Barnett 2000).

7.3 Behaviour assessment

The number of unprofessional behaviours witnessed by the students was astonishing yet confirms recent local research on professional lapses (Vivian et al 2011) and international findings (Leape et al 2012). As Bozalek (2011:479) put it, students are illuminating "knowledge that has previously been obfuscated". As educators we have a responsibility to engage in these complex issues to shift away from the problem. Hafferty (1998:406) asserts "that we still understand very little about what medical students … learn by way of the informal curriculum and virtually nothing about the value systems".

Tronto (1993:140) argues that “part of the privilege enjoyed by the powerful is their ability to define needs in a way that suits them”. What I argue within our medical curriculum is that the Faculty’s need to produce competent doctors who can deliver babies is driven by a curriculum that is in turn driven by assessment that in Obstetrics involves a sign-off for 15 deliveries.

To confront the disconnects educators need to shift from comfortable curricula that tend to sit at lower Modes of knowledge to those that are messy and uncertain. Savin-Baden (2008a:7) asserts that curricula ought to focus more on “the problem-orientatedness of knowledge” and where “students wrestle with and take a stance towards the ideas and knowledge presented to them” (2008a:16). Savin-Baden (2009:2) states “the continuing focus on competence to practice in many professional curricula has downgraded the value of thinking, reasoning and the position of criticality within the curriculum”.

Chapter 8: Conclusion

> "Higher education that only supplies 'training' is unlikely to equip students to work in an uncertain world" (Savin-Baden 2009:1).

In this project I researched the Obstetrics curriculum which acts as a sampler for a much broader enacted curriculum that students appear to progress through in different ways and with different means.

Using Barnett and Coates' (2005) schema I explored five students' experiences as they engaged with the Year 4 Obstetrics practical curriculum. The gap between the theory of the designed curriculum and the reality of the curriculum-in-action is negotiated through varying amounts of integration or disintegration. Where differing values reflected in the regulative discourse of the institutions and the curricula create conflicting messages, a range of responses was evident. This unstable regulative discourse with shifting values between the old and new curriculum and between university and health care sites is problematic for the curriculum and leads to dissonance in students' learning.

What Mode of knowledge students have and use impacts on their experiences. How resilient the students are and the strength of their support systems appears to contribute to their resilience in their professional development. It seems that Mode 3 and 4 knowledges in which multiple perspectives are acknowledged and a critical perspective is gained about differences and gaps can contribute a bridge to network and negotiate differences towards an integrated curriculum. Furthermore Mode 5 knowledge held in curricular spaces that invite contestation and uncertainty could be an intentional goal. Whether a stable instructional discourse is a desired curricular outcome or not, a curriculum that gives students the capacity to recognize, negotiate and challenge the regulative discourse can become an aspirational ideal for a world characterized by uncertainty.

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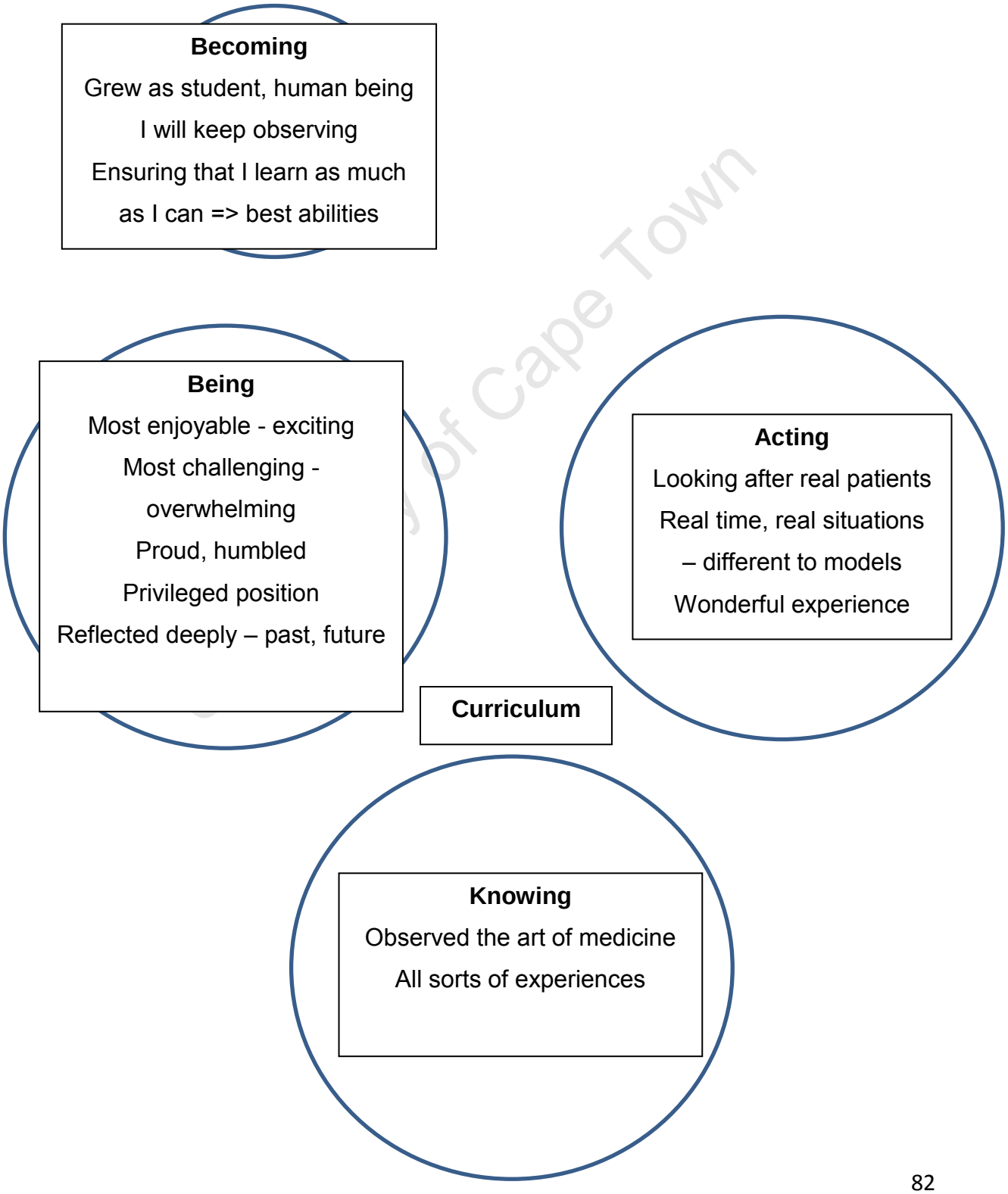
Annexures

Annexure A: Interview preparation

Student Sipho



Annexure B: Example of hierarchal analysis

Sipho

Theme	**Lower level**	**Higher level**
Uncertainty	• when I went there I had no idea what was going to happen	• they are suffering and they are in pain and I don't know – I am not in labour or I am not pregnant
Being	• I felt confused and quite numb and shocked	• I was so worried about what is it that it is going to happen next.
Knowing	• the baby's head was already out	• They call it a manual Caesarean section.
Acting	• you get shouted at if you don't really know what to do	• I don't actually believe that they should actually shout at you
Integration	• now I have a much better understanding and ja so I will do things differently	• practical applications and skills you need to also have gained the knowledge
Disintegration	• I felt the most difficult thing was feeling helpless	• sometimes you forget to – you are busy, the patient is ready to give birth and you haven't put on gloves