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Understanding authentic early experience in undergraduate medical education

Sarah Joy Yardley

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Abstract

Authentic early experience describes new medical students undertaking 'human contact in a social or clinical context that enhances learning of health, illness or disease, and the role of the health professional' (Littlewood et al. 2005). This thesis provides three original research contributions: a critical analysis of the application of socio-cultural and educational theories to authentic early experience; empirical data addressing two inter-related research questions; 'How and why do students construct useful knowledge and meaning-making from authentic early experience?' and 'How and why do students make authentic early experiences work for them?'; and an interpretation of social processes and resultant consequences embedded in authentic early experience. Multiple theoretical perspectives were used to create a framework incorporating mixed qualitative methods. Scott's concept of *Mētis* (1998) guided interpretation of not only how students created meaning but also when and how they chose to use it, and value it, relative to formally recognised knowledge. The study identified six specific findings which provide understanding of the complex consequences arising from authentic early experience. (1) Faculty and placement provider expectations of students were simultaneously too high and too low. (2) Dynamic social interactions are fundamental to meaning-making and knowledge construction (which are inextricably intertwined with identity evolution). (3) Social processes influencing authentic early experience can be described through dyads of variables which form intersecting workplace and educational spectra. (4) A holistic social view identifies unpredictable and unintended consequences of authentic early experience. (5) Students do not align the locus of 'real learning' with the locus of 'real practice'. (6) Students create their own *Mētis* which crucially includes understanding about how to handle knowledge and meaning and how to make experiences work for them. The implications and potential applications of these findings are discussed.

Key words: *Education, Undergraduate, Medical, Workplace, Qualitative Research, Authentic Early Experience, Socio-cultural theories.*

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‘Whatever you do, work at it with all your heart, as working for the Lord, not for men,
since you know that you will receive an inheritance from the Lord as a reward.’

(Colossians 3:23-24a, New International Version)

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Chapter One

Introduction: the use of authentic early experience in medical education

The central concern of this thesis is to develop a holistic understanding of authentic early experience in medical education. The term 'medical education' encompasses requisite knowledge of medicine as both an academic subject and vocational practice. In this first chapter, I provide an introduction to both this thesis, and the work on which it draws. I begin by defining the concept of authentic early experience and explaining the origins of my research questions. I draw a distinction between learning and meaning within my work, which is important for understanding the crux of the questions that I am addressing. Next, I review theories of experiential learning which form the educational basis for implementing authentic early experience. I consider the evolution of workplace-based (also called experience-based) learning models in later years of undergraduate medical curricula. In doing so, I highlight potential concerns which might have parallels in authentic early experience. After considering the driving forces for application of experiential learning to the early years of undergraduate medical education, I provide contextual information about the study setting and highlight key decisions in the research process. The chapter ends with an outline of the remainder of the thesis. A detailed glossary of terms used is provided at the end of the thesis in Appendix Ten.

1.1 Defining the concept of authentic early experience

Within medical curricula, authentic early experience has been defined as:

‘Authentic human contact in a social or clinical context that enhances learning of health, illness or disease, and the role of the health professional.’ (Littlewood, Ypinazar et al. 2005)

This is an emergent term, based on a systematic review of empirical literature that documented the use, known outcomes, and state of knowledge regarding authentic early experience over a decade from 1992-2001. This period approximates to that of the popularisation of such experience in contemporary curricula through the conversion of societal expectations into regulatory policy.

Distinct characteristics of the definition are as follows. Authenticity refers to interaction of medical students with real patients or members of the public, in genuine contexts. The contact may take place in a health or social setting – thereby including community and hospital environments, and the public, private, and voluntary sectors. The students are in the first two years of undergraduate medical education (in the United Kingdom (UK) or the international equivalent elsewhere). The resultant learning should be about health, lack of health, and the future role the student might have (or the roles of those with whom they interact). Authentic early experience is, therefore, a complex social intervention involving multiple agents and multiple structures (Pawson 2006).

The context, aims and objectives of specific authentic early experience interventions vary widely depending on the healthcare system within which a medical school is interacting. In the United States, recruitment to underserved locations has been a significant motivator for introducing authentic early experience in these locations. In certain countries (particularly those with under-resourced healthcare systems or widespread rural populations) students may be exposed to

relatively unsupervised situations and be relied on to deliver actual healthcare as part of their education (Dornan, Littlewood, et al. 2006, Yardley, Littlewood et al. 2010). In the UK, students are generally considered to have only a very minor role in service delivery. Instead the primary purpose is to be educated and trained, understood as preparation rather than 'learning on the job'. This stems from a variety of concerns ranging from the implementation of patient safety agendas, to protection of students from inappropriate responsibilities or menial tasks that do not contribute to their education (General Medical Council 2009, Brennan, Corrigan et al. 2010).

In the UK context authentic early experience objectives are often framed around what the student should gain. The majority of such experiences are designed with learning objectives focused on the added value such placements may give to personal and professional development, communication skills, and broadening life experience (Dornan & Bundy 2004, Dornan, Littlewood, et al. 2006, Hopayian, Howe et al. 2007, Howe, Dagley et al. 2007). In addition, the nature of evaluations (as will be seen in Chapter Two) has often been to seek confirmation of predetermined learning objectives.

Despite these differences, common themes internationally are that authentic early experiences are deemed to occur while the majority of the students' time is outside of 'workplaces' (usually within university medical schools) and that these are the initial experiences the students have of meeting people in their new role as a medical student. Regardless of differences in purpose and expectations, what is evident across the literature is an almost universal lack of intention for students to gain medical content knowledge which is integrated, functional and transferable. What is commonly expected instead to emerge from authentic early experiences is learning predominantly focused on the social context of medicine.

Together, these factors raise a question about the possibility of missed opportunities for potentiating 'content knowledge learning'. A small minority of studies demonstrate that it is possible for medically useful content knowledge to be gained (Linder, Saha et al. 1992, Alford, Miles et al. 2001, Nieman, Foxhall et al. 2001, MacLeod, Parkin et al. 2003, Howe, Dagley et al. 2007). By this I mean the content knowledge required to develop clinical skills that are fit for purpose. In theory, gaining such knowledge should be the preliminary step to enabling the student to appropriately develop understanding that can be transferred between contexts.

1.2 Origins and development of research questions

As I explain in later sections of this chapter, despite the pedagogical theory and policy drives for implementation of authentic early experience, very little is understood about how or why these experiences work, or indeed what is meant by 'work' in this context. Little research has related socio-cultural theories to empirical data from the initial years of medical degrees. Authentic early experience is instead seen as something of a 'black box'. As with a black box flight recorder, it is accepted that something is happening and these events are being recorded, but little attention is paid to exactly what the processes are so long as no disaster occurs. Current evidence does not explain in any depth why, or how, a general effect on students' ability to learn occurs as a consequence of authentic early experience. This omission limits predictability, transferability and replicability of desirable consequences of specific authentic early experience interventions. In addition, it is difficult to identify specific measures to ensure undesirable consequences are minimised, a problem amplified by the likelihood of positive publication bias in evaluative studies of interventions.

I commenced my work with the identification of two inter-related research questions; ‘What do students take away from authentic early experience?’ and ‘What meaning-making occurs?’ Neither question was adequately addressed in the literature. To answer these questions it was necessary to look inside the black box.

During the course of the work these questions evolved into an overarching concern regarding understanding how and why authentic early experience results in consequences for students. The research questions were, therefore, re-framed to ask ‘How and why do students construct useful knowledge and meaning-making from authentic early experience?’ and ‘How and why do students make authentic early experiences work for them?’

I am now using the term ‘work’ to encompass several ideas. It includes what it is like for the students to ‘experience their experiences’ – that is, how they perceive the processes and consequences of authentic early experience. Students’ conceptualisations of meaning and usefulness, for their own purposes (whatever these may be) are also encompassed. The term avoids predetermining the nature of consequences (as either positive or negative). In addition, the second of the re-framed questions allows for the possibility of students having an impact on others. This came with increasing recognition of the impact of students in workplaces and the medical school as well as the influences of these fields on students.

These were not so much different questions from those initially identified as a shift in perspective on the underlying premises of authentic early experience as an educational intervention. The research questions now recognised that social processes must be understood to develop a picture of complex interventions (Good & Good 1993, Whitehead 2010). I chose to focus on the students’ perspectives as the immediate intended beneficiaries of authentic early experience as an educational entity. The re-framed questions facilitated a holistic and open-minded approach to

what the consequences of authentic early experiences might be. The study of processes can provide valuable insight into unexpected consequences and identify social or contextual factors which are associated with variation in outcomes (Craig, Macintyre et al. 2008).

In authentic early experience it is to be expected that much depends on the dynamic interactions of medical students (individually and as a group) with other agents and structures, including the medical school as an institution as well as members of the faculty, placement providers, and a wide variety of workplaces – each with its own culture. It is to the re-framed research questions above that I address this thesis, which develops a holistic understanding of students' conceptualisations of learning as an outcome of authentic early experience that moves beyond evaluating whether or not intended aims were achieved. This understanding is needed if the potential impact of authentic early experience is to be accurately assessed and exploited for positive effect. The two refined research questions above, therefore, were designed to unpack what is happening in authentic early experience in practice – and to create a dialogue between this and socio-cultural theories of what should be happening for 'successful' learning.

1.2.1 Distinctions between learning and meaning-making

I have made a distinction between learning and meaning-making within my work, although both are influenced by socio-cultural factors. In this thesis I use the term 'learning' to describe the development of awareness, means of knowing, or acquisition of knowledge (of any sort, through any means, thereby accepting the interdependency between theoretical understanding and knowledge in action (Lave & Wenger 1991)), and the term 'meaning' to describe interpretations and decisions about use of this knowledge. The distinction is useful when considering how different agents might respond in a variety of ways to a situation or acquisition of new knowledge.

It also facilitates critical analysis of different conceptualisations of authentic early experience in relation to each other. Meaning is important as we act towards our experiences based on value judgments. I acknowledge that this is not a perfect system of definition, but a distinction is crucial to understand what is happening within authentic early experience, in order to separate on the one hand student agents receiving knowledge via interactions with other agents or institutional structures, and on the other making-meaning from these interactions for themselves. Failure to make such a distinction inevitably collapses into one the complexity of what is learnt through explicit and implicit or hidden curricula, and the intended or unintended consequences of the social processes of education. As a result, richness of understanding is lost as the dynamic interactions which influence educational outcomes are not fully accounted for.

1.3 Experiential learning: the basis of authentic early experience

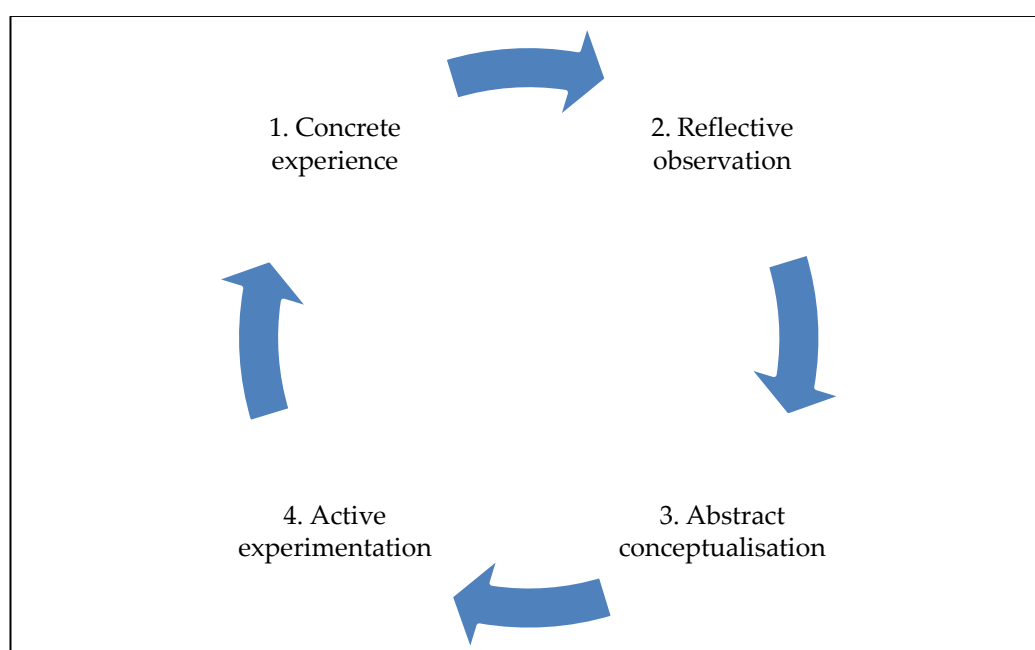
1.3.1 Pedagogy of experiential learning

The concepts of learning through authentic experience originate from theories of experiential learning and transformation by education. Experiential learning is based on constructivist philosophy that recognises people continuously rearrange learning structures to assimilate new experiences and knowledge. Experiential learning theories are based on the work of Dewey, Knowles, and Kolb, amongst others. A detailed comparative description of the traditions of experiential learning theory can be found in Kolb's 'Experiential Learning: experience as the source of learning and development' (Kolb 1984).

Dewey conceptualised experience as an organising focus for life-long learning and development. He advocated the teaching of academic subjects as 'interdependent tools for addressing pressing social problems' (Kolb 1984). Such an approach requires learners to be actively engaged and interacting with their surroundings with the intention that applied rather than abstract knowledge is gained. Dewey also implied that, without direct personal experience, something was inevitably lost from a learner's understanding, a principle which is not necessarily followed for all types of knowledge. In medical education, experiential learning has been used for certain types of knowledge as described above – and perhaps considered less important for content knowledge.

Knowles' theory of andragogy (Knowles 1980) suggests that adults learn best when self-directed and autonomous in approach, allowed to pursue personal learning needs identified by prior experience, offered experiential learning opportunities, able to apply newly acquired knowledge to current circumstances, and through partnership with teachers. Kolb suggested four cyclical adaptive learning modes: 'concrete experience, reflective observation, abstract conceptualization and active experimentation' (Kolb 1984, p. 40) (see figure 1.1).

Figure 1.1 Kolb's learning cycle (Kolb 1984)



Concrete experience is the simple experience. Presence of the other three elements shows that the need for supporting activity was recognised. Reflective observation requires learners to attempt to make sense of their experiences. Abstract conceptualisation encompassed what Kolb called 'figurative representation' and 'transformation of that representation' of the experience. By this, he meant the learner must be able to extract from the experience an essence of learning. That is to identify what principles can be learnt and form an opinion on what this means for them before incorporating this into existing knowledge. Lastly, Kolb suggests that learners need to try out new knowledge for themselves by deciding how to act on it in further experiences (Kolb 1984). This allows the learner to create meaning as well as knowledge (Kolb 1984). Hence, the learning is both contextually derived and abstracted for confirmation or further modification in other situations in order to achieve meaning. Kolb also recognised that, in the case of professional learning, socialisation into a profession involved 'learning' in the sense of constructing an appropriate identity as well as gaining specific knowledge (Kolb 1984).

Pre-existing knowledge is a significant factor if constant additions to existing structures should bring about transformation of knowledge (Mezirow 2000). The theories of transformation described by Mezirow emphasise the intrinsic human need to make meaning out of experiences and to integrate new experiences with previous knowledge, which leads to the transforming of ideas: transformation itself is defined as 'trying on another's point of view' (Mezirow 2000). Mezirow advocates active dialogue between people in order to better understand experiences. This also suggests that in certain circumstances the learning of a role and of knowledge may be too closely intertwined to separate.

Many medical schools have adopted these approaches, in part, when designing integrated curricula. However, there is no mechanism to ensure the theories are adhered to in workplaces, where challenges from competing influences on social interactions can distort the conditions

experienced by students. This concern remains under-problematised in the literature, with a tendency to isolate 'adult learning theories' as a suitable premise for medical education, without deconstructing the assumptions or prerequisites contained within these theories (Bleakley, Farrow et al. 2003). There are notable differences between undergraduate medical curricula and the less directive contexts in which the original work was conducted. Not only are the standards and outcomes of medical curricula pre-determined, but few students have previously experienced an adult learning approach prior to entry to medical school as undergraduates.

1.3.2 Workplace learning models

In recent years, workplace-based learning has attracted increased attention from researchers in medical education. During the later years of undergraduate degrees (and postgraduate training) education is increasingly delivered (or not) within medical workplaces. Work in this area, both theoretical and empirical, is relevant in early years, as there are obvious parallels regarding authenticity and experience. Despite this, the possible application or potential differences have not been previously investigated. Eraut suggests that answers should be sought to three central questions with respect to workplace learning: 'What is being learned?'; 'How is it being learned?'; and, 'What factors affect the level and directions of learning effort?' (Eraut 2004). Without answers it is not possible to understand whether students can or should be able to recognise when prior knowledge is applicable and can be used in new situations.

Dornan et al. have produced a model showing what they believe to represent the essential elements of experience-based (i.e. in workplaces) learning in medicine (Dornan, Boshuizen et al. 2007, see figures 1.2 - 1.4). Whilst conducted beyond the early years of undergraduate education the model represents one of the most significant attempts to develop a theory of workplace

learning specifically within medicine (Dornan, Boshuizen et al. 2007). Following discussions with students in undergraduate years three and five, the authors concluded that participation needs to evolve to include performance and that it is this participation which is the core process of experience-based learning. They also found that students appreciated appropriate challenges as well as support from their supervisors and that clear expectations aided the process. The model suggests the importance of context (human interactions and curriculum factors) and process (supported participation) as necessary factors to produce positive learning outcomes for both the personal development of students and their practical competence in medicine (Dornan, Boshuizen et al. 2007, Ashley, Rhodes et al. 2008).

Figure 1.2 Dornan et al.'s model for workplace learning - first iteration (Dornan, Boshuizen et al. 2007) (used with permission)

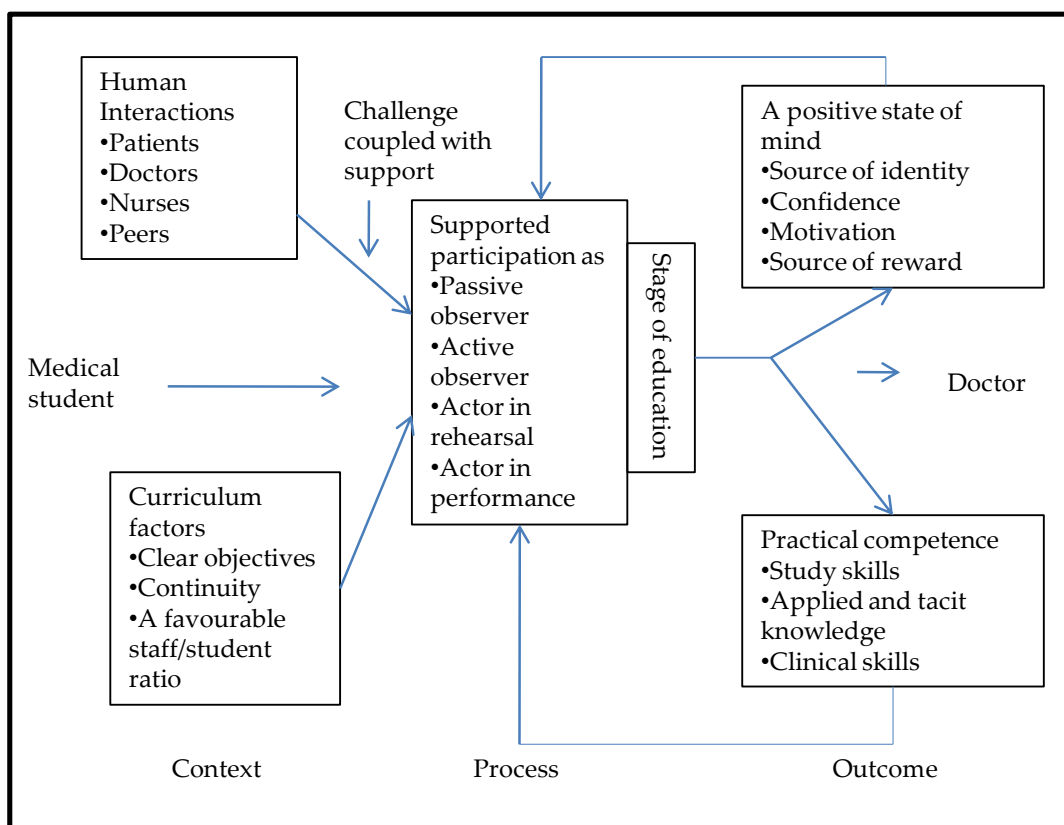


Figure 1.3 Dornan et al.'s experience-based learning model for workplaces - second iteration (Dornan, Scherpbier et al. 2009) (used with permission)

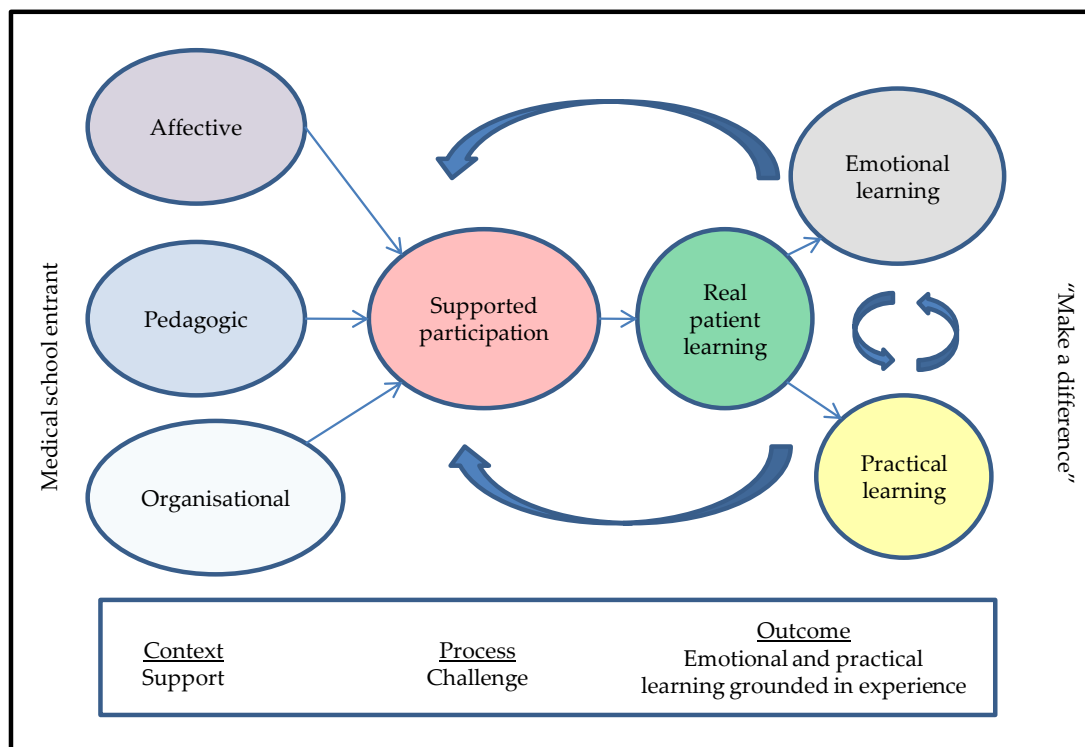
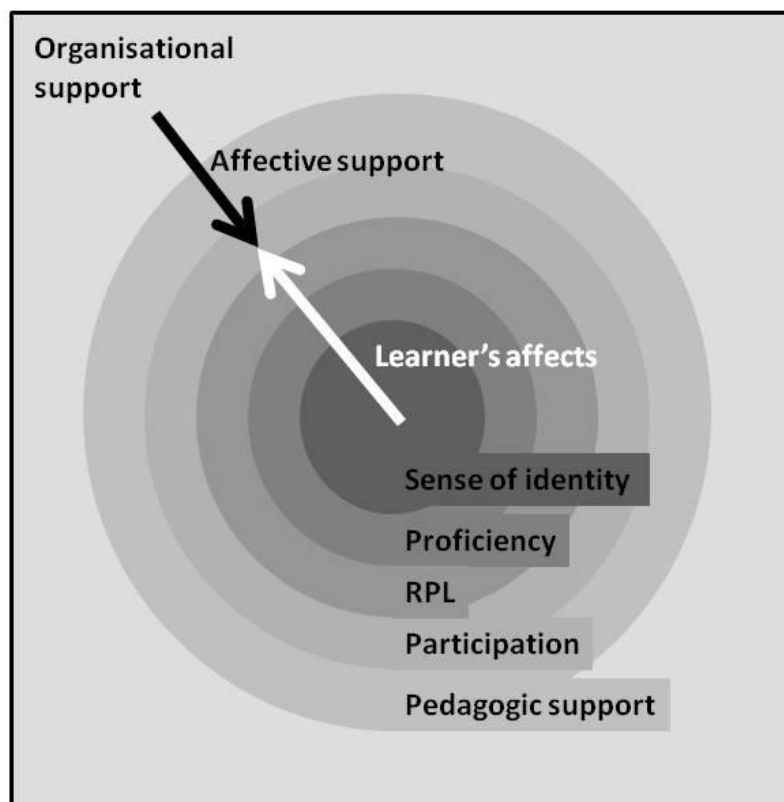


Figure 1.4 Dornan et al.'s experience-based learning model for workplaces - third iteration (Tan, Boshuizen et al. 2010) (used with permission)



Dornan et al. argue that effective behaviours in authentic clinical situations are the ultimate goal of medical education and therefore students must learn experientially in the workplace to develop such behaviour. Medical students have to negotiate human interactions as well as curriculum factors. Supported participation is central to their development if a positive outcome of a competent and confident doctor is to be achieved (Ashley, Rhodes et al. 2008). In the second iteration the interactions are re-framed to emphasise the importance of affective factors as well as structures and the outcomes now include emotional learning as a result. The third iteration considers the impact and influence students have on their own experiences by emphasising that interactions are multi-directional, and moves from a linear model to a complex one. Through these iterations, increasing recognition of the importance of social processes that are intrinsic to experience-based learning can be seen. In particular, experience is described as best contributing to learning (and, I would add, meaning-making) when students consciously interpret their experiences (Dornan, Boshuizen et al. 2007).

1.4 Creating a framework to understand the theory-practice gap

The discipline of medical education has developed with research and practice elements that are intertwined. Just as the practice of clinical medicine draws on many basic biomedical and social science disciplines, so responsibility for the education of doctors is dependent on those drawn from these many different backgrounds. Criticism from researchers, educationalists, and practitioners within and between these disciplines is often based on a lack of dialogue between theoretical and empirical work, and a perceived gap between the theoretically and the pragmatically possible (Albert, Hodges et al. 2007, Pugsley & McCrorie 2007).

Uncritical application of experiential learning pedagogy is subject to review on the following counts. Medical education is not equivalent to the original contexts of the theories that were developed with respect to adult learners, who were learning subjects voluntarily and without an externally governed core curriculum. Within medical education, experiential learning is often used for specific content, rather than as a pedagogy to improve all knowledge (understanding). There are issues regarding access to, and legitimacy in, workplace cultures that have been under-problematised when translating experiential learning theories into practice (as seen above, these theories tend to have an individual rather than social focus in practice). Within authentic early experience, it is also questionable whether students have the opportunities to put their learning into action with responsibility for the results. The term ‘theory-practice gap’ applies to all of the above but also to how medical education research has been conducted. There is a need to improve understanding of authentic early experience by moving away from using theories of the ideal (applied retrospectively) to justify achievement of predetermined outcomes. Currently, interventions are being judged successful without a holistic approach to consequences, as will be seen in later chapters.

Undergraduate medical education can be described by complexity theory: multiple variables connect in a non-linear, dynamic way, so effects are not always attributable or proportionate to specific causes and organisational history can have lasting and hidden influences on learning (Radford 2006). The need for theories of dynamic socio-cultural interactions for the exploration, explanation and prediction of occurrences in medical education has been recognised alongside the need to consider learners as active agents situated within multiple contexts (Bleakley, Farrow et al. 2003).

An understanding of the field in which my study was conducted is gained by conceptualising it as the ‘world’ that student participants experience in the early years of medical school. Students do

not have control over the boundaries of this world, as these are defined by other agents and structures. Light argues for a sociology of medical education which studies how knowledge was constructed through relations between institutional powers and organising structures and various agents engaged in the process (Light 1988). Good and Good expand on this when they describe the need for researchers to understand the construction of meaning (reasoning about the world) in medicine from the perspective of students. They argue that this understanding should include consideration of the reconstitution of students' self-identity as they enter the medical world alongside their conceptualisations of others (Good & Good 1993). By this, the authors infer that, as students come to understand medical knowledge and the world of medicine, they themselves are changed according to the meanings reached either individually or collectively.

Taking the approach suggested by Light and by Good and Good has the potential to allow development of understanding of how students construct medical knowledge alongside developing their understanding of the world of medical education. The process by which students come to know different meanings is as important as the structural aspects of medical knowledge. This is because the perceived reality is dependent on dynamic and subjective interactions between both agents and institutions. Understanding authentic early experience through the study of these social processes allows for a more complete awareness of the impact and consequences that arise.

That learning is a social experience is implicitly recognised in the theoretical basis and principles of experiential learning; in spite of this, commonly used socio-cultural theories for explaining experiential learning can be critiqued for assuming ideal circumstances, or at least common purposes, for all participants. Vygotskian theories of education and culture, to which the roots of both Situated Learning Theory (Lave & Wenger 1991) and Activity Theory (Engeström 2001) can be traced, provide potentially fruitful mechanisms for considering variables in complex situations with a focus on social practices as objects of inquiry (Dornan, Boshuizen et al. 2007). These theories

have become increasingly used (often uncritically) within medical education to justify evaluations of authentic early experience. Activity Theorists have tended to focus on transformation through practical action while Situated Learning focuses on the social interaction between participants to negotiate change (Arnseth 2008). While time and space are considered, gaining access to the system or community is not the focus of either theory. Instead, both theories tend to assume purposive learning of intended knowledge.

1.5 Driving forces for implementation of authentic early experience

The concept of authentic early experience is not new, and was in fact commonplace prior to the Flexner Report (Flexner 1910) which recommended medical education be delivered in two phases. These divided curricula contained an emphasis on 'basic science' in 'pre-clinical years' before students had patient contact in later years. Medical education worldwide has changed rapidly over the last two decades with the emergence of integrated curricula and the advent of a focus on patient-centred, student-directed learning. I have, therefore, focused my studies on the use of authentic early experience within the contemporary and integrated curricula that have become widespread since the 1980s (Kaufman, Mennin et al. 1989).

There are arguably many influences on the work of curriculum designers. Examples include historical, demographic, geographic, economic, cultural and institutional factors. Faculty understanding of educational theories, such as those discussed above, might be expected to influence curriculum decisions. As will be shown in Chapter Two, external policies (e.g. from the General Medical Council (GMC) in the UK) are often also significant. It is even arguable that it is the latter which has been more influential in bringing about change in practice.

One of the reasons for introducing authentic early experience was that the Flexner model was shown to be problematic for students at the time of transition from pre-clinical to clinical years. This was despite the previous introduction of problem based learning (PBL) in pre-clinical curricula. Students perceived problems in their ability to apply theoretical scientific knowledge to real patients in the workplace (Prince, Boshuizen et al. 2005). In addition, an increasing need not only to produce doctors in greater numbers, but also to link their career ambitions with societal healthcare needs by both geography and specialism has produced an emphasis on education to encourage community delivery of healthcare services.

The greater integration of 'real life' exposure from the start of medical school and integration of basic sciences with clinical medicine has evolved over a longer historical timeframe. 'Boys in White' was one of the first studies in medical education to suggest that social interaction was significant in students' studies (Becker, Geer et al. 1961) and to document their changing perspectives throughout the first year. The study also showed how highly the students valued learning by experience of 'real patients' (Becker, Geer et al. 1961). Becker et al.'s study along with 'The Student-Physician' (a series of studies rather than a single ethnography undertaken at the time of introducing comprehensive care programmes to the United States) (Merton, Reader et al. 1957) provided perhaps the first examples of sociological research which examined authentic early experience post-Flexner (Flexner 1910).

Later other authors began to focus on the study of specific interventions within medical education rather than trying to understand the dynamics of a medical school as a whole. For example, in New Mexico a parallel track curriculum was run as one of the original PBL programmes (Kaufman, Mennin et al. 1989). As part of the new curriculum students were introduced to real patients through community and rural clerkships. The students attributed to this a reduction in their levels of distress and an increase in their ability to perform in the later clinical clerkships. Other

researchers have since reported increased student enjoyment and satisfaction from the introduction of similar courses. Fears that students would be found wanting in their biomedical knowledge are unrealised (Moore, Block et al. 1994).

Social sciences in medical education, particularly as a means to further personal and professional development, are now much higher on societal agendas. The time-heavy traditional apprenticeship model has fallen out of favour while an efficient and effective education is sought in health systems under pressure from service commitments. Howe et al. suggest that this, plus the loss of the traditional divide between clinical and non-clinical, means that introducing authentic early experience provides a more focused introduction to patients and one which prioritises the patient perspective as a starting point for learning (Howe, Dagley et al. 2007).

The one hundredth anniversary of the 1910 Flexner report (Flexner 1910) has prompted reflection on the effects of managed medical education. Whilst Flexner's main concern was to ensure qualifying doctors had achieved a robust knowledge of scientific principles with which to evidence their practice, an unintended consequence of his report was the deepening of divisions between theoretical science and clinical practice. Robust scientific knowledge remains of obvious importance, but societal expectations have since shifted with respect to both doctor-patient interactions, and more widely autonomy and paternalism within healthcare, thereby creating a need to educate doctors to meet these demands. Irby et al. (2010) were charged by the Carnegie Foundation to produce another report, for the current era. Recognising that unintended consequences had arisen from the Foundation's previous work, they make the following suggestions for new reforms. First, that while learning outcomes should be standardised, (and quality assured through regulation and governance), the learning process should be individualised to allow greater flexibility. Second, multiple forms of integration should be promoted, and third, 'habits of inquiry and improvement' should be incorporated into medical education. Last, they call

for greater focus on the progressive formation of the physician's professional identity (Irby, Cooke et al. 2010).

In making the recommendations, there is little specific and constructive advice that is novel with respect to how these might be achieved beyond what is already occurring in many medical schools. The premise remains that the hidden curriculum, and gaps between theory and practice, must be identified and reduced where possible. Overall, the suggestions, while quite possibly desirable, ignore the impossibility of controlling how and why students make meaning from experiences gained through complex social interactions.

In the UK, the policies of the GMC have been a significant driving force for the implementation of authentic early experience as a novel means to integrate student learning from all basic science and clinical disciplines. In particular, the publication and updating of 'Tomorrow's Doctors' (Education Committee, General Medical Council 1993, General Medical Council 2003, General Medical Council 2009), with the requirement that medical schools demonstrate that their students achieve the standards and outcomes contained therein, has assured the current place of authentic early experience within UK medical education.

In 1993 the GMC was critical of the amount of factual content being forced into undergraduate medical education as medical advances and technological knowledge grew exponentially. 'Tomorrow's Doctors' (Education Committee, General Medical Council 1993, General Medical Council 2003, General Medical Council 2009) instigated, (and continues to focus on), closer scrutiny of how medical education resulted in an 'end product' of doctors who were effective in continuing professional development and life-long learning skills as well as able safely to conduct patient care on graduation. Authentic early experience has been postulated by the GMC as a means to produce these outcomes.

An example of the strengthening of policy imperatives to introduce authentic early experience is the evolution of 'Tomorrow's Doctors'. In the original version, a statement of belief in the positive value of authentic early experience is made. The stated intention is that this is a mechanism through which to bridge the pre-clinical to clinical divide described above. Students were expected to gain from broadening life experience, including interaction with a range of people (Education Committee, General Medical Council 1993), but how and why this would achieve greater integration was not made explicit. When the guidance was updated a decade later, the language used was strengthened and specific examples given of what authentic early experience might consist of:

'From the start, students must have opportunities to interact with people from a range of social, cultural and ethnic backgrounds. This might involve visiting families expecting a baby, visiting an elderly or disabled person, or taking part in community projects that are not necessarily medically related.' (General Medical Council 2003, p. 20)

In addition, the GMC now presented the justification for this policy as a statement of fact, focusing on the gains to be made with respect to inter-personal skills:

'Such contact with patients encourages students to gain confidence in communicating with a wide range of people, and can help develop their ability to take patients' histories and examine patients.' (General Medical Council 2003, p. 20)

The latest version of 'Tomorrow's Doctors' is even more explicit about the necessity of authentic early experience. In this version, the imperative changes from provision of opportunities to clear inclusion in medical school curricula.

The desired consequences are now directly linked to the future practice of students once qualified:

‘The curriculum will include practical experience of working with patients throughout all years, increasing in duration and responsibility so graduates are prepared for their responsibilities as provisionally registered doctors... The curriculum must include early and continuing contact with patients.’ (General Medical Council 2009, pp. 48, 53)

Medical schools within the UK are required by law to demonstrate compliance with this guidance. Outside the UK similar requirements are made. Schools are, nonetheless, at liberty to decide how to achieve this. Within the study setting of my empirical work (further details provided below in section 1.6.3), the following reasoning is used to justify the introduction of authentic early experience to students. The school has linked the policy imperatives of the GMC with the broader societal demands, highlighted above, for greater emphasis on community delivered healthcare throughout the curriculum:

‘Medical students now must understand that patients receive most of their health care in or close to their own homes from their general practitioners and community services... Throughout your time as a medical student at Keele you will be encouraged to think of community and social dimensions of illness and health. You will have placements with community services and general practices in modules [years] 1 and 2... community services we use are schools, chemists/pharmacies, the workplace, residential homes, gyms and drop-in centres to name but a few; all places which contribute to the health and care of people.’ (Keele Medical School 2010)

It is notable, that the medical school apparently did not see a need formally to explain the purpose of authentic early experience in hospitals. Possible explanations for this might include the desire to

emphasise community delivered healthcare, or an assumption that the use of hospitals is self-evident. This assumption could, for example, be due to the longstanding societal focus on hospital care until recent times, or not considering a change in timing (from later in the curriculum) as significant.

Within the literature only one formal survey of other school arrangements was identified (Hopayian, Howe et al. 2007). I am discussing the work of these authors now, as their data provide a wider overview of medical school decision making with respect to implementation of authentic early experiences. The survey of UK medical schools was conducted by telephone interviewing of lead educators, to compare the purposes and organisation of different schools' arrangements for authentic early experiences (Hopayian, Howe et al. 2007). The researchers collected data from 90% of UK schools, but it seems likely that, using this method, they were presented with the formally designed curriculum rather than a view of actual practice. It demonstrated that most UK medical schools have preconceived ideas about the learning that can be achieved from authentic early experience. These preconceptions differ from expectations of experiential learning in later years. Specifically, authentic early experience was not usually conceptualised as offering open opportunities for the discovery of medical knowledge, but as a means to reinforce in-house (within the confines of the medical school) teaching and preparation for the future.

All responding schools had introduced some form of authentic early experience during the first year of their curriculum. Actual contact time varied considerably as did supporting activities in both time and content. Between a third and half of all authentic early experience was occurring in community settings. A pattern of learning objectives was identified which initially centred on the social context of medicine. Integration into the curriculum and extent of learning outcomes varied. While some schools reported the intention that authentic early experience would improve integration of knowledge and skills, others, (maintaining the preclinical / clinical divide in

undergraduate education), had limited or no clinical goals. These schools were conceptualising authentic early experience as a tool to ease transition into later years but not as an end in itself. The only specific negative impact reported was the inability of students to retain skills without ongoing practice.

Following this survey, Hopayian et al. suggested that suitable objectives for authentic early experience should be focused on understanding patient perspectives, the social context of illness, and developing interpersonal skills such as communication. Nonetheless, they did also suggest that it was possible for students to acquire clinical skills and core clinical knowledge as well as developing an understanding of the workplaces in which they would later be employed (Hopayian, Howe et al. 2007). Medical schools have taken up these latter suggestions with less enthusiasm than they did the former. In addition, as the suggestions are based on a study of self-reported current practices, there remains a need to examine appropriateness further both from a theoretical perspective and through understanding what happens in practice.

While the work supporting this thesis was conducted during the regulatory time of 'Tomorrow's Doctors' 2003 (General Medical Council 2003), it is worth noting that the most recent update (applicable from the academic year 2010/11) continues to emphasise issues embedded in authentic early experience (General Medical Council 2009). The desire to increase clinical contact with patients is counterbalanced by a perceived need to address patient safety in more detail. Quality assurance of placements is a concern. A directive to include both early and continuing contact with patients and to maintain real as well as simulated patient experience is included along with a directive to provide structure and feedback for students' experiences (General Medical Council 2009).

As with other areas of medical education the emphasis on outcomes is strong. This is demonstrated though a shift in language from requiring schools to assess students' 'knowledge, skills, and attitudes' to assessment of 'knowledge, skills and professional behaviour'. The outcomes of medical education have been themed: the doctor as a scholar and scientist; as a practitioner; and as a professional (General Medical Council 2009).

These policy aims reflect ongoing frustrations in medical education regarding effective and efficient generation of content knowledge and the ability to transfer functional knowledge between contexts. The problem of developing transferable knowledge, and achieving true integration of learning, has long taxed medical educators. Within medical education, much of the focus of experiential learning has been on so-called 'softer' skills such as communication and professionalism. This is despite the first iteration of 'Tomorrow's Doctors' stating that:

'... we strongly favour true integration of the course, both horizontal, and vertical, using the term in the sense of interdisciplinary synthesis and not simply coordination or synchronisation of departmentally based components.' (General Medical Council 1993, p. 8)

In other educational areas the importance of learning by experience, including learner engagement in actual activity, has been demonstrated in relation to learning science and 'factual' knowledge (Jewitt, Kress et al. 2000). Jewitt et al. argue that a multi-modal learning experience is required including language, image and activity in order for students to effectively make meaning, and to realise 'meaning-making potentials' (Jewitt, Kress et al. 2000). While this work refers to classroom teaching, it is possible to see parallels for experiential learning methods which might be employed within medical degrees.

1.6 The study

My study develops a holistic understanding of authentic early experience through attention to how and why experiences result in consequences for students. I have focused on student meaning-making and knowledge construction when considering how students make authentic early experiences work. By focusing on participant perspectives, I accept reality is socially constructed (Ashworth 2003, Johnson & Onwuegbuzie 2004) but am concerned with how people use constructs to create meaning (Daniels 2008).

The work on which this thesis is based was conducted using Keele Medical School (hereafter referred to as 'the medical school') as the school field site. Reasons for this, as with most research, were partly pragmatic: an opportunity arose to conduct research within the school during the process of implementation of a new curriculum. Offering this, through the medium of a doctoral scholarship, was part of the medical school's strategy to build a research group in medical education alongside its growth in delivery of both undergraduate and postgraduate curricula.

While acknowledging these pragmatic considerations, there were also well founded reasons for this being an attractive research opportunity. Already interested in authentic early experience, as a subdivision of 'real patient learning', I was keen to conduct research at a time when faculty at the school were making deliberate choices about the pedagogy, structure and content of the curriculum. Additionally, as the medical school has chosen to use a mixture of community and non-traditional placements in addition to settings such as hospitals, I could access perspectives on a variety of placement experiences. As I had not worked in the region as a doctor or teacher previously, this was an opportunity to conduct research without pre-existing allegiance to any particular group despite my background in clinical medicine. The main source of my empirical

data, as is appropriate to my research questions, was individual interviews and small discussion groups. My interpretations benefit also from my having been embedded within the medical school for the duration of the study. During the course of the empirical work, I was deliberately not involved in the teaching or assessment of undergraduate students, but was able to attend curriculum development meetings and observe daily interactions amongst faculty, as well as observe some early experience placements and so develop a sense of the culture of the medical school as an institution. In order to provide some context to my findings and the interpretation I present in this thesis, I will now describe the medical school in more detail.

1.6.1 Current practice in the study setting

The medical school was established in 2003. From the academic year 2007/8 onwards a new locally designed curriculum began to be implemented on a rolling basis year by year. This curriculum aims to achieve both vertical and horizontal integration; there is an emphasis both on PBL and integration of different scientific disciplines within each module (year), including experiential learning and placement opportunities. In addition, five vertical themes run throughout the whole of the curriculum: Scientific basis of medicine; Clinical, Communication and Information Management; Individual, Community and Population Health; Quality and Efficiency in Healthcare; and Ethics, Personal and Professional Development. The curriculum is designed to have a spiral learning pattern so students will revisit the subjects in greater depth and with different emphases in later years. The authentic early experience opportunities for students are summarised in table 1.1. Each session is timetabled for half a day.

Table 1.1 Authentic early experience opportunities at the medical school

<i>Module</i>	<i>Type of authentic early experience</i>
One (each type of placement allocated once per student).	Observation and interview experience with a health professional.
	Interviewing a patient with a chronic illness.
	Interviewing an elderly person and/or their carer about aging.
	Discussing health risks related to lifestyle.
	Discussing modifying behaviour relating to lifestyle.
	Conducting a Mental Health interview.
Two (each student was allocated a mixture of unit specific, procedural and community placements (six plus per student dependent on logistics) in addition to the student selected study placement which typically included eight half days in the workplace).	Unit specific placements of the 'traditional' type occurring on hospital wards, in outpatients, and other hospital departments.
	Procedural based placements: venepuncture, post mortem, coroners' court (simulated case but authentic context and interaction with coroner).
	Community based placements with allied health professionals and nurses.
	Student-selected study placement in voluntary organisations.

In the student handbook authentic early experiences are described as placements within the pedagogy of experiential learning. Students were advised of the need to keep records of their experiences for developing portfolios as well as needing to complete reflective assignments following certain placements. The portfolio was defined further as a 'record of professional development' (Keele Medical School 2008a, Keele Medical School 2008b, Keele Medical School 2008c), that should include documented summaries of evidence of reflective practice. Students were told that these summaries were obligatory for ongoing assessment. Grading of individual summaries (unsatisfactory, borderline, satisfactory, highly satisfactory, excellent) was made, plus overall grading of the portfolio as either satisfactory or unsatisfactory. Students were provided with assessment criteria which covered presentation of work, as well as descriptions of the school expectations for each grade covering depth of reflection and self-awareness. It was emphasised that it was meeting these assessment criteria, which was of interest, rather than stating achievement of all objectives provided for each individual placement. Overall, the portfolio was described as a

form of formative assessment, but which was required (and became summative) before students would be allowed to sit any of the school's other summative assessments (which included a professional development appraisal but no other placement-specific assessment) (Keele Medical School 2008a, Keele Medical School 2008b, Keele Medical School 2008c). In a separate table, the handbook conveyed that the theme of 'Ethics, personal and professional development' constituted 10% of the overall weight to the five year overall course assessment. In contrast, 'Scientific basis of medicine' was weighted at 33%. Students were told that learning from any theme, and any pedagogy, could be assessed in any way, but also that in the main the portfolio and multi-source feedback would be used to assess ethics, personal and professional development (Keele Medical School 2008a). In general, intended learning outcomes were broadly divided by pedagogy and then mapped to forms of assessment. Handbooks for the individual modules and units within them provided further logistical details and reiterated the guidance of the course handbook. Briefings for specific placements included prompts for reflection in the form of open questions (Keele Medical School 2008b, Keele Medical School 2008c).

During the time of my research, the medical school was evaluated both internally and through the external processes of the GMC (General Medical Council 2010). Both these evaluations were overwhelmingly positive. It was, however, identified through the medical school evaluations that experiential learning, which included but was not exclusively authentic early experience, was not universally perceived by students as relevant to the focus of their learning. Despite this, authentic early experience was welcomed and often described as one of the best features of the early years by students, albeit tempered with concerns regarding the lack of structure or role during some experiences. The logistical burden of authentic experience was noted, as it has been elsewhere in the literature. In the academic year 2008/9 (the second year of the new curriculum) students had begun to pass down expectations to the year below: for example, module one students reported being told to expect high social science content. Students also admitted reluctance to report

negative experiences in their reflective assignments and a desire to provide what they perceived the faculty to want rather than the whole story of mixed experiences.

1.6.2 Theoretical work

This thesis addresses these concerns with respect to authentic early experience by creating a dialogue between relevant socio-cultural theories of what *should* be happening and empirical data of what *does* happen. As such, the thesis provides an original contribution to knowledge in three areas: a critical analysis of commonly used socio-cultural and educational theories relevant to authentic early experience; novel empirical data which addresses outstanding questions about how authentic early experience ‘works’; and lastly, through a novel application of the theory of Mētis (Scott 1998) an interpretation of the social processes and resultant consequences embedded in authentic early experience. Mētis is explained in detail in Chapter Three, but in brief it provides a theory about the ‘theory-practice gap’ as it considers not only how people create meaning but also when and how they choose to use it and value it relative to formally recognised knowledge.

Overall, the key premises of Scott’s theory all relate to how and why individual agents, regardless of lack of power or capital, choose to interact with other agents and institutions based on their perceptions and personal needs. Scott borrowed the word from its original ancient Greek setting - where it meant the intelligence or ‘know-how’ needed to achieve success in a given field¹. Mētis is about the creation of meaning to ‘handle’ the learning, not the abstract learning itself. Interpretation of the empirical work of this thesis with Mētis has allowed me to generate a mid-range theory about how and why authentic early experience works from the students’

¹ The use of the term ‘Mētis’ throughout this thesis refers to Scott’s theoretical conceptualisation (Scott 1998).

perspective and identify areas of disjuncture between this and the conceptualisations of faculty and placement providers.

1.6.3 Empirical work

The empirical work² that contributes to this thesis was conducted at the medical school between June 2008 and March 2010. While other studies have primarily sought the student perspective, (or that of others without comparison of differences between groups), one of the strengths of this work is that multiple perspectives have been used to identify differing conceptualisations. Along with other social factors, these influence the dynamic interactions of agents and structures. In turn, this approach has led to a more holistic understanding of potential consequences.

I conducted sequential interviews of students (n=23), faculty (n=13), and placement providers (n=20) following purposive sampling. Details of the applied methods used are provided in Chapter Four. In keeping with the theoretical work outlined above and detailed in Chapter Three, an iterative analytic framework, developed from the student group data, was used to code the provider and faculty groups' data, adding new codes when necessary. This process identified social processes underpinning the experiences; sections of storytelling to which I applied narrative methods of analysis (Riessman 2008); and specific discourses to which I have applied a discourse analysis similar to that described by Monrouxe et al. (2009). I also used the principles of Interpretative Phenomenological Analysis (Smith & Osborn 2008). These facilitate the exploration of the making of meaning for participants within their personal and social world. It involves asking

² In the context of this thesis, I am using the term empirical to refer to primary research situated around both interventions and medical education practice. Where, for example, clinical reasoning experiments have been conducted in controlled conditions not replicable in 'real life', there is a need for additional translation work between these two areas. In authentic early experience, this is not yet a concern as such work has not been identified.

critical questions of the text, considering what meaning the interviewee is creating, and asking what significance that meaning holds (Smith 1996). Lastly, I used small discussion groups as a method of confirming and elaborating on the emerging findings with student participants.

Those interviewed were actively participating in authentic early experience during the period of data collection, which distinguishes this work from evaluation studies that ask participants to reflect on previous experiences, often after some time has elapsed. I deliberately chose to collect both contemporaneous and longitudinal data from the student participants in order to capture their understanding and meaning-making of authentic early experience *in situ*, while retaining the ability to generate data which they could reflect on at a later date – and if necessary, provide further comment regarding subtleties and nuances within the interpretations. Evidence from elsewhere (Brosnan 2007) shows that students (once studying at any given medical school) are concerned that the school is preparing them for medical practice in a way which compares favourably to workplace peers on graduation, as well as against published guidelines.

Interviewing the students about the making of meaning and understanding of placements during the first two years while they were still in these years means that the interviews represent concurrent student views – perhaps in rawer detail than might be recalled later. Within the literature only one study was identified of students' expectations of authentic early experiences prior to arrival at medical school (Smithson, Hart et al. 2010). The vast majority of studies sought students' views retrospectively. This is discussed in more detail at the start of Chapter Two.

1.7 Outline of the thesis

The remainder of this thesis is divided into two parts. Part One contains the existing evidence and theoretical work on which my study draws, ending with the applied methodology and natural history of the empirical work conducted, while Part Two presents the findings of my empirical work, interpreted through a novel application of Mētis in addition to identifying underlying social influences. Guided by my theoretical framework, I have focused on the idea that the meaning students make, and the take-away value of authentic early experiences, may be dependent on the dynamic social interactions which occur. The overall findings of this thesis include, therefore, identification of underlying social processes within the empirical data, and analysis of what meaning results from these processes. A guide to the content of individual chapters is provided at the start of each part.

Part One

Critical review of the empirical and theoretical literature to inform applied methods

Chapter Two is based on a critical review of published evidence, noting its strengths and limitations. First, I consider what is known about authentic early experience from empirical studies. After considering the contexts, interactions and documented outcomes, I next discuss in more detail what has been established about how and why authentic early experience works for students. This includes evaluating current understanding about social interactions, student role and identity, unpredicted or unintended consequences, and meaning-making. In the absence of integration of theories with much of the empirical evidence, I lastly consider what literature on reasoning and transformation through experience might have to offer in this area alongside literature related to student interactions with both simulated and real patients.

Chapter Three is as much a 'result' of my study as the empirical data that follows in Part Two. It describes the conceptual orientation of my work to constructivist and interpretivist positions. It is presented within Part One because the development of a theoretical framework to compare socio-cultural ideas, about what should happen with what does happen in practice, is central to the originality of the study. I review socio-cultural theories from multiple perspectives identifying gaps. This detailed examination is followed by my suggestions for a framework which brings a greater depth of understanding to the complex social interactions of authentic early experience while still retaining sensitivity to my empirical findings. This sensitivity can be seen in the significant themes that emerged from the students' perspectives; these are discussed in Part Two.

The framework is a product of careful scholarship rather than serendipity – deconstructing and then reconstructing a theoretical approach which, along with my research questions, provided the rationale for the multi-method qualitative analysis that I used to conduct my empirical work. Application of the framework occurs throughout Part Two, but Chapter Seven, in particular, refines the concept of *Mētis* through demonstrating the form this concept takes amongst the students in my study.

In Chapter Four, after guiding the reader through data management and analysis, I provide my personal reflections on the process of analysis, and ethical considerations and consider issues of insider versus outsider research.

Chapter Two

Literature review: the state of knowledge and outstanding questions

2.1 Review methodology and the state of knowledge

In this chapter, I critically review existing literature on authentic early experience. Empirical studies were identified using multiple bibliographic databases. The search terms and strategy used are detailed in Appendix One. Publications were included in the review process if they presented work about authentic early experience as defined in Chapter One (Littlewood, Ypinazar et al. 2005), or relevant work about socio-cultural aspects of authentic experience in medicine (even if not at the 'early' stage). Literature presented has, furthermore, been critically appraised from a methodological perspective and so represents the best available evidence (National CASP Collaboration for qualitative methodologies 2006, Greenhalgh 2010) from which useful understanding could be drawn with respect to my research questions. The results of this process are presented as a narrative interpretation of the literature. First, I will discuss the current state of understanding of authentic early experience underpinned by empirical studies. Having identified problems with this literature, I then move to re-examine the best available empirical studies in a search for evidence that can shed light on how and why authentic early experience 'works' for students. Table A2.1 (in Appendix Two) provides additional information on the re-examined studies. In particular, I attend to the issues that continue to frustrate medical education; namely the achievement of integration of learning which leads to the ability to transfer functional knowledge between contexts. I conclude by discussing the significance of meaning-making for students and considering what they do with knowledge gained through their authentic early experiences.

Most empirical studies of authentic early experience are evaluative in design (Dimitroff & Davis 1996, Littlewood, Ypinazar et al. 2005, Yardley, Littlewood et al. 2010). Descriptive studies are much more common than comparative or interpretative work. As such, the aim is commonly to determine whether authentic early experience (in a particular form or location) can produce the outcomes intended by curriculum designers. Whilst this provides useful evidence of current practice, a publication bias towards sharing positive results of interventions without adequately considering how or why these results came about is likely (Regehr 2010). Additionally, the consequences beyond intended and, therefore, predicted outcomes are rarely reported. This is analogous to evaluating only the desired effects of a new medication during a clinical drug trial, ignoring the potential for unpredicted side-effects (which might equally turn out to be exploitable for benefit or to be of concern). Most of the literature is also from North America or Europe and, therefore, implicitly reflects the social and political influences of medical education in these contexts.

It is notable that the literature directly related to authentic early experience contains few explicit references to learning theory, (demonstrated by table A2.1 in Appendix Two), lending weight to the argument that curriculum changes have perhaps been driven as much by policy imperatives and societal expectations as evidence. Consideration of when, why and how theories of learning do, or do not, work in practice has also been neglected (Regehr 2010).

2.2 What is known empirically about authentic early experience?

Authentic early experience is demonstrably feasible although requiring significant resources (Kent 1991, Riley, Myers et al. 1991, Duque, Gold et al. 2003, McLean 2004, Durak, Valansever et al. 2006, Fillipetto, Weiss et al. 2006, Howe, Dagley et al. 2007). Students interact with a wide range of agents and structures involving many different contexts. This, plus the differing purposes for which authentic early experience is used, creates variance in the precise details of the interventions used. Despite this, since introduction it has been universally popular with students in its many forms (O'Neill, Willis et al. 2002, Dornan, Arno et al. 2006).

A single study of student expectations prior to arriving at medical school with respect to authentic early experience was identified in the literature. Unlike studies with students who had commenced their undergraduate medical degrees, the students in this study had not been exposed to the expectations of the faculty at 'their' medical school, although all were hoping to attend the researchers' institution (Smithson, Hart et al. 2010). The authors found that students expected authentic early experience to be beneficial (particularly for building confidence, understanding what it meant to be a doctor, and confirming choice of career, but also for gaining content knowledge). However, they had concerns about feeling inadequate or causing harm to patients (Smithson, Hart et al. 2010). Elsewhere, students have also reported the belief that development of transferable skills is important during the early years of medical education (Whittle & Eaton 2001). While these hopes were realised for most students in Smithson et al.'s study, concerns were also reinforced if students experienced placements where they were not made to feel legitimately present and included in the working environment. This was the case on some hospital wards (Smithson, Hart et al. 2010). As will be seen from the literature in the rest of this chapter, and in my

own results, interactions once at medical school reduce student expectations regarding content knowledge and have the potential to exacerbate student concerns.

2.2.1 For what purposes is authentic early experience implemented?

In a study based on consensus discussions, researchers identified that teachers and current students had preconceived ideas of what authentic early experience would add to curricula (Dornan & Bundy 2004). It was expected to provide students with a broader view of life, to achieve affective outcomes and to support learning, through pictures to remember and contextualisation for their studies. However, expectations of learning subject matter did not exceed hoping that authentic early experience would allow students to see the application and value of the 'foundation sciences' they were being taught within the university. In fact, biological sciences were barely mentioned, with students and staff expecting greater interlinking with the social and behavioural sciences. Students were concerned about learning from real people, as they recognised there would be concomitant moral and other responsibilities to those people. As the study authors conclude, staff expected authentic early experience to fill a gap in student life experience; students expected early experience to fill a gap in the course (Dornan & Bundy 2004).

Aside from a desire to improve student learning, there are several reasons for involving real patients in medical education, including the 'notion of the 'expert' patient', bringing the patient voice into education, and difficulties with learning from real patients in hospitals due to changes in healthcare practice and delivery (Jha, Quinton et al. 2009a). Reasons to expose students to community/primary/general/family medicine include promotion of healthcare delivery in these settings (Mann 1994), a need to recruit to underserved populations (Mengel, Davis 1995, Dobie, Carline et al. 1997, Grayson, Klein et al. 2001, Levy, Hartz et al. 2001, Lynch, Pathman et al. 2001),

and availability of supervision. Studies that sought to understand whether authentic early experience influenced career choice are based on the premise that exposure of a particular setting at an early stage would produce increased interest in that setting (Vaz, Gona 1992, Dobie, Carline et al. 1997, Alford, Miles et al. 2001, Grayson, Klein et al. 2001, Levy, Hartz et al. 2001, Lynch, Pathman et al. 2001, Corbett, Owen et al. 2002, Newbury, Shannon et al. 2005). The results of these studies are mixed. Mengel found that, if family physicians were involved in general skills teaching, this positively influenced career choice towards the speciality (Mengel & Davis 1995). Simple exposure to a particular setting did increase student awareness of that setting (Khan & Fareed 2003), but other factors appeared to be influential in determining the maintenance of interest.

2.2.2 Which authentic contexts are used?

If context and authenticity matter, then early experience should have an impact on students' learning as they move from being within the confines of the medical school to outside it. The environment is not just geographical context, however; students bring their own personal previous experiences into new situations; and placement providers (also referred to as preceptors in some literature, particularly from North America, and when students have longitudinal placements with a specific person) will have developed their own ways of working within the institutional context where they are situated (Murray-Garcia & Garcia 2008, Durning, Artino et al. 2010). Workplaces that welcome students and act to legitimise their presence have been found to create a better learning environment (Boor, Scheele et al. 2008).

Curriculum designers have often situated authentic early experiences in non-hospital settings. This trend in medical education also reflects a general trend to deliver healthcare in community settings – which are, therefore, increasingly where 'real' patients can be found to have time to talk to

students (Orbell & Abraham 1993). Community-based experience is as effective as hospital experience for learning clinical skills (Satran, Harris et al. 1993, Carney, Bar-on et al. 1999, Steele, Susman et al. 2001). Community-based early experience was also found to improve critical thinking and problem solving skills; although whether the location was the most significant factor (compared with other qualities about the experience) is debatable (Rogers, Swee et al. 1991, Carney, Bar-on et al. 1999). Positive effects on community service recruitment have been reported (Lalumandier, Victoroff et al. 2004, Newbury, Shannon et al. 2005), but these are often with students who had selected a community-based placement and, therefore, may have already been predisposed to choose a community-based career option.

2.2.3 Who interacts with students during authentic early experience?

Typically, while an authentic early experience will have been designed by members of the medical school faculty, it is the professional workforce within the authentic setting and their patients or clients with whom the students actually interact. Studies in this area tend to focus on student learning from patients in authentic early experience environments. Interactions between students and the professional workforce and comparisons of different curricular stages of students have been relatively neglected in literature specific to authentic early experience (see third question in table A2.1). It is known that student-patient interactions are influenced by student–doctor and doctor-patient interactions within consultations in later years (Ashley, Rhodes et al. 2008).

Generally, patients take individual teacher roles, although there are also some reports of patients taking an active role in curriculum development or student assessment (or combination of roles) (Jha, Quinton et al. 2009a). The effectiveness of patient involvement has been reported as improvements in skills, but studies of long term effects are not currently available (Jha, Quinton et

al. 2009a, Jha, Quinton et al. 2009b). Jha et al.'s review of the use of real patients in medical education focused on patients (to the exclusion of healthy volunteers) which could skew the findings towards a medical or at least formal education model – authentic early experience often includes students meeting in social settings people who are not necessarily in a 'patient role' at the time.

2.2.4 What are the documented learning outcomes of authentic early experience?

Student perceptions of benefit

Since authentic early experience became commonplace, students have attributed development of the following to authentic early experiences (Johnson & Scott 1998, Diemers, Dolmans, et al. 2007, Diemers, Dolmans, et al. 2008): (1) increased motivation for learning³, improvements in ease of knowledge retention⁴ and understanding and appreciation of the applicability of scientific learning⁵; (2) understanding of professional roles through exposure to role models (McLean 2004, McLean 2006), including healthcare system awareness⁶, as well as empathic responses to patients

³ For additional evidence see: Abramovitch, Shenkman et al. 2002, Naga Rani, Sharma et al. 2002, Khan & Fareed 2003, Lalumandier, Victoroff et al. 2004, Newbury, Shannon et al. 2005, Nieman, Cheng, et al. 2006, Dyrbye, Harris et al. 2007, Howe, Dagley et al. 2007, Sathishkumar, Thomas et al. 2007

⁴ See: Abramovitch, Shenkman et al. 2002, Khan & Fareed 2003, Dyrbye, Harris et al. 2007, Howe, Dagley et al. 2007, Sathishkumar, Thomas et al. 2007

⁵ See: Vaz & Gona 1992, Mann 1994, Quinby & Papp 1995, Chisholm, McCall et al. 1997, Friedberg & Glick 1997, Alford, Miles et al. 2001, Fernald, Staudenmaier et al. 2001, Rooks, Watson et al. 2001, Dyrbye, Harris et al. 2007

⁶ See: Riley, Myers et al. 1991, Vaz & Gona 1992, Bucci, Maddox et al. 1993, Alford, Currie 2004, Miettola, Mantyselka et al. 2005

and development of professional skills⁷; and, (3) specific communication skills such as history taking⁸ and other procedural skills⁹. There is also an apparent role in preparing students for later experiences (Dornan, Littlewood, et al. 2006, Godefrooij, Diemers et al. 2010), potentially developing clinical thinking (Mann 1994), and fostering confidence in workplace settings (Friedberg & Glick 1997).

Examination performance

These subjective perceptions have not been as strongly replicated in comparative studies. Possible improvement in examination performance (Nieman, Cheng, et al. 2006) is not consistent, and does not necessarily relate to real life performance (Dornan, Littlewood, et al. 2006). Studies which investigated whether authentic early experience improved students' performance in observed structured clinical examinations, for example, had mixed results (Allen, Bland et al. 1991, Paines, Herold et al. 1994, Elnicki, Halbritter et al. 1999, Rogers & Dains 2001, Nieman, Cheng, et al. 2006). It is unclear whether the results were varied due to issues of alignment between the experience and the examination. It is possible that real patient learning may not have been well matched to student perceptions of curriculum priorities (Paines, Herold et al. 1994, Carney, Bar-on et al. 1999, Elnicki, Halbritter et al. 1999, Barley, O' Brien-Gonzales et al. 2001, Rogers & Dains 2001, Rooks, Watson et al. 2001).

⁷ See: Kent 1991, Novack, Dube et al. 1992, Vaz & Gona 1992, Mann 1994, Frank, Handfield Jones et al. 1996, Friedberg & Glick 1997, Hampshire 1998, Barley, O' Brien Gonzales et al. 2001, Cooper, Gibbs et al. 2001, Rooks, Watson et al. 2001, Naga Rani, Sharma et al. 2002, Basaviah, French et al. 2003, Khan & Fareed 2003, MacLeod, Parkin et al. 2003, Alford & Currie 2004, McLean 2004, Miettola, Mantyselka et al. 2005, McLean 2006, Dyrbye, Harris et al. 2007

⁸ See: Kent 1991, Novack, Dube et al. 1992, Orbell & Abraham 1993, Quinby & Papp 1995, Hampshire 1998, Waddell & Davidson 2000, Alford, Miles et al. 2001, Cooper, Gibbs et al. 2001, Fernald, Staudenmaier et al. 2001, Barley, O' Brien-Gonzales et al. 2001, Rooks, Watson et al. 2001, Steele, Susman et al. 2001

⁹ See: Allen, Bland et al. 1991, Linder, Saha et al. 1992, Frank, Handfield-Jones et al. 1996, Maldray, Pfeiffer et al. 2000, Rogers & Dains 2001, Naga Rani, Sharma et al. 2002, Basaviah, French et al. 2003, Khan & Fareed 2003, Lalumandier, Victoroff et al. 2004, Miettola, Mantyselka et al. 2005, Fillipetto, Weiss et al. 2006, Lie, Boker et al. 2006, Dyrbye, Harris et al. 2007, Howe, Dagley et al. 2007

Patient perspectives

More recently, a newer area of interest can be identified in the literature. From approximately 2002, there is an increasing number of publications that focus on outcomes related to understanding patient perspectives (Crosson, Heaton et al. 2003, Khan & Fareed 2003, MacLeod, Parkin et al. 2003, Lalumandier, Victoroff et al. 2004, Thistlethwaite & Cockayne 2004, Newbury, Shannon et al. 2005, Lie, Boker et al. 2006, Dyrbye, Harris et al. 2007, Howe, Dagley et al. 2007, Sathishkumar, Thomas et al. 2007). Outcomes from these publications include demonstrating the ability to deliver patient education via authentic early experience (Crosson, Heaton et al. 2003), learning about patient-defined problems (Lalumandier, Victoroff et al. 2004, Dyrbye, Harris et al. 2007, Sathishkumar, Thomas et al. 2007), considering patient reactions to disease, death and dying (MacLeod, Parkin et al. 2003, Dyrbye, Harris et al. 2007), understanding the social context of illness (Howe, Dagley et al. 2007), community awareness (Newbury, Shannon et al. 2005) and provision of healthcare (Khan & Fareed 2003, Lalumandier, Victoroff et al. 2004, Howe, Dagley et al. 2007) and other patient benefits derived from participating in student education (Thistlethwaite & Cockayne 2004, Howe, Dagley et al. 2007, Yardley, Littlewood et al. 2010).

Content learning

Whether authentic early experience does, or should, contribute to new knowledge content is unclear from the literature (Mann 1994, Littlewood, Ypinazar et al. 2005). There is work to show that students believe authentic early experience has assisted them in understanding the relevance of basic science studies, but it is less clear or convincing that it has directly helped them achieve deep learning (Jones, Cason et al. 1986). While studies describe perceptions that authentic early experience has helped in this area (Dornan & Bundy 2004) there are others that show students still struggling to apply knowledge in new situations (Dornan 2003).

Studies which were set in a particular patient group (Orbell & Abraham 1993) or specialty such as geriatrics (Alford, Miles et al. 2001), endocrinology (Sathishkumar, Thomas et al. 2007) or palliative medicine (MacLeod, Parkin et al. 2003) describe changes in student understanding of the relevant specialty. Beyond this, most studies do not seek to explain the process, instead simply reporting what students and other participants thought the outcomes were.

Diemers et al (2008) asked students what knowledge they had on entering the third year of their degrees (in the Netherlands where a six year degree is the norm). These students described building a personal casebook from which they could draw (non-analytic reasoning) in addition to trying to reason clinically from biomedical principles. The students admitted that it was being questioned by others (teachers and peers) that prompted study of the biomedical science related to real patients' problems, suggesting that debriefing and feedback may be a necessary condition for the processing of experiences. This has been identified as a requirement in later years (Dornan, Hadfield et al. 2005, Dornan, Littlewood et al. 2007).

Integration to produce functional and transferable knowledge

Pedagogies for teaching skills such as critical reasoning and communication in their own right have led to a focus on the skill process outside of any applied context (Windish, Price et al. 2005). Conversely, there have been equal attempts to integrate the delivery of skills and content through experiential learning and problem or case based learning. Despite this, at least initially, students struggle with 'context specificity' – that is, with recognising opportunities for transfer or not achieving transferable skills in practice (Schmidt, Norman et al. 1990).

Some schools deliberately match patient case mix to concurrent clinical teaching and this is, therefore, feasible (Hampshire 1998), but it is unclear if it adds significant value in comparison to unmatched experiences. Subspecialty experience does not necessarily improve performance in

matched sections of examinations (Jones, Cason et al. 1986) and 'real patient learning' can remain bound to the specialty in which it occurred (Dornan, Hadfield et al. 2005). A lack of transferable skill development (Dornan 2003) has been identified in workplace learning in later years as has significant need for supporting activities if placement potential is to be maximised (Dornan, Boshuizen et al. 2007).

2.3 Problems with the literature

While students perceive a general effect on their ability to learn (Dornan, Littlewood, et al. 2006, O'Neill, Duplock et al. 2006), the evidence does not explain why or how this happened. The lack of depth of understanding with respect to this within the literature is evident in table A2.1 (see question one in particular). Although a variety of outcomes was intended and reported across the studies, the essentials to achieve these are rarely identifiable (see table A2.1, question two). Socio-cultural theories suggest that learning is dependent on the environment and the relationship between the learner and other agents: students are being apprenticed in a way of thinking while they learn content through collaborative activities (Rogers & Ellis 1994, Lave & Wenger 1991, Scott 1998, Kozulin, Chaiklin et al. 2003, Durning, Artino et al. 2010). Hence, learning will occur in several domains, and content learning is intertwined with social and cultural learning about roles and identity. Any one of these factors might cause the learner difficulty with transferring knowledge from one context to another unless they have been able to identify the elements that can be abstracted. The empirical studies that address what constitutes a supportive environment endorse these ideas, although mainly limited to reporting positive (often logistical) rather than negative outcomes (Hampshire 1998, Nieman, Foxhall et al. 2001, Fernald, Staudenmaier et al. 2001, Durak, Valansever et al. 2006).

The themes presented above represent what has attracted the attention of researchers and curriculum evaluators, as much, if not more than, providing a representation of what effects authentic early experience has in practice. For example, while much of the literature discusses social and professional learning, encompassed under terms such as ‘personal and professional development’, there appears to have been little expectation (Dornan & Bundy 2004), and, therefore, a lack of attention to the potential for authentic early experience to result in content knowledge (Dornan, Littlewood, et al. 2006). There is much rhetoric, but little evidence to explain how integrated learning and meaning-making occur within a particular student’s development.

In their systematic review of early experience, Dornan et al. (2006) ask ‘How *can* [my emphasis] experience in clinical and community settings contribute to early medical education?’ To summarise, the current state of understanding can arguably only answer the question ‘How *is* early experience contributing at present?’ due to the nature of available evidence. Most studies report outcomes in line with the intentions of the curriculum designers without seeking to explain the processes occurring (Novack, Dube et al. 1992, Mann 1994, Frank, Handfield-Jones et al. 1996, Hampshire 1998, Barley, O’ Brien-Gonzales et al. 2001, Cooper, Gibbs et al. 2001, Fernald, Staudenmaier et al. 2001, Abramovitch, Shenkman et al. 2002, Naga Rani, Sharma et al. 2002, Basaviah, French et al. 2003, Alford & Currie 2004, Lie, Boker et al. 2006). This is neatly illustrated in the study of O’Neill et al. who concluded that there is a non-uniform effect, reporting instead that authentic early experience can ‘confirm, disconfirm, or expand learning’ (O’Neill, Willis et al. 2002). Whilst there is merit in description and justification of authentic early experience, a lack of clarification research hinders further development (Cook, Beckman et al. 2007, Cook, Bordage et al. 2008). The term ‘clarification research’, coined by Cook et al., is defined as research addressing questions of ‘how and why did it [the entity in question] work?’ (Cook, Beckman et al. 2007, Cook, Bordage et al. 2008). Unlike description (‘what was done?’) and justification (‘did it work?’), clarification research, these authors suggest, has the potential to deepen understanding and refine

theories (Cook, Beckman et al. 2007, Cook, Bordage et al. 2008). At present, we actually know very little about how (or why) authentic early experience actually ‘works’ in practice, as I will explain next.

2.4 How and why do authentic early experiences ‘work’ for students?

To ask how and why authentic early experience works is to seek understanding of the processes, including social interactions, which make up this complex educational intervention. This necessitates an open mind about the consequences which might result – seeking to identify unpredicted and unintended consequences, as well as fulfilment of the purposes and learning outcomes already discussed. Nor should enquiry stop at this point, as to understand authentic early experience working in practice requires consideration of what students do with their knowledge and what this means for them and their learning.

Before developing my own empirical work, I initially addressed these questions by revisiting sixty studies of empirical evidence that constitute the best available literature on authentic early experience. The results are presented in the following sub-sections, with individual studies tabulated in table A2.1. In addition, references to either policy guidance or learning / socio-cultural theories were noted. Explicit references were made as follows: sixteen studies referred to policy guidance or regulations, (Allen, Bland et al. 1991, Vaz & Gona 1992, Quinby & Papp 1995, Frank, Handfield-Jones et al. 1996, Dobie, Carline et al. 1997, Hampshire 1998, Elnicki, Halbritter et al. 1999, Waddell & Davidson 2000, Cooper, Gibbs et al. 2001, Grayson, Klein et al. 2001, Levy, Hartz et al. 2001, Lynch, Pathman et al. 2001, Khan & Fareed 2003, MacLeod, Parkin et al. 2003, McLean 2004, Howe, Dagley et al. 2007) and four studies referred to a theoretical base. These were, experiential learning theory (Alford & Currie 2004), apprenticeship learning theory (Dyrbye,

Harris et al. 2007), Community of Practice and Legitimate Peripheral Participation (Lave & Wenger 1991, Mann 1994), and identity theory (Niemi 1997).

Alford et al. cite experiential learning theory (Alford, Currie 2004) as a means of understanding what students reported as outcomes of authentic early experience. The authors also state that experiential learning theory includes immersion in a culture of practice. Theory is not applied more specifically – and there is no dialogue between theory cited and the authors' empirical data. The theories apparently did not inform the study methods, but are simply referenced after the study findings were known as possible explanations. Mann takes a similar approach – reporting findings which are required by and are, therefore, supported by theories of Community of Practice and Legitimate Peripheral Participation (Mann 1994). Questions surrounding experiences where these ideal conditions are not present are not fully addressed despite recognition of the likelihood of occurrence.

In contrast, Dyrbye et al. used a conceptual framework to conduct research into the differing functions of authentic early experiences for students. They actively sought empirical data to support cognitive, practical and moral learning through content analysis of reflective diaries. This allowed identification of empirical data to support the theory, but still does not address issues of how and why the functions of authentic early experience worked. The authors also limited their focus to functions based solely on student-patient interactions suggested by theory, rather than also seeking to identify any alternatives (Dyrbye, Harris et al. 2007). More positively, Niemi offers a more sophisticated approach through combining critical appraisal of theoretical work with empirical study of identity development. The result is a paper that describes how the author created from theory a hypothesis of what the spectrum of identity development might be, while explicitly stating this was linked to an 'open minded' analysis of what was actually emerging from

the empirical data. The final results are a refinement of the hypothesis that incorporates nuances of both the theory and empirical work. As such, this study is unusual (Niemi 1997).

2.4.1 Social interactions

Interactions between students, placement providers and medical school faculty were rarely discussed and not given detailed attention (see table A2.1, question one). Elnicki et al. do report placement providers had explicit instructions to allow students active participation (Elnicki, Halbritter et al. 1999). Hampshire acknowledges some ‘communication problems’ between students and staff (Hampshire 1998). Mann notes that student interactions with doctors are likely to be important (Mann 1994). Other studies considered student perceptions of patient interactions, or included data from more than one group involved in early experience, but kept the focus on the experience as an entity rather than interactions between agents involved.

Relationships with educators

Relationships are perceived as complex by both students and educators. Rees et al. (2009) found that metaphors for assessment relationships were journey, war, sport, parentalism, machine and medicine. These metaphors demonstrate a mixture of concepts around the consequences of failing students – a journey might take longer than originally intended, whereas war might result in death; sport is perhaps governed by a concept of fair play different from war. Wray and McCall found that students struggled with the impact of educational reform indirectly when interacting with placement providers. Students reported that clinical educators were unfamiliar with their (new) curriculum, and displayed negative attitudes to change. In the context of a new curriculum, tensions emerged between the expectations of placement providers and students regarding

content, quantity and quality of knowledge and skills that were reasonable for a given year of the course (Wray & McCall 2009).

Students can identify those who do not 'approve of early experience' (Naga Rani, Sharma et al. 2002) and the attributes of effective placement providers. These include the demonstration of expertise, active engagement of students in learning, creation of a positive environment, demonstrating professional behaviour, plus collegiality and a willingness to discuss careers and student concerns (Huggett, Warrier et al. 2008).

Authentic early experience leads students to identify clinical role models earlier in their medical education, suggesting that the role of placement providers is particularly important (Miettola, Mantyselka et al. 2005, McLean 2006). Carney et al. (1999) report, on the other hand, that the type of preceptor did not influence the development of clinical skills, in that the preceptors' own specialisation was not important. Several other studies suggest that placement providers need to be 'on board' (Freeman, Cash et al. 1995, Quinby & Papp 1995, Hampshire 1998, Fernald, Staudenmaier et al. 2001, Nieman, Foxhall et al. 2001, Khan & Fareed 2003, Durak, Valansever et al. 2006, McLean 2006, Howe, Dagley et al. 2007) – that is, consider authentic experience to be valuable and appropriate to students early in their medical education, and have the ability to provide appropriate experience and student support. Given this, it is surprising how few studies include the placement providers' perspectives in any detail.

Von Below et al. (2008) have found that, while students generally regard authentic early experience positively, from the placement providers' viewpoint it can be seen as an increased workload, with a lack of support and less reasonable demands being made of them than they believe to be appropriate. Learning objectives are interpreted differently by medical students and doctors at different stages of their career trajectories. Morcke et al. found that students (in later years)

perceived learning objectives as 'context-free theory-based rules' that they wanted to be defined by experts and to use as minimum level checklists. In contrast, senior doctors preferred practice-based objectives to be developed collaboratively. Junior doctors displayed mixed perceptions and preferences – perhaps because they were entering a phase of transition between the perspectives (Morcke, Wichmann-Hansen et al. 2006).

Students seek supported participation from placement providers and will often be subservient towards them, expecting the provider to manage the learning environment. Self-direction is a default position for students in the workplace only when support and guidance are lacking (Dornan, Hadfield et al. 2005). If this is the case for students in later years, then intuitively the same might be expected in authentic early experience, possibly with accentuated effect. A quantitative survey of students' perspectives on effective teaching in the workplace demonstrated their desire to be assisted in identifying what was important and what they should take away from their experiences (Alweshahi & Cook 2009).

Relationships with 'real people'

Bell et al. focused on how medical students in their third year experienced their interactions with real patients by seeking to understand not just what was experienced in reality, but what students derived from their experiences (Bell, Boshuizen et al. 2009). As such, this study considered the total experience, that is, social as well as educational outcomes. Students tended to use lay rather than professional language to describe their learning, and contact with real patients was experienced affectively as well as producing cognitive outcomes. For example, students discussed the development of professional identities as well as learning about complexity in medical problems. The social aspects of experiences, such as invading privacy, caused concern to some students. The authors make the suggestion that real patient learning should be considered complementary (not more important nor simply reinforcement) to other learning opportunities such as PBL and

simulation. The finding that reality was considered to be intrinsically worthwhile was noted to present a challenge to outcome-based education (Bell, Boshuizen et al. 2009).

2.4.2 Student role and identity

Students reported an increased sense of vocation through meeting patients and doctors in practice (Novack, Dube et al. 1992, Orbell & Abraham 1993, Quinby & Papp 1995, Hampshire 1998, Barley, O' Brien-Gonzales et al. 2001, Rooks, Watson et al. 2001, Steele, Susman et al. 2001, Fernald, Staudenmaier et al. 2001, Alford, Miles et al. 2001). Studies of interventions where students learnt how to deliver services by actually undertaking the work themselves, show that students can contribute to healthcare at this stage of their education (Linder, Saha et al. 1992, Dobie, Carline et al. 1997, Waddell & Davidson 2000, Nieman, Foxhall et al. 2001, Crosson, Heaton et al. 2003, Lalumandier, Victoroff et al. 2004). Students involved in service delivery also reported taking away a sense of purpose – satisfaction at having made a useful contribution. The strongest example of this was, however, in dental education where students are more quickly given a significant degree of responsibility (Lalumandier, Victoroff et al. 2004) compared to their medical peers. Third year medical students and placement providers have identified placement providers allowing increasing responsibility as the most significant characteristic for a desirable educational environment (Riesenberg, Biddle et al. 2001). Most conceptualisations of authentic early experience include few if any opportunities for graded increases in responsibility for students. We do not know whether this alters the balance of interactions, processes and consequences described in later years through the experience-based learning models described in Chapter One.

With the exceptions of interventions where the intention of authentic early experience was the delivery of patient services, links between the role of students and identity development have not

received much attention. It is possible, although not certain, that this is because there is no expected role. Should this be the case, then it would put interventions in conflict with experiential learning theories (as discussed in the last chapter) and socio-cultural theories as discussed in the next chapter. Niemi (Niemi 1997) addressed questions about how students self-reflect and form professional identities in the preclinical years. Students were asked to ascribe meaning to their experiences. While the study suggests that increased authentic early experience might produce professional identities sooner than previously, students were variable in using their experiences to explore possibilities and evaluate professional behaviour. This demonstrates that uniform outcomes cannot be expected, also illustrated by Johnson et al., who found no less cynicism in the attitudes of students exposed to authentic early experience than their peers who had not (Johnson & Scott 1998). Rooks et al. also raise the question of identity development, but do not discuss how this is shaped during authentic early experience (Rooks, Watson et al. 2001).

Spare Parts

The evolving model of experience-based learning (described in Chapter One), constructed by Dornan et al. from their work in later years, centralises supported participation as a core process. Lie et al. reported that students who felt useful during their experiences gained a positive sense of self-worth (Lie, Boker et al. 2006). Perhaps unsurprisingly, this is not the experience which students uniformly report in the literature. Instead, students sometimes report not being part of a team and not being productive, which leads them to feel they are 'spare parts' in the workplace (Willis, Jones et al. 2003, Drinkwater 2007). The same terminology is also often used in feedback received by workplaces where this does not occur; they are praised with acknowledgement of the benefit of student inclusion (Snadden & Yaphe 1996, Wee, Hillier et al. 2001).

Smithson et al.'s study of students prior to commencing medical school found that being a spare part was a concern even at this stage (Smithson, Hart et al. 2010), suggesting the possibility that

students may begin to form low expectations of their role prior to any negative experiences. Students who describe the role of medical student within workplaces as a spare part, without useful purpose, are already hindered in their attempts to engage with the workplace. There are perhaps two overarching reasons why a student might feel this way. First, (within the UK, at least) undergraduate medical education has largely been divorced from service delivery. An unintended consequence of this might be that, with 'nothing to offer' others, students are more acutely conscious of their 'selfish' impact on patients and others. This is reported in the literature: for example, a lack of patient benefit in the purpose of interactions concerns students (Thistlethwaite & Jordan 1999). Second, students may not be offered opportunities to participate – for a multitude of reasons (Drinkwater 2007). Students are not always sure how to integrate themselves with a team and uncertainty about this can persist into their initial work post graduation (Willis, Jones et al. 2003). The issue of conceiving the students' role as 'spare parts' is, therefore, clearly documented, but not fully problematised in the literature.

2.4.3 Unpredicted or unintended consequences

Given the focus on using authentic early experience for personal and professional development in policies around the world, it is ironic that the broader social impact of experience (including unintended or unpredicted consequences) has not been considered in detail. This is demonstrated in table A2.1, questions three and four. Students are known to gain a more sophisticated understanding of areas of healthcare often viewed as socially challenging (Alford, Miles et al. 2001, MacLeod, Parkin et al. 2003, Alford & Currie 2004). Macleod et al. (2003) and Dyrbye et al. (2007) are unusual in that they seek to analyse the narrative accounts that the students give of their experiences of hearing patients' healthcare stories, demonstrating that students are constructing their own narratives and meanings from their experiences.

Howe et al. found that students appeared to develop a patient-centred approach in keeping with the trend, identified above, of a focus in curriculum design on patient perspectives (Howe, Dagley et al. 2007) as did Orbell et al. (1993). This contrasts to the earlier study of Mann that suggested early experience led students to move towards a medical perspective (Mann 1994), possibly, because it was conducted in a different era of medicine. There was one reported instance in the literature of students taking away an oversimplified understanding of health problems in the community (Vaz & Gona 1992), but little else is documented regarding either positive or negative, unpredicted or unintended consequences. Research that considers the plausibility and implications of all and/or any consequences of the processes of authentic early experience is needed in addition to that which seeks to identify whether an intervention produces a pre-determined effect.

2.4.4 Meaning-making

Although few authors explicitly address meaning-making, there were suggestions that students could move from stereotyped generalisations to an appreciation of uncertainty and individuality through authentic early experience (Mann 1994, Alford, Miles et al. 2001). Students demonstrated in reflective narratives that they could make meaning about relationships, roles and professional development (McLean 2004, Hampshire 1998, Dyrbye, Harris et al. 2007), making it a reasonable question to seek further clarification of what this meaning is and how the personal and professional interact in the students' minds (MacLeod, Parkin et al. 2003). Students seemed mainly to be left to make their own meanings (Vaz, Gona 1992) following interventions.

Uncertainty about ways of knowing

Uncertainty is a theme which runs throughout literature regarding the socialisation of medical students within medical schools and workplaces. One contribution to 'The Student-Physician'

(Merton, Reader et al. 1957) was Fox's seminal study in this area. She identified three main sources of uncertainty for medical students with respect to knowledge. They experienced uncertainty about their own knowledge, uncertainty about the limits of science, and uncertainty about which of the former was the true source of uncertainty in any specific circumstance (Fox 1957). In a later study, Light suggested that students actively seek ways to control uncertainty by making an interpretation of what is expected of them and seeking to find techniques to meet the challenges they meet in new situations (Light 1979). Whether these techniques form part of the intended learning students gain in the workplace, or not, depends on the complex interactions between the students and other agents or structures present. More recently, researchers have both confirmed Fox's original findings and added to these additional sources of uncertainty for students. Ashley et al. identified in their study reports of uncertainty from students about what was expected of them, fear of harming patients, and fear of showing ignorance (Ashley, Rhodes et al. 2008).

Uncertainties of knowledge are not the only source of concern to medical students: uncertainty can also arise from interactions with faculty and placement providers or patients (Light 1979).

Professional work is said to make the need to gain control imperative, as the ability to make good decisions in the face of uncertainty is highly valued (Light 1979). Within medical practice, some uncertainties are tolerated more than others (Lingard, Garwood et al. 2003). Lingard et al. identified amongst doctors, six types of limits to certainty: individual knowledge; evidence; number of possibilities; information from patients; professional agreement; and scientific knowledge (Lingard, Garwood et al. 2003). Adopting such a stance has implications for student identity and interactions on placements.

The same study found underlying concerns amongst clinical students regarding the management and portrayal of uncertainty (Lingard, Garwood et al. 2003), expressed through the language used. Students managed uncertainties of personal knowledge by choosing whether to acknowledge,

argue against, or deflect the perceived deficit during interactions with doctors (Lingard, Garwood et al. 2003). Students who were 'thinking as students' retained a focus on their gain as learners, proving themselves or deflecting criticism, and seeking guidance. Those who had begun to 'think as a doctor' were more likely to be patient- rather than student-focused, and, by adopting the stance of their supervisors to collect and assess information in their interactions with patients, they actively suggested their own role and legitimacy in the workplace to others (Lingard, Garwood et al. 2003). Atkinson suggests, however, that it is important not to accept 'uncertainty' as a universal truth in medical education if understanding of the processes at work is to be further developed. Instead, he argues, there is a need to consider 'uncertainty' and 'certainty' as co-existing entities which are not mutually exclusive (Atkinson 1984). Despite this, he does acknowledge the strong identification of practitioners with the findings of Fox (1957), which is, perhaps, why he concludes there is a need for further work regarding reproduction of knowledge and experience in training (Atkinson 1984).

Changes in curricula do not appear to have a significant impact on uncertainties of students. For example, uncertainties of knowledge were investigated in second year medical students studying an integrated PBL curriculum by Knight and Mattick (2006). Applying a model that classified the nature of knowledge along gradients of certainty / simplicity and the nature of knowing according to source or justification, they found that changes in epistemological thought since arriving at medical school varied. At the extreme, some students were still reluctant to attribute uncertainty to anything other than their own lack of knowledge, and continued uncritically to place importance on the source of new information – that is, the students used opinions of others to justify knowing. Amongst those students who had developed more sophisticated ideas about the nature of knowledge and were willing to undertake critical reflection, a tendency to avoid drawing conclusions persisted. The authors suggest that this was related to realisation of the potential impact a 'wrong' conclusion might have on patients (Knight, Mattick 2006).

When studying the narratives of students in the first two years of medical school (constructed in audio diaries), Monrouxe found that there were six that dominated their conceptions of doctors and medicine and had parallels in societal narratives of the same. These were 'privilege... gratitude... certainty of medicine... good doctor... healing doctor... detached doctor' (Monrouxe 2009). In addition, she identified two contrasting narratives – 'informed servant' and 'uncertainty of medicine'. Students had been asked to record stories that affected how they thought of themselves and their future roles as doctors. Often an individual student would draw on more than one of the narratives identified by the authors when seeking to make sense of experiences. Monrouxe postulates that part of the transition from lay to professional which a student must undergo is a change from drawing on narratives common in society in general to the contrasting narratives of uncertainty and servitude.

Recently, Helmich et al.'s study of medical students considered the relation between sending medical students on nursing attachments and professional identity development (Helmich, Derksen et al. 2010). Using a combination of questionnaires and focus groups, they found that students underestimated the roles and work of nurses prior to their attachments, although they did expect nurses to be empathetic and good at communicating. Student views of doctors were ambivalent both before and after the attachment. Students may, therefore, be not only uncertain of their own roles but also uncertain of the roles which others in the workplace are (or should) be filling. When asked to produce keywords and short descriptions of the characteristics of nurses, doctors, and their own expected future roles, these students distinguished between the negative characteristics (e.g. arrogance) that they expected some doctors to display and how they would work in the future. Aside from the authors' findings of differences in gender and age, it is interesting that students were more certain about the caring nature intrinsic to the role of nursing - a view widely present in the general population – than of the roles of doctors. This latter finding appeared commoner amongst students lacking previous experience in healthcare settings.

The authors do not comment on whether students made comparisons between being part of the nursing team (and engaged in nursing activities) with other experiences.

Reasoning and transformation through learning experiences

Clinical reasoning describes understanding of the means of how and why doctors make sense of patient encounters and make decisions. It can be considered as a significant outcome of medical education which should be achieved by the integration of learning. This is important, as it should aid understanding of how learning can be integrated within an individual's mind in a way which could be transferred from one context to another.

The development of non-analytic (pattern recognition) clinical reasoning strategies has been attributed to 'real life experience' (Norman, Young et al. 2007). Several studies describe how doctors build a personal 'case book' of patients' stories that they can draw on in new patient encounters (Schmidt, Norman et al. 1990, Charlin, Boshuizen et al. 2007, Norman, Young et al. 2007). In addition, doctors tell their own stories about these cases, thereby creating further meaning (Hunter 1991, Greenhalgh & Hurwitz 1999). The terms non-analytic or pattern recognition are used as when doctors have seen a similar patient case previously, they are not obliged to analyse it from first principles; instead, they can check the new case against their previous experiences seeking similarities. It is only if something is unexplained in this process that analytic reasoning becomes necessary. More experience of a greater number of cases, including subtle variations, produces a larger case book to refer to. The doctor learns in this process to use previous experiences to address new problems.

Quantitative psychological studies have in particular focused on decision making and reasoning in relation to diagnosis (Norman 2005). This method allows for 'testing' in controlled conditions relative to a 'correct' answer (i.e. a 'right diagnosis'), but simultaneously creates problems for the

translation of results to uncontrolled complex clinical settings and other areas of medical decision making, such as treatment and management. The concepts of novice and expert reasoning in medicine emerged from such work. Differences between students and newly qualified doctors and those who have practised in a particular field for a number of years have been documented in both the process and outcomes of clinical reasoning.

Norman, Schmidt et al. (Schmidt, Norman et al. 1990) argue that there are several phases of expertise development. Expertise is dependent on knowledge (content specificity) (Neufield, Norman et al. 1981). Moving from one phase to another is postulated to require the development of functionally different knowledge structures on which a doctor's performance would be based. The first phase occurs when knowledge regarding causes and consequences of diseases is acquired. This is referred to as analytical knowledge (that is, of basic science mechanisms and clinical 'rules' such as the signs associated with a diagnosis) (Norman, Young et al. 2007). Next, combined with experience of real patients, developing experts transform the knowledge into 'illness scripts' –the authors' term for narrative structures (stories) integrating experience and medical science that use pattern recognition (Schmidt, Norman et al. 1990, Norman, Young et al. 2007, Charlin, Boshuizen et al. 2007). Illness scripts are a result of creating meaning from experiences through integrating prior knowledge and novel experience to create expectations and inferences (Charlin, Boshuizen et al. 2007). As such, scripts vary greatly in how generally or specifically each might be applied as well as the actual content types emphasised. Actions which follow will either confirm or refine meaning interpreted from scripts, thereby reasoning becomes more sophisticated as typical and atypical narratives are created.

Schmidt and Boshuizen suggest this is achieved through 'encapsulation' of knowledge into models and categories which are fine-tuned with contextual information (Schmidt & Boshuizen 1993).

Experts are thought to give increasing prominence to encapsulated knowledge over time (Rikers,

Loyens et al. 2004). Students are more likely to explicitly attempt analytic reasoning, possibly because they have less experience to draw on. This suggests that expertise development fundamentally has to take place over time (Norman 2005) and raises questions about achieving balance between traditional apprenticeship and innovation aimed at improving the efficiency of learning. The third phase is defined as the use of previous case memories to achieve diagnoses in new cases – suggesting a short-cut to reasoning was achieved through a sedimentation process whereby knowledge from previous cases remained in the memory for use if triggered by circumstances and when other approaches fail (Schmidt & Boshuizen 1993).

The theory developed, therefore, considers the expert to be in possession of knowledge that is qualitatively, as well as quantitatively, different from that of the novice. The expert has greater knowledge content from which to draw experience-based examples in addition to greater understanding of underlying concepts. This appears to be a feature of decision-making regardless of whether the stimuli are verbal or visual, and practitioners are not able to deconstruct the rapid conclusions they draw with any ease (Boshuizen 1989). This is supported by evidence from ‘think aloud’ studies which show that students are much more likely than senior doctors to use pathophysiological processes to support their reasoning and has been explained as experts somehow drawing on knowledge that is not picked up by cognitive testing (Schmidt, Norman et al. 1990). Clearly from such work, if the process of integration and therefore expertise could be guided and accelerated, this could result in significant learning potential – achieving this is not, however, straight forward, as demonstrated through studies of PBL.

When Norman and Schmidt applied their theories of expertise to PBL (Norman & Schmidt 1992) they did not find any evidence to suggest that PBL improved ‘general content-free problem-solving skills’ but they did find that it might enhance transfer of concepts and integration of basic and clinical science learning. Norman and Schmidt examined three areas of learning with respect to

cognitive psychology which PBL might contribute to: the acquisition of factual knowledge; transfer of principles and concepts; and the acquisition of examples to be used for pattern recognition (Norman & Schmidt 1992). With respect to memory, activation of prior knowledge facilitates further learning, elaboration of knowledge aids subsequent retrieval, and matching context facilitates recall. To argue that PBL matches real patient encounters would be to ignore the social context of learning within an authentic workplace, as opposed to within a medical school institution.

Educators were also disappointed to discover that even relatively simple changes in 'problems' at a superficial level could stop learners from identifying opportunities to transfer knowledge from one context to another, a problem that Norman and Schmidt attribute to the task itself forming part of the context. Feedback was shown to provide a means of increasing student sensitivity to transfer opportunities (Norman & Schmidt 1992).

Sequencing of content is also thought to be important (Muller, Jain et al. 2008). It has been suggested that learners should be presented with multiple examples which have been deliberately chosen to provide a spectrum of experience (not necessarily being proportionately representative of incidence or prevalence in practice) alongside efforts to encourage analytical strategies to reduce 'bias' (Hall 2002, Groves, O'Rourke et al. 2003, Norman, Young et al. 2007, Norman 2009).

Examples of this might include both authentic experience and use of analogy (Norman 2009).

While problem recognition, if correct, has the potential in predictable situations to be an extremely effective mechanism for replicating appropriate action, there is within medical practice great potential for misapplication of the pattern, or for unexpected unpredictable consequences to arise (Eva 2004). Non-analytic processes can result in bias at any level of expertise and as such should be used only as part of multiple reasoning strategies and with awareness of the pitfalls. This is

achieved by experts through flexible application – a challenge to those who are still learning both the content and tools of practice. The crucial learning is recognising when to return to principles and reasoning as a safeguard against mistakes.

Transfer will always be impaired if there is a perceived gap between the reality of the medical school and the reality of medicine as practised in the workplace (Eva 2004). This gap is created through the tensions felt by students as they experience and interpret the differences between in-house / faculty and workplace / placement provider approaches to interactions and learning. The gap might be bridged by focus on creating positive student linkage through explicit discussion of differences, and providing guidance on relevance, importance and utility in a coherent and cohesive manner (Marton 2006). In addition, recognition and problematisation of student *Mētis* in partnership with students could actually potentiate learning (see later chapters). Students should not be expected to make these links for themselves in a predictable manner (Eva 2004, Marton 2006). Transfer may also be difficult in part because people rapidly come to consider embedded knowledge as ‘common sense’ and perhaps inevitably fail to recognise or remember what it was like to experience this knowledge as ‘new’. Explicit instruction to use both analytical and non-analytical reasoning might also improve reasoning (Marton 2006, Ark, Brooks et al. 2007).

Authentic early experience has, therefore, the potential to contribute to student learning through the creation of stories derived from the students’ efforts to understand their experiences. The precise and specific content results of meaning derived from self-constructed stories are intrinsically unpredictable. Despite this, research exploring the content of student narratives, as recorded in reflective assignments or diaries, has identified common themes. For example, Dyrbye et al. found themes related to relationships and learning, integration, aspects of doctoring and roles amongst second year students in the Mayo Medical School (Dyrbye, Harris et al. 2007). This would suggest that the rise in use of formalised reflective practice has the potential to encourage

story-telling as a mechanism that assists students to make sense of their experiences. Students in later years interpret experiences alongside developing an understanding of how case histories are used within medicine. In doing so, they move from thinking as a student to attempting to think as a doctor (Lingard, Garwood et al. 2003). Emerging postgraduate research suggests that ‘priming’ (Bargh, Chen et al. 1996, Chartrand & Bargh 1999, Stapel & Koomen 2006) – the involuntary activation of mental concepts from one context in another – may affect how workplace experiences are constructed in variable ways depending on the level of experience the learner already has (Teunissen, Stapel et al. 2009). Although authentic early experience should in theory begin to form scripts within the students’ minds, there remains a risk that the scripts will be un-critiqued and non-systematic, particularly if the students are not engaged in discussion of their interpretations and meanings derived from authentic early experiences. Exposure to significant incidents may produce a variety of consequences dependent on the meaning and use individuals create from their experiences. The narrative approaches discussed in Chapters Three and Four provided a mechanism to access student stories of their experiences for analysis during my empirical work.

Dichotomous contrasts or constructive comparisons for learning

It has been postulated that systematic use of variation (using perceived similarities and differences) between examples might allow students to identify similar concepts and so abstract from the specific and then reapply to a new context; that is, develop the ability to transfer knowledge (Marton 2006, Norman 2009). It is also possible that mixed practice (problems illustrating different concepts mixed together – thereby creating an ‘unpredictable’ element) and distributed practice (spread over time) is needed (Norman 2009). Over time, studies in controlled (as opposed to natural) environments have suggested that clinical reasoning is not a general content-free skill, but instead a product of the consequences of specific knowledge, from which it cannot be independently analysed (Norman 2005). Students exposed to authentic early experience are often provided with some form of preparation for their experiences within the medical school, either in

the form of communication skills teaching or simulated patient experiences. This provides a useful concrete example to consider the potential of these ideas (systematic use of variation with mixed and distributed practice examples) outside of the controlled environment of psychological experimental conditions. In this chapter, I consider the literature regarding contrast or comparison between simulated patient encounters and authentic (real) patient encounters with respect to the above ideas. In Part Two I return to this subject through the analysis of my empirical data.

Contrasting and comparing interactions with simulated and real patients

Within the literature few studies (none specific to authentic early experience) consider the dynamic process of learning through exposure to both simulated and real patients (Bokken, Rethans et al. 2008). Instead, studies tend to be focused on grading the learning potential of simulated (or standardised) and real patient interactions against pre-set independent criteria or alternative approaches. Most show no difference. Cooper et al. found that students who had received bedside teaching performed slightly better than those who had been practising history taking with tutors; however, the latter had less practice at clinical examination (Cooper, Beswick et al. 1983). Hill et al. did not find any difference in assessment scores during a crossover case-control study comparing real and simulated patient exposure (Hill & Lord 1991). Both these studies were conducted with the aim of testing whether or not simulated patients were a suitable substitute for real patients as medical schools were experiencing increasing logistical difficulties in real patient contact time (McGraw & O'Connor 1999). Availability and variability of real patient experiences were identified as the main disadvantages which could be addressed through simulations. This contrasts with GMC emphasis on the need for both, which they justify by asserting the important contribution of both to a student's preparedness for work immediately post-graduation (General Medical Council 2009). A potentially insurmountable problem for simulation is that the power dynamics of the interactions are intrinsically different from those at work when students are meeting patients in authentic settings. To give some examples of these differences, simulated patients do not have the

same vested interests (although they may have different interests) or dependencies as those in contemporary doctor-patient relationships. Students do not feel the same moral responsibilities towards someone who has volunteered to train as a simulated patient as to a 'real patient' Tutors, if clinical, have responsibilities towards simulated patients as colleagues, different from those, as healthcare providers towards 'real patients'. (Hanna & Fins 2006).

Potential problems with studies using practical examinations to assess impact are that the examination focuses on content removed from context and it is possible to teach / learn to the examination in a way that is not necessarily an accurate reflection of workplace practice, nor of the meaning which students make from their encounters. The use of such examinations to establish effectiveness is flawed if learning is understood as a social process. This is not to deny such testing a place in medical education, but rather to consider it as a performance (acted) itself which cannot be presumed to transfer directly into evidence within the workplace where students are not practising in isolation but under multiple other influences.

Students exposed sequentially to simulated patients in early years and then real patients in later years of the curriculum report that real patients were more focused on discussing disease than communication skills (Bokken, Rethans et al. 2009). In Bokken et al.'s study, students were suspicious that simulated patients had been told to withhold information by the faculty, but did describe simulated interactions as useful preparation for real encounters or practising worst case scenarios. The authors suggest that better integration of clinical reasoning skills and medical content with simulated patients as well as communication skills could achieve better integration of learning (Windish, Price et al. 2005, Bokken, Rethans et al. 2009).

These findings from the literature are evidently useful for curriculum design, but still ignore the fact that in most medical curricula students will be exposed to both simulated and real patient

experiences during the learning process. From the student perspective, these are all forms of experience. Additionally, no school is suggesting that one mode should be used exclusively; rather, choices should be made by weighing up the advantages or disadvantages for each mode (Collins & Harden 1998). Therefore, it is appropriate to also ask whether different experiences can interrelate to potentiate learning outcomes.

2.5 Conclusions and outstanding questions

The empirical evidence cannot at present confirm, refute, or elaborate socio-cultural theories of learning or interactions. I found only four robust studies of authentic early experience which made explicit reference to a theoretical base (cognitive, educational or socio-cultural). Most studies simply do not relate their empirical work to any particular theory, and those that do tend simply to state a 'supportive' theory rather than considering whether there are differences between it and what actually happens in practice. Equally lacking is the relation of theories of reasoning, expertise and transferability to authentic contexts; instead these are supported by strictly controlled experiments which ignore or reduce the complexity of practice. The absence of applied workplace-based learning theories within authentic early experience is conspicuous.

There are (at least) two further areas that are not adequately addressed in literature specific to authentic early experience. These areas are linked: identification and comparison of the differences between settings for authentic early experiences and of the differences between 'non-clinical' (i.e. in neither traditional medical settings nor roles in which qualified doctors will be likely to function) and clinical (medical) experiences. Instead, the vast majority of studies are either focused on the added value to a curriculum offered by specific discipline-focused interventions, or authentic early experiences as a collective entity (encompassing a mixture of experiences in various

settings). Exceptions are two studies which compare hospital versus community experiences, and one which compared experiences between two curricula running in parallel. Carney et al. report that community-based authentic early experiences, (defined as primary care providers in the United States), could equip students with as good, or better, experiences as hospitals (Carney, Bar-on et al. 1999). This work was performed to establish the acceptability of using community based experiences. It does not explore what factors influenced these consequences, instead reporting that there was no detrimental effect in examination scores. Satran et al. conducted a similar study between hospital in-patient and out-patient settings (Satran, Harris et al. 1993) which reached the same conclusions – students were satisfied and performed as well in examinations regardless of setting. This was also reinforced by Abramovitch et al.’s study of two parallel curricula in Israel. One used hospital experiences and followed the New York State, American curriculum. The other used community based medical experiences and followed an Israeli curriculum. It appears students were also segregated by nationality within these curricula. As both interventions were well received by students, the authors conclude there is ‘no “best” way’ to conduct authentic early experiences (Abramovitch, Shenkman et al. 2002). As with Carney et al. and Satran et al. this conclusion is reached without interpretation of the many interacting influences that were evidently present. Exploring these areas of the medical education literature exceeded the parameters of my doctoral work, but this is recognised as holding potential for further investigation.

Given the lack of empirical evidence about meaning-making, it was not possible to derive much understanding of what the implications of student meaning-making following authentic early experiences are – either for students or for educators (see table A2.1, question six). We know neither what students do with the knowledge they gain, nor how they attempt to make their experiences ‘work’ for themselves. In addition, the possibility of unpredicted or unintended consequences has not been adequately addressed in the literature; neither at the level of identifying

student meaning-making nor at the level of considering the implications of meaning-making for the students and their learning. In the next chapter, I turn my attention to a critique of theoretical work that has the potential to enlighten these gaps in understanding

Chapter Three

Socio-cultural theories and interpretive methodology

3.1 Introduction

As the previous chapter has demonstrated, greater dialogue is required between theoretical and empirical work, subjecting both to critical scholarship, to develop an understanding of how and why authentic early experience works for students in practice. This dialogue can be created through research methodologies which allow a reflexive researcher to act as the interpretive link between existing theory and empirical (either research or practice based) work.

I have developed a framework which theorises authentic early experience as a complex experience in action. This framework incorporates contributions from theory and empirical work to develop understanding of social processes and dynamic interactions present within authentic early experience. Identifying these influencing processes, and understanding the potential for a variety of consequences, is crucial to understanding the knowledge students create and use as a result of their meaning-making following authentic early experiences.

Although presented here in a linear fashion, for ease of reading, the framework was developed concurrently with my interpretive analysis of the empirical work presented in Part Two of this thesis. A summary of this empirical knowledge is highlighted now to alert the reader to its interrelation with the theoretical work of this chapter. Students describe dynamic relationships with, and between, medical school faculty and placement providers. Social construction of

meaning accepts that identity evolves through role, culture and relationships at the same time as knowledge is created. My empirical work has identified significant underlying social processes. These are described in Chapter Six, through the use of a series of spectra which divide into those related to being in workplaces and those more specifically related to learning.

In this chapter I consider common usage of socio-cultural theories in medical education by undertaking a critical analysis of Situated Learning (Lave & Wenger 1991) and Activity Theory (Engeström 2001). Shortcomings in the application of these theories provide the basis for seeking alternative theoretical understanding; I draw on the concept of *Mētis* (Scott 1998) and, in part, Bourdieu's concepts of field and habitus to achieve this (Bourdieu & Wacquant 1992, Grenfell, James et al. 1998). These concepts are then applied to my findings in Part Two of the thesis.

My main concerns are to move from considering the existence of a gap between theory and practice as inevitable to understanding what is happening within this gap, because it is not a void. With respect to authentic early experience, I will explain why it matters that we develop understanding of what does happen in practice, not just of what should happen in ideal circumstances. The application of *Mētis* to authentic early experience provides a tool to address these concerns.

Socio-cultural theories of learning notably omit guidelines for practical data management. Nor does Scott prescribe any particular method for the application of *Mētis* in new fields or disciplines. What he clearly identifies, nevertheless, is that addressing questions regarding the existence of *Mētis*, or its content, requires data that can enlighten how those of primary interest (in this case, students) conceptualise their situation in relation to other agents and structures. Therefore, an iterative analysis was developed based on the roots of these theories in the philosophies of constructionism and interpretative interactionism. I have drawn my analytic tools from these

approaches: thematic (identification of content), narrative (identification of the story being told), interpretative (what does the meaning created by participants signify?), and discourse (what can be understood from the language used by participants?). The use of mixed qualitative analytic tools alongside multiple theoretical perspectives to achieve an interpretative analysis that remains embedded in the original data is, to my knowledge, an innovative approach within medical education. This approach provided inbuilt checks and balances to the data analysis, as well as focusing attention on multiple aspects of the data. This facilitated a deeper and richer interpretation than a single approach would have produced. As decisions about my analytic approaches are inseparable from my overall theoretical approach, the methodological theory behind these is briefly outlined towards the end of this chapter, prior to describing the study design and practical steps in the natural history of the research in the next chapter.

3.2 Conceptual orientation

The conceptual orientation of my work rests on the principles of constructionism, interactionism and interpretivism. People act towards the world based on the meaning things have for them; and these meanings are derived from social interaction and modified through interpretation (Blumer 1969). Interpretation of meaning leads individuals to act in a given way; further encounters lead individuals to modify their interpretations of meaning (Blumer 1969). Therefore, the meanings people ascribe to events should be of central concern (Smith 1996).

Learning and meaning-making are social processes which take place through interactions. With respect to education, commonly used socio-cultural theories which adopt this position can be traced to Vygotskian theories of learning (Kozulin, Chaiklin et al. 2003). Unlike Vygotsky's own work there has been a tendency within medical education to focus on the desirable outcomes

which result when an ideal learning experience occurs, at the expense of understanding outcomes situated in pragmatic 'real world' contexts (as shown in Chapter Two).

3.3 Critical review of socio-cultural theories applied to medical education

The experiential learning theories introduced in Chapter One are used within medical education, and elsewhere, as premises on which to design and implement interventions. These theories are primarily focused on individual acquisition of learning (Bleakley 2002). In Chapter Two, I demonstrated that empirical researchers rarely return to these or other theories when evaluating authentic early experiences.

The lack of attention to the social world in which learners are situated has begun to be rectified through the application of socio-cultural theory in later years of medical education with, for example, the workplace learning models of Dornan et al. (2007). Situated Learning (Lave & Wenger 1991) and Activity Theory (Engeström 2001) pre-dominate within medical education, and so I now consider the origins of these theories and what each has to offer towards understanding social interactions and meaning-making in the context of authentic early experience.

3.3.1 Vygotskian roots

Vygotsky conceptualised learning and meaning as social and cultural rather than individual processes (Kozulin, Chaiklin et al. 2003). He describes a metaphorical space (the zone of proximal development) to define the additional potential a learner has to expand understanding, through interaction with other agents and structures, beyond what might be achieved alone. This,

combined with his concepts of scientific and spontaneous learning, offers a theoretical basis for an expectation that authentic early experience could contribute to different types of functional and transferable knowledge. The term 'spontaneous', in the Vygotskian sense, describes the spontaneous experience and empirical learning or meaning-making which a student will create through the human desire to make sense of events. In contrast, 'scientific' refers to theoretical, organised, abstract principles which can be drawn from the experience and applied in other situations. This, Vygotsky suggests, is critically dependent on interaction with others (Kozulin, Chaiklin et al. 2003). Experience alone is, therefore, necessary but not sufficient for creating meaning.

Intuitively, to achieve scientific learning, support comparable to that identified as a requirement in later years by Dornan et al., is likely to be necessary (Dornan, Boshuizen et al. 2007, Tan, Boshuizen et al. 2010). Vygotsky also identifies tensions during critical periods such as transitions into new environments. The strength of 'needing to belong' can be in conflict with desiring to develop a unique personality as a student takes ideas of ideal medical practice into authentic early experience workplaces. In the latter, challenges will present through interactions and circumstance. These tensions can make unpredictable the consequential knowledge and meaning-making resulting from experiences (Kozulin, Chaiklin et al. 2003).

Vygotsky was critical of 'school' as an institution, suggesting it was a structure emergent once apprenticeship models had been rejected and that the resultant insulation from practice was detrimental to education (Kozulin, Chaiklin et al. 2003). This criticism has been expanded by Lave and Wenger, who argue that the richness lost from de-contextualisation (for example, immediate utility, cognitive interest, the pleasure of inquiry into the unknown, and the joy of self-perfection) (Lave & Wenger 1991, Kozulin, Chaiklin et al. 2003) is more significant than any benefits achieved

from efficiency of delivery. Policy imperatives to reintroduce authentic early experience into medical curricula are designed to address this concern.

3.3.2 Situated Learning

Communities of Practice with integration of new learners through Legitimate Peripheral Participation are central tenets of Situated Learning Theory (Lave & Wenger 1991). The process of integration requires both legitimacy to be conferred on the learner, even while they can only be peripheral to the central activities of the community, and then ongoing engagement to bring the learner more centrally into the community group. Whether observation can constitute a form of participation, and when transition from observing to active participation should occur, are both open to debate.

It is by no means given that students will be accepted and welcomed into workplace Communities of Practice, particularly if their role is conceptualised as non-contributory to practice. Lave and Wenger acknowledge that:

‘one cannot instantly become a central participant and changing locations, perceptions, identities and membership roles are all part of being in a Community of Practice’ (Lave & Wenger 1991, pp. 35-6) [and] ‘participation is always based on situated negotiation and renegotiation of meaning in the world’ (Lave & Wenger 1991, p. 51)

Despite this, initial access into the community is not addressed in detail. This omission is recognised in Wenger’s later work, but he still stops short of fully addressing the implications arising from this problem (Wenger 1999). Exclusion from a workplace community might be

expected to produce a strongly detrimental effect on an individual. It also has potential for other negative impacts. Within management research, for example, it is suggested that newcomers to a workplace are most likely to see opportunities for change, but conversely, they are the least likely voices to be heard (Bood & Postma, 1998). Medicine is widely acknowledged as a culture with hierarchical traditions. Together, these observations form premises for the need to understand whether and how access to workplace communities functions for students in practice.

If resultant knowledge and meaning-making from Situated Learning is explained by mutual engagement, joint enterprise, and a shared response (Li, Grimshaw et al. 2009), then lack of these factors within a less cohesive community could lead medical students during authentic early experience to position themselves as outsiders. It is questionable whether shared meaning is sought or common goals exist (or even should exist). New students do not have common resources such as a shared 'medical' language with faculty and placement providers for negotiating collective meanings. Some authors also suggest that Communities of Practice are deliberate groupings based around the factors above, not socially created collections of agents who may or may not want to 'work' together. This is a difference of conception which might be reasonably expected to bring about differences in interactions and relations (Cruess & Cruess 2006). In addition, it is not clear that policy guidance or curriculum design for authentic early experience currently envisages experiences as a mechanism for students to socially construct their vocational roles (Lave & Wenger 1991) by gaining situated content knowledge, as opposed to a mechanism for observing their future.

Situated Learning in Communities of Practice and Legitimate Peripheral Participation form a theory of how vocational learning *should* work. This is not necessarily a theory of how authentic early experience *does* work. Lave and Wenger take care to emphasise that resistance on the part of existing practitioners to the legitimacy and inclusion of new learners can subvert the process. This

can be communicated in a variety of ways, of which language is often the mediator (Lave & Wenger 1991). As Lave and Wenger do not appear to have set out to generate a theory of what happens in non-ideal circumstances, it would be unfair to criticise the vision of their theoretical work on this basis. As was illustrated in the previous chapter, a fair critique can instead be made of the application of this theoretical work by others within medical education when undertaking empirical studies. Wenger, in later work refining the concept of 'Communities of Practice', makes several points which have not been translated into empirical work relating to authentic early experience. These include the need to integrate theories of social structure, power, identity, and meaning when interpreting empirical findings; the suggestion that 'peripheral' participation should not be construed as observation without engagement in an activity; and the necessity of identifying a recognisably functional (in a constructive sense) Community of Practice (Wenger 1999).

I now turn my attention to the wider social world, moving from the micro detail of Communities of Practice, Situated Learning, and Legitimate Peripheral Participation to considering the 'system' as a whole through the lens of Activity Theory.

3.3.3 Activity Theory

Activity Theory (Engeström 2001, Engeström 2005) provides a model to consider learning outcomes as the product of unstable complex structural processes. These processes contribute to end outcomes for agents through interaction. It primarily seeks to understand how a common goal is achieved by interaction between agents who share this common goal and are situated within a particular system (Schryer, Lingard et al. 2003).

Figure 3.1 Generic model components of activity systems and associated definitions (adapted from (Schryer, Lingard et al. 2003, Dayton 2008, Morris 2009))

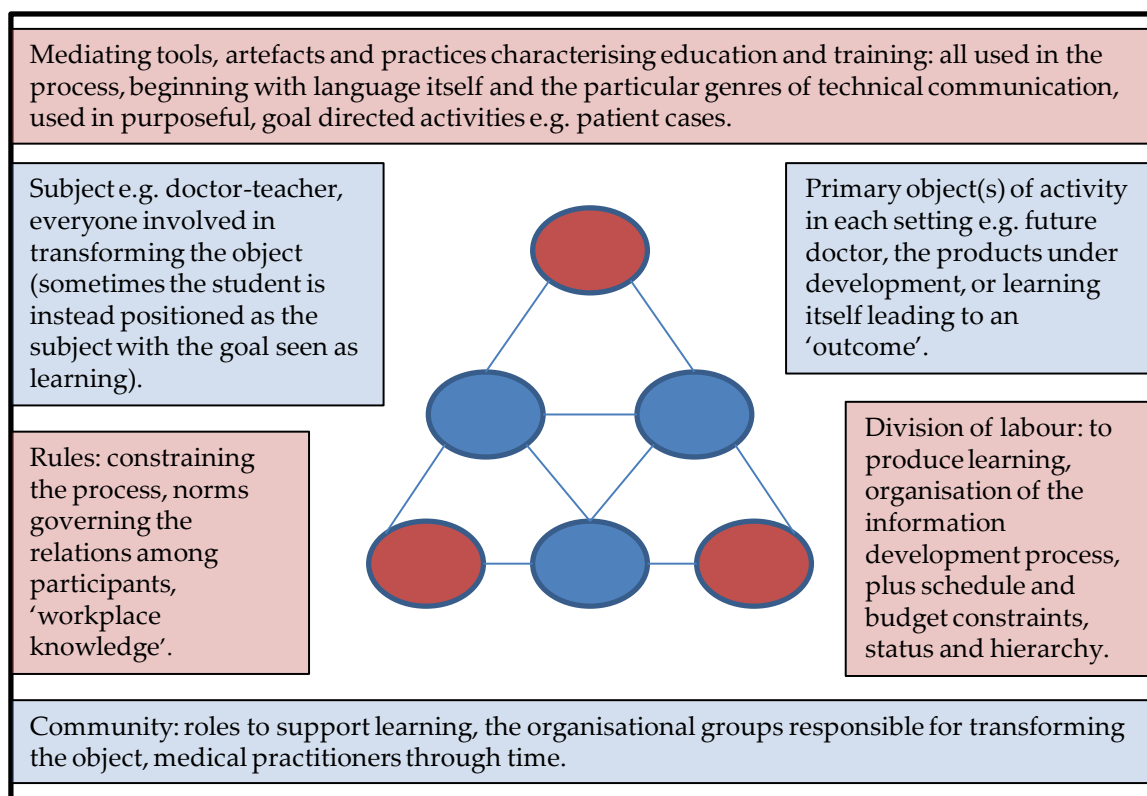
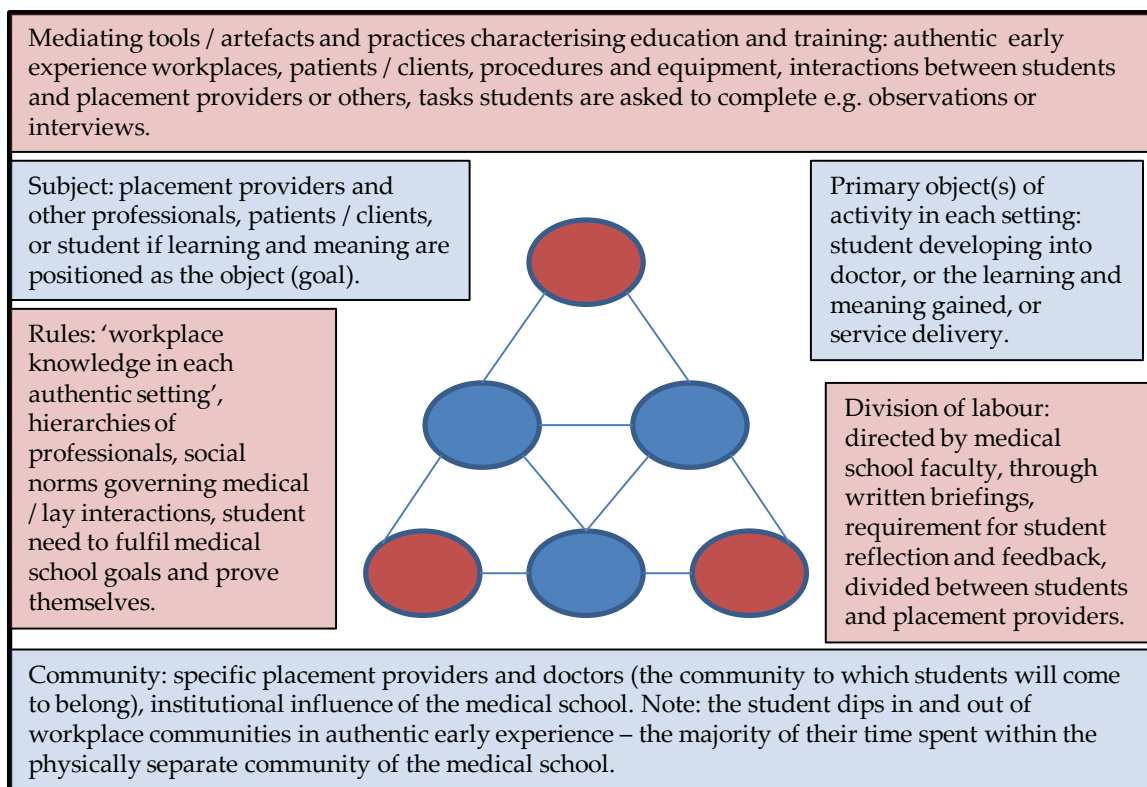


Figure 3.2 Application of an activity system model to authentic early experience



There are three key ideas: first, accepting that interaction between people and contexts is mediated by multiple influences; second, learning is considered a collective activity; and third, conceptual tools used to explain learning outcomes need to ‘understand dialogue, multiple perspectives, and networks of interacting activity systems’ (Engeström 2001, p. 135). Figure 3.1 demonstrates a generic version of the model components with associated definitions. Figure 3.2 shows how it might be applied to authentic early experience in medical education in order to define the location and motivation of learners and key processes influencing learning or desired outcomes.

Activity Theory describes learning as ‘expansive’. Having identified that theories of learning usually define learning through processes ‘where a subject... acquires some identifiable knowledge or skills in such a way that a corresponding, relatively lasting change in behaviour of the subject may be observed.’ (Engeström 2001) Engeström uses three types of learning (taken from the work of Bateson (Bateson 1973)) to explain what is meant by ‘expansive’. Type one refers to ‘conditioning, acquisition of the responses deemed correct in the given context’ (Engeström 2001). Expansive learning includes but is not limited to this. Rather ‘people and organisations are all the time learning something that is not stable, not even defined or understood ahead of time’ thereby ‘acquiring deep-seated rules and patterns of behaviour characteristic to the context itself’ (type two learning). The latter type of learning is transferable in adapted form to new contexts (Engeström 2001).

Tensions or contradictions between type one and type two learning can also lead to type three learning. This is described by Engeström as ‘where a person or a group begins to radically question the sense and meaning of the context and to construct a wider alternative’ (Engeström 2001). In authentic early experience tensions or contradictions might arise if, for example, students find themselves ‘caught between’ two activity systems or communities: the faculty and medical

institution where they feel they belong; and placement providers and workplaces where they feel they are outsiders, but want to belong.

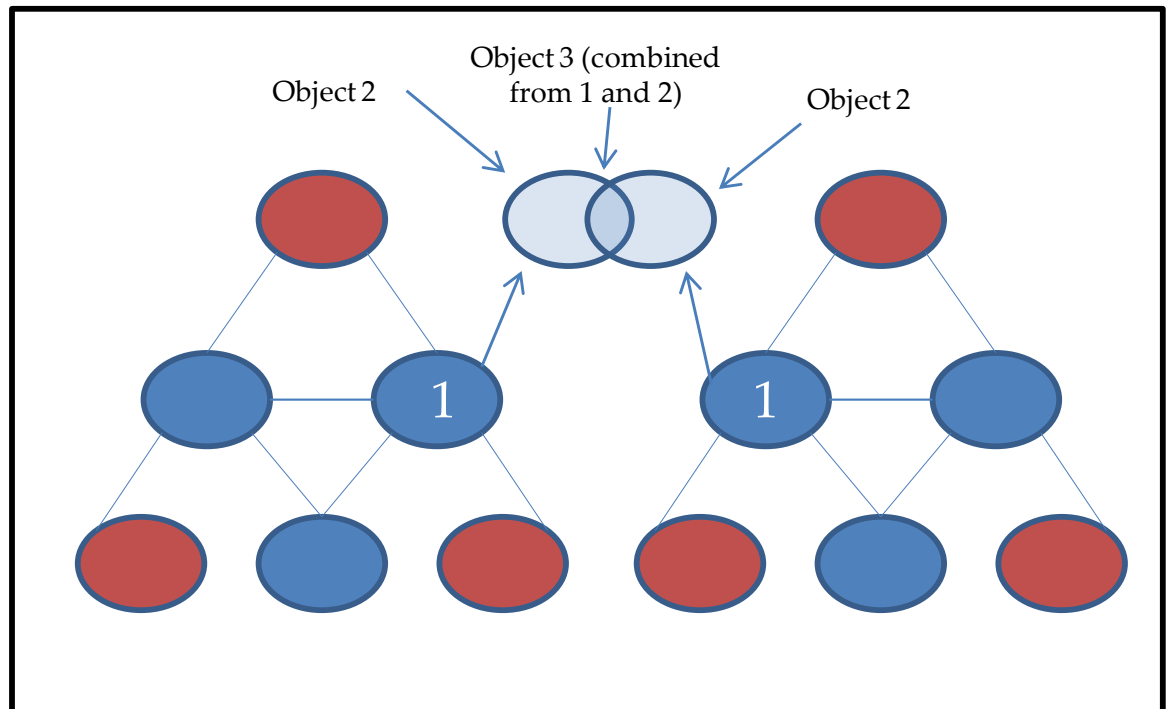
The obvious omission in Activity Theory is that it stops short of asking questions about the bigger picture of creating meanings, self-presentation, identity development and selection of knowledge to suit individual and personal objectives in situations of social interaction that are under the influences of competing interests and powers.

In authentic early experience it is not clear that a primary common goal is held by all.

Understandably, 'learning' has to compete with many other goals within the workplace. One of the challenges for students is that they find themselves moving between two complex activity systems of higher education and workplaces (Morris 2009). In medical education, despite evolution over years, it remains the case that students are largely positioned as receivers rather than givers in both higher education and workplace institutions. These activity systems, therefore, have unequal divisions of labour (Daniels 2008).

Engeström addresses the problem of interacting activity systems by suggesting overlap between the object of each (see figure 3.2) - i.e. common purpose of more than one system can be considered to produce a secondary object. This is perhaps an oversimplification as not only does it presume accurate prediction of objects, but also that interacting systems have common interests and relate to each other on an equal basis rather than with a power differential, in competition, or subsumed within a third even larger activity system. Figure 3.3 demonstrates Engeström's concept of networked systems (Engeström 2001).

Figure 3.3 Engeström's representation of networked systems (Engeström 2001)



He describes how, as each activity system interacts with the other, the initial object (labelled 1 in figure 3.3) is constructed into an object which has meaning to both systems (object 2). Where the conceptualised second object of each system is in common a third, shared and jointly constructed object is formed. Applied to authentic early experience, the first objects might be (as described in figures 3.1 and 3.2), for example, student development within the medical school and service delivery in the workplace. The second objects arising from system interactions could then be construed as student development in the workplace and students' roles in service delivery. It is at this point that a gap can be identified if ideal theory departs from common practice. Object three should be the unified goal of students developing functional and transferable knowledge in context and which serves a purpose in the workplace. As suggested in the previous chapter, this goal has proved elusive. Something within the system, agents, or interactions, is not functioning according to the idealised model. In Chapter Six I contrast this model with my interpretation of

how students conceptualise their own world, moving between the medical school and the workplaces where authentic early experiences occur.

Overall, the key assumptions within both Situated Learning and Activity Theory, when applied to authentic early experience, result in understanding of what should happen, in ideal circumstances, rather than what does happen in practice. Activity theorists have tended to focus on transformation through practical action while Situated Learning focuses on the social interaction between participants to negotiate change. Although not inevitable, the application of these theories, to empirical work in medical education, has tended to focus on understanding social processes retrospectively following identification of desired and predicted outcomes. In addition, neither Situated Learning nor Activity Theory consider in detail to what uses learners choose to put their knowledge, why these choices are made, or what effect this has within ongoing interactions and experiences (Arnseth 2008). This leaves a theory-practice gap, a lack of understanding, of authentic early experience in action which is comparable to the lack of empirical understanding of how and why authentic early experience works for students.

3.4 The theory-practice gap

Bourdieu considered theory to emerge from empirical work as an actualisation of perception and action (Grenfell, James et al. 1998). He did not draw a distinction between theory development and empirical research as separate activities. Theory was, therefore, a developed understanding following engagement with the difficulties of empirical situations. Dialogue created by researchers between critique of theory and interpretative analysis of empirical data allows construction of coherent understanding of what happens in perceived 'theory-practice gaps' such as how the students 'experience their experiences' and what the implications of this are. Through linkage with

appropriate theory, such findings allow the construction of a mid-level theory (Merton 1967, Wong & Pawson 2009) with potential to reach a level of understanding which has abstraction and transferability of findings (Monrouxe & Rees 2009). In authentic early experience, this can be achieved by conceptualising the meaning made by students from authentic early experience as a consequence of a continuum which starts with the understanding of all participants, and includes their expectations as well as agent and structure interactions before, during, and after experiences. These elements are all influences on how close actual experiences are to the ideal socio-cultural theories of learning through participation. Critique of empirical literature in Chapter Two demonstrated a lack of awareness of the impact expectations, (or lack thereof), might have on the process of authentic early experiences. Nor were consequences sought beyond those desired in most studies.

The law of unintended consequences states that ‘actions of people – and especially of government [institutions] – always have effects that are unanticipated or unintended’ (Merton 1936, Norton 2008). Any educational intervention which incorporates human interactions can produce intended and unintended consequences; neither sort necessarily being predicted from the outset.

Recognition of this concept, (widely used in other settings), and of the premise within socio-cultural theories that human beings intrinsically seek to make sense of their experiences and themselves through creating meaning, holds potential for further illuminating associations between expectations, processes and consequences.

Having identified in my empirical data significant social processes which did not fit with the idealised explanations of Situated Learning or Activity Theory, I sought, and chose, *Mētis* (Scott 1998) as a means to further develop understanding of the theory to practice gap. The concept of *Mētis* offers a tool for understanding the social processes and consequences of authentic early experience in action. It is a theory of the ‘gaps’ between theories of what should happen and what

does happen in practice. It acknowledges the student role in the creation of meaning from authentic early experience, and provides a framework for considering processes which result in many consequences. As such it recognises, acknowledges, and respects social interactions which are complex, thereby changing the question 'How do we close the gap between theory and practice?' to 'How and why should we seek to create dialogue within the gap for the benefit of students, and ultimately patients?' It demands an acceptance that there will always be issues of power, role, and identity, but also offers a way to consider how meaningful collaboration in learning might be achieved nevertheless. My empirical work, as will be seen in Part Two, demonstrates how the theory of *Mētis* can be applied to help understanding of authentic early experience. This is through identification and explanation of key influencing social processes which are relevant, and not because *Mētis* predicts or confirms a specific outcome. In this chapter, I next explain the original concept of *Mētis* and the potential benefits of applying it to authentic early experience.

3.5 The concept of *Mētis* and application to authentic early experience

Mētis was originally defined as:

'... the kind of knowledge that can be acquired only by long practice at similar but rarely identical tasks, which requires constant adaption to changing circumstances'

(Scott 1998, pp. 177-8)

Overall, the key premises of Scott's theory all relate to how, and why individual agents, regardless of lack of power or capital, choose to interact with other agents and institutions based on their perceptions and personal needs (Scott 1998). *Mētis* provides a framework for considering, not only

how people create meaning, but also when and how they choose to use it, and value it, relative to formally recognised knowledge. It includes the practical knowledge people use when interacting in circumstances defined by an institutional agency (such as a medical school or workplace) – this knowledge can only come from practical experience, although it may or may not be the knowledge the experience was intended to produce. In the concept of *Mētis*, ‘practical’ encompasses both necessary skills and ‘acquired intelligence’ to act according to one’s own purposes (Scott 1998, p313). The relation between *Mētis* and formal schemes or recognised knowledge depends on participants’ conceptualisations of each other and the institution (Scott 1998). Many examples are given by Scott, perhaps one of the simplest being that of contrasting what happens if a group of workers choose to ‘work to rule’ rather than continue their normal *Mētis*-based practice. In this situation it becomes rapidly apparent that:

‘Designed or planned social order is necessarily schematic; it always ignores essential features of any real, functioning social order... The formal scheme was parasitic on informal processes that, alone, it could not create or maintain.’ (Scott 1998, p. 6)

Mētis is, therefore, a theory of how social processes work in ways more complex than schemata devised to map them (Scott 1998). The workforce (or students) can and will develop *Mētis*, which suits their immediate needs and purposes as well as educational goals. *Mētis* can be seen as a form of educational cultural capital (Grenfell, James et al. 1998) which may or may not contain within it the intended learning outcomes of the medical school. If the concept of *Mētis* can be applied to authentic early experience, whilst remaining true to the consequences suggested by Scott in other fields (ranging from development planning to state control of social interactions), the student learning which goes unnoticed, or is at least unattended to, by placement providers and faculty equates to the very practical knowledge with which students make choices about how to interact and present their learning. The concept of *Mētis* suggests that students will ‘learn’ what works for

them, and use this practical knowledge how they see fit to best serve their own purposes (Scott 1998).

If Mētis is envisaged as a form of educational cultural capital then use can be made of Bourdieu's concepts of field and habitus (Grenfell, James et al. 1998, Brosnan 2010) to consider how the complexity of interactions which occur during authentic early experience lead to the creation of Mētis. Habitus is defined as:

'... a structuring mechanism that operates from within agents, though it is neither strictly individual nor in itself fully determinative of conduct. Habitus is... "the strategy-generating principle enabling agents to cope with unforeseen and ever-changing situations, a system of lasting and transposable dispositions which, integrating past experiences, functions at every moment as a matrix of perceptions, appreciations and action and makes possible the achievement of infinitely diversified tasks"' (Bourdieu & Wacquant 1992, p. 18)

Bourdieu avoids positioning himself on either the agency or structural side of debate about social interaction (Grenfell, James et al. 1998) with his description of how field and habitus relate to each other, interacting and influencing in both directions:

'... it is a relation of conditioning: the field structures the habitus, which is the product of the embodiment of the immanent necessity of a field... it is a relation of knowledge or cognitive construction. Habitus contributes to constituting the field as a meaningful world, a world endowed with sense and value, in which it is worth investing one's energy.'

(Bourdieu & Wacquant 1992, p. 127)

Hence, structure itself is seen as dynamic with the objectivity of the field interacting with and co-creating the subjectivity of habitus (and vice versa) (Grenfell, James et al. 1998). Social interaction is viewed by Bourdieu in this way, with the analogy of a game, as using three forms of capital: economic, social and cultural (Grenfell, James et al. 1998, Bleakley 2002, Brosnan 2010). The players in the game interact in ways that they believe will allow them to gain capital.

There are difficulties in defining a focused 'field' of study, other than the entirety of the 'students' world', while maintaining a focus on authentic early experience as the students spend most of their time within the medical school but authentic early experience is very explicitly outside of this. Arguably, authentic early experience requires students to negotiate their place within at least two definable fields; the medical school and selected workplaces. There are multiple players within both.

Alternatively the field could be defined as all that is encompassed in the social setting of medical education, thereby incorporating not just my three groups of participants, the medical school and workplaces, but also wider political and societal influences on medical education such as the GMC and expectations of medicine in public domains of life. Because of these complexities, details of which emerged in the course of the study, I have chosen to use the student perspectives as the agents in whom change is sought through education and authentic early experience as 'pivot points' around which to position my findings, in an attempt not to lose the complexity of what is occurring.

This approach means that a particular group of individuals, in this case students, can be chosen around which to centre and interpret others – individuals, groups, and institutions – and their contrasting conceptualisations without restriction to the type of meaning, knowledge or learning the researcher seeks to identify. In placing importance on the perspectives of students, I am taking

an interpretive approach which starts with the participants perceived to have the least formal knowledge or power – both of which have traditionally formed substantial capital in academic education and healthcare practice as well as other settings where there is a tension between scientific and practical knowledge. The students' struggle can then be viewed as their attempts to deal with the complexities outlined above.

Scott recognised that Mētis was not democratically distributed, and within a social setting it might be necessary to describe a plurality of 'Mētises', particularly where knowledge, power or legitimacy of agents was unequal (Scott 1998). Being at the periphery, in fact, is suggested as a specific driving force to developing counter-Mētis to those perceived as insiders. Herein, is a clue of what could happen during authentic early experiences if the conditions for Legitimate Peripheral Participation and therefore Situated Learning were not available. The findings from applying Mētis elsewhere, if transferable, suggest that if students are effectively blocked from accessing workplace Mētis in a positive sense, then the student body may create its own Mētis, improvising in the face of unpredictability, to aid survival (Scott 1998).

There are parallels between Scott's description of state influences and the medical school's administrative ordering and power (Scott 1998). The faculty holds responsibility for overseeing students' medical studies and ensuring required standards. This power is asserted through formal assessment of intended learning outcomes which may or may not correlate with student activity. In general intended learning outcomes are necessarily either prescriptive and reductionist or difficult to apply in approach. Despite this, the faculty members have almost no control over what happens on placement, which by its nature occurs outside the physical confines of the medical school. Scott highlights the gap between designed procedures and function in reality (Scott 1998). This includes understanding social and cultural functioning in context as well as work content.

3.5.1 Mētis and the hidden curriculum

The concept of a 'hidden curriculum' describes knowledge to be gained (through implicit means) about the values of an institution or other agent with which one interacts. The hidden curriculum is defined as learning based on student interpretations of the implicit values of their teachers and institutions: 'what students learn instead of what they are taught' encompassing 'a set of influences that function at the level of organisational structure and culture' (Hafferty 1998).

Evidence of the hidden curriculum makes imperative the recognition of medical education as a cultural process subject to social interactions. It is, however, a description of the implicit values and unintentional influences within the underlying structures and organisations (Reisman 2006), which exert themselves on the students as they interact with other agents and structures, not the meaning-making by which students interpret and make what they 'learn' work for their own purposes. Mētis is, therefore, a distinct concept from the hidden curriculum, although the two undoubtedly interact. Mētis is about the creation of meaning to 'handle' learning, not the abstract knowledge that is learned.

The concept of a hidden curriculum has identified a gap between what is explicitly valued and what is implicitly valued in an educational institution. Mētis, as a concept, goes beyond this to illuminate what is happening in the gap, (the black box, as described in Chapter One), and explain why it is not a void. While use of the concept of a hidden curriculum is concerned with making explicit the underlying values of participants, Mētis additionally recognises participants' use of their awareness of these values to construct practically useful knowledge for their own perceived reality. Mētis looks beyond structure; at the habitus as well as the field in Bourdieu's terms. Applying the concept of hidden curriculum to authentic early experiences, one would expect

consequences to arise beyond those intended. Through my use of *Mētis*, I am attempting to generate theory beyond this understanding to interpret how and why students make sense of their experiences, and to what purposes they put all created meaning – whether it stems from explicit or implicit sources.

The recognition of the practical knowledge (as defined on p. 96), contained in *Mētis*, in a variety of settings and contexts has mainly been in groups perceived as disadvantaged or marginalised in societies as a whole. I do not equate medical students with social outcasts, but I want to introduce the theme of marginalisation to suggest that *Mētis* is a means of making situations ‘work’ for people in circumstances where they lack other desirable or recognised forms of capital. It is a response to situations where there is a power differential between interacting agents.

The significance of power within medical education was recognised in the studies of Merton and Becker. ‘Boys in White’ identifies how student perceptions of the power held within the faculty shapes student culture. Students are keen to give the faculty ‘what they want’. They use their perceptions of what is desired to determine not just what to learn but how to be (Becker, Geer et al. 1961). Merton et al., in ‘The Student-Physician’ found that power and understanding the accepted hierarchy featured heavily in both the structure and content of medical education (Merton, Reader et al. 1957). In addition, when Bloom studied the social culture of the medical school at the State University of New York, he found divisions between basic science faculty (equivalent to part of the faculty in my work) and part-time clinical or voluntary faculty (mainly equivalent to placement providers in my work) regarding the position of medical students within the school. The basic science faculty, as a group, were strongly orientated to students’ probationary status – continually tested them for qualification to enter the medical profession. Part-time clinical and voluntary faculty instead positioned students as junior colleagues – already legitimately part of the profession but needing to complete training. Full-time clinical faculty had opinions roughly

divided between these two categories, with slightly more expressing the collegiate view.

Consequently, it is not surprising that Bloom also found that students regarded medical school as a trial or ordeal that was not necessarily connected to the requirements of their future roles. He notes that the response of many was to seek to survive by remaining anonymous and accepting an overtly subordinate dependency on the faculty (Bloom 1973).

Scott has been criticised, outside education, first for implying in the concept of *Mētis* that dissent and discord are unavoidable (Caplan 2001), and second, on the grounds that he suggests local solutions are intrinsically better than centralised social organisation. Scott does not say collaboration is impossible; rather that, the state (or other institution) is more dependent on societal *Mētis* than institutions would often acknowledge. That is, the state can neither control society, nor function in a vacuum. Nor does Scott actually say that local (in the sense of ‘on the ground’ or ‘bottom-up’) solutions are necessarily better than centralised control, simply different. It is the idea that local ways of working will be found, regardless of how much institutional control is exercised, that he is arguing should be recognised (Scott 1998). A more reasoned critique of *Mētis*, as conceptualised by Scott, is the challenge to answer the arising question of how to ‘work with rather than against the concept [of *Mētis*], to improve for example, attainment of positive collaborative meaning.’ (Farrell 2007). If *Mētis* (or *Mētises*) amongst a group is found in the context of authentic early experience, then answers to this question needs to be sought. The answers will depend on the specific characteristics of the *Mētis* identified, and the relations between the agents and structures within the context of medical education policy.

The theory of *Mētis* has potential to explain dynamic tensions between agency and structure within the context of medical education (Schryer, Lingard et al. 2003), because whilst social structure will influence, and may in some cases determine, what individuals do, *Mētis* acknowledges there are limits to the restrictions individuals will allow on their agency. People can

subvert the intentions of structure by finding knowledge which allows them to serve their own purposes, while seemingly complying, or even enhancing the social construction within which they are situated. This is not dissimilar to the interaction which Bourdieu describes between field and habitus: neither is entirely independent of the other. *Mētis* does perhaps go one step further by suggesting that institutions (as social structures) are parasitic (Scott 1998) on the informal knowledge and processes of those over whom they seek to exercise control.

3.5.2 *Mētis* and identity

There is a possible intersection between these ideas and identity theory with respect to student role development alongside the gaining of medical knowledge (Abercrombie, Hill et al. 2006). Stets and Burke attempt to find common ground between identity theory and social identity theory, arguing that the concept of self and the concept of being ‘in-group’ are related, although not identical (Stets & Burke 2000). This can be seen in medicine where an undergraduate is successful if they simultaneously acquire the education to deliver medical care alongside ‘becoming a doctor’ and integrating into a clearly defined professional culture (Brown & Duguid 1991).

Common definitions of identity include a ‘sense of self, of personhood, of what kind of person one is’ (Abercrombie, Hill et al. 2006, p. 190). Identity is influenced by both personal and social values. At least in part it is something which one constructs, and often includes a sense of belonging (to particular communities or identifiable subsections thereof). In his work on social identity, Jenkins elaborates on this idea by defining identity as ‘human capacity – rooted in language – to know ‘who’s who’ (and hence what’s what)’ (Jenkins 2008, p. 5).

This makes it an inherently interactive concept which describes a process of identification. Jenkins asserts that we need to know who we think we are, who others think we are and what they perceive about us (and *vice versa*) (Jenkins 2008). This leads identity to be based on a fluid and multidimensional process both at individual and group levels. Human identities can, therefore, by definition be considered as social constructs (Jenkins 2008) which means a person's perceived identity will have an impact on how they interact and process experiences, in order to make sense of and organise their social world. Jenkins' conceptual definition of identity is useful within my work, as it facilitates consideration of how dynamic interactions with others might influence meaning-making about student identity as well as construction of knowledge.

3.6 Approach to empirical work: linking theory to applied methods

Using mixed qualitative methods alongside multiple theoretical perspectives allows deeper interpretation of socio-cultural consequences from early experience. If one is attempting to gain understanding of complex interactions between both multiple agents and multiple structures then using different but complementary methods to interpret data is a logical step:

'The world is complex. There are no simple explanations for things. Rather, events are the result of multiple factors coming together and interacting in complex and often unanticipated ways. Therefore any methodology that attempts to understand experience and explain situations will have to be complex.' (Corbin & Strauss 2008, p. 8)

Guidelines for practical data management are omitted from the theories discussed above. I have, therefore, developed an iterative analysis based on these theoretical principles. The practical methods for, and natural history of, empirical data generation, management, analysis and

interpretation are detailed in the next chapter. Here, I consider the choice of tools and the contribution of each to provide a different facet to the interpretation of my empirical data. The practical approaches were chosen to provide analytic tools which had resonance with my theoretical stance and research questions, and were sensitive to the empirical data generated (Corbin & Strauss 2008). Opting for multiple approaches to data analysis, as outlined below, increases the trustworthiness of findings by providing inbuilt checks on interpretations through multiple perspectives, in addition to my use of data from different participant groups at sequential time points, and checking interpretations with student participants.

3.6.1 Data generation: interviews and discussion groups

Interviews with students, placement providers and faculty were the primary method of data generation. With students, additional data were generated through discussion groups which provided a longitudinal element to the work, opportunity to further discuss and reflect on provocative quotations from the preceding interviews, and testing and furthering of interpretations within a wider student group.

Interviews are a means of constructing knowledge which is relational, conversational, contextual, and language-based (Mishler 1986, Kvale & Brinkman 2009, Bunniss & Kelly 2010). The data generated in an interview allows the researcher to study 'people's understanding of the meanings in their lived world' through their description of experiences and the way they use language to relate and make explicit their perspective on this 'lived world' (Kvale & Brinkman 2009, p. 116). Interviews are, therefore, socially constructed encounters presenting subjective perspectives (Mishler 1986, Sherman & Kim 2005, Kvale & Brinkman 2009). People are known to have a tendency to present themselves in a socially acceptable way (Sherman & Kim 2005). This is

acknowledged, and the findings presented as such – personal representations of reality and meaning, albeit with the use of theory to identify underlying social processes. It should be remembered that these representations may also be what students use to construct identities within their developing medical role. By interviewing students, insight into the meaning-making they undertake may be accessed in part from the content of interviews and in part from the co-construction of understanding created during the interview between the student and researcher (Huberman & Miles 2002). When a particular social process is identified amongst multiple participants, the focus on the process, as well as its potential consequences, allows complexity and possible contradictions to be retained as part of the resultant understanding. The significant difference between the initial student interviews and the later discussion groups is that the latter also offered opportunities to observe student interactions with each other when discussing authentic early experience, and to seek understanding of whether there was consensus or dissent with respect to the emerging interpretations of the interviews.

3.6.2 Data management, analysis and interpretation

Thematic analysis was used to achieve data organisation and identify the breadth of themes present within my data. My practical methods drew on aspects of three qualitative methodological approaches to identify underlying social processes, what the students took away from authentic early experiences, and their consequential meaning-making. These are discourse analysis (focusing on the use of language and metaphor to convey meaning, rather than linguistics), narrative analysis (with attention to both structure and content), and interpretative phenomenological analysis (asking of the data what meanings are present for students and what is the significance of these meanings for them, plus what does it mean that these meanings have been identified?). Each of these approaches offers a different facet to understanding the richness of language as a tool to

access meaning-making. In taking both phenomenological and interpretive approaches (Ashworth 2003) to my research question, I attempt in my analysis to discern the constituent parts of the participants' experiences in relation to each other and consider how meaning is made, by attempting to transform the implicit to the explicit, then develop a process structure for the experiences.

Thematic analysis

Thematic analysis offers a practical approach for identifying both anticipated and emergent themes from interview data (Ziebland & McPherson 2006). I wanted to identify the breadth as well as the depth of the themes which participants (particularly the students) prioritised to talk about in their interviews. This allowed the analysis to remain sensitive to the student participants' priorities and their stance on what was considered significant. I deliberately sought a practical framework for documenting themes from the data, so that I could see how the participants were constructing their experiences by theme. I was not able to develop such a framework from any literature that resonated with my data. Instead, I developed it *in vivo* from the student interview transcripts. The framework was then used to code the placement provider and faculty interviews, while still allowing new codes to emerge when necessary. This approach has been used in other areas of medical education research for developing coding into a framework of themes and sub-themes (Cleland & Knight et al. 2008).

Narrative analysis

Narrative analysis considers both form (structure of stories) and content (Riessman 2008). It overlaps in approach with discourse and thematic analyses, further emphasising that qualitative methodologies are usually best considered as complementary rather than alternative approaches to each other. Narrative methods take account of life experience, human-centeredness, and complexity (Webster & Mertova 2007) to analyse processes. They allow identification of how a

participant chooses to construct experiences and tell others about it; and what type of stories they tell about themselves and their experiences. In healthcare, patients might identify, for example, stories of victory over illness, stories of helplessness, and stories of partnership or of isolation (Bury 2001). 'Stories allow us to watch what an experience can do to people who are living that experience' (Webster & Mertova 2007, p. 20). Somers identifies four uses to which narratives might be put: ontological (used by agents to make sense of their lives (Bleakley 2006)), public (situating self within cultural and institutional frameworks), meta-narratives (situating self within a wider world), and conceptual (explanations constructed of other agents and structures) (Somers 1994).

Narrative approaches were incorporated into my interviews; seeking to understand student experience as perceived and described by them, my interviews begin with asking for a narrative of experiences (Riessman 2008). This allows the collection of experience stories that the students perceive to be important. The identification of significant experiences can be made through listening to what is memorable and described in detail by participants, alongside the tone and manner in which the story is told (Greenhalgh & Hurwitz 1999, Webster & Mertova 2007). These stories may also be used by participants to support later choices, or explain shifting relationships and interactions with others (Denzin 2001, Hunter 2008). The storyteller may also assign positions to others in a story (e.g. for me or against me, novice or expert). As such, stories can be considered as a symbolic tool for creating identity through social interactions (Riessman 2008, Milligan, Kearns et al. 2010).

Discourse analysis

Vygotsky noted that the social was often ignored in language about learning (Wertsch 1991). The identification of particular speech genres, including possible privileging of a particular one, can provide an analytic tool for understanding the context in which education is taking place (Wertsch 1991). For example, the use of particular metaphors (Marinker 1997) or patterns of speech, such as

dichotomies, provide the speaker with a tool to reduce complexity and so give the impression of greater certainty:

'The English language has a marked tendency to use dichotomies... and as a consequence is the frequent oversimplification of complex phenomena.' (Cook 1991)

Metaphor is defined as understanding one conceptual domain (the target domain) in terms of another conceptual domain (the source domain), which leads to the identification of a conceptual metaphor (Rees, Knight et al. 2007). This observation draws attention to the importance of paying attention to not just what is said, but how and why it is said, in order to more fully understand the meaning which the speaker is intending, and what in turn that means for them.

Attention to metaphors combined with identifying specific uses of language allows the identification of how students are constructing their roles, identity and meaning from their experiences (Monrouxe, Rees et al. 2009). Through language analysis, particular challenges or changes to current or desired identities and roles can be detected. These challenges can then be interpreted with an emphasis on seeking to understand meaning to the participants (Monrouxe 2010).

Interviews and discussion groups inevitably produce 'language data' which is a way for participants to make sense of the world and present their understanding to the researcher (Green & Thorogood 2004). Similarly, it is through our use of language that we construct paradigmatic orientations through which we organise our strategic and adaptive response to the world of our experience (Mason 2008). The language used to describe the students' authentic early experience, is therefore of interest. For this part of my analysis I am drawing on the work of Rees and Monrouxe (Rees, Knight et al. 2007, Monrouxe, Rees et al. 2009, Rees, Knight et al. 2009, Rees & Monrouxe

2010). In their studies of other areas of medical education, they describe the understanding of social processes and construction of meaning that can be gained by analysis of metaphors and other language conditions in interview data. Common metaphors which these authors have previously found in the field of medical education include war, hierarchy, doctor-centeredness, market, machine and theatre (Rees, Knight et al. 2007). Each of these can be analysed to shed light on the way people think about themselves and others, and interactions.

Language also forms a significant role in the development of Mētis. Language can be used to distinguish what is privileged, local knowledge or knowledge available to outsiders (Scott 1998). Here, the students may find themselves aligned with non-clinical faculty and patients, in the context of authentic early experience. This is because placement providers have a professional role and identity which the student group is not yet able to access, and which is mediated through their specialised language (Scott 1998). Language is, therefore, a passport to inclusion and legitimate participation. Such a conceptualisation lends weight to the argument that language is important not just for learning, but for finding one's identity amongst other agents and structures, identifying hidden values and seeing how the use of language demonstrates the creation of different types of Mētis.

Interpretative phenomenological analysis

I have also used the principles of Interpretative Phenomenological Analysis (Smith & Osborn 2008). This offers a mechanism to explore the making of meaning by participants within their own epistemologies of personal and social worlds. It involves asking critical questions of the text, considering what meaning the interviewee is creating (What do these experiences mean for this person?), and asking what significance that meaning holds (What might it mean for this person to have these concerns? What is their stance towards their experiences?) (Smith 1996). The aim of IPA is to explore the participants' view of the world, but the method recognises that research is

dynamic and itself has an effect. By eliciting accounts from different people similarities and differences can be looked for in the way perceptions are made and the value and meaning generated from experiences.

Smith, who originally developed IPA, acknowledges that method adaptation is possible and sometimes necessary. My study deviates from his original conception in that I have applied the principles of interpretation to a much larger data set. It has been argued that IPA is particularly suitable for understanding personal experiences as opposed to social processes (Brocki & Wearden 2006). As I have argued above, personal experiences and social processes are not easily separated but rather interlinked and inter-related to each other. There is, therefore, no reason why interpretive, interactionist principles cannot be applied to either one, or indeed to both. The value lens which IPA provides is that it focuses attention on the nature (essence) of phenomena and what this means. Using the tools of IPA has allowed me to focus on identifying patterns of meaning rather than just patterns of events (asking of the data 'what does it mean for this person / group to have these concerns?').

3.7 Conclusion

I have suggested that authentic early experience is a complex intervention, situated within a complex social setting, with multiple influencing factors present. In addition, I have argued the importance of understanding the dynamic interactions occurring between agents and structures. Bourdieu, with the concepts of field and habitus, identifies an interaction. Mētis identifies one possibility of how the interaction might work 'in between' the agents and structures. Together, these theories can enlighten by creating a prism of refractive lenses through which to view complex interactions of participants across institutions. This poses a challenge when considering how best

to study authentic early experience without losing the wholeness of its complexity. In Part Two, the approach I have taken is to centre the students' perspectives of their world using their meaning-making as a pivot point on which to centre my empirical work. I provide in-depth examples which show different cross-sections through the multitude of authentic early experiences from which students create meaning. I then consider the underlying social processes identified in these examples which can be understood as key influences on the consequences of authentic early experience. Before that, I end Part One with the next chapter which explains, with more practical details, how I approached my empirical work.

Chapter Four

Applied methods and natural history of empirical work

4.1 Introduction

I provide here an explanation of how the socio-cultural theories, including *Mētis*, and the methodological concepts discussed in Chapter Three translated into practical actions through the natural history of the empirical work. Bourdieu argues that making distinctions between theory and methods is unproductive (Bourdieu & Wacquant 1992). Although this chapter focuses on applied methods and natural history, that is, the design and processes of my empirical work; these were in practice integrated with the theoretical and methodological work of Chapter Three.

The aim of this work has been to address understanding of a complex social intervention with a multi-faceted approach (Corbin & Strauss 2008). The empirical work needed to identify what was happening with respect to meaning-making and knowledge construction. As identified in the previous two chapters, what is known in the empirical subject literature, and what is ideal theoretically, does not explain how and why authentic early experience works in practice. Research conducted by Rees and Monrouxe, in later years of medical education, suggests that one way of addressing this gap is to analyse further the language and metaphors used by different groups in relation to authentic early experience (Monrouxe, Rees et al. 2009, Rees & Monrouxe 2010).

The choices made regarding data collection methods and populations retained consistency with the overall research approach, as described through the research questions identified (Chapter One), the theoretical work (Chapter Three), and my epistemological alignment with interpretivism and

constructionism. It was a logical process, guided by the concept of *Mētis* as a potential explanation of gaps in previous theoretical and empirical studies, and refined as the various types of empirical data emerging were identified. The sampling strategy was both theoretical and purposive, starting with identification of who could best inform the work (Miles & Huberman 1994). As data were generated, the use of three perspectives - students, faculty and placement providers - allowed each to inform the interpretation of the others. Sampling within each of these groups is described further below.

Data generation occurred through the creation of collaborative exploratory knowledge, including meaning-making between myself and my participants, using individual interviews and small group discussions. Concurrent analysis facilitated iterative changes (Mishler 1986) to the interview guide, which contained semi-structured questions on placement role in learning, integration, knowledge, and transferable learning. After verbatim transcription of the audio-recordings made during interviews, I first conducted a sequential thematic analysis of each group of interviews in order to identify and manage a framework of themes within the data as a whole (Miles & Huberman 1994). This chapter is presented in chronological order. I consider access to the field, use of informal data, and ethical issues. I then describe recruitment to the study and the process of data generation, through interviews and discussion groups. Last, I consider the practicalities of data management and analysis. The chapter ends with reflections on the research process including my status within it. Figure 4.1 provides a timeline of applied methods in context of the overall work.

Figure 4.1 Timeline



4.2 Access to the field

Throughout the work I have been situated within the medical school as my workplace. The new curriculum started in the academic year 2007/8, with entrants to the medical school in this cohort spearheading annual implementation. I conducted my empirical work between June 2008 and March 2010. Students commencing in 2007/8 (module two) and 2008/9 (module one) were included in the work. The new model of authentic early experience, described in Chapter One, was new, not only to the students, but also to the faculty and placement providers, as they worked within new teams and structures to deliver the experiences. I gained unique insights into curriculum design, implementation, and all the challenges involved during this process, from being embedded in the medical school. For example, much of the initial development was on an *ad hoc* basis, with occurrences of delegation (perhaps unintentionally) of significant decisions to administrative rather than academic or clinical staff. Since I completed my empirical work, this has changed with new appointments and lines of accountability. This evolving situation is comparable to the implementation of change in other complex institutions and interventions; making preferable an element of realism which takes this into consideration when conducting empirical work, rather than seeking controlled findings which are remote and removed from practice (Regehr 2010).

4.2.1 Use of informal data

My being situated within the medical school gave me insight into relationships between faculty and students that has informed my interpretations of formal empirical data in the following ways. I kept field notes (my thoughts and reflections from inception of the project proposal onwards (Silverman 2005) and undertook several placement observations as an independent researcher on behalf of the medical school's Senior Management Team. This allowed me to familiarise and sensitise myself with the field (defined as the students' world) in preparation for my formal

empirical work, in exchange for providing the medical school with an external perspective of what was happening on the ground. The report of these observations is included in Appendix Four. This report was not made available to my interviewees until after I had completed the empirical work. The reasoning for this was that many of the faculty whom I wanted to interview had not directly observed authentic early experiences. I wanted to be able to discuss their understanding without having formerly influenced their perceptions through my interpretations. I also had access to published documents of the medical school; for example, student and tutor handbooks, which I used as informal sources to give a rounded view. These experiences allowed me to ensure that I had identified a research question that not only addressed a gap in published literature, but was also pertinent in practice.

4.2.2 Ethical considerations

The study proposal was approved by Keele University Peer Review Panel with respect to importance and methodological robustness, Keele School of Medicine Ethics Committee and South Staffordshire National Health Service Local Research Ethics Committee, and my doctoral supervisors. The ethical issues related to studies of this nature are discussed in detail by Burgess (1989), Merlens and Ginsberg (2009) and in National Health Service research guidelines (IRAS 2011). Potential participants received invitation letters and information sheets about the study, addressing issues of confidentiality and anonymity as well the purpose of the research and its intended uses, including potential for dissemination and practical application of the findings. Written consent was required prior to actual participation. Copies of these documents can be found in Appendix Five.

4.3 Sampling and recruitment

4.3.1 Design

The timing of my empirical work was designed to capture the medical students' perceptions of take-away value and meaning-making *in situ*. Students were actively involved in their authentic early experiences during the interview phases, and had recently completed these at the time of the discussion groups. This allowed me to capture their fresh and immediate perceptions derived from early experience placements. In this sense the students, as a body, were theoretically and purposively sampled, these two descriptors being aligned as the students were selected on the basis of their relevance to the research questions at this specific point in time (Silverman 2005). By interviewing both first and second year students, I was also able to compare these two groups. I recruited and interviewed students from January to March 2009. At this stage each group had been on between two and four placements in their current year of study, and the second year students had completed up to six placements in their first year of study. Section 4.3.2 describes the process of recruitment and selection of specific individuals from the student body.

While centralising the work on the students, as appropriate to my research questions, the research design included perspectives also of faculty and placement providers to provide a more holistic view of the interactions which occurred. I deliberately chose to start at the 'end point' of the student experience, by interviewing students first, then moving to placement providers (charged with implementation), and lastly, back to the faculty (who had designed the experiences) thereby, building an understanding of the process in reverse from its design and implementation. This helped me to interpret what the students experienced without prior personal knowledge of the other groups' perceptions of what was intended.

Placement providers were recruited from April 2009 and interviewed until August 2009. Given that the medical school uses approximately 170 placement sites, (some of which have more than one placement provider), it was necessary to stratify who to target for participation in advance of recruitment (Corbin & Strauss 2008). Authentic early experience placement providers were defined as the persons directly responsible for students within their workplace. Distinct subgroups were purposively selected (Silverman 2005) to allow for the breadth of provision between medical (hospital and community) and non-medical (social and voluntary). The placement provider participants included in my work were selected from these subgroups, by the number of experiences they had participated in (Corbin & Strauss 2008).

Following initial analysis of the placement provider interviews, my focus turned to faculty recruitment for interview. For the purposes of this study, I am using the term faculty to describe any member of the medical school staff with a substantive university contract and responsibility, either academic or administrative, for early experience placements. The members of faculty recruited were, therefore, purposively selected from the medical school staff as a whole, in order to interview those who would be able to speak from direct personal involvement in early experience placements (Corbin & Strauss 2008, Silverman 2005). Thirteen members of faculty were identified, all of whom agreed to participate.

The design of the empirical work included plans to conduct student discussion groups (Langdridge & Hagger-Johnson 2009) (this terminology and definition within this study is explained further under section 4.4) following analysis of all the interviews. Recruitment to these was planned to occur through two methods. First, students who participated in interviews were asked when completing their consent forms if they would be willing to participate in further data generation at a later date. Those who agreed were contacted via email to arrange the discussion groups of previous participants. Other students were recruited through a combination of lecture

attendance and email comparable to the interview recruitment process described in the next section (4.3.2). Information prior to the discussion groups explained that I wanted to discuss authentic early experience with students in the light of emerging results from the interview data (including placement provider and faculty as well as student data). The discussion groups were conducted in February and March 2010.

4.3.2 Process

Students were recruited following several concurrent activities to raise awareness. Posters were displayed in public areas and the student common room and I attended two lectures for each module. At the first attendance, I briefly introduced myself, and explained the study, in addition to handing out invitations and information leaflets. At the second, I asked for them to be returned if the students wished to volunteer. Finally, I sent two reminder emails to the students asking them to return reply slips indicating whether or not they wished to participate. It was evident from the module one participants that friends of students who had agreed were likely to respond to the later recruitment appeals. For module two students, I mentioned to interviewees that I was still looking for recruits, thereby making this observed snowballing effect deliberate (Patton 1990, Langdridge & Hagger-Johnson 2009).

Beyond the timing above, further purposive selection of students was not necessary, as all would have something to offer the work. Therefore, students were recruited and interviewed sequentially as they volunteered to participate (Langdridge & Hagger-Johnson 2009). Several demographic factors were considered as potential variables in the data which might be generated, but there was no strong evidence on which to base any particular stratification. As the work progressed, it became apparent that the main significant attribute distinguishing student participants with respect to their interview data as a whole, was previous healthcare experience, rather than any

other factor. Student interviews ceased when no new significant findings were emerging (identifiable as analysis occurred concurrently to interview data generation) (Corbin & Strauss 2008).

The placement provider recruitment process is shown in figure 4.2. Selected participants received letters of invitation with a reply slip to state intentions to either accept or refuse. When necessary, they were followed up with email and telephone contact. One placement provider requested to be interviewed with a colleague (who shared placement provider responsibilities) when I arrived at the interview site, so this was conducted as a joint interview. One interview led to two other participants also being interviewed at the same site, as they shared the placement workload, but had different 'day jobs', and were all keen to contribute to the research (Langdridge & Hagger-Johnson 2009). All other interviews were with single participants. All interviews except one took place in the placement providers' primary workplaces (i.e. where the authentic early experiences occur – providing further informal data through the keeping of field notes (Silverman 2005)). In the event (perhaps given the focused nature of the interview), placement providers were found to hold comparable views across all subgroups. Interviews ceased as with the student group, having run from May to August 2009.

Figure 4.2 Purposive recruitment of placement providers (Corbin & Strauss 2008, Silverman 2005)

1. Divided into medical (module one and two) and non-medical (module one and module two Student Selected Component).
2. Stratified by number of students in the student interview sample who had been placed with them.
3. Non-medical: Round one: invited people who had three or more students except second gymnasium placement (purposive sampling to cover different types of placements); round two: invited non-responders again and comparable placement providers who had two or more students.
4. Medical: excluded if less than four students; purposive sampling of types of placements - procedural, general practice, medical specialities, allied professionals and doctors.

The process of interviewing faculty followed a comparable trajectory, with all faculty interviews occurring within the medical school, which was their main workplace. These interviews took place from October to November 2009. In total 23 students, 20 placement providers and 13 members of faculty were interviewed. Appendix Six provides summary demographics for the participants (in tables A6.1, A6.2 and A6.3), and also shows those students who participated in the later discussion groups.

4.4 Data generation

In Chapter Three, I discussed the links between theoretical work and applied methods in this thesis (section 3.6). In particular, I highlighted the use of multiple methods to enhance data generation and interpretation through different perspectives (Mishler 1986, Johnson & Onwuegbuzie 2004, Corbin & Strauss 2008) and the strengths and weaknesses of individual and group data derived from individual and group methods (Mishler 1986, Sherman & Kim 2005, Kvale & Brinkman 2009).

I have generated data from students as the immediate intended beneficiaries individually, and in groups, in order to capture the multi-dimensional aspects of early experience from different personal and group perspectives (Morgan 1997, Kendall & Murray et al. 2010). In this section I describe how the selection of interviews and discussion groups for data generation was incorporated into the design of my empirical work prior to discussing the process of these activities in practice.

4.4.1 Design

Interviews

In-depth interviews were initially used to generate data. The interview schedule was semi-structured with open questions and prompts to elicit detailed answers. The student interview schedule was constructed following identification of my research questions. Hollan et al (2000) suggest a new 'cognitive' ethnography is needed to look at not only what people know but how they go about using this information. I had already determined that these questions could not be fully answered from previous empirical or theoretical literature and ensured that the schedule covered areas highlighted in a systematic review of the literature (Littlewood & Ypinazar et al. 2005). Subsequent interview schedules for placement providers were modified (as shown in Appendix Seven). The modifications were made so that these schedules made grammatical sense, asked questions appropriate to the roles of these people, and reflected emerging findings from previous interviews (Silverman 2005, Corbin & Strauss 2008).

The full interview schedule can be found in Appendix Seven. The schedule itself was not seen by participants. It was designed to cover expectations, processes and consequences of authentic early experience from the perspectives of each of the three participant groups. This was achieved

through a sequence of topic areas including experiences in action, and areas of frustration in medical education such as the learning of content knowledge, achieving functional knowledge, and transfer of knowledge (Norman & Schmidt 1992, Norman 2005). Questions within the schedule were designed to contribute to the generation of data which could be analysed according to methods (discussed in Chapter Three), using narrative, discourse, and interpretative approaches (Webster & Mertova 2007, Riessman 2008, Smith & Osborn 2008, Monrouxe & Rees 2009).

More specifically, the initial questions were designed to elicit narrative data about each participant, including specific examples which could be probed in greater depth for understanding and interpretation of meaning (Webster & Mertova 2007, Riessman 2008). Interviewees were then asked questions that sought to address their conceptualisations of the place of authentic early experience in learning; and as one activity amongst many for not only the students, but also placement providers and faculty. This was to allow identification of what was considered significant (or not) by the participants and to identify both the breadth and depth. Collecting the personal narratives told in relation to authentic early experiences allows interpretation of meaning from the storytellers' perspectives and the identification of significant incidents (Denzin 2002). Specific questions were asked about integration, content knowledge, functional knowledge, and transferable learning; with the aim of identifying in the data the meaning-making and take away value of authentic early experiences with respect to these concepts. At the end of the interviews, the students and faculty were presented with a 'case challenge'. This provided the basis for being able to compare student and faculty conceptions between and within groups regarding the similarities or differences of a single common scenario within the medical school (as a PBL case) or in a workplace setting as authentic early experience. Other authors have examined student reasoning in response to clinical cases (Radley & Chamberlain 2001, Anderson & Peterson et al. 2008) but this has been mainly to assess clinical reasoning rather than meaning-making from experiences. There is little in the literature looking at the comparisons or contrasts between medical

school and workplace settings, as exemplified in Chapter Two, regarding simulated and authentic patient experiences.

Discussion groups

Many of the methodological issues (as discussed in Chapter Three) related to qualitative data apply to both individual and group modes of data generation (Frey & Fontana 1991). In this section, therefore, I consider differences between individual interviews and group data.

There is debate in the literature regarding definitions of 'focus groups', 'discussion groups', and 'group interviews' with terms used interchangeably to mean different things (Krueger 1988, Bryman 2008). Distinctions have been drawn between: focus groups which emphasise specific themes in depth and group interviews which cover a wider range of topics; and, focus groups which are interested in how people discuss a theme as members of the group (considering interactions between them and joint construction of meaning) and group interviews which are designed simply to generate data more quickly than individual interviews (Morgan 1997, Krueger 1988). Krueger, in particular, offers a strict definition of 'focus groups' which requires participants to be previously unfamiliar with each other in addition to the more general expectation that the group will have a focused discussion for the purposes of data generation (Krueger 1988). Frey and Fontana, however, describe 'group interviews' as a research tool which 'can be formal with a specific, structured purpose such as a marketing focus group or, it can be informal taking place in a field setting where a researcher simulates a group discussion with a topical question' (Frey & Fontana 1991). In doing so they suggest that a focus group is one of many forms of group interview. Morgan goes further, criticising an "exclusive approach" (Morgan 1997 pp. 5-6) that requires determination of whether a 'group interview' is, or is not a 'focus group'. He suggests instead that the important elements of group generated data are that the researcher provides the

subject of interest and the data are generated through group interaction (Morgan 1997, Morgan 1996). This is echoed by other authors such as Kitzinger (1994, Kitzinger & Barbour 1999). Despite these variations, there is general agreement that a group of people meeting to discuss shared experiences or views allows the development of a consensus understanding, or identification of the range of similarities and differences in perceptions of the experience as participants challenge and refine views in relation to each other (Frey & Fontana 1991, Morgan 1997, Krueger 1988, Bryman 2008). It is debatable whether this group activity is more or less threatening to participants. Arguably, groups offer 'safety in numbers' particularly in settings where the researcher or policy-maker organising it is perceived as relatively powerful in comparison to the participants. Alternatively, people may be reluctant to express disparate views to either the group majority or particularly vocal participants. If this is a potential concern then individual interviews can be useful, as the sole means of data generation or in combination with group data generation (Morgan 1997, Mitchell 1999). Typically, for group data generation the research will act as a facilitator for discussion of several topics within the area of interest. Their role is, therefore, a combination of chairperson and interviewer as they seek to encourage participation and interaction between the people present while guiding the subject of the discussions on topics of interest (Fontana & Frey 2005). As with interview techniques in general different researchers choose to run focus groups in more or less structured ways and situate themselves differently on a spectrum from observation to participation (Frey & Fontana 1991, Fontana & Frey 2005).

In this study I have used the term 'discussion groups' (Langdridge & Hagger-Johnson 2009) because I wanted a descriptive term for the generation of data through formally arranged groups of students which involved *discussion* (between participants) of emergent findings incorporating the generation of data related to content *and* interactions. The design, organisation and process of these groups is specific to my work, whilst remaining a form of group interview as described by others and incorporating elements of what some authors define as focus groups (Kitzinger 1994,

Morgan 1997, Fontana & Frey 2005). As such the discussion groups can be conceptualised as a hybrid method between group interviews and focus groups, bearing similarities to each (Mitchell 1999). Discussion groups, conceptualised as a means to draw discussion points from the content earlier interviews with the same people (or people drawn from the same population), have been previously used in healthcare settings (Alderson et al. 2002, Williams et al. 2007).

The groups in my study were designed to complement the data generation from individual interviews with specific functions as follows (Frey & Fontana 1991). First, I could 'close the loop' by allowing previous student participants to see and comment on findings emergent from their own as well as placement provider and faculty interviews. New student participants' perspectives were also gained on the previous data from all three groups (Kvale & Brinkman 2009) including the discussion of contrasting views of their peers to reach consensus or not. Second I could test out my interpretations of points of tension or disagreement and understanding or agreement from the student perspective (Morgan 1997). Third, observation of interactions between students provided understanding of collective meaning-making as a group which complemented the understanding of meaning-making derived from the individual student interviews (Morgan 1997). Fourth, the discussion groups introduced a longitudinal element to the work, as students previously interviewed re-participated, approximately a year later, to allow reflection on their previous involvement and whether they had changed their thoughts or not (Kitzinger 1994, Boulton & Fitzpatrick 1994, Morgan 1996).

The overarching purpose was, therefore, to refine the data interpretations through confirmation or refutation, thereby increasing trustworthiness rather than to answer new or different research questions (Lofland & Lofland 1984, Frey & Fontana 1991, Morgan 1997, Mitchell 1999, Fontana & Frey 2005). Combining the techniques of individual interviews and discussion groups has allowed

me to make use of the advantages of each while minimising the disadvantages outlined above (Morgan 1997).

4.4.2 Process

Interviews

The use of initial interviews to shape future ones with an iterative approach to the topics is a recognised qualitative alternative to a separate and distinct pilot project (Miles & Huberman 1994). Concurrent analysis facilitated such iterative changes. The interview process held potential to alter the balance of functional (actionable) and transferable knowledge for students. It was possible that undertaking the interview might prompt further meaning-making, or facilitate students' ability to explicitly state or act upon their knowledge in new ways. I decided that discussing this possibility with participants could provide greater insight into their own learning as part of the research and so, I incorporated questions on this in the final stage of data collection. Interview findings included the identification of similarities and differences in conceptions and concerns regarding early experience placements between the three participant groups and these formed the basis for the topic schedule the student discussion groups which were held in the spring of 2010.

Discussion groups

The discussion group participants (n=26 divided between four groups) were divided by year (first/second undergraduate) and previous participation (interview participants/new participants). In addition to myself, another researcher (unknown to the students and from outside the medical school) was present to take notes of key phrases and order of speakers, in order to facilitate transcription. The same mixed qualitative analytic tools drawn from thematic, (Miles & Huberman 1994, Ziebland & McPherson 2006, Cleland & Knight et al. 2008, Corbin & Strauss 2008),

interpretive (Smith & Osborn 2008) and discourse approaches (Webster & Mertova 2007, Marinker 1997, Rees, Knight et al. 2007, Rees & Monrouxe 2008, Riessman 2008, Rees & Monrouxe 2010) were used to analyse these group findings as for the individual interviews. Inclusion of these discussions in the empirical work allowed further understanding of interactions and the underlying social processes of creating meaning through authentic early experience.

The actual content of the discussion group schedule could not be pre-determined until analysis of interview data had progressed far enough to identify significant areas for further discussion. It was during this analysis that the differences in construct of expectations, process and consequences of authentic early experience was identified.

The practicalities of the discussion groups were conducted as follows following consideration of the methodological literature (Morgan 1997). Students sat around an oval table with a centrally placed audio-recorder. They had name cards to allow me to identify them during the session. The students were already acquainted with each other but not drawn from a pre-formed friendship or medical school group. I sat towards one end of the table from where I could both see all of the students and operate a computer which was used to project a series of power-point slides on the wall behind me. This allowed everyone to read the quotations and discuss / refer back to them. Moving from one slide to the next provided structure to the session. Before commencing these slides written consent was completed by each student, and I reiterated the purpose of the session; that is, explained that I wanted to check my interpretations of some anonymised quotations, discuss ideas from the faculty and placement provider interviews, and clarify areas of consensus or range of views amongst the students as a group. We discussed ground rules for the session. These were requiring students to confine discussion of the session to within the session, respect for others and allowing them to speak. In the two groups of students who had previously been interviewed

there was an additional topic at the end of the session. This was seeking their views on whether participating in the interview part of the work had, in their view, influenced them in any way. Each discussion group was planned to take approximately one hour. In practice the groups ranged from one hour to one and a half hours in length.

Students were asked to reflect back on their initial placement experiences and consider how important these were in terms of learning, and whether any learning was linked to other parts of the curriculum. There then followed a series of topics which I wanted to understand more following the interview analyses: student role; gaining knowledge; debriefing; importance in the curriculum, student feedback; challenges; expectations; interactions with placement providers; and patient stories. Discussion of each of these areas was prompted by presenting the group with one or more anonymised 'provocative' quotations from the interview data (see Appendix Eight for the quotations used). This allowed new data to be generated about how students perceived their relationships with faculty and placement providers. For example, with respect to the student role I wanted to know more about whether the students felt there was potential to participate, while with respect to the importance in the curriculum I wanted to know how the students' constructs of value related to authentic early experience relative to other aspects of their course. As each slide was presented I allowed the group to read the quotation and clarified any queries (such as which interview group the speaker came from). Discussion then followed with me interjecting only to ensure everyone had a chance to speak and when it was time to move to the next topic (Morgan 1997). Data from the discussion groups is presented with the sequence of speakers noted in Part Two of this thesis when the interaction between speakers is significant, for example, to demonstrate consensus or difference (Morgan 1997).

Comparisons between groups

The choice to interview students, placement providers, and faculty allowed me to identify concepts unique to particular groups, and to distinguish common or varying discourse types, both within and between the three groups of my study. I have considered the complex inter-relations between these groups and the structural 'institution' of the medical school. Mason provides several concepts for consideration when analysing the complexity of a situation. These include considering whether something more than, or separate from, the parts emerges as well as looking for evidence of internal diversity, internal redundancy, neighbour interactions, decentralisation of control, randomness, coherence, feedback loops, and stability (Mason 2008), all of which can contribute to understanding social processes in action:

'... new properties and behaviours emerge not only from the elements that constitute a system but from the myriad connections among them... to build effective dynamical models of educational institutions we will need to know not just what people do, but why they do it, how they might imagine things being different, and what they would really want to do' (Mason 2008, pp. 45, 117)

By making links and comparisons between the three groups, I have critically constructed the phenomenon (Denzin 2002) of authentic early experience to provide new insights into the 'workings' of this educational intervention in practice, from expectations through processes and perceptions to consequences (both intended / predicted and unintended / unpredicted). In the next section, I build on the discussion of Chapter Three (section 3.6.2) as I describe the management and interpretation of data in the analytic process.

4.5 Data analysis

4.5.1 Management

Audio recordings of interviews and discussion groups were transcribed verbatim. These transcripts were subject to manual analysis, although NVivo 8™ computer software (QSR International 2008) was used to support this.

The interview data were initially managed through undertaking the following steps:

1. Each audio recording was reviewed, alongside immediate reflections (field notes) from the interview, shortly after it was conducted.
2. Notes of key points were made during this review.
3. Each transcript was checked for accuracy and if necessary corrected against the audio recording.
4. Each transcript was coded for phenomenological themes, including significant incidents, and the responses to the case challenge using NVivo 8™ to allow comparison between the emergent codes. An iterative framework from the student transcripts was used to code the placement provider and faculty groups, adding new codes when necessary.
5. Each transcript was analysed interpretively by hand, noting use of language, metaphors, and both explicit and implied meanings, and considering what these meanings reveal about authentic early experience.
6. The interpretation was summarised using the following questions as a guide: What is happening in this interview? – are there any overarching patterns? How does the student's 'story' unfold? How is this to be interpreted in the context of the medical school? How does the student structure what they say? Does this student describe 'significant incidents' in relation to placement experiences? What does this indicate? How does this student

define placement experiences? Are there 'inconsistencies / ambiguities / ambivalences' about the student's experience? What language, feelings, emotions, and actions do they discuss? What are the key or essential features of this interview? Did the student 'discover things' in the interview? How do students see interaction (or lack of it) in their learning activities? Do I have a sense of something going on here that the participant was less aware of? Can particular underlying social processes be identified?

7. Discussion, with supervisors and more widely amongst the medical education community of emerging data and possible explanations took place throughout the work (see section 4.6.3).

These steps are based upon a combination of literature covering good qualitative research practice and the specific methods I have used. Details of this literature can be found in the following references: Miles and Huberman (1994), Bury (2001), Denzin (2001), Cohen, Mannion et al. (2001), Bleakley (2005), Larkin, Watts et al. (2006), Cook, Bordage et al. (2008), Webster and Mertova (2007), Saks and Allsop (2007), Riessman (2008), Smith and Osborn (2008), Kvale and Brinkman (2009), Larkin and Shaw (2009).

Coding development into a framework of themes

Taking the above approach maintained the study focus on student perspectives and achieved balance with alternative perspectives. Steps five and six were omitted for non-student participants because the meaning-making I focused on was that of the students. Although this method was essentially iterative and the evolving framework developed primarily from the data, it follows the principles outlined by both Miles and Huberman (1994) and Corbin and Strauss (2008) for the management of qualitative data analysis. This approach is recognised as valuable, particularly if also enriched with linguistic and narrative analyses (Ziebland & McPherson 2006, Rees, Knight et al. 2007).

Having created this framework, one can see at a glance an overview of how early experience placements were constructed (mapping and interpretation). The full coding framework is provided in Appendix Three, figure A3.1, table A3.1 and figure A3.2. In the same Appendix, I demonstrate the full coding by group, with the figure showing similarities and differences between the three participant groups in diagrammatic form. The thematic analysis enabled identification of phenomena through four levels of coding. These are: level one - individual codes developed *in vivo*; level two - sub-themes; level three - overarching themes; level four - overarching categories.

Figure 4.3 Extract from the process of coding and building themes by level

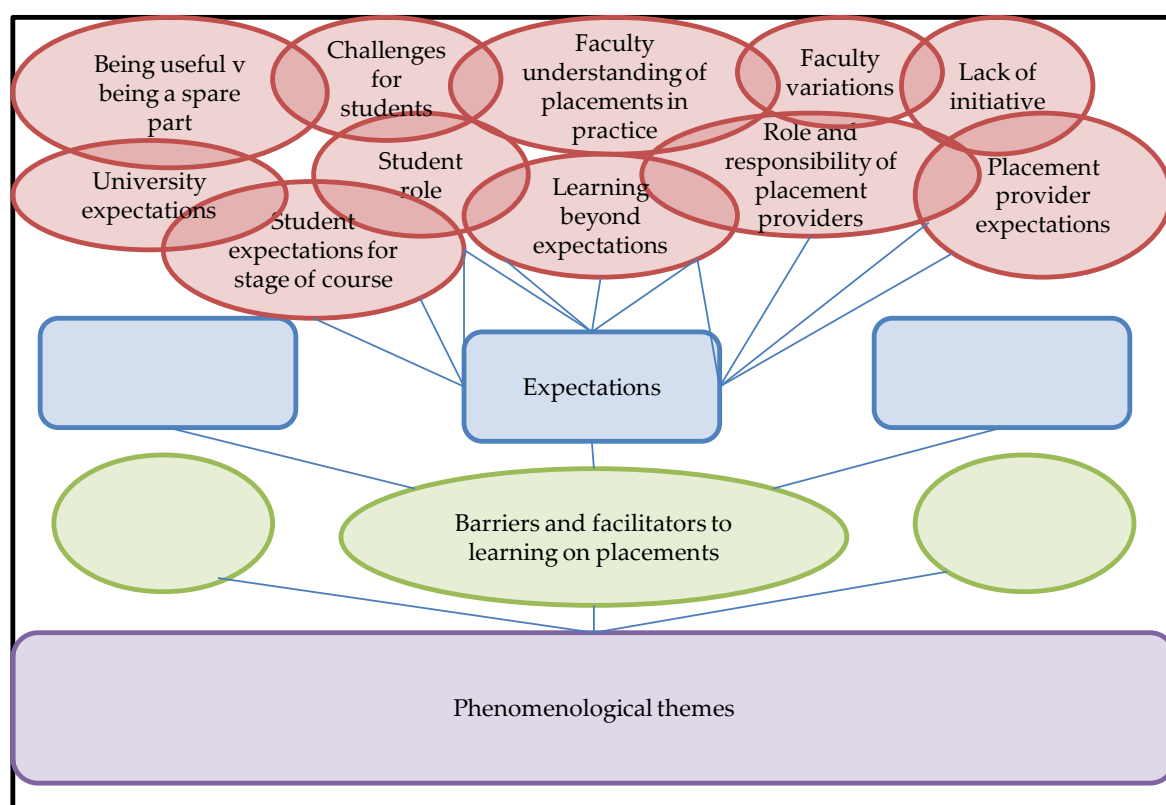


Figure 4.3 illustrates a part of the process following through from level one codes (red) which then became grouped under a level two sub-theme (blue - only one sub-theme labelled), itself within an overarching theme (green, only one overarching theme labelled) and category (purple). The code 'being useful versus being a spare part' was identified along with the other codes at level one to

belong to a sub-theme of 'expectations'. Expectations could form either barriers or facilitators to learning during authentic early experience. This became one of the overarching themes within the phenomenological category.

The transcripts of the discussion groups were coded into four themes: expectations, process and perceptions, consequences and elaboration of meaning. These themes reflect the purposes of conducting the discussion groups as explained in the data generation section above.

4.5.2 Interpretation

Narrative analysis

Some of my participants' stories can be classified as 'significant incidents' – a term which has different meanings itself depending on the context. I am using it to describe examples of experiences which have, or perhaps should have, had a significant impact on the interviewee (Webster & Mertova 2007). Focusing on the (non-) processing of incidents by students can lead to the identification of actions / interactions within the field in response to changing circumstances (Corbin & Strauss 2008). It has previously been acknowledged that storytelling is used in medical education as a teaching tool, and in demonstrating examples of both good and bad practice (Hunter 2008). As such, these second-hand stories are being used in attempts to create a type of knowledge which is relevant to the workplace and students are being encouraged to think about their experiences and interpret what happens. Most practitioners will also report a personalised version of this occurring, with significant patient encounters having a long standing impact on them as professionals. In my narrative analysis, I have identified sections of the transcripts which are telling stories and then interpreted both the structure of the story as an un-fractionated whole (what are the underlying narrative constructions the story-teller is making?), considering the use for which the story is told (Somers 1994), and the content with respect to specific social processes.

Discourse analysis

Language and metaphor are symbolic tools which can be interpreted to identify meaning within interactions and so provide insight into how participants were constructing their experiences and meaning-making from authentic early experience in relation to others (Rees & Monrouxe 2008, Rees & Monrouxe 2010). When interpreting the language and meaning of the interview transcripts, I have looked for the 'functions of language in action' (Mishler 1986, Hodges & Kuper et al. 2008). I have not undertaken a detailed linguistic analysis, instead choosing a more 'macro' level method to suit my purposes. As such, I have focused on the types of words used by participants (particularly students, with comparison to the two other groups), and recurrent metaphors. Metaphors are revealing about perceptions of reality (Marinker 1997). Language and metaphors are used to build stories and make sense of social identities and so this part of the analysis provides a complementary 'micro' view of meaning-making to the 'macro' view provided by the analysis.

Interpretative phenomenological analysis – meaning-making and identification of underlying social processes

Using the principles of interpretative phenomenological analysis provided me with a mechanism to ensure that findings derived from my empirical work moved beyond description into interpretation of meaning. This was guided though the questions asked in section 4.5.1 above. While all of the other approaches to my analysis contributed to the identification of significance, meaning and take-away value of authentic early experience, the explicit use of these questions allowed me to ensure that I considered the implications of the social processes identified alongside the implications of how and why students were deriving knowledge and understanding from their experiences. The principles drawn from IPA helped orientate the analysis to include not just understanding of the phenomena occurring, but also of the students' personal perceptions of their experiences. In this respect, IPA is aligned with phenomenological methods in the tradition of Husserl (Ashworth 2003). These interpretations then formed the basis for further dialogue between

my theoretical and empirical work as I considered issues of content learning and, functional and transferable knowledge in the light of my findings.

4.6 Reflections

Reflexivity is an important aspect of qualitative work as it allows researchers to problematise their own contextual position (Bunniss & Kelly 2010). This enables transparency for readers to understand the evidence on which I base my arguments as a whole, while situated in a specific time and place, prior to abstraction of findings through interrelating empirical data with the theoretical work of Chapter Three (Rees & Monrouxe 2010). In this section I provide some personal reflections on my work. These are provided at this early stage of the thesis to emphasise that my reflections were not an afterthought to the work but integral and contemporaneous.

4.6.1 Insider versus outsider research

(Kvale & Brinkman 2009)

I came to this work from a background in medicine. My undergraduate training between 1995 and 2000 took place as changes in delivery of medical degrees were afoot, but there had not been much wholesale change from 'traditional curricula' with the first two years being university based, followed by a clinical apprenticeship model. My own 'early patient contact' consisted of three visits to patients' homes with one of my peers in both of the first two years of the degree. These visits were unstructured and I do not now remember any reflection or discourse with healthcare professionals afterwards. It was perhaps an agreeable and interesting change from lectures but occurred in a manner isolated from the 'real' curriculum. During the later clinical years as students, we were taught mainly in an apprenticeship model – dependent on the goodwill of (mainly) hospital staff. Spending six weeks in general practice to learn generic clinical skills was an

innovation then, one from which I gained significantly as, unlike time in the hospital, structured teaching was provided with minimum unproductive time.

My experiences since graduating have included teaching for two universities, at both undergraduate and graduate levels. My perception is that while education and learning may now be student-directed at a micro-level, the wider framework within which medical students function has become more prescriptive. My own experiences inevitably shaped my research interests. I needed to spend less time learning the culture of medical education, but more learning how to probe and question meaning which might be taken for granted within the interviews, compared with a non-medically qualified researcher. Whilst it is useful to 'know' (from my own background) what the students are talking about medically (and in terms of detecting items of significance), as a researcher I have made conscious efforts with my questions not to accept potentially common assumptions at face value.

My role is difficult to compartmentalise. Obviously, I am not a medical student (although I have been one), nor was I a member of faculty at the time of conducting the work (although I have been one elsewhere), nor a placement provider (although I have done this previously). Therefore, I am an outsider in that I have only been in this location in my role as a researcher, but an insider in that I have held roles comparable to all the participants. In asking people to reflect on their own experiences, or challenging them to think about different perspectives and views, one cannot exclude the possibility that the interview will modify or change their thinking in some way. I chose to be open and explicit with participants about the research so they were aware of what I was looking for and able to make choices about the focus of their comments. This ensured the data generated was relevant and reduced the risk of misinterpretation, although I am aware this means the research data must be considered as a work created in partnership with my participants. I guarded against becoming uncritical in two main ways. Interviewing three groups of participants

ensured I did not create an interpretation solely premised on a single group's perspective.

Awareness, and later application, of theoretical constructs provided another means of interrogation for my interpretations (Kvale & Brinkman 2009).

It has to be accepted that any research based on human interaction in its methodological approach will be to a degree influenced by the nature of the researcher(s). As this is inevitable, the more important issue is to consider the dynamics which might make a difference in any given situation by considering the particular researcher(s) position in relation to the participant groups. I believe that coming from a medical background has been helpful in conducting this study as it allows my participants to identify with either a historical or current role of mine, and to include me more willingly than an outsider, I suspect, in their understanding of medical culture. For my part, I have striven to remain neutral when an opinion has been sought and to continuously question and ask participants to explain from their perspective assumptions identified in their responses.

Bourdieu outlines three areas of potential bias: the social origins of the researcher, their position in the academic field, and intellectualist bias (viewing the world as a spectacle) (Bourdieu & Wacquant 1992). All of these need to be reflected on throughout the research process. I am placing importance on the individual, on perceptions, on meaning-making from experience, and on processing of experience in the educational setting. I am seeking to understand the theories of others in relation to their situation (Harrington 2005). Therefore, student interpretation is more important than objective observation of the facts although I still need to consider issues of 'public-face presentation' alluded to above. The development of a theory of understanding or model which increases the depth of understanding of authentic early experience from this work would still need further testing in other contexts for applicability.

4.6.2 Trustworthiness

To produce verisimilitude, a logical systematic approach is more important than adherence to a particular set of methods (Kvale & Brinkman 2009). Opting for multiple approaches to data analysis increases the trustworthiness of findings by providing inbuilt checks and balances on interpretations through comparison of multiple perspectives, in addition to using data from different participant groups to cross-reference, data collected at sequential time points, and checking interpretations with participants. During the process of the empirical work I compared the data from each participant, group and method of generation looking for similarities and differences (Silverman 2005). The trustworthiness and credibility of the findings, (within Part Two of this thesis), were strengthened by this process. For example, I have been able to demonstrate variability with respect to the constructs of my participant groups about specific influences on authentic early experience (Chapter Six), while demonstrating that the presence of these influences are comprehensively supported by the data (Silverman 2005 & Bryman 2008). As the findings are integrated into theoretical understanding of meaning-making and knowledge construction (Chapter Seven) both common and so-called deviant cases can be accounted for in my interpretations.

Discussion groups were not chosen for the initial data generation because of concerns medical students may feel under pressure to perform in front of their peers and the risk of a group producing answers which did not represent individual (especially variant) beliefs and understandings. In the case of faculty and providers practical considerations such as time availability and geographical location also made group data generation an unsuitable alternative to individual interviews. The choice to use discussion groups later in the work was made as this created an opportunity to reflect the emerging results to a wider student group and to generate data which incorporated the dynamic interactions between students. This allowed me to seek to

understand better the content of collective meaning and knowledge construction amongst the students as a group in contrast to the details of their individual constructs (Frey & Fontana 1991).

Standard qualitative methods of achieving validity, such as checking that developing clusters of themes remain true to the primary sources, and presenting the verbatim text (see Part Two of this thesis), have been used (Huberman & Miles 2002). The analysis was also subject to checking by my research supervisors and all codes / transcripts were subject to 'back coding'; that is a return to the original transcripts and codes once the first round of coding with each participant group had been completed. I have also reflected emerging results back to my student participants through the use of discussion groups. Determining whether or not student participants identify with research findings helps to provide a link from the field to the interpretive analysis and to theoretical understanding, thereby assisting understanding of the potential practical applications of my research findings (Kvale & Brinkman 2009).

The three groups of participants represent, with one notable exception, those who are most central to the activities of authentic early experiences. The notable exception is the omission of patients. Practical considerations did not permit me to include this group, due the current omission of patients from choices in how authentic early experiences are conducted within the study setting. This was accounted for in my research questions, and hence, the parameters of the study. Therefore, it does not unduly limit the trustworthiness of my findings. Within my study I have, when relevant, discussed student perspectives on these interactions but recognise that omission of patient voices mirrors their omission from choices in how authentic early experiences are conducted in the study setting. The medical school was clear that individual patients should give informed consent prior to participating in medical education in workplaces. This generally occurred, although one placement provider reported an incident where a student had challenged them for not doing this. Which patients were invited to participate was, to a degree, serendipitous

in almost all cases. Occasionally, in General Practice someone would be pre-selected, that is, identified by the provider as a 'good' patient on grounds of affability or medical interest, for example. Instead, the norm in practice at the time of my study was for students to see whoever happened to be present on the day. No records of which patients participated were kept by any of the three groups, making it logistically impossible to trace them. The questions this raises about the role of patients in authentic early experience, and the possible impact, had this been different, were deemed beyond the parameters of this study for pragmatic, practical reasons. Further work in this area would complement the dimensions of authentic early experience discussed here.

4.6.3 The role of supervision: a collaborative approach to quality

(Kvale & Brinkman 2009)

Since the 1950s educational research has increasingly used interpretative approaches with analyses of subjective meanings and interactions (Grenfell & James et al. 1998). Regular meetings with my three supervisors were used to discuss project management and analysis, including the application of the interpretative methodological approach to data analysis. RH was the lead supervisor from commencement until August 2009, when due to his relocation this role was taken over by JR. Although unplanned this change was beneficial to the project, as JR was able to provide a fresh perspective on methodology, natural history of the work and its future developments. RH continued to be involved. His contribution overall has been significant in facilitating the project development from a 'research idea' through to completion as I have been able to draw on his expertise regarding Medical Education as a field. CB made an equally significant contribution to the supervisory process through her expertise in Sociology and qualitative methodology.

During the first six months of my doctoral studentship we (RH, CB and me) met regularly to discuss the development of my research proposal and ethical approval application. During this

time I was engaged in refining the research questions according to my work, reviewing both empirical and theoretical literature. Several of these discussions focused on the clarification of how theory and empirical data could be linked within the project. In addition, we regularly discussed methodological approaches and the selection of particular tools for recruitment, data generation, analysis and interpretation in this design stage.

In March 2009 both RH and CB reviewed the coding strategy and development of the coding framework, confirming that it provided a justifiable analysis of the data. In addition CB undertook a more detailed coding check on two of the student interviews (Silverman 2005). She found that my codes were appropriate, only suggesting consideration of minor refinements. As data generation continued with concurrent analysis we used the meetings to discuss emerging interpretations. This was done both by a) discussing selected transcripts when something new was identified and b) by discussing raw data from multiple transcripts allocated to specific codes. CB and RH also reviewed the iterative changes to the interview topic guide and selection of topics / quotations for use in the subsequent discussion groups. When JR joined the supervisory team in June 2009, we met to discuss the emergent results and interpretations. This allowed further confirmation of the findings. In October 2009, CB formally reviewed the coding framework developed with the use of NVivo which organised individual codes in four levels as described in section 4.5.1 and in November 2009, with RH, she reviewed all of the coding comparison work I had undertaken. Each of these processes provided me with opportunities to refine my analysis although there were no significant discrepancies between my coding and the reviews contributed by each supervisor. In early 2010 the discussion group data was incorporated into the coding framework as described in section 4.5.1, again under the review of my supervisors. Writing was used as an analytic and interpretative tool prior to the construction of formal chapters for this thesis. Descriptions and interpretations are provided alongside the evidence of raw data in the form of quotations. Review of the writing by

my supervisors was used (during a mixture of face to face meetings approximately bimonthly and by email with each) to ensure the findings could be justified.

In addition, as part of my research training, I attended a module in the Education Studies section of the School of Public Policy and Professional Practice at Keele University. This provided me with a broader grounding in Education Studies and opportunities to subject my approach to external review through the assignments which I completed between October 2008 and June 2009. In particular, the analysis and interpretation of the first two student transcripts was externally validated in this way.

4.7 Conclusions

This chapter has demonstrated the translation of multiple qualitative methodologies into practical actions during empirical work. The findings which I present in Part Two of this thesis result from this process and from the dialogue that it facilitated between my empirical and theoretical work, both of which consider authentic early experience as a social process. The data from interviews and discussion groups has been integrated in Part Two as both forms of data generation contributed to the overall findings. Table P2.1 provides a key to identifying specific sources and forms of data generation for each direct quotation. Importantly, I am approaching the development of understanding about authentic early experience through meaning-making derived by students from their experiences through the use of the applied methods in this chapter. This has allowed me to interpret empirical data in relation to the concept of *Mētis* – and so generate an understanding of what does, rather than what should, happen. My work is contextualised through the description provided in this chapter of the natural history of the research from access to the field through the empirical work conducted to reflecting on my own role within it. Early experience placements are a complex educational intervention; by considering both examples which focus on

meaning-making from different angles, and the underlying social processes occurring, I will demonstrate some of this complexity and the richness of potential for learning.

Part Two

The interpretation of authentic early experiences through dialogue between theoretical and empirical evidence

The second half of this thesis integrates the interpretations of empirical and theoretical findings from the dialogue that I have created between socio-cultural theories and participant generated data. The use of theory in this manner enables the abstraction of potentially transferable findings while retaining the value of empirical data which ensures the findings are grounded in what is happening, rather than what should be. I will first discuss significant social processes which are common themes in both the theoretical and empirical work. Next, I will demonstrate how and why students make meaning from authentic early experiences with a series of in-depth data examples which look at different aspects of these experiences and their consequences.

Chapter Five describes and discusses the narrative, language and metaphors used in the empirical interviews. Chapter Six begins to interpret the data by focusing on the extraction of underlying social processes embedded in authentic early experiences. This chapter bridges the detailed data analysis of Chapter Five and the interpretations made in Chapter Seven when knowledge is reconceptualised as meaning-making through the construction of *Mētis*. To demonstrate the links (and improve readability) between the original data and sequential abstraction of social processes and interpretations, some of the quotations are reproduced in sequential chapters as the thread of the thesis is developed.

While my studies, perhaps inevitably, did produce similar finds to the studies described in Chapter Two, such as the need to address logistical issues to create successful placements (those relevant to this study are summarised in Appendix Nine); student enjoyment of early experience placements; and expectations that these were contributing to personal and professional development; this confirmation of the findings of previous literature is not novel and hence, not where I am focusing my attention in presenting the findings of my work.

Mētis is a theory of the 'gaps' between theories of what should happen and what does happen in practice. It acknowledges the student role in the creation of meaning from early experience placements and provides a framework for considering processes which result in many consequences. As such, it recognises, acknowledges, and respects social interactions which are complex, thereby changing the question 'How do we close the gap between theory and practice?' to 'How and why should we seek to create dialogue within the gap for the benefit of students, and ultimately for patients?' It demands an acceptance that there will always be issues of power, role, and identity, but also offers a way to consider how meaningful collaboration in learning might be achieved despite this.

Creating a dichotomy between process and outcomes is not helpful if one seeks to understand how people assimilate and use learning from experiences. This is the main premise of experiential learning, as described in Chapter One. It suggests that meaning-making and knowledge construction from authentic early experiences should be viewed as consequences of a continuum which starts with the understanding of all participants, and includes their expectations as well as agent and structure interactions before, during, and after placements. The social processes underlying experiences will be shown in Chapters Six and Seven to influence the creation of student Mētis. The concept of a continuum provides a backbone for a mid-level theory (Merton 1967, Wong & Pawson 2009) regarding how students 'experience their experiences' and the

implications of this. The essence of my arguments and supporting evidence regarding how and why early experience placements result in certain outcomes is that the meaning-making and knowledge which students take away from their experiences is dependent on this continuum.

Table P2.1 Explanation of terms used to describe data codes

Code	Identifier
M1	Module one
M2	Module two
PP	Placement provider (someone officially named as a workplace supervisor of students during authentic early experiences)
F	Faculty (a member of the medical school staff)
T	Teaching (faculty who provided academic input as their main role)
A	Administration (faculty who provided administrative input as their main role)
I	Interview
R	Individual respondent within a discussion group (followed by the number assigned to him/her)
No.	Individual identity
DGM2PP	Module two discussion group (students in module one during interview recruitment, then in module two when discussion groups conducted). These students had previously participated in individual interviews – denoted by PP at end of code
DGM3PP	Module three discussion group (students in module two during interview recruitment, then in module three when discussion groups conducted). These students had previously participated in individual interviews – denoted by PP at end of code
DGM2NPP	Module two discussion group (students in module one during interview recruitment, then in module two when discussion groups conducted). These students had NOT previously participated in individual interviews – denoted by NPP at end of code
DGM3NPP	Module three discussion group (students in module two during interview recruitment, then in module three when discussion groups conducted). These students had NOT previously participated in individual interviews – denoted by NPP at end of code
L	Line of transcript
<p>Examples: M1I1 indicates a module one student participating in individual interview number one. PP6 indicates a placement provider participating in individual interview number six. F8T indicates a member of the teaching faculty participating in individual interview number eight. Quotations from discussion groups are prefaced with individual respondent then coded by group e.g. R2DGM3NPP means respondent two in a module three discussion group for participants who had not previously taken part in interviews.</p>	

Quotations have been edited from the verbatim transcriptions to improve ease of reading, for example, by reducing repetition and verbal pauses such as 'uh' or 'erm' where this has been possible without altering the meaning of the text.

While I will refer to the 'student', 'faculty' and 'placement provider' groups, this is not to suggest there was unanimous homogenous opinion throughout all data. Rather, these terms will be used to express majority perspectives that emerged, (i.e. those views on which there was resonance between individual participants); in areas which contained different (outlier) views, these, will also be discussed. Identification codes refer to interviewees as outlined in the table above. These can also be cross-referenced with the participant tables in Appendix Six.

The pivot point around which my findings are presented remains that which the students take away from their authentic early experiences, and how and why they make meaning. Data generated through the empirical work with placement providers and medical school faculty will be presented where it provides additional contextual or contrasting findings, shedding light on the dynamic interactions occurring during authentic early experiences.

Chapter Five

Surviving to tell the tale: narratives, language and metaphors

5.1 Introduction

Narratives are widely used in healthcare settings to create meaning (Ong & Jinks 2009). Most doctors can describe patient encounters that made a significant impression on them (Greenhalgh & Hurwitz 1999, Bleakley 2005). Patients construct narratives demonstrating challenges to their identity and seeking justification of their situation (Bury 1982, Williams 1984, Frank 1993). In a commentary on Yeh et al.'s study of clinical ethical dilemmas for Taiwanese nursing students (Yeh & Wu et al. 2010), Rees and Monrouxe argue that the students' narratives offer opportunities for 'acts of resistance' by otherwise powerless agents (Rees & Monrouxe 2010). These students had been exposed to a variety of ethical dilemmas that they felt powerless to confront due to their perceived low status (relative to qualified professionals). Nevertheless, Rees and Monrouxe identify that in sharing their narratives the students create meanings through their reconstruction of events in a way which demonstrates resistance to align themselves with workplace practices. This suggestion is also supported by reference to their own work within medicine (Rees & Monrouxe 2010).

The current literature (as reviewed in Chapter Two) does not identify the type and content of experiences which lead students to construct similar or other meanings at the earliest stages of undergraduate medical education. Identifying and analysing choice of language, conceptual metaphorical comparisons, and narrative construction provides insight into what students take

away from authentic early experience and how they incorporate it into personal stories. Through story-telling, students create meaning and make sense of their interactions, assimilating their authentic early experiences into their situation and interpreting them within a medical world, relative to other agents and institutions. The process of forming and developing an identity is intertwined with that of learning in the sense of gaining medical knowledge, and both are influenced by social processes identifiable in the language used:

‘Our social identities are seen to be constituted through narratives... that is, that people come to be who they are by being located, or locating themselves, in social narratives that are rarely [only] of their own making.’ (Milligan, Kearns et al. 2010)

5.2 Narratives, language and metaphors

Within this chapter, I describe the narrative, language and metaphor data generated by students who participated in my empirical work. Comparisons are made, where pertinent, with placement providers and the faculty. Students were asked to ‘tell the story’ of their placement experiences (see Appendix Seven for interview schedule, particularly topic one) and to give details of placements from which they learnt the most or which were particularly memorable. As we all understand experiences differently, even amongst collective witnesses to events (Mishler 1986), telling an objective truth may not be possible. What is important, from an educational viewpoint, is awareness of how students might variably interpret events and what this means to them.

Chapter One provided an outline of the authentic early experiences that students were given by the medical school. It is important to understand that these experiences were defined and allocated to individual students logistically with respect to intended learning outcomes, not according to

location. Therefore, in module one, a student might be sent to General Practice, a different community healthcare setting, hospital, or a voluntary setting to undertake any one of the listed experiences in table 1.1. It was the ability of the setting to provide the school's intended learning that was focused upon. Students tended to initially mirror the medical school in not dividing their experiences by setting. Reasons for this might include their concerns being more general at this stage – related to being within any workplace, or the lack of emphasis on gaining medical content knowledge even when in overtly medical settings. It was only retrospectively that students in module two and then three (for the discussion groups) began to attach significance to the division of previous experiences (and in-house subjects) into clinical (defined as comparable to daily work for doctors) and non-clinical.

In practice (identified through informal data gathered from conversations while I was situated in the medical school), administrators would try to make sure a particular student had some experiences within each setting as they reasoned it was good to give students variety. During the time of my work, this was not formalised as academic policy. The same applied to placements in module two with the exception of the student-selected study placement: this was specifically designed to give students experience of voluntary organisations related to health and social care. Even so, some of these organisations were contracted to provide specific services to either the National Health Service or Social Service departments while others were offering supplementary services. In module two more use was made of hospitals – clearly it is only a mortuary, for example, that can provide a post mortem experience, and other procedural based experiences, such as venepuncture were most easily accessible in volume in hospitals.

The chapter starts by looking at how the different participant groups conceptualised authentic early experiences undertaken in voluntary and other settings which are not traditionally considered core to healthcare. For example, gymnasias were used by the school to provide

experience of lifestyle issues which affect health. I have chosen this example as it illustrative of the non-traditional group of settings used for authentic early experience. These are settings in which qualified doctors do not commonly work. There is little literature comparing the perspectives of my three groups on these settings with respect to authentic early experience. After drawing out some themes from this, I have used a series of narratives from the students which illustrate the overarching theme of authentic early experiences from their perspectives. The overarching theme was telling 'stories of survival', and was present across settings and intended learning as defined by the school. Each narrative has been chosen either because it was representative of the majority of the student participants' conceptualisations or because it highlights an area which might be of concern to educators (often both). Other themes identified in the data are then examined, considering both language and metaphors. Towards the end of the chapter, I use a second worked example, this time of the 'medical' experience of post mortems to reinforce the findings of significant differences between the conceptualisations of participant groups.

5.2.1 Voluntary and non-clinical experiences

These experiences were discussed by five students from each module. Some of the module two students were interviewed prior to commencing their student selected component; otherwise more might have discussed this. Five placement providers were interviewed in these settings (one was a healthcare professional but working in a voluntary setting). The placements were also specifically discussed by four members of faculty, one administrative and three academic teachers.

Students

Students were sometimes disorientated during these placements when the people they met did not meet their own expectations or what they had expected from the school briefings. For example, sent to speak to an elderly person about aging, this student felt awkward:

'it's like a sheltered accommodation but they're not warden controlled or anything, they're just independent livers... and they live in a kind of environment, so it was kind of awkward talking about people getting old because they didn't seem old... they were just like normal people.' (M1I10)

Evidently, the student did not meet people who fitted her prior expectations, and was uncomfortable, either because of this or because of the potential sensitivity in society about ageing, when interviewing them. Students, who felt uncertain about how to address potentially sensitive issues, appreciated the opportunities to see placement providers conduct conversations about these issues which included them, but did not rely on them to direct the conversation:

'...we first watched one of the counsellors interview... an alcoholic... he was like an expert in dealing with areas that can be seen as taboo or sensitive and it was great to see how he dealt with him...'
(M2I9)

Other students also had positive experiences with providers who engaged them in their daily activities:

'...they've arranged for me to go somewhere else next week as well. They're really good. They don't like me to come if they can't fill the afternoon with loads of stuff – they won't have me just sitting around the office or anything like that, we're on the go all the time.' (M2I8)

This was particularly the case with the student-selected component, which the student is referring to above, because the longitudinal nature of this experience (in module two) allowed providers and students to build relationships.

Students could feel awkward about interviewing patients because they were uncertain of their role and, therefore, what to make the focus or purpose of the interview. During a placement within a social care home a student describes experiencing this uncertainty:

'I mean we know they want us to interview patients but I don't quite know exactly what we're supposed to be getting out of the interview – whether it was supposed to be about the experience or the history or what in particular.' (M2I7)

Others responded differently to similar challenges by taking the initiative to direct the conversation, and as in this example, appearing to relish the opportunity to do so:

'one of the best ones was... we went to a sort of a day centre where the elderly community got together and did things like exercises and things like that– that was the first time where the person running the session gave the... elderly people that were there completely to us. Like we could... we had to talk to them without anybody, any clinicians, anything around, so it was depending on what we were saying to them and the questions we were asking to keep the conversation going... and I think getting their opinion on... how the health service is treating them and what they gained from the health service as well, was really interesting because I've never really taken the time to sit down to an elderly person and ask them what they think about the health service...' (M2I2)

The different response of this student demonstrates the influence students themselves might have on how the process of experiences played out. Despite students reporting enjoyment of most

experiences, overall, these examples raise issues regarding role and identity, legitimacy and participation. Students are experiencing discomfort in the transition to their new role as medical students when interacting with others.

Placement providers

Some of these placement providers had their own agenda or content knowledge which they wanted to impart to students. Many of the organisations which provided these placements perceived themselves as offering services to meet a gap in healthcare provisions for marginalised groups – such as the elderly, those with alcohol or substance abuse problems, or assisting people who were overweight to exercise. Overall, the providers were concerned about how, as doctors, these students would treat their service users within healthcare settings. They wanted students to understand health and social care from a broader perspective than a biomedical model:

'many organisations have a role to play in that holistic care of somebody and that yes, their [students, doctors] role is primarily around that person's health, but if they think public health as well and the wider criminal justice stuff, I think that's where other placement providers have a role to play – it's like a jigsaw... and the best role possible can be provided if people communicate and pick and mix to meet that person's individual needs.' (PP6)

The providers were keen for students to learn to communicate with people regardless of the potential difficulties in doing so.

For example, learning to communicate when someone has dementia was cited as a key learning point:

'Communication... That is a big thing... because not everyone they see is going to be able to communicate their needs.... Look at body language. Look at the background. More holistic – not just a person that's got dementia, it's a whole person.' (PP15)

Those whose services were commissioned by the National Health Service were keen that students understood this, and the importance it implied (from the providers' perspective) of their work. These providers might choose to share specific content knowledge with students. Examples of this included seeking to teach the medical students how to provide help to people with alcohol dependency:

'They learn the issue about units, the issue that alcohol can have on the body etcetera. That's what we try to show them through brief interventions. And also how to give a brief intervention to a patient, whenever they come across one.' (PP1)

The providers were sometimes concerned that students did not appear to be prepared to hold conversations with people. For example, the manager of a gymnasium described how they would demonstrate a new appointment process to students focusing on the inclusion of the patient's medical background and current health (blood pressure, weight). This was followed by offering students the opportunity to discuss health and lifestyle with clients. She then commented:

'sometimes I do wonder whether the students know what they're going to ask the members [of the gymnasium]... 'Cause I think this time, they were supposed to bring a questionnaire of their own.... and I don't recall seeing anybody with a clipboard or a... piece of paper and... whether they were

doing it to sort of then from memory, I don't know, but I think in that way if they... did that, then maybe it'd be more... beneficial for them... I don't know. But they... they obviously will have used their information in their... own way.' (PP13)

Clearly this provider has read the school's briefing (which refers to students undertaking a questionnaire) but did not feel able to suggest to students how they might best carry this out. She did not give a specific reason why, when asked, but throughout the interview makes several references to how the students must know what they are to do, and are 'cleverer' than her. Other placement providers also expressed uncertainty about what students ought to do or were allowed to do.

Faculty

The faculty conceived these placements as valuable to students because of the opportunities offered to develop communication skills and because students needed to be aware of the services provided outside of traditional healthcare, but related to it. For example, placements were chosen that dealt with drug abuse and homelessness in the expectation these were areas in which students' would have little prior experience:

'I think it was probably quite an eye-opening experience for many of them because we had students who were going to services that worked with individuals with drug substance abuse problems, through homelessness, through various things that, perhaps many of the students just really weren't aware existed ... at the level they do exist within the local community' (F7T)

For some members of faculty, these placements provided what they saw as opportunities to broaden students' life experiences and confront potential stereotypes. For example, this faculty

member describes how students might perceive people with mental illness prior to direct experience of meeting such people:

'the whole thing about people with mental health illnesses were... mental health problems are all axe-wielding... psychopaths that you have to... go with a police guard, which is something that's like caricature – it is a caricature, but not... a caricature of some of the students' attitudes... and I would hope that [name of volunteer organisation] would actually be able to... be interested in engaging with us and starting to change those perceptions... and, actually... one of my fourth year students described someone as being a 'bit of a spaz' – which is disappointing.' (F3T)

It was only members of the faculty who saw a role for authentic early experiences as a means of engaging with the local community at a strategic level. This was postulated both as a means of encouraging students to remain locally on graduation and as a means to enhance the school's reputation:

'they learn... have a chance to interact with people who, are elderly but are mentally, as bright as a button and can tell them... what their life was. And I think it also helps prepare them, on that placement, if... we are lucky [in]that a lot of our students when they graduate do choose to stay locally... then that helps them...' (F12A)

'I mean it's good for the school point of view to engage with its hinterland in its widest sense of the positive actions of students bringing benefits – that of course was one of the main reasons for having a medical school in North Staffs was to... help develop the interaction as well as to have doctors who might practise in Stoke and North Staffs.' (F2T)

These views were not found in either the student or placement provider interviews. Placement providers welcomed the opportunity to share their purpose with individual students but tended to position themselves as subservient to the students', and medical school's, needs. In this one respect, these 'voluntary sector' providers differed from their peers in 'medical' settings. Students were focused on surviving in the workplaces where they went, and were not at this stage thinking about their experiences in relation to geographical location. Much of what has been described above regarding voluntary and non-clinical experiences also applied to experiences in more traditional healthcare settings. Therefore, in the next part of this chapter I use some extended narrative examples to further explore how students told their experiences through stories of survival, before considering other significant findings identified from language and metaphor analysis of student data (related to that of the other two participant groups).

5.2.2 Authentic early experiences told as stories of survival

Within the student narratives, 'survival' was identifiable as a common overarching construct, albeit with different subject matter and student reactions. These are illustrated through the variety of stories chosen below. Lengthier sections of transcripts within this section are presented in text boxes to demonstrate the flow of the story-telling. Important words, or phrases, have been highlighted as bold text.

The first narrative (M1I1) (figure 5.1), demonstrates a student constructing a survival narrative to deal with a challenging situation: she was being asked to perform tasks more complex than she expected. The experience took place in a hospital outpatient clinic. The student positions herself as the weaker party, stating that she had no choice, and yet is also self-critical, suggesting that she should have been stronger during the interaction with a difficult placement provider. She seeks to

find a 'reasonable explanation' for his behaviour, throughout the narrative, finally making sense of it by suggesting that his expectations might have been different from her own. Within this explanation there is the suggestion of suspicion of the medical school; a partially articulated question about whether the provider's briefing, from the school, has suggested that students should be capable of performing more complex tasks, perhaps to test student responses.

Figure 5.1 Student narrative one

He turned to me, gave me a set of notes, and, said "right, oh, you're my students are you? Right, go in and take this lady's history" ... and I was like "hang on a minute, let me just explain to you..." – he says "what you standing there for? It's... an easy enough thing to do. Off you go. Use room four." So **stupidly** [laughs] I took the notes, took this patient in and I said "oh, what... you know, what do you want me to do?" so he says "just go and take the history – **just go away.**" So I took the notes, took the patient with me, explained what I needed to do, had an attempt at that...put the patient back into the waiting room, went back to him, "**this is what I've attempted, not done this before**", and he said "you should have... **said who you were**". I said "well you didn't give me the opportunity, **I did try**, you dismissed me, I've had a go". So he said "well where's the patient now?" I said "I've put her back in the waiting room." He said "**what have you done that for?**" I said "**I'm sorry but I don't know how you run your clinics, I've not worked with you before, you know, you've not explained anything to me**" and, he said "right, okay, go and fetch the patient, tell them to get undressed" he says "and, give me the notes" ... so I handed over briefly what I could and we went through, then he basically **cross-examined** me during the whole thing – "well what's this? Why've you put that? What does this mean?" ... With just respect of, the comment the consultant made... "**always be nice to the people beneath you**" – **inferring that, you know, there's obviously a pecking order and, you know, the doctors are somewhat superior to all the other members of staff...** sort of not respecting their individual contributions to the... the overall practice and ultimately the care of the patients. **I acknowledge the fact that I should have been stronger** and said "hang on a minute, let me just explain to you what we're here to do..." and... but I thought well **maybe he does expect that of first years** – you don't know what his expectations are or **what the briefing is**, I tried to make him aware that, you know, a lot of us didn't know what to do and he said "it's a perfectly simple thing to do, off you go", you know, "go away", so **I just thought I've got no choice. I explained to the patient, you know, that I'd got no experience at doing this, "could I.."**, obviously went through the... the whole thing: introduced myself and explained what I needed to do and would she be happy to talk to me, and just kind of went through... She was very supportive. She wasn't... she felt very vulnerable as well, obviously, because of the sensitive nature...of the reasons why she was there... I think she felt... quite comfortable with me and disclosed quite a lot which then, she was happy for me to obviously pass on to the consultant in question.' (M1I1)

The suspicion that the medical school might be sending providers a briefing which is hidden from the student highlights a tendency of students to cast themselves in dependent roles. This suspicion contrasts with the student alignment with the patient as she takes care to describe how she was honest about her status. In return, the student receives the patient's support. Emotions expressed by students during their interviews were more comparable to patient experiences than medical roles: feeling a burden, dependency on others, indebtedness, and lack of control. Initially the student uses the mechanism of direct reported quotations from the placement provider and herself to convey the antagonism of their interactions, but does not direct blame towards the provider or explicitly describe his behaviour as unacceptable (a view that the faculty might in fact hold). Later, within the interview, it becomes apparent that she has reflected on this, and in describing her interpretation of the doctor's beliefs (of a hierarchy of importance, a 'pecking order') she is keen to distance herself from these.

This narrative is representative of other stories of survival, linked to challenging placement provider behaviour within the student data. Most students sought to account for difficult behaviour without directly criticising the provider. The motivation for this could include a desire to present themselves as able to cope in difficult situations, and a perceived need to avoid criticism, perhaps because of concerns about future contact with the provider. Other students also showed they were more willing to try and 'win over' the patient and so align themselves with patients' positions in the interaction, rather than to persist in challenging the placement provider. This may be because they feel more able to negotiate with a patient due to being in a relatively greater position of power.

Positive stories of survival resulted from scenarios where students successfully responded to challenge. The second narrative example (M1I2) demonstrates this as the student describes her first experience in General Practice.

Figure 5.2 Student narrative two

Well, on the second placement with the old lady – she became really emotional and... **before I probably would have been like “oh my God, what do I do?”** but **because we’d had the sessions** which explain how to deal with patients who might get emotional, and I’ve had actually that **hands-on practice** now, I’d be able to **deal with it better in the future**, I think, if I had an emotional patient in front of me who started to cry... and that’s what... **that’s what I really will remember – how, like, how to react**. Well, when she started crying, I was... I felt I just... **I don’t know, I felt a bit, like, “oh God, what do I do?”** but then... **I just remembered**, you know, **just give her a few minutes to compose herself and I didn’t bombard her with any questions or anything** and then afterwards I said, you know, just talked to her in a comforting manner etc. **And that’s how I dealt with it really, so it wasn’t a big issue.**’ (M1I2)

The student makes sense of her experience as she talks through both the experience and her in-house learning. She starts by acknowledging that an emotional patient presents a challenge to her, that she has felt awkward, and not known how to respond. Despite this feeling remaining when the student meets a patient who cried, she is able to describe specifically how she drew on the medical school’s teaching of communication skills, and so was not incapacitated by the challenge. In the process of talking herself through previous in-house learning and the confidence gained from her ‘hands-on practice’, she moves rapidly from a discourse of being ‘out of control’ to one of the experience ‘not being a big issue’ - a lesson in how to react, and how reactions produced the desired effect. It is notable that she also recognises the in-house teaching did not make her feel comfortable, but it did give her the appropriate tools to deal successfully with the challenge. This is an important distinction as feeling comfortable, or confident, should not be confused with being competent in difficult situations.

The experience of being shocked on placement was a significant motivation to learn how to react in the future. These next two narratives demonstrate two aspects of how this interrelated with students’ sense of identity. The student, M1I4, describes learning which results from an unexpected

experience which had affective impact. She is developing a 'professional identity' and would not be 'shocked' again. This narrative is of an experience in a voluntary setting.

Figure 5.3 Student narrative three

'...it was a **completely new experience**. I had seen people with alcohol dependency and serious drinking problems **but not, like, from a therapy viewpoint**. I only saw one person, so there are probably many more aspects to it, but I think it might help. It definitely... because of the answers I received from the person I realised that **I need to be more prepared for something ... to hear something shocking**. So next time when I... go and see a patient, I should be prepared to hear something that I don't expect... the person, had long history of alcohol dependency and I asked what triggered him to seek help and his answer was that he wanted... when he had a drink he wanted to commit suicide and he realised that it's not right so he went on to seek help.'

[Interviewer: 'Right. And how did you feel at the time, being told that?']

'I don't know for how long it lasted but **I was shocked and I couldn't say anything** but then I said okay and **I asked if whether the service he feels is helping him to deal with this...**

(M1I4)

The fourth narrative, M2I4, also illustrates this idea but raises questions about how repeated experiences might produce not just a professional detachment but also greater distancing from emotive aspects of patient care. M1I4 defines meeting someone with alcohol dependency as a completely new experience, not because she had never met anyone like this before, but because of her new role as a medical student. This was common within the student data. She is 'shocked' by the encounter, possibly because the person is explicit about the consequences of his alcohol dependency in a manner which places the interaction firmly beyond generally accepted social norms of conversation. The meaning which the student creates from this experience relates again to her new role. She has learnt the need to prepare herself to hear the unexpected. She now realises that her new professional role will demand she responds to others positively even when discussing difficult topics, which might be evaded in lay contexts. The take-away value for this student lies

not in understanding simply about alcohol dependency, but about the meaning of how others now see her, and the need to respond to their expectations.

M2I4 describes observing an investigative procedure carried out on a newly born premature baby in a hospital radiology department.

Figure 5.4 Student narrative four

'there was this baby and she was ten weeks premature – she was like... that small, about four pound something, she was so tiny, and she wasn't feeding at all so she had a... tube for her nose and **they had to put...** in her bottom **they had to put**, some dye in and see her colon and stuff and **she was screaming and screaming and obviously wasn't wearing any clothes or anything** and I think... **it's not hardened me but it's made me...** 'cause **before if I'd seen that, like, when I first started medical school, I'd be really upset about it and I was upset about it and I was thinking "oh, I feel sorry for the mother" and stuff but it made me feel like I could deal with this...** And I think if I hadn't gone on placement – especially not early on... 'cause... whenever you go on placements you're **always seeing ill people**. The history taking I took was someone who was **terminally ill – they had, a few months to live.....** so I think it's given me an opportunity to **get used to hearing bad news** and then, you know, **dealing with myself so that I'm not making the patient feel bad.**' (M2I4)

Several students told stories which contained comparable themes, such as the necessity of procedures or the need for professionals to take a pragmatic approach in order to get their work done. Throughout the story, tensions of moving from self-perception in a lay role to a professional role can be seen. M2I4 is eager to present herself as forming a professional identity, emphasising that she has the capability to deal with distressing situations. There is also evidence that she is seeking some justification for this: her reluctance to describe herself as hardened; and the use of patient considerations as support for the benefits of developing less emotional reactions rather than self-protection.

Despite the medical school's efforts, some placements involved students 'surviving' on their own,

and students discovering that in practice busy environments could generate surprising experiences. The narrative of M1I9 describes a hospital ward situation which could be interpreted as either complete acceptance with inclusion and recognition of the legitimacy of the students concerned, or complete exclusion from the ward team and indifference to the potential implications of student interactions with the patient, from either the patient or the student perspective. This was a common experience amongst the authentic early experiences of the students, particularly in hospital settings. The reactions of the students varied greatly, and in contrast to this story some students would quickly leave workplaces when left to look after themselves. This variance is explored further in Chapter Six.

Figure 5.5 Student narrative five

‘we went to... the nurses’ desk, and said, who we were... what we’d been sent to do, and said, “can you suggest any patients that might be good to talk to?” and they said, “well, this bloke down... the corridor might be a nice person to talk to, **he’s very talkative**” and, they said “**he’s just had... his left foot amputated**”, so we said “right... we’ll go and have a word with him then”... **we hadn’t shown any ID at this point** and they **just handed us all these notes** which I thought was **quite, you know, trusting of them...** so we **carried his notes down to a room – not knowing what to do with them, have no idea what they meant, and basically just pulled two chairs up to his bed**, introduced ourselves and, and I mean... **we didn’t even get to talk about confidentiality** – you know how it’s... **you’ve got to introduce yourself and the confidentiality side of things – and he was already telling us about what had happened...**’ (M1I9)

The narrative contains little reflection on how the patient might feel following a recent amputation, although this may be in the light of his apparent lack of distress. The student is surprised at the lack of requirement to confirm his legitimacy on the ward, compounded when the nurses offer access to the medical records. The expectations of the patient, seen on this occasion, also differ from the perceptions of in-house teaching. The lack of requesting proof of identity provides a challenge to the principles taught in the medical school of the importance of confidentiality, as does the discovery that the patient, for whatever reasons, is not concerned with student assurance of

confidentiality. A potential interpretation of this experience is that practice differs significantly from in-house teaching. The implications of this are dependent on how sophisticated the student's understanding is of workplace complexities. Without guidance, it is in gaps like this that students can create spontaneous meaning – such as, for example, developing a belief that real practice is different to real learning in the eyes of the medical school.

Students who recognised the potential for learning by responding to and surviving challenges, as illustrated by the narratives above, began to reap benefits through increased confidence and the creation of practical knowledge for future interactions in workplaces. Not all students responded in this way; and it is perhaps those who did not that should most interest educators. Survival could also be achieved by remaining passive when dealing with the unpredictable, making the student a 'bystander' in potentially challenging or difficult situations as illustrated by the next narrative. This student is describing his experience in a General Practice.

Figure 5.6 Student narrative six

'this patient came in, he was... **according to the doctor he had no problems** but... he just had a small wound. He seems to be **paranoid** about the wound being a problem because, it was taking a little longer to heal, but there was no infection or anything, so the doctor basically just checked whether there's any... infection and took, swabs or placebo swab and **reassured the patient that everything will be fine...** but, **according to doctor he comes in every few days... just because of this...** the wound.'

[Interviewer: 'Okay. And did the doctor tell you they were doing the swab as a placebo or was that something you thought?']

'Later on. **After the patient had went out.** Because, the doctor – after taking swab and reviewing the case or something – **decided it's a waste to send the swab off...** for tests.'

[Interviewer: Okay. What did you think about that?]

'[pause]... well, **I guess it's a useful tool**, in a way, but **ethically I'm not quite sure.**'

(M1112)

This student aligns himself with the doctor in telling the story; the description of the patient as 'paranoid' is given as if repeated from the doctor. He twice reports the situation not from his own perspective but 'according to the doctor' giving the doctor authority in the telling of the story. The student describes the doctor offering a course of action to the patient, but then sharing with the students a different course after the patient had left, justified on the grounds of saving resources.

Despite my questioning the student is reluctant to directly criticise the doctor for this, although he does express ethical uncertainty. Other students also provided examples of avoiding confrontation with placement providers when practice fell below the standards the medical school taught. The lack of challenge of the doctor may also be influenced by how much students perceive the need to please their placement providers despite conflict with medical school teaching. Elsewhere, students have used dependency on placement providers as a means to explain lack of action or challenge by them when faced with potential dilemmas such as whether patients consented to their involvement (Knight & Rees 2008).

Variable student reactions meant it was also possible for some students to develop positive understanding through learning from negative role models. The story (M2I10) below demonstrates a student working through the process of an experience to make meaning from a difficult placement on a hospital ward.

The student highlighted that the doctor was 'nice' to her (at a different point in the interview) yet in the story demonstrates significant discomfort at the doctor's general behaviour and a desire to distance herself from not just this particular doctor in this scenario but from traditional stereotypes of arrogance which such behaviour perpetuates. The student has decided that the main take-away value from the experience is to ensure that this is not how she practises in future.

Figure 5.7 Student narrative seven

‘I saw a doctor who I didn’t really like – the way she treated the patients and stuff – but I guess **that’s a good thing in a way ‘cause it made me think** ... I’d never want to be like that... she was really rude to the nurses... she didn’t really want to be there... quite an elderly man... he had to have a gastro-nasal tube put in, ‘cause he wasn’t feeding well, and she came in and she was like quite **rude to the nurses**... the nurse said... “could we do it in the bed?” and she was like “no, he has to get moved over” and then the nurse was like “well we can’t move him, we need to go and get people... to help move him over”, I think they call it ‘muscle’ [laughs] and then she was just like **“oh, can you hurry up about it I haven’t like got all day”** and then the nurse asked me if I’d go round the back of the screen and ask someone to go find some ‘muscle’ ... I came back and she was like “how long is it gonna be?” ... and then she wanted to know if he had an OGD – **I don’t know what that is and I forgot to ask, I didn’t really want, ‘cause she was quite cross about it as well** – and the nurse was like, “I don’t know ‘cause I’ve only just come with this patient” ... she... again got very cross about it and then the nurse was like “well you can look through the notes” and then she was “yeah but I can’t go through all of these notes, look how many there are” – and so she was quite rude. And also when she was doing the thing... I don’t know if you know there’s a bare below the elbow policy? ... **like there’s always a stereotype that doctors think they can get away... with it**, and I guess she felt the same thing because she had a ring on that had stones in, she had a watch on and she had a shirt on... with cuffs, and she just opened her cuff but... most of her arm was covered... whereas the nurse’s uniform is just a bit... above their elbow... **and to the patient I didn’t find her particularly nice either** because she wasn’t telling him what she was about to do and he looked quite frightened... I was thinking about, to me it felt like she was **dehumanising the patient** because... it was just a thing she had to get over and done with, **not seeing him as an individual**...like, even if he is old and he might not be completely... not with it, per se, it’s still not nice – **he’s still a human being and no-one would like to be treated that way and doctors shouldn’t do it, especially ‘cause they... humans are important to us, that’s why we’ve gone into this profession**... so the way she was treating them made me think well it’s really rude, like **people have this idea about doctors being arrogant and thinking they’re better than other people and she’s helping fulfil that stereotype**... **Like if all the doctors and all the nurses I met were quite similar and happy and looked after the patient and perfect in what they did then no-one would ever learn anything** [laughs] I guess in a way her being rude to a patient maybe taught me a life lesson.’ (M2I10)

5.2.3 Survival metaphors

In addition to overarching narratives of survival, students used several metaphors that further emphasised their perception of a need to prove themselves by surviving. Within the theme of survival, students talked about 'being thrown in the deep end', 'shadowing', being 'lost', having a 'free rein', being 'shot down' or like a 'rabbit in headlights' (table 5.1).

In contrast to the students' concept of survival, the faculty used the metaphor of 'being thrown in the deep end' to emphasise that authentic early experience was not designed to do this, but to prepare students for transition into the later years of their degree. As this faculty member describes, the perceptions of faculty regarding what constituted a challenge for the students often underestimated the intrinsic challenges a workplace environment held for students:

'... developing confidence in the clinical environment before they're thrown into it during module three – in a fairly safe and... well meant... fairly well cared ... they are being quite well-supervised so they... have the potential for quite a gentle introduction' (F6T)

Faculty members believed that the short intermittent nature of authentic experiences allowed students to sample workplaces in a 'gentle' way. This was not consistent with the students' own perceptions.

Table 5.1 Metaphors of survival

METAPHOR EXAMPLES	REFERENCES	EXAMPLE QUOTATIONS
Being thrown in the deep end	M1I1, M1I2, M1I3, M1I7, M1I9, M2I2, M2I5, M2I10, M2I11, F1A, F6T, F11T, DGM3PP, DGM2PP	<p>'I mean they need the support so that they don't feel abandoned – so that they don't feel that they're kind of, been thrown in at the deep end too much... I don't think that we're doing that...' (F11T)</p> <p>'developing confidence in the clinical environment before they're thrown into it during module three – in a fairly safe and... and well meant... well fairly well cared ... they are being quite well-supervised so they... have the potential for quite a gentle introduction' (F6T)</p> <p>'you did feel like you were thrown very much in the deep end' (M1I1)</p> <p>'I wouldn't like to <i>choose</i> the patient I was interviewing, I think it's quite interesting to just be thrown in the deep end and, sort of, see where you end up, 'cause that's... I suppose that's the way you learn' (M1I3)</p> <p>'especially in the first year because you're totally thrown into the deep end' (M2I10)</p> <p>'you were thrown in the deep end and you just had to talk to people you never knew anyway' (M2I1)</p>
Shadowing – being someone's shadow / being in the shadows	M1I1, M1I12, M2I5, M2I8, F8T, F11T, DGM3PP, DGM2NPP, DGM2PP	<p>'some of the placements have just involved the students doing work, shadow work anyway, so they've worked very closely with another member of staff' (F11T)</p> <p>'to meet and shadow a clinician and... observe a clinician or a professional doing their job' (F8T)</p> <p>'I was a shadowing a Physio and a Podiatrist and both, they treat you more like your just, you're with them rather than like they've got an audience and it's a bit more inconvenient for them' (R2DGM2PP)</p> <p>'sometimes you had to wait 20 minutes for someone to actually like "o.k. yes you can shadow me".' (R1DGM2NPP)</p> <p>'you're here to follow me or whatever, if you're shadowing then you don't feel as much of a spare part' (R6DGM3PP)</p> <p>'just watching and shadowing... they had to shadow nurses and they weren't happy about that... I just got stuck in and just waited patiently and I got to shadow the registrar – and, I got a lot from it and I got to shadow the nurses and see different procedures, whereas the other person who was with me waited around and didn't get seen to as quickly and wasn't happy that he'd have to follow a nurse and not a doctor, and he ended up leaving... I think some people come with the attitude of "well I've got into medical school, I'm better than anyone else who's doing something different – I deserve to shadow the best and do what I want"... when I did work experience at a hospital in [place name], when I was in year 11, and, a lot of what I did there was working with the nurses, made the beds, gave the meals out, and... it was actually quite nice to do stuff like that and... just to get a feel of working with people as well instead of just shadowing' (M1I1)</p> <p>'just talk to a few patients if we could... other than that just shadow' (M2I5)</p> <p>'it was sort of shadowing basically and you'd sit in the corner' (M2I8)</p>

Table 5.1 continued

METAPHOR EXAMPLES	REFERENCES	EXAMPLE QUOTATIONS
Lost – disorientated with respect to role and learning	M1I4, M1I6, M1I10, M1I12, M2I2, M2I4, M2I6, M2I7, DGM2PP, DGM3NPP, DGM3PP	<p>‘I think the bad placements were just so unmemorable [lots of laughing]. Like R6: was saying you just didn’t feel you could remember. It didn’t happen. You just lost a few hours’ (R2DGM3NPP)</p> <p>‘a student would get quite bored and if they’re lost they don’t even... they’re not going to learn much’ (M1I12)</p> <p>‘it can make you feel a bit lost sometimes but once you do find your way, it’s much easier to... understand what’s happening’ (M1I4)</p> <p>“‘cause sometimes you get lost at... lost track and it keeps you back ‘cause you think “oh, what would I need to say?” really’ (M1I6)</p> <p>“‘cause it can’t look great, can it, two students standing around looking like lost sheep’ (M2I4)</p> <p>‘because we’re medical students and we’re second years and we all look a little bit lost all the time’ (M2I7)</p> <p>R6: ‘You almost park it. You do almost it park it at times and just kind of think right, this is something I need to know; it is important but it’s not relevant for the minute now and you kind of just almost park it away knowing that you will come back to it later and it will be later, you might even have notes on it that you’ve written that you just don’t look at them for the moment.’ R4: ‘But how often do you park it and then never find the car again?’ (DGM3PP)</p>
Free rein	M1I9	‘at the ICU we were sort of given a free rein... they’ve just let us have a free rein to do what we feel we’d like to do ’ (M1I9)
Shot / taking a hit	M2I5, DGM3NPP, DGM3PP	<p>‘I don’t mind being shot down by consultants [laughs]... No, you don’t get shot down that much [laughs]. I mean it’s sometimes nice just to be told, you’re wrong... that’s wrong, this is the right... it is sometimes nice just to be told that’ (M2I5)</p> <p>‘some doctors do have quite high expectations and they fire the odd question at you and you just kind of sit there like a rabbit in the headlights, kind of, I don’t know [laughing].’ (R3DGM3NPP)</p> <p>‘like a rabbit in a headlight’ (R4DGM3PP)</p>

The metaphor of 'shadow' describes what it felt like to be *in situ* during their authentic early experiences. This metaphor was used in two distinct ways by students, as illustrated in the quotations of table 5.1. It could be used to conceptualise the students' roles of closely following, possibly mimicking, the role and actions of their placement provider; that is being their shadow:

'I was a shadowing a Physio and a Podiatrist and both, they treat you more like you're just, you're with them rather than like they've got an audience and it's a bit more inconvenient for them'

(R2DGM2PP)

Less positively, it conceptualised how some students felt – as a shadow –invisible and at the periphery of activity. This challenged students less but also decreased learning opportunities. Use of the metaphor by faculty also encompassed two ideas. First, that to shadow was desirable as it implied an opportunity to observe someone getting on with their daily work:

'I think there's two or three core things we'd like the students to do. One is to... meet and shadow a clinician and... observe a clinician or a professional doing their job. The second one is to actually talk to patients at some level – 'cause it doesn't really matter what... the background or environment is, but actually to have some interaction... with real people. And... I guess... the third one that we try and get everybody to do is go to a mental health unit.' (F8T)

It is implied that shadowing in the sense of being in a position to conduct observation is a prelude to greater participation in this quotation.

Alternatively, one faculty member suggested that ‘shadow work’ was a way of ensuring that students were not left unsupported:

‘I think that they definitely need to ensure that there’s somebody there who can provide support and guidance... some of the placements have just involved the students doing work shadow work anyway, so they’ve worked very closely with another member of staff’ (F11T)

Despite the positive stance this statement initially suggests it should be noted that the faculty member uses the word ‘just’ to qualify the place of shadowing in a way which might be interpreted to mirror the students’ less positive uses of the metaphor.

Overall, the use of survival metaphors was not necessarily indicative of negative experiences in the students’ minds. The students experienced various sorts of unpleasantness during their authentic early experiences (as demonstrated in the narratives above), but most chose to define a ‘bad’ experience differently – it was something which was entirely uneventful and, therefore, forgettable:

‘I think the bad placements were just so unmemorable [lots of laughing]. Like [R6] was saying you just don’t feel you could remember. It didn’t happen. You just lost a few hours.’ (R2DGM3NPP)

There was widespread agreement with this sentiment in all four of the discussion groups. Issues related to this sense of ‘nothingness’, or lack of event, can be traced from the lack of expectation for authentic early experiences as educational entities through the other concerns of role and identity discussed in the next section.

5.3 Issues of role and identity

Students also conceptualised authentic early experiences through the use of language and metaphors which demonstrated concerns about their development of an expected role and identity, legitimacy, learning to handle interactions and their experiences of reality.

Table 5.2 Metaphors for interactions during authentic early experiences

METAPHOR EXAMPLES	REFERENCES	EXAMPLE QUOTATIONS
Tailoring – altering interactions according to who is present	M1I3	'I just suppose that you have to tailor it to whoever you're speaking to' (M1I3)
Rabbit on – patient not student agenda	M2I2, PP19	'I tend to sort of let people rabbit on anyway and feel a bit bad if you jump in and... tell them to, you know, "can we get back onto the point?"' (M2I2) 'this person's rabbiting on at me' (PP19)
Cutting your losses – placement provider not student agenda	M2I6	'I suppose it's just trying to find something to do and if you can't, just cutting your losses really' (M2I6)
Scraping the barrel – finding material for reflective summaries	M2I9	'I've been scraping the barrel – nothing's really majorly happened to make me reflect or think back or want to sit down and write a thousand words about it.' (M2I9)
Sponge	M2I11, PP12	'A student should be a sponge as soon as... when they get on... on a placement – they should... it doesn't matter what you learn as long as you learn something' (M2I11) 'the terminology and vocabulary changes, and it just becomes... and it's like a sponge, aren't they, really?' (PP12)

5.3.1 Expectations of experiences as educational entities

Students tailored language according to with whom they were interacting, but were particularly uncomfortable with the need to assert any agenda or direct interactions with patients and placement providers. Instead, they describe allowing patients to ‘rabbit on’ plus ‘cutting their losses’, being a ‘sponge’ just trying to learn anything, or ‘scraping the barrel’ to get something from their interactions with placement providers (table 5.2).

There was no expectation (from anyone) that students would, during authentic early experience, take responsibility for the learning of content, functional and transferable knowledge amongst the interviewees. Students reported that authentic early experience was about interpersonal skills; conceptualised as separate from ‘the course’ in the sense of medical knowledge:

‘...they [the faculty] clearly said to us... your aim is your communication skills, you might not experience anything that’s related to the course.’ (M1I1)

‘...they [experiences] weren’t linked to what we were studying... they were only supposed to be really linking to our communication skills not to what we were studying at that point.’

(R1DGM2NPP)

Students used metaphors that implied a reduced lack of agency to describe their initial attempts to achieve the translation of in-house teaching into workplaces. These are illustrated in table 5.3 along with the idea expressed by both faculty and students that authentic early experiences were about reinforcing in-house teaching, not novel learning.

Table 5.3 Metaphors for relationship between in-house and authentic experiences

METAPHOR EXAMPLES	REFERENCES	EXAMPLE QUOTATIONS
Implanted knowledge	M1I1	'the key things about taking history, without having to think "oh, consent, confidentiality", they will already be implanted in me. So I think it is quite valuable to build it up ready for in a few years time' (M1I1)
Robotic – mimicking in initial interactions	M1I2	'it felt a bit odd because I felt like I was being a bit robotic, like "Hi, I'm from the..." [laughs]... but, I think it was really... good and once I'd said it, I think... thinking about it now, I think... that's how you really need to introduce yourself to every patient' (M1I2)
Cemented – fixation of learning by placement reinforcement increasing belief in medical school teaching	M1I3, M1I6, F2T	'The real life experience is... the activity that they have to do and... that's where the learning is cemented... shared experience 'cause that will also cement the learning that happened for each individual when they say "oh, actually that was valuable 'cause then I could share it with someone else.'" (F2T) 'It sort of cemented what we'd done in the communications skills session... doing the actual patient interviews sort of cements it in and then you think, yes, this is what actually happens as opposed to what we've been told to do' (M1I3)

All three participant groups made a distinction between students initially talking to patients ('chatting'), interviewing (learning to act as medical students but still focusing on social aspects of patient experience) and history-taking (following a semi-standardised medical agenda). Some students believed their interactions with patients were less important, as these were not comparable to the work of medical professionals:

'I'm having to take it on board but not in the medical sort of way' (M1I5)

'The experiential learning is quite different because we are not supposed to know any medical knowledge about the diseases.' (M1I8)

This student describes not knowing what the purpose of an authentic early experience was, simply because there was no medical school requirement to provide a report on the experience:

'... 'cause we didn't have to write a reflective summary, you see, so we didn't really know what the point of it was, although it was quite interesting' (M1I3)

Even students who knew what they wanted to learn were unsure about how to negotiate this with placement providers:

'You've just got to go along with it and when you're there and just take the most from it you can, and hope they'll link it in with the objectives.' (M1I6)

'at least in the first year I didn't necessarily know how far I could go to push my own agenda so to speak... and I think that that did affect how much I got out of placements but that was my own fault. I mean I can't blame other people for my not being willing to stand up for myself so.' (R1DGM3PP)

And another, tellingly, separates authentic early experience from medical work:

'I just want to be qualified really so it's just I need to do this to get through... some of the placements are just a bit annoying... like you could have been doing work in that time' (M2I6)

Students were forgiving of those supervising them on placements, recognising that teaching was simply a small part of the working day and that there were significant competing pressures on providers' time:

'it's to be expected – they've got a job to do at the end of the day.' (M2I4)

'if they have an actual reason for sending us away, then... I mean it's not their fault, so what can you do? So you move on.' (M2I7)

Together these ideas suggest that teaching and learning were not conceptualised as integrated processes within the workplace, but as an addition. Although the faculty recognised that positive interaction between a student and placement provider would be crucial to the success of authentic early experience, they too expressed resignation about what could be done to ensure this:

'...we have some truly excellent providers that go far beyond anything I could not only provide, but conceive of providing, for the students when they come on placement. But we also have the other end of the spectrum where the... deal the students get is... less than we would want it to be.' (F10T)

Placement providers commented that although often their expectations of student knowledge and ability were met, this was because their expectations were so low:

'I don't expect anything from them – anything they will know... whatever we ask them they haven't got a clue, which is normal.' (PP5)

'all the medicine that gets taught is an aside... because that's not really what they're there to learn'
(PP17)

Although some placement providers described students gaining knowledge during placements, many declined to consider their role as a teaching one.

Students were usually cast in an observational role by such providers:

'I wouldn't say we teach them – they observe... I didn't think we were asked to teach... that wasn't the... instruction – they were asked to observe us rather than teach. We don't have time really to teach.' (PP12)

'I think it should be the university [setting the agenda]... we're kind of a resource for them to plunder really.' (PP17)

Placement providers essentially saw themselves as delivering a service, and working at a practical level to meet the pre-set medical school agenda. There was variation in their expectation to be providing teaching, as opposed to simply access to the workplace so that students could observe.

5.3.2 Expectations of agents: perceived responsibilities

Table 5.4 cross-references how interviewees identified and perceived potential responsibilities for each other. There was universal agreement that the faculty should take the lead in setting the agenda for authentic early experiences.

Table 5.4 Cross-referencing of potential responsibilities identified by group

	identified for faculty	identified for placement providers	identified for students	areas with lack of consensus
identified by faculty	setting the overall agenda for placements and strategic organisation of placement allocation and communication of the objectives including the level of achievement expected, setting educational objectives, quality assurance, ensure students understand value, handle student concerns	teaching skills, following school instructions and educational objectives, structuring of placements, negotiating content in practice, student behaviour, pre-placement preparation including placement specific briefing information for school, checking student attendance, accepting students, providing a named contact, setting aside time, providing a basic introduction, checking students' ability to interact before contact with patients, observing procedures, facilitating student involvement, balancing patient and student needs, creating a meaningful experience, facilitating integration of learning, workplace organisational ownership, providing role models, and debriefing students	following school instructions, making links to in-house teaching	accepting students could depend on a specific individual being present at the placement, disagreement about the need to observe non-physical contact interactions during module one and two including talking to patients, placement providers rarely discussed debriefing, unclear where the division between administrative faculty and teaching faculty responsibilities should be, quality assurance limited by numbers of available placements, lack of clarity amongst interviewees about whether placements were compulsory to attend, variable allocation and perceived lack of assessment also devalued experiences from student perspectives
identified by placement providers	setting the agenda for placements	following school instructions and educational objectives, negotiating content in practice, pre-placement preparation, setting aside time, providing a basic introduction, facilitating student involvement, balancing patient and student needs, facilitating integration of learning, workplace organisational ownership, determining an appropriate level of participation	attendance and appropriate behaviour in the workplace	placement providers did not all think they were qualified or able to teach, lack of understanding or limited agreement with educational objectives by some, and little preparation in some cases, placement providers did not see their role as enforcing attendance, sometimes no time adjustments were made
identified by students	setting the agenda for placements	setting the agenda for placements in practice	pre-placement preparation, organisation and dealing with administration, appropriate behaviour on placements, representation of the medical school on placements, learning how to steer placements to achieve learning, interacting on placement, linking learning back to medical school based content	students did not always find instructions were followed by placement providers and sometimes were uncertain of how to act on instructions themselves

The faculty were most likely to emphasise the considerable strategic and logistical support required to ensure organisation and allocation of experiences ran smoothly. Placement providers positioned themselves as carrying out the institutional instructions. There was a tendency for placement providers to struggle to describe in detail what their 'step-by-step' responsibilities were; in contrast to how the faculty conceived the role of placement providers detailing specific and comprehensive responsibilities. The items self-identified as the responsibilities of placement providers come from what might be described as a sub-group of more interested and motivated providers keen to engage in educational activities. The most enthusiastic placement providers did identify their responsibilities to facilitate appropriate student involvement and integration of learning, but their perceptions of this were not necessarily aligned with those of the faculty, a point illustrated through the worked example in section 5.4.2 of this chapter. Students saw the role of placement providers as setting the agenda in practice. This provides insight into student concerns regarding the avoidance of confrontation with placement providers. It is possible that the students identified additional responsibilities for themselves in the perceived absence of action on the part of the other two groups. The language of students demonstrated that they were expecting to be directed during their experiences (table 5.5).

The potential for missing or inconsistent support is identified in the areas with a lack of consensus between groups. These consequences of issues are now considered in more detail, with examples from interview and discussion group data, comparing the expectations of faculty when planning experiences with how students perceived their experiences in practice.

Table 5.5 Language examples for expectation of direction

QUOTATIONS	REFERENCE
' not been taught ...been given the skills of... just weren't expecting us'	M1I1 L19, L30, L69
'I didn't get much done on that placement to be honest with you because we didn't really know specifically we had to do... we couldn't really do much more after that so we went home ... but he never really told us what we... well he said we should be looking... but we didn't know whether to interview a patient or whether to speak to the families, whether we were supposed to write anything down – 'cause we didn't have to write a reflective summary, you see, so we didn't really know what the point of it was , although it was quite interesting'	M1I3 L16-17, L24, L31-35
'so I think you've just got to go along with it and when you're there and just take the most from it you can, and hope that they'll link into the objectives. '	M1I6 L224-6
'we just sat in... just about their illnesses really... just spoke to a patient... just found out about their thoughts on being old and age'	M1I7 L9-18
'basically when we got there I don't think they quite understood what we were there for'	M1 I9 L10-11
'in some cases we get to do examinations'	M2 I1 page 3
'we've had a chance to go over to the [name] hospital'	M2I2 page 4
' the placement provider didn't really know what we were doing whereas this year they seem to know exactly what we are meant to be doing on the placement'	M2I5 L8-10
'I...just want to be qualified really so it's just I need to do this to get through and pass my exams and everything... some of the placements are just a bit annoying... like you could have been doing work in that time '	M2I6 L264-75

Faculty

Faculty members envisaged students understanding the significance of their role and realising the implications of being a medical student; hindrance to participation was not considered:

'I think that's important – that the student starts to realise that they are now becoming a professional, they are there with a role rather than there because they fancied going.' (F10T)

'I think just the... way they see themselves, you know, now I am... really am a medical student, I'm not just a student [laughs]. So they see themselves slightly differently.' (F8T)

The faculty also expected the placement providers to regulate student involvement, citing their knowledge of their own work environments:

'I wouldn't be able to sort of advise them on what they can do clinically... or can't do clinically.' (F11T)

'I'd hope it would be about that and then it would be about the student and the placement provider agreeing, you know, what was about to happen.' (F4T)

The potential gap due to the mismatch of these expectations was experienced as uncertainty by the students who were expecting explicit direction to engage when appropriate, seeing their responsibility as only to decline if necessary, not to ask for greater active participation. This can be seen in the following exchange between students in one of the discussion groups:

R5: *'we were taught that it was the, whoever, like the doctor in charge of us, it was their responsibility to make sure that we're in the realms of our capabilities.'*

R1: *'We were told to say no if we didn't feel comfortable doing something. That was pretty much it.'*

R9: *'In first year, I was never put in a position to do anything practical so I was just like, go and talk to so and so.'* (DGM3PP)

R5 reports it was the placement provider who should determine the appropriateness of the students' activities. This is countered by R1, who uses the term 'comfortable' rather than 'capable'.

R9 then interjects with the assertion that there was no issue about levels of participation because

they had never had the opportunity to engage at a significant level. This exchange illustrates, as with student narrative two, that being capable (competent) might be equated with feeling confident or comfortable, neither of which amount to the same thing.

Students

Often there was uncertainty regarding responsibility to supervise students, as illustrated by these two student descriptions of provider behaviour, first describing a doctor and then a ward nurse:

'[he] just came in and disappeared and ignored us for half an hour then realised that we were sort of attached to him.' (M1I11)

'The nurse just came in and was, like, "right, three of you need to leave" and we were just, like, "okay, which three?" and she was, like, "don't know, just three of you need to leave.' (M2I5)

Despite this, students recognised that placement providers usually had good intentions, even if the content of their interactions was not well aligned with the students' perceptions of what was relevant.

As these students describe, the power differential present inhibited students; they would listen politely, but disregard what they deemed irrelevant rather than seek to alter the focus of interactions:

'It's quite a daunting thing to go up a Consultant and be like "what you're telling me is pointless"... you feel rude saying it because they're obviously taking their time out to teach you but you are still standing there with the thought in your mind... this is pointless, I don't need to know

this and it's not going to apply to me for another three years and you know you're going to get told it again then anyway.' (R6DGM3PP)

and later in the discussion:

R6: 'You almost park it [knowledge]. You do almost it park it at times and just kind of think right, this is something I need to know; it is important but it's not relevant for the minute now and you kind of just almost park it away knowing that you will come back to it later and it will be later, you might even have notes on it that you've written that you just don't look at them for the moment.'

R4: 'But how often do you park it and then never find the car again?'

R9: 'Yes, exactly that's the problem though yes.'

R4: 'Yes, I do that all the time [laughing]. I can't store it like that.' (DGM3PP)

Clearly some students recognised that 'parking' knowledge could have adverse consequences but their current concern was surviving the present, not planning for the future. One of the meanings derived from authentic early experience was the need to gain knowledge which would facilitate survival within the workplace through avoidance of confrontation. Students came to understand that while junior, at least, it was necessary to glean what medical knowledge was currently useful to them, through filtering the information offered from the personal interests of others. They did not seek to direct the information offered to meet their immediate needs, merely to give the impression of receiving it regardless of how much it was of value to them. The skill gained was to handle their interactions in a way that did not attract undesired attention.

This was perceived as a useful skill – one which would be needed on taking up the role of a doctor post graduation, as described by these students:

'I think it's good practice to be a F1 to pretend you know what you're talking about with things that are way above your head.' (R5DGM3PP)

'So it's kind of, a lot of medicine is kind of what you make it. The opportunities you have and in some ways that was kind of preparations kind of like now, just being told to go on the wards and do as much as you can do or see what's happening... So not being well prepared is some way of... preparation for not being well prepared now.' (R2DGM3PP)

The first student is describing the necessity of being able to mask a lack of understanding so as to avoid embarrassment or confrontation with other professionals. The second is describing how in module three more time is spent on the ward, and so learning how to interact with others in a way which served the students' purposes was preparation for having to find their own way in workplaces now. Students had, therefore, discovered feeling ill-prepared but surviving was actually a useful skill for their futures. In addition, students located themselves as trying to please two masters – the medical school which might be more important for progression, and the placement providers who had immediate importance during experiences:

'I find it very awkward turning up and having a list of things that I need to get out of it if... it's not necessarily what would naturally come out of that placement. I'm much happier just to turn up and just let things, kind of, take their own course and be asked questions by the person doing the placement.' (M2I3)

Implicitly students have learnt to 'handle' the providers to reduce discomfort to themselves despite their sense of dependency.

5.3.3 The 'allowed' myth

Ambiguities regarding appropriate student roles during authentic early experiences led to the creation of a myth around what students were, or were not, allowed to do. Within this myth lies an institutional representation of the medical school. The medical school, as an institution, is attributed power by placement providers and students beyond its physical boundaries. Therefore, conceptualisations of the institution influence consequences of experiences in unpredictable ways. Meanwhile, as the faculty were physically situated within the medical school, they were inevitably removed from the very intervention that they relied upon to deliver integration between the medical school curriculum and working practices. This is illustrated by the faculty member below:

'... how little we know... about actually what happens when they're there... we know how we've briefed students, we know... how we've briefed providers, um, but the actual activity is a... grey area.' (F4T)

The dilemma faced by the faculty is simply that, in practice, authentic early experience is not only complex but also somewhat unpredictable and uncontrollable. Members of the faculty find themselves in the position of having responsibility for, but not control of the actual processes occurring during authentic early experience. None of the three groups sourced what was allowed, by whom, on what authority, explicitly within the interviews. Implicitly, it became apparent that the medical school as an institution was a silent but recognisable 'fourth participant' in the

interactions between students, placement providers, and faculty, perhaps thought by all to determine what was allowed, but without any reference to human agency.

Some faculty members believed that students should not be active beyond observation during authentic early experience, particularly during module one:

'The first year officially can't do anything – even under supervision – a first year should be an observer.' (F8)

'... a first year is only allowed to watch... a second year can partake... participate in certain things... if they had time, at the end... they might be able to be allowed to introduce themselves to the patient and say "hello I'm such-and-such".' (F1A)

Others thought students could participate in examining patients:

'if the patient consents to have the student do it, to allow the student to do some components of the examination as well.' (F9T)

'...they [the students] can go and take a history and can examine and then leave them with the patient for a while and then [the placement provider should] allow the student to present their findings.' (F6T)

There was uncertainty about appropriate levels of supervision, both on account of patient safety, and for the student realising the potential learning of experiences:

'I don't think we'd expect second year students to be doing anything unobserved... it's potentially dangerous, but also ...they're not necessarily going to learn very much ... if they're not getting immediate feedback... from the provider' (F9T)

The necessity of authentic early experience being mainly an 'observership' is articulated in these quotations. The reason used by the faculty to justify this was students' lack of experience. The faculty did not appear to recognise the potential irony of observerships. That is, the introduction of authentic early experiences actually equated to students spending more time in medical workplaces, but becoming less experienced than in pre-Flexner traditional apprenticeship-style courses (due to a lack of active participation).

Placement providers were also concerned about asking too much of students, either in terms of active participation or of content learning. In the absence of clear faculty advice, placement providers would make judgements about these issues but were left wondering if they had made the correct choices. PP18 and PP9 illustrate how this had the potential to produce different levels of participation:

'... but I think it kind of depends on the insurance, doesn't it? I'm not just sure at what stage... they would be doing things... sometimes I let them listen to chests and things like that – and usually they've not done that before, and that might be sort of a bit early to be doing it but I do think they... they're very interested, they want to do that kind of thing, and looking in ears and that kind of stuff, so usually they probably haven't got the knowledge about... or the skills around that but they... do enjoy doing it...' (PP18)

'I mean we can't get them involved in the procedure per se, 'cause obviously they can't do anything per se to the patient... the later students [modules three to five], they start talking to the patients or they go in for the consents but I would have said generally they [module two, and by implication module one students] don't get too involved... with the patient directly.' (PP9)

Students admitted uncertainty about what was allowed. If in doubt, caution would often be exercised, although there was some incredulity at the level of reservation of some of their peers within the student discussion groups, as illustrated in the discourse below. The respondents of the group are discussing a quotation from a previous interview (which read *'we're not allowed to tell people things – to do things – basically'* (M2I6)):

R4: *'Are we insured to do it on patients until we've been taught it in a non-clinical scenario?'*

R6: *'Just go and talk to a patient?'*

R4: *'Well, no, not talk to a patient but interact say if you put a blood pressure cuff on'*

R7: *'but the consent and everything'*

[lots of people all talking at once – heated discussion regarding talking to patients]

R6: *'I'm talking just literally go and talk'*

R7: *'I think they would want you, I think they would want to cover themselves always by making sure that you've done the first communication skills where you get told how to consent.'*

(DGM3PP)

In actual experiences, students let placement providers determine what was allowed, relying on them to create opportunities.

Some students, therefore, conceived what was allowed in very pragmatic terms, defined as whatever a provider permitted:

'... although I wasn't actively doing anything, he allowed me to try what he was trying just to try and get me to participate.' (DGM2PP)

Students seeking clues from placement providers to set the parameters of what was allowed, or acceptable, extended to how the students would behave themselves. Some were reluctant to give away their 'ignorance' unless they had identified that this was what the placement provider was already expecting. As an illustration of this, the student here is explaining the need to have permission to 'be' what they were – that is a new medical student without previous experience of medical workplaces within this new role:

'Some people just have the personality to speak to anybody and some people don't and that's why I think in a way, some of these placements were useful because it was like you could be a first year and be a bit stupid and be a bit, "I don't know what to say", but you were allowed to and it was alright and it gave you the opportunity to learn the skills to be able to talk to people.' (DGM3NPP)

Within the student interviews, there was also a second level of being 'allowed' which links to their sense of being outsiders. 'Allowed' is used in these quotations in the sense of workplace permission to undertake activities which were part of the medical school briefings:

'... so it was a registrar who allowed us to interview a patient and was teaching us some things.'
(M1I12)

'...we were allowed to... take part a little bit in the procedures.' (M1I6)

'...when doctor finished with... patients, we were allowed to ask any additional question to patients...' (M1I8)

However, there were also experiences where uncertainty could result in either excessive freedom or restriction on students' role and learning opportunities:

'because I was allowed to wander round and do what I was doing...' (M2I9)

'he told us we ... handled it very well despite not even allowing us to present it or say what we'd done anyway.' (DGM2PP)

5.3.4 Issues of legitimacy: being an outsider

Aside from narratives and metaphors of survival, the commonest metaphor used by students to describe themselves during authentic early experiences was being a 'spare part' – they were not needed, nor had they anything to offer. This positioned students as outsiders to the purpose of workplaces in which their experiences were situated (see table 5.6). There was resignation about this, with the short nature of the experiences, lack of ongoing relationships with placement providers, unwillingness for anyone to take responsibility for them, and being ignored all cited in support of the metaphor.

Table 5.6 Metaphors related to legitimacy and participation

METAPHOR EXAMPLES	REFERENCES	EXAMPLE QUOTATIONS
Spare part	M1I5, M1I7, M2I4, M2I5, F3T, F6T, DGM3NPP, DGM3PP, DGM2PP	<p>'Oh, students...they come into sort of not... expected, unprepared, feeling a little bit like the spare part...' (F3T)</p> <p>'But they do need to be able to get involved and they need to feel that their presence is wanted as opposed to sitting in the corner like a spare part, which is not helpful to anyone really.' (F6T)</p> <p>'you're gonna feel like a spare part in your first and second year or your third year or your fourth year.' (R5DGM3NPP)</p> <p>'I think a lot of us feeling like a spare part is more how long you've spent in the wards because obviously in first and second year, you go there for like a few hours and then you're gone again so no one there really wants to make that much of an effort and you don't know anyone, whereas when say this year, we've had placements and we've been in the same ward for a month, then I've felt that I've gone a lot better and you actually feel like you've got a part to play there rather than just being in the way.' (R6DGM3NPP)</p> <p>'I think something that has been discussed with us more recently that perhaps could have been discussed in year one was actually been proactive and like negotiation. That was something that's been mentioned in year two... it just would have helped you feel a little bit more confident to adapt the placement and try and get the most out of it instead you sometimes felt like a spare part.' (R2DGM2PP)</p> <p>'there are times when you do feel like a spare part because no one will take responsibility for you and I think when you're in a first or second year when you don't, you're on the ward because you've been sent there, you're not on the ward because you've almost chosen to be there, so I think if you get sent there and there's no one who's actually taking charge of you, then you can feel like a bit of a spare part and you feel like you're getting in the way and despite how much you try and interact and get involved, you still even asking a question, you feel like you're getting in the way coz there's all these people running around really busy and no one will take responsibility for you but I think the ones that are good are the ones where someone actually just says "right, o.k. fair enough, you're here to learn from me".' (R6DGM3PP)</p> <p>'You always feel a bit like a spare part on placements anyway' (M1I5)</p> <p>'Yeah, you kind of just get, ignored really and... sometimes you feel, like, a bit out of it, a bit of a spare part because, like, you don't really fit in [laughs], 'cause we're not used to it and maybe they're just used to having the students from the older years who actually can do things and be more help than just getting in the way [laughs].' (M1I7)</p> <p>'cause I know from experience sometimes where... when you feel a bit like a spare part, it's... it can be a bit awkward 'cause you understand that they have a job, that's a lot more important than your placement, to be getting on with...' (M2I4)</p> <p>'Like they feel a bit like a spare part, I think, in some of them...' (M2I5)</p>
Freeze, dry up – during interactions	M1I6	'... sometimes you do, kind of, freeze and the conversation just, dries up a little bit.' (M1I6)
Lemons – present but clueless	M2I5	'we have no idea what they're talking about, they'll stop talking to the patient and explain what the problem is to us so that we're actually... we're not just sitting there like lemons, not really knowing what's going on.' (M2I5)

Some placement providers recognised similar issues with students not ‘fitting in’, identifying cultural problems students might face, and acting to alleviate these by sharing ‘workplace Mētis’ with the students. For example, the placement provider below describes interactions with students who are preparing for their first experiences in hospital operating theatres.

‘Some of them just put theatre blues on over their normal clothes, and they come out of the changing room and you just think “no, come on”, simple things like that. “You’re changing into theatre get up, you have to take your clothes off” – that’s the whole point... well it keeps us amused... it’s simple things like how to... behave and what... you do in certain environments – maybe they haven’t been told, I don’t know, but... we always get them putting on the lead coats the wrong way round, so what I always do is teach them, ‘cause there’s simple rules with lead coats...’ (PP9)

Students described a lack of role through emphasis in their language (see table 5.7). Common words are ‘just’, ‘watching’, and ‘shadowing’. Students did not have an internal sense of legitimacy. They would feel let down by providers who did not confer this on them, instead ignoring them, or being hostile to their presence (see table 5.8). Some students actually felt hindered by their role now, as a medical student, despite having previously actively participated within medical environments.

Table 5.7 Language examples for expectation of lack of role

QUOTATIONS	REFERENCE
'... just watching and shadowing ... they had to shadow nurses...wasn't happy he'd have to follow a nurse and not a doctor... mainly just shadowing.'	M1I1 L10, L60, L63, L76, L173
'... just spoke... just watching... do you want to just chat... just had a really informal chat ... the first placement was just a communication session.'	M1I2 L11, M1I2 L25 – 27, L168-9
'... observing...basically observed... just the one... just me... just read their notes... we got to slightly interview ... I think it's quite interesting to just be thrown in the deep end... if you are speaking to someone who's... a bit more challenging than you can... develop your skills a bit more... cause all we've done on placements so far is interview... because I'm a first year medical student – I'd try and explain to her that I'm only here to sort of observe.'	M1I3 L6-8, L23, L73, L430-1, 441-3, L709, L817-9
'...just observing a health professional and maybe, trying asking patients to questions... maybe trying to communicate ourselves... I had to observe...basic communication,... basic skills...'	M1I4 L5, L23, L137, L279, 281
'Well I suppose because I'm not having to take... yeah I'm having to take it on board but not in the medical sort of way – I'm just doing it, as interviewing a patient... it was just observing, we could have gone anywhere and interviewed any sort of patient... she was really aware we was only first year medical students so, she didn't expect us to know, anything about it.'	M1I5 L 131-2, L176-7, L593-4
'I just expected to be watching – very much like from the end of the bed ...I wasn't perhaps expecting to have much contact directly with the patient.'	M1 I6 L39-40, 44
'... because we're just interviewing patients.'	M1I7 L181
'There wasn't really any prep for it.'	M1I7 L233-4
'I don't think we're expected to do too much on the placements.'	M1I7 L472
'Some very basic questions ... just to practise the communication skills ... just to have an idea of what's going on.'	M1I8 L28-9
'we have a chat about their life'	M1I8 L125
' Well the experiential learning is quite different because we are not supposed to know any medical knowledge about the diseases ... I think in the future when we are supposed to interview a patient like student doctors, not only the communication skills... I think in the third year we are supposed to do like that.'	M1 I8 L296-7, 414-5)
'... doing theatre which was good but not what the learning objective was .'	M1I10 L8-9
' We weren't supposed to talk to anybody or ...'cause with them being children...it was a kind of, more of an observation one...'	M1 I10 L203-6
'... just to observe... just basic history taking... I went just shadowing some people and sometimes you do get quite lost .'	M1 I12 L6, 27, 273-4
'We just interviewed them and asked questions based on a questionnaire really ... it wasn't a consultation ...'	M2I4 L184-188
'We didn't really have to talk to any patients with any awkward things.'	M2 I5 L175
'I wasn't really that satisfied with the placement because all I did was sit there and watch them .'	M2I6 L21-22
'We're not allowed to tell people things – to do things basically.'	M2 I6 L626
'We didn't actually do any interviews... we only watched them.'	M2I7 L66-8
'It was sort of shadowing basically and you'd sit in the corner but I found that useful as well.'	M2I8 L93-94
'They kind of want us just to get an overview – an insight into practice, kind of early experience. I don't think... they want us to practise communication skills , gain an insight – nothing desperately specific.'	M2I9 L276-278

Table 5.8 Language examples for being let down

QUOTATIONS	REFERENCE
'... should really be expecting us... that's what upsets me... they really didn't know we were coming ...'there's actually nothing to do.'	M1I2 L81-5, 95
' We thought they would be informed ...they weren't really prepared.'	M1I3 L,44, 58
'... maybe because of the kind of placements I had, it wasn't always possible to achieve all the learning objectives. But at the same time I might still manage to get something out of it.'	M1 I4 L18-19
'... sometimes it feels like the doctors don't have time for you...us only being first years ...when we're in our third, fourth, fifth year, 'cause we'll probably know more then as well and they'd expect us to contribute more.'	M1I5 L 312-315
'... ignored really and ... sometimes you feel, a bit out of it, a bit of a spare part, because like you don't really fit in , 'cause we're not used to it and maybe they're just used to having... older years who actually can, like, do things and be more help than just getting in the way ...the other doctors and nurses just see us maybe just getting in the way a little bit.'	M1I7L175-8, L184-5
'We were waiting to met the consultant that we were linked with, who kind of just came in and disappeared and ignored us for about half an hour then realised that we were sort of attached to him .'	M1 I11 page 1
'... he didn't really know what he was supposed to teach us.'	M1I12 L215-6
'I've never really had proper feedback on my interviewing skills in a clinical setting.'	M2I2 page 8
'... so the nurse just came in and was, like "right, three of you need to leave" and we were just, like, "okay, which three? and she was, like, "don't know, just three of you need to leave."'	M2I5 L285-88
'... occasionally they don't know that you're coming and that can create a bit of "what are we going to do with them?"'	M2I8 L111-113

The following quotation raises questions about how the specific role of medical students is conceptualised in authentic early experiences, as the student describes doing less than when she was still at school, but volunteering in a local hospital:

'when I did work experience at a hospital in [place name], when I was in year 11... a lot of what I did there was working with the nurses, like, made the beds, gave the meals out, and... it was actually quite nice to do stuff like that and... just to get a feel of working with people as well instead of just shadowing' (M1I1)

Another student described how during work experience he was accepted and made to feel legitimate because others in the workplace knew his mother:

'It was different when I had work experience before starting medical school because... my mum's a nurse and she set it up so everyone sort of knew me and I felt like I got sort of... you get treated with a lot more respect I suppose because they kind of know who you are, you're the son of someone they know.' (R2DGM3NPP)

This is obviously a personal experience, but underlying it remains the issue that new entrants to the workplace need someone to act as a confirming presence and support. This was sometimes provided, but not consistently:

'If you're saying in... some people in the wards, they'll be like "oh come in, I'll show you this, teach you this", some "I'm a Medical Student", "oh" back's turned, "I'm gone.".' (R6DGM3NPP)

An unexpected finding amongst the student interviewees was their identification of going alone for experiences as more beneficial than being in pairs:

'we just sat down and there were actually two doctors that we were with so me and my [placement] partner got to go with one doctor each, so, that was quite good 'cause we got to see, you know, on our own what happens.' (M1I2)

'...sometimes when you're in a pair I think it is easier to, from my experience, when there were two of us it was kind of easy to just kind of sit back and kind of be slightly awkward and not want to make any decisions as to kind of try to be forceful and ask for things whereas when I was by myself, I was kind of a lot more try to get what I wanted out of it.' (R3DGM3NPP)

This was recognised by students even when they were not sure how comfortable they would be. In the following discussion group extract, R6 expresses the opinion that going alone could be daunting, but also acknowledges the increased potential of participating rather than forming a separate student 'huddle':

R6: *'... I think the first couple is probably good to go on in a pair and it is a bit daunting as well, I mean, it's probably nice to have someone there just to have a little bit of back up to be honest.'*

R1: *'To make a huddle.'*

R6: *'Yes, to make a huddle, yes.'*

[Interviewer: Do you think it's easier to get involved if you're on your own?]

R7: *'I do; I've always preferred.'*

R6: *'Yes coz then you there and you've got no choice; you can't really hide behind the other person, you have to do it so.'*

R2: *'I think people seem to involve you more if you're just on your own.'*

R1: *'Yes, I think so too.'*

R2: *'They feel it's a bit less of a burden having one instead of two.'* (DGM3PP)

Arguably, if attending placements as individuals meant better integration into workplace teams, students could be supported by being linked more closely to an experienced team member – which might increase learning opportunities. Students thought that integration could work more easily for everyone when they were alone:

R8: *'Probably easier for the placement provider if there is just one because obviously depending on what they're doing, it's easier just to take one with them rather than two or three.'*

R1: *'And also all the attention's on you then and so any questions you have it's not double the amount of questions and you also half the doctor's time that he's focussing on the student so he's*

more likely to sort of say this is one person rather than three in a consultation, he's more likely to turn around and ask you a question than he would if there was three of you.' (DGM2PP)

Another reason for students preferring to attend placements alone was if they were not happy with the partner student who they had been allocated:

'I think it depends also on the person which we have co-operate with because some people are very well, share their duties that well but others are very competitive they want to do everything on their own.' (R4DGM2PP)

This indicates a level of competitiveness amongst the students to get personal experience.

Concerns also were raised about wasting valuable placement provider time and demanding too much from patients (see table 5.9).

Underlying these concerns are questions about students' legitimacy if they are not making a useful contribution to the central purposes of workplaces. The language used by students conveys their sense of indebtedness. They were discomforted by what they perceived as making demands on the time of patients and professionals. Although not explicitly stated, many of the examples in table 5.6 could suggest students were continually expecting someone to object to their presence, or to tell them they had created an imposition on others. It is possible that, had students not felt like 'spare parts', instead believing they had something to offer, then the burden of their indebtedness might have been reduced.

Table 5.9 Language examples for sense of indebtedness

QUOTATIONS	REFERENCE
'... she'd given up an hour of her time to come in and be there just for that.'	M1I1 L14
'I think we were quite lucky with the patient we had, 'cause he'd known the GP for years and so he didn't mind us interviewing him.'	M1I3 L164-166
'... we actually got...to meet the consultant. '	M1I4 L26
'The people had been in the clinic already a long time, I was a bit aware of the time of interviewing them afterwards... I didn't want to take too much more of their time up...she gave us the opportunity.'	M1I5 L12-13, L30
'... she was teaching us, as she went along a bit as well, which – for a first placement – we were quite surprised about. '	M1I6 L 13-14
'... we were allowed to, you know, take part a little bit in the procedures.'	M1I6 L 76
'He let me sit in with the whole clinic... like spent time to like talk to me. '	M1I7 L30, L39-40
'When the doctor finished with patients, we were...allowed to ask any additional question to patients, for example, "how do they feel about this?"'	M1I8 L24-6
'The GP – allowed me and placement partner to go with the patients... we were allowed to work by our own. '	M1I8 L121, 142
'... it was a really nice bloke and ... I don't think he'd been expecting to have to look after me that day.'	M2I3 page 4
'... if they've got a job to do... they don't want to be wasting time... they weren't expecting us.'	M2I4 L408 - 10

5.3.5 Nothing to offer

Students were challenged by their lack of anything to offer in return for their experience. They did not think they could provide a useful function in workplaces, and saw their learning as something which was parasitic –making use of but not assisting the purpose of workplaces. This might have been less of a problem had the students felt they had something with which they could negotiate or bargain, that is, there was something they could offer in return for gaining themselves.

Students drew contrasts with their current status and previous employment:

R5: *'...If you've got a job on a ward, it's entirely different... and you're part of, you're accepted but if you're a Medical Student, you're not.'*

[Interviewer: 'Okay. So by job do you mean paid employment or something to do?']

R5: *'Paid employment like a porter or something.'*

R3: *'Where you have to do something useful rather than just for your own benefit.'*

R5: *'Even though we can be useful I think they, at the minute anyway, we're more useful now than we were in first and second year but I think a lot of placement providers still fail to realise that there are a few things that we could do for them.'* (DGM3NPP)

Students described believing that the doctors they met didn't have time for them. Unpacking the source of this belief (demonstrated with the quotation below) suggests that it stemmed as much from the students' understanding of themselves as from the attitudes of others, although providers had little expectation that students could contribute:

'sometimes it feels like the doctors don't have time for you... I suppose with us only being first years... maybe it feels like they'd have more time for when we're in our third, fourth, fifth year, 'cause we'll probably know more then as well and they'd expect us to contribute more towards, what we thought was wrong with the patient or something like that...' (M115)

Students' sense of being outsiders, with nothing to offer, was not merely a perception on their part. The administrative faculty received feedback from placement providers including an objection to the use of the term 'student doctors' in the early years:

'Some consultants don't like the word "student doctors" because, they feel that module one and two, they aren't really student doctors are they?... so that was a comment that was just something in the feedback form, which we've discussed and we have changed that back to "medical students." (F12A)

This reported attitude of 'some consultants' suggests there was some strength of feeling that these students (in the first two years) were different to those of later years. The objection to calling them 'student doctors' could imply that the consultants did not consider students undertaking authentic early experience to be fully legitimate, (albeit very junior), apprentices to medicine as a profession. Junior students being treated as 'on probation' rather than as members of the team is a finding of previous sociological studies (Bloom 1973). It also highlights differences between medical and other healthcare professions where participation, including graded responsibility for the student and clearer supervisory and mentoring relationships, has been more common. The awkwardness students felt, as they had nothing to offer in return for their experiences, has also been identified in other research. Smithson et al. found that prior to starting medical school students had concerns about harming patients and feeling inadequate (Smithson, Hart et al. 2010). The sense of 'being in the way', especially when in busy clinical environments, was also found amongst these students after they had undertaken their first experiences. All medical students are supernumerary to the required workforce. Changes in nursing education towards a similar model have provoked concerns about the impact this has on student conceptions of legitimacy and learning (Allan & Smith 2009). Drinkwater gives a personal account of the difficulties students can encounter in persuading others in the workplace to include them, through simple participatory activities, even at a later stage of medical education (Drinkwater 2007). The ward as a working environment is

particularly challenging to students who perceive themselves as spare parts and a burden (Thistlethwaite & Jordan 1999).

5.3.6 Personal discomfort in transition from lay to professional role

Another aspect of students' identity development that emerged was related to how students bring lay perspectives on the role of doctors to medical school which are different to how they perceive themselves. There is a need, therefore, to show that they are capable of developing into a doctor – shaped by their interpretations of faculty and placement provider expectations. At the same time, students still feel closely aligned with patients during authentic early experiences:

'...we were like saying "what's the doctor said about you"... and she went "I don't know... what's he said to you?" [laughs] and we were like, "no, we've just come to interview you!" [laughs]... And when the doctor came in – this was quite bad actually – a doctor came in and she was hard of hearing, so she was... like that nodding at him and she goes "what did he say?"... that's something to talk about as well because even though you might not think it, they might pretend to be listening – especially elderly patients and stuff – but they really can't hear you and take that into consideration.' (M2I10)

Students derived support from patients who identified their discomfort and realised their novice status:

'when we talk to patients... they kind of feel sorry for you as well because you've got all this to do and then, you know, sit next to a doctor, but they're really nice to you most of the time.' (M2I10)

Table 5.10 Language examples for discomfort with professional role

QUOTATIONS	REFERENCE
'... you did feel like you were thrown very much in at the deep end... '	M1I1 L21
'I haven't really had much experience of dealing with people on a professional basis..."it is a placement, you know, we are medical students now".'	M1I2 L140-1, L235-8
'... because of the answers I received from the person I realised that I need to be more prepared ... to hear something shocking. '	M1I4 L90-91
'... you would behave as a medical student – you do try and remain more detached... not get involved. '	M1 I11 page 28-9
'... when we did our communication skills they said, about sidelining things – when patients have got an alternative agenda to what you've got – and we just didn't do it... you feel kind of rude... when it's a normal patient you're kind of like well they expect me to know what I'm doing, so...and you know that the patient's not going to know if you've done it wrong...you will be professional and you will be polite and you will speak to people in a certain way and people will react to you in a certain way... whenever you mention you're a medical student to anybody...you're not a person anymore. '	M1 I10 L168-170, L318, 361-8, L731-6
'..'cause we are being watched and we can't just go in with a silly attitude.'	M1 I12 L396-7
'... if just a layperson came in and saw that, I think they'd think that they weren't showing any respect , so...but they've got so much to get through that they've got to be thorough.'	M2I1 page 4
'We're not even nearly qualified yet...we had barely done anything.'	M2I2 page 2
'... the questions we were expected to ask were just ridiculous – it was really embarrassing having to ask them... you feel it's a bit intrusive almost, the detail you have to go into.'	M2I3 page 6 - 7(asking about aging)
'I like talking patients in a way, I guess... I can be quite informal with a patient... maybe I need to improve on that.'	M2I10 L173-75

A common thread in the content of student stories is that the subjects covered are not easily discussed in everyday social interactions (see table 5.10). From a lay perspective, these might be considered to be taboo subjects. The strong identification between patients and students indicates that they may still share the common ground of the lay perspective during authentic early experiences – making the focus identified in the literature (see Chapter Two) on ensuring students experienced and understood patient perspectives curious as an educational objective. Discomfort arising from student perceptions of what it meant to become a doctor, while still being aligned to a

lay perspective mirrors findings from elsewhere. Other researchers have also found that patients and students identify strongly with each other, yet both will default to passive roles in the presence of professionals (Ashley, Rhodes et al. 2008).

Students felt discomfort when conducting conversations which broke the boundaries of lay norms. This student is describing interviewing a patient about aspects of the patient's lifestyle (such as smoking or alcohol intake) which can affect health:

'whilst they're talking you're sort of asking all these lifestyle questions that really... you can ask them one or two or, maybe three but, you don't want to go... you sort of feel it's a bit intrusive almost, some of the detail you have to go into.' (M2I3)

The student suggests that she does not feel that that these are legitimate questions to be asking, perhaps because the purpose is for student education rather than patient benefit. Students were also sensitive to emotive experiences; for example, this student describes meeting a patient with incurable disease who is approaching the end of life:

'I think when someone tells you that they've only got a few months to live it's trying to act like you're not shocked and just try and deal with that, I think.' (M2I1)

Some of the students explicitly expressed concerns that their interactions might cause patients harm, by making the situation worse or 'saying the wrong thing'. This might, as in the above example, be in response to a revelation from a patient, but equally might simply be concern about conducting the conversation in general as can be seen in this quotation:

'He just said out of the blue "would you like to take a history off the patient?" and I just thought right, well, I'd rather not do it terribly and, you know, potentially make the patient worse off because of it – why put her through a history that's not going to be properly taken – so I just said "I'm... not quite sure on... the structure of it so would you mind if I... just observed this time?"'

(M2I4)

In all of these examples, the student is clearly aware of the potentially sensitive nature of the conversation. Discomfort arises from concerns regarding status as a medical student and therefore legitimacy to be discussing these issues.

Other sources of discomfort arose from discovering that, in practice, pragmatism might override the principles of in-house teaching regarding patient interactions. This student is describing the necessity of a more direct approach witnessed during an authentic early experience:

'By the end of it, the aunty got the feet, the consultant got the head, they carried him into the room and forcefully took blood from him 'cause it needed to be done. The aunty gave the consent, the mother had given consent, the kid refused – and it was... again it was surreal to see it, forcibly doing something to a patient, yet it had to be done.' (M2I10)

These students do not have a problem appreciating patients' perspectives but they do not know how to retain this whilst simultaneously developing a professional identity:

'when we did our communication skills they said, about side-lining things – when patients have got an alternative agenda to what you've got – and we just didn't do it... you feel kind of rude... when it's a normal patient you're kind of like well they expect me to know what I'm doing, so... and you know that the patient's not going to know if you've done it wrong... you will be professional and you will be polite and you will speak to people in a certain way and people will react to you in a certain way... whenever you mention you're a medical student to anybody... you're not a person anymore.' (M1I10)

These students did not overtly display the cynicism and loss of caring attitudes reported to develop amongst students in later years of medical school (Brosnan 2007, Colliver, Conlee et al. 2010, Pedersen 2010). Nevertheless, they had come to believe that to become insiders they needed to deliberately set aside lay perspectives and suppress personal views. If the language used by students is taken to display their attitudes, then clearly the students can create a 'them' and 'us' narrative. The reason for seeking to ensure students understand patient perspectives on health, illness and healthcare services early in the curriculum is often stated to be to counteract this. If, paradoxically, the opposite effect occurs then this is a concern. The question arises as to whether these findings are the first step towards using cynicism as a coping mechanism. It had been suggested that cynicism and black humour might be part of a more complex identity which also encompasses more deeply held beliefs and uses superficial changes in attitudes as mechanisms for coping with stresses (Sinclair 1997). This suggestion is supported by evidence that cynicism appears to peak at times of transition and increased stress, and has been found to have reduced again in experienced practitioners (Pearson 2010). Even so, it is potentially a concern as such

mechanisms may allow short term coping at the expense of long-term wellbeing (Dyrbye, Thomas et al. 2005).

5.4 Dynamic interactions and tensions

All three groups agreed that the faculty should be setting the agenda for placements, as they have an overview of the wider curriculum. Students and placement providers gave little consideration to whether the faculty members designing authentic early experiences had an accurate understanding of the workplaces in which these would occur. In fact, although charged with the responsibility of setting an agenda, the faculty had little control, and sometimes little knowledge, of the interactions which actually took place as illustrated in section 5.3.3. There was also a lack of consensus about who took responsibility for debriefing students and providing support for their learning:

‘with the change to the experiential learning, the expectations were that the students would be... debriefed in the placements... and I’m not sure that the debriefings were actually happening...’ (F5T)

The ‘truth’ of in-house teaching was judged by authentic early experience as students found either contrasts or comparability. ‘Cementing’ of this teaching, as opposed to disregarding it, was reliant on the students finding value of the teaching in practice. For example, the importance of concordance with medication is linked by this student to an experience of meeting a patient who described the consequences of non-concordance:

'The patient told us, so it's like first-hand... witness. So we know that how important it is – she was telling us about... she once stopped taking the drug... back, some years ago and she immediately felt depressed and she had suicide thoughts and so on... we know now that it's very important.' (M1I12)

Students, perhaps due to the early nature of their studies, commonly described differences between workplace interactions and the semi-formulaic approaches of their communication skills teaching sessions:

'watching the GP [General Practitioner] interview the patient as well was quite interesting to see how things have changed [laughs], 'cause, he didn't follow the exact routine that we've followed...'
(M1I3)

The differences identified were often comparable to those between an experienced driver and someone taking a driving test. This still had potential significance; the students had not yet become normalised to workplace pressures and so retained a different perspective on what constituted a preferential way of conducting consultations.

The provision of 'seeing reality' through authentic early experience was described using variations on metaphors for sight (or the lack of) such as 'blind', 'eye-opener', and 'light at the end of the tunnel' (see table 5.11).

Some students, although describing dissatisfaction with the situations they found themselves in, had already begun to accept that the ideal circumstances of consultations might not be achievable in every workplace:

'we was, stood around his bed, there was, no seats for us to sit on, so it was, three people, towering over him, whereas... yesterday and then the one in the doctor's surgery we could sit down, on the same level as them.' (M117)

Table 5.11 Metaphors for seeing reality

METAPHOR EXAMPLES	REFERENCES	EXAMPLE QUOTATIONS
Blind	M2I2	'... it wasn't as if they've sort of sent us out blind, and take a history on locomotor without actually telling us how to' (M2I2)
Eye-opener	M2I2, M2I8, M2I11, F7T, F11T, F13A, DGM2PP, PP14	<p>'certainly evidence of students who... had eye-opening experiences maybe' (F11T)</p> <p>'... an eye-opener when they do actually go out into the... hospital wards and mixing with clinicians.' (F13A)</p> <p>'quite an eye-opening experience for many of them' (F7T)</p> <p>'I've never really experienced that and I really valued been on that placement coz it was quite an eye opener for me.' (R1DGM2PP)</p> <p>'... which was a bit of an eye-opener really because we were doing a cancer module and I went to visit someone with end-stage colorectal cancer.' (M2I11)</p> <p>'... to their eyes don't know anything yet.' (M2I2)</p> <p>'It's opened my eyes to how people do really live.' (M2I8)</p> <p>'.. at a post-mortem, it's all, blood everywhere, everything looks... like a dog's dinner – for the untrained eye.' (PP14)</p>
Light at the end of the tunnel	M2I11, DGM3PP	<p>'... it can get, easy to kind of get tunnel vision on exams and not think about medicine and the future.' (R9DGM3PP)</p> <p>'... you've also got to be able to see the light at the end of the tunnel and I think placements give you that, as well as... the... sooner you do it, the better you are at it, 'cause the more experience you'll have by the time you're actually coming to do it.' (M2I11)</p>

Students' main concern, regarding differences in practice and faculty teaching, at this stage came from what they perceived as the need to know the 'right' way to please the faculty, and achieve the medical school standards in examinations. There were two arguments put forward. First, as R3 states below, there was a perception that there was one correct approach for the medical school, which was not necessarily the case in practice. Second, students reasoned that, if authentic early experiences (R2) were of value for examinations, then this would be unfair:

R3: *'But if they tell you to do it a different way than how you've been taught, it's confusing in way isn't it because you think "look I've been taught a specific way, please just don't confuse me, I just want to learn that and nothing else".'*

R2: *'I think the problem is as well if you look at it like the placements are really valuable to our actual exams then there's a real discrepancy because some students are getting so much more help than others towards their exams because you can get a series of really bad placements and someone could get a series of really useful ones.'* (DGM2PP)

During the initial weeks at medical school students would try to identify characteristics of members of faculty as well as those of placement providers to guide their interactions. Some students focused on the potential differences between medically qualified members of faculty and others. Those without medical qualifications were not always viewed as accurate sources of information with respect to the reality of interacting with patients:

'people at the medical school, unless they've been a patient, can't really say "you need to do this and this".' (M1I1)

The knowledge construct (both subject content and recognised value) which students present to their teachers is fundamentally dependent on the students' perceptions of what those teachers

want from them. These findings are not unique to authentic early experience, as demonstrated in Becker et al.'s seminal study 'Boy's in White' (Becker, Geer et al. 1961). More recently, Schryer et al. found students in later years would conform to the placement providers' expectations and seek to present cases in a way which impressed them (Schryer, Lingard et al. 2003).

Different approaches to issues of consent and confidentiality were a common example of differences between faculty teaching and placement provider behaviour. Students were surprised to find variance in how much importance patients placed on these tenets of consultations, sometimes leading to the conclusion that simulated patients were following the medical school's rules rather than representing a valid patient perspective:

'I think simulated patients try to do things a lot more by the book, whereas real patients... they aren't as, you know, sort of straightforward as you might think – you wouldn't normally go through, confidentiality with them and then consent and that sort of stuff, 'cause they just... they don't see it as being important, whereas simulated patients will – that's only probably because they've been told to... by the medical school.' (M113)

This could, of course, be because patients expected the same approach from students as from other health professionals. Confidentiality is often 'taken as read' rather than explicitly stated, particularly when patients are seeing professionals on an ongoing basis, although this may be less so where there is a recognised increased sensitivity. None of the student interviewees described considering such nuances. As students gained experience of workplace practices, other sources of difference were also identified between these and in-house teaching. Some students began to test in-house teaching against the 'reality' of the workplace, the latter being implicitly accepted as how to do things 'properly'.

An example of this was the in-house versus workplace versions of how an ECG (electrocardiogram) could be performed illustrated by the two quotations below:

'ECGs where in the first year you do it a completely different way to the... way that you'd use in the hospital... you think "oh why are we doing this when you're never gonna use it", so that's kind of frustrating... then having to learn how to do the twelve lead properly rather than just using the pads on your wrist.' (M1111)

'the ECG we'd only done four lead but he... showed us how to do the twelve lead, so it was pretty... he did the first one and, guided us through it – so we'd done the basic four lead before but hadn't done the twelve lead... but he showed us how to do it.' (M215)

These students did not understand why they had been taught a simplified (and largely obsolete in clinical practice) version of this skill. This led to frustration and questions in students' minds of the in-house teaching. In the discussion groups it became apparent, that with more experience, some students were able to understand that difference did not necessarily indicate 'right' or 'wrong'.

They then become more confident about putting the in-house teaching into practice:

R6: *'It depends how confident I was about the way that we were taught in the first place if I remember that then I'd say "we've been taught this, is it o.k. to do that?"'*

R1: *'I think if... we're more confident to do it the new way this year than last year. Last year would be like "oh we don't know this" and "oh that's the Med School's taught us" and it's not real life and just kind of, not very well handled I would say.'* (DGM3NPP)

It was important for the students to understand specific differences in specific contexts before they gained this confidence. It was unclear from the data how many instances of differences might be best resolved by changing teaching in the school or seeking to change common practice. Often the students' concern related to confusion about the existence of difference rather than its content. Further examples of language indicating tensions perceived between faculty and placement provider teaching are given in table 5.12.

Table 5.12 Language examples for tensions between faculty and placement provider teaching

QUOTATIONS	REFERENCE
'... how things have changed, 'cause he didn't follow the exact routine that we've followed ... maybe he doesn't see the need in going through confidentiality and consent every single time he speaks to them...we said at the end... oh yeah, everything you say here is confidential and , uh, we won't tell anyone other than the doctor and he goes "oh it doesn't matter, just go and laugh about it with your friends".'	M1I3 L75-6, L126-7, L240-243
' Maybe some people would, say it... call it manipulation , but... it was how the... consultant was talking to the patient. As if he was leading him?'	M1I4 L50-1
'I think all those experiences have been very valuable in their own way. Maybe not as it was predicted... or planned on a curriculum, or how I understood what we were supposed to do.'	M1I4 L168-172
'... the different communication between the different health professionals and what was good and what was bad.'	M1I5 L 97-8
'I would have thought she would have gone into a bit more detail on this... like social support... I don't know, why or if she was... didn't want to know ... would have been a big thing at that point... maybe you don't want to approach them.'	M1I7 L75-89, 97-98
'We were sort of given a free rein... obviously it wasn't like a proper patient, you know, consultation with the whole introduction and, confidentiality. '	M1 I9 L97-100
'We thought we'd got a... fair amount of information out of him... the more he asked questions... 'cause he asked them in structured way... and we just done it the way we'd been... 'cause we've just learned open questions, probing and then close questions... the more we realised we hadn't got everything that we really needed... '	M1 I9 L166
' I guess it's a useful tool, in a way, but ethically I'm not quite sure. '	M1 I12 L 109
'I did realise they didn't ask consent at all for a medical student ... to be in the room, so I thought that was a bit... 'cause they were... the person was just looking at me, like "what are you doing here?" kind of thing.'	M2 I1 page 6
'We've had a few lectures on... the basis and theories of things and then you read a book and think... realise they're lying ... when you see patients you see how different patients react differently to different medications... you're just confused and you don't know what's right... it's kind of hard to keep... well, to know what to believe '	M2 I6 L485-90, L506-7, 515
'... she was dehumanising the patient because ... it was just a thing she had to get over and done with, not seeing him as an individual.'	M2I10 L133-5

5.4.1 Learning to handle interactions

Placement providers found it difficult to distinguish between lack of knowledge and lack of confidence in the students and described 'quiet students' as the most difficult:

'I've been surprised by a couple of them being very quiet... They've been a little bit hard work... I would say. Especially when you've got them for four hours... they've been quite difficult. But we... we tend to find something where we can get equal ground...' (PP1)

'[when there are more students sent to the same placement provider at once] I think sometimes people are perhaps a little bit more... there's a bit more peer pressure there and they sort of sit back and listen and wait to see what... their counterparts are going to say and what they're going to ask and... do you know what I mean? The more confident ones... will jump in and perhaps make a... lot of noise and do a lot of the... and the others'll kind of just follow.' (PP13)

For most students there was a realisation of the need to take initiative, in order to make authentic early experiences work for themselves:

'I think you get the most from anything if you put yourself forward and you're in the middle of it.'
(M1I6)

'it would be better to have a better attitude to get involved at like, every little helps us like do anything, anything that is doable for anyone so.' (R1DGM3NPP)

Despite this students were often observing healthcare professionals interact or carry out procedures rather than necessarily getting actively involved:

'... and like see what the things actually look like on a patient and hopefully we... like, we're learning to do examinations and stuff – hopefully we'll get to do a few more examinations as well. And like my placement last week – that's the only reason it was really good – we actually got to do things rather than just observing, so it was really good to actually, be involved and be doing things.'

(M2I5)

The uncertainty students experienced about how much initiative to take is demonstrated in the language of table 5.13.

Table 5.13 Language examples for realisation of need to take initiative

QUOTATIONS	REFERENCE
'I just got stuck in...just waited patiently... some students'll come to medical school and be completely humble... some people come with the attitude of "well I got into medical school, I'm better than anyone else" ... just to get a feel of working with people as well instead of just shadowing... even if it's not talking to people, just shadowing... you get the atmosphere and you learn things by just being there.'	M1I1 L73, L82-87, L293-4, p468-9
'... just a communication skills based one... I think you just get the most from anything if you put yourself forward and you're in the middle of it.'	M1I6 L3, L653-4
'Maybe we should have asked for chairs to be on the same level as the patient.'	M1 I7 L193-4
It's different because when you are on your own or only with one person... it can help to do the interview properly... because when you are in a group you can just sit silently and observe. '	M1I8 L95-99
'I should have been stronger.'	M1I11 page 11
'... learning to improvise.'	M1 I12 L154
'... when they actually involve you.'	M2 I5 L240
'... the actual real... you can actually look at the symptoms on a patient...and see what things actually look like on a patient... actually be involved. '	M2 I5 L301-308
'... the doctor did acknowledge the fact we were there rather than ignoring us and let us have an opportunity...to ask him questions.'	M2I7 L24-27
'I like interviewing patients... I don't have a problem with that. '	M2I8 L82-4

Students believed that they needed help to learn how to negotiate effectively to fulfil their own agendas:

'I think something that has been discussed with us more recently that perhaps could have been discussed in year one was... actually being proactive and like negotiation.... it just would have helped you feel a little bit more confident to adapt the placement and try and get the most out of it instead you sometimes felt like a spare part.' (R2DGM2PP)

Active observing required the placement provider to link the student with the experience by interaction with them during the placement even if the student wasn't able to physically participate – thereby conferring legitimacy on the student's presence and psychological participation.

5.4.2 Conceptualising post mortems: a worked example

The contrasting narratives used to conceptualise authentic early experience by each group of participants can be further understood by considering one particular experience in depth. For this worked example, I am taking the post mortems which are part of authentic early experience during module two, and which all students attend.

While the educational potential of post mortem attendance has been debated in specialist journals, it has not been fully investigated within medical education literature. Little is known about learning from post mortems through authentic early experience within integrated curricula. Talmon recently surveyed pathology educators (mainly teaching in preclinical settings in the United States) about the use of autopsies in medical education. The majority of respondents used

autopsies as a teaching tool for pathology, although only just over 10% reported discussing issues at the end of life (Talmon 2010). Where educational value has been discussed in the literature, this is commonly related to content such as anatomy knowledge, rather than social knowledge about the patients concerned (de Villiers & Ruhaya 2005, Kucuker, Ozen et al. 2008).

Students spontaneously talked about expectations and experiences of this placement, and demonstrated through the language used – colourful descriptions and vivid metaphors - the significance of its impact. Interactions between agents were based on how students and placement providers perceived themselves, each other, and the faculty. Variance in expectations led to varied consequences in terms of meaning-making and knowledge construction.

Students

Student narratives of post mortem placements contribute to the reality of learning in multiple domains of knowledge. They conceptualised their experiences in terms of meeting and learning from real, albeit dead, people. Three narratives are provided below, and then discussed to illustrate this. Significant language has been highlighted.

Students struggled with desires to align themselves with these professional views while still experiencing the post mortem from a lay perspective. They were shocked and often personalised their stories by reference to their own mortality. These findings are consistent with research about attitudes to bereavement in a traditional curriculum (Botega, Metze et al. 1997), and attitudes towards post mortems in later clinical years (Sanner 1995). Greater detachment in later years has since been reported by McNamee et al. (2009). Patients were talked about in an active sense – as if the student was trying to make sense of why the patient had died and needed a post mortem from an existential perspective as well as a practical physical one.

Figure 5.8 Student narratives of post mortems

Student narrative A

'... quite a **scary** experience 'cause there was a lot ... more blood and things like that. 'Cause we've been doing dissections since the first year but... it was a bit different to do that because it was just **completely real**, I think ... **I'm not that squeamish** ... a lot more **thorough and rough** in a way, so ... it was just a bit more **gory**... I think it's hard **if just a layperson came in and saw that, I think they'd think that they weren't showing any respect**, so... but they've got so much to get through that **they've got to be** thorough, so it's just trying to keep that in perspective, I think.' (M2I1)

Student narrative B

'We have to write a reflective summary on it so I think the **medical school will then be able to take from that if anybody has been affected profoundly** by it they can sort of follow it up... it seems to be... especially on television... it's **glamorised** and also they... it's sort of **whitewashed** a bit... it's sort of made to be a bit **prettier** than it is and then you're actually there and you see **what has to happen in a post mortem**.... and it has to happen because so many patients you don't know the cause of death, **you need to know the cause of death**... I think it was just a bit of realism, I think.' (M2I2)

Student narrative C

'You're used to... seeing a dead person... but **you're not used to seeing a fresh dead person**... I know it sounds terrible to say but I mean **these people have died, say, the night before** and... she's just been **opened up** and he just **scooped everything out** and **slapped it on the bench**... this was someone who was **alive yesterday** and to see all her organs just out on the bench ... **Massive carving knife**, just doing sections through and then it all gets **whacked in a bag** and put in the cavity and sewn up, so it was just... I don't know it's... I suppose it's going from something... **someone that was alive yesterday to basically a piece of meat the next day**... which is something that if you... see it for the first time it's something that's quite new... 'cause **that could be me, tomorrow**... **It was a good experience**. I mean... You get used to it but I was a little... nauseous ... I'd say to start with. **But the more and more you experience it, the less and less that gets and then you walk into a situation and it's just normal**.' (M2I11)

The student, M2I1, who provides the first narrative, uses vivid language (scary, gory) to explain that this was different to previous encounters with cadavers in the dissection room (who are embalmed). The reality of the situation impacted upon him in a way not previously understood. He is keen to construe both his ability to cope, and reasons for the necessity (time pressures and need to be thorough) of the procedure being carried out in the way he observed. Tension between the desire to self-align with witnessed behaviour of professionals involved and a still held lay

perspective is demonstrated as he expresses concern that a layperson would perceive a lack of respect.

These themes are also present in the second narrative. This student (M2I2) uses the metaphor of 'whitewashing' – covering up reality – to describe previous understanding gained from television. They frame their narrative with respect to the medical school as a test of ability to become a doctor, expecting anyone who cannot cope to be identified and followed up. Students were pleased with themselves if they had proved they could handle the interactions required during this experience. They conceptualised this as surviving a challenge. This perception is likely to lead students to seek to show their ability to cope in their reflective assignments, regardless of how they feel. As with the first student, evidence of acceptance of the professional imperative to undertake post mortems is offered perhaps to show that the student is willing to take on such a viewpoint.

The last student's narrative (M2I11) uses a metaphor of butchery throughout. Butchery was a metaphor which was unsurprising, given this is probably the only experience of dissection students have outside of their anatomy sessions, and the butcher's shop contains much more vivid colour references than an embalmed body. The impact on this student cannot be missed, as they describe 'seeing a fresh dead person' and relating to this person as an individual. In addition, this student is challenged by meaning-making which leads to the realisation 'it could be me' – forming a personal connection to the potential fragility of health. A switch is then made from describing 'someone' – a person in the past tense, to 'a piece of meat' – an objectification of what is no longer a person. The student's description of the procedure which treats the deceased as 'meat' stands in contrast to his assertion that it was a 'good experience'. Whether this assertion is made to demonstrate an ability to cope, or to simply mean 'good to know what a post mortem is like' is unclear. The narrative is, however, brought to a close with the recognition that repeated exposure brings familiarity and acclimatisation. The student is aware that his understanding of 'normal' will

change as he becomes a medical insider. Questions remain about whether students will seek to retain or discard lay perspectives in this process. The issue of desensitisation is interesting. Death is often referred to as the last taboo – death is always horrible, it is not ‘normal’ to become comfortable with it – yet humans have a great capacity to lose sensitivity to repeated experiences. The student appears to accept that normalisation of the post mortem is necessary for his medical identity. In doing so he begins to move position from outsider to insider.

Placement providers

Recognition of how students still related to lay rather than professional perspectives was variable. For example, a pathologist supervising post mortem placements used the same metaphor of butchery to express their hope students would learn the exact opposite meaning from the one they describe:

‘I want them to learn that we’re not going to butcher them – after the PM [post mortem] they just look like before...’ (PP14)

Two pathologists were interviewed as placement providers (PP10 and PP14) to gain their perspective on these placements. The narrative of PP10 is provided as an example. It is significant in the contrasting language and focus used to describe the same events.

Figure 5.9 Placement provider narrative of post mortems

Placement provider narrative

'... used to **teach anatomy**... to understand ... just **what happens** in a post-mortem, so... students can **answer a question, to a relative** about what's going to happen in a post-mortem... and to see some **basic pathological processes** in action. I ask them what they know about the coroner – **I obviously expect them to know nothing at all about the coroner**, so I explain a little bit about that... then I also demonstrate any pathology to them, which they haven't had much exposure to at that time and... we sort of indicate the system whereby we might arrive at a cause of death and, obviously I let them ask any questions at any time, and most importantly I... **insist that they see the body after it's been sewn up to indicate that it's quite reasonable for the relatives to see a body after a post-mortem.**' (PP10)

These pathologists had specific learning agendas for the post mortem placements covering a variety of knowledge types. The agenda included a) students' learning 'factually correct' information which could be used to explain to bereaved relatives that the procedure was performed without compromising patient dignity, and b) understanding of the uncertainty of clinical diagnoses. This self-set provider agenda had come about amidst a perceived vacuum of specific faculty objectives, as the pathologists had greater expectations than faculty for students to learn new content knowledge, skills, and behaviours. The pathologists wanted to deliver to students the message that post mortems had a purpose and for students to know how to be ambassadors of this message. Students were expected to lose the lay perspective and to accept medical 'truth' as they prepared for future roles as doctors. This could be interpreted that to be a pathologist one would have to believe in the worth of post mortems and that these providers seemed to also want to correct misunderstandings of their own roles. General practitioners were the only other group of placement providers whose data was comparable with respect to including a provider-led agenda to show students the worth of their roles. The data does not provide reasons for this, but a possible explanation could be the negative historical conceptualisation of these groups by the wider medical profession and society. In the case of General Practitioners, historically their work has been conceptualised as 'less specialist' and so they have sought to show

equal educational benefit (in comparison with hospital settings) (Khan & Fareed 2003, Satran, Harris et al. 1993, Robinson, Spencer et al. 1994, Ashley, Rhodes et al. 2008). In the case of pathologists, their work has often been portrayed as distasteful, at best, in societal imagination – an impression that these pathologists were keen to correct.

Faculty

Only four members of faculty mentioned post mortem placements in the interviews. Their expectations were broad and non-specific around transfer of anatomical and pathological knowledge:

‘...in fact that’s the type of placement that’s been running for years and so what we’re expecting the student to do is see a post-mortem, be shown some gross anatomy and morbid anatomy and they also write a reflective piece about it for their portfolio... well, we’ve got evidence that they’ve attended and we’ve got evidence that they’ve at least thought about it.’ (F6T)

The experience of the post mortem was conceptualised by faculty as an extra which might add a dimension to in-house teaching about sudden death, rather than make a contribution to student learning in its own right:

‘They may also, learn something about the... psychological and social impact of a post-mortem... the implications for the relatives and so on. And this fits into... a case where, there is a bereavement – a sudden death.’ (F5T)

Some faculty were dismissive of students learning content knowledge such as pathology while others recognised that it provided ‘clinical context’. Even so, there was a dismissive element to the

experience and a lack of recognition of the impact post mortems might have. There was just one member of faculty who had direct experience of this impact on a student.

It is possible that the vividness of experience prevented students from describing themselves as a spare part during these placements. Equally possible is that the pathologists engaged the students in the post mortems in a way which legitimised their presence. Despite this, students did not generally acknowledge the extent of content knowledge placement providers wanted them to gain. Nor did the students appear to consider this knowledge as a means of providing them with something to offer others either now, or on graduation. It appears that students avoided acknowledging their discomfort to either provider or faculty, instead negotiating the tensions between this and what they perceived was expected of them by avoiding confrontation (accepting participation) during the placement and telling stories of survival afterwards. In doing so, students are making choices which they perceive to be required for their future professional roles.

5.5 Discussion

The faculty and placement providers' expectations of students appeared to be simultaneously too high and too low - too high in relation to the ability of students to access and integrate themselves into workplace culture, but too low with respect to the potential learning to be gained. Faculty and placement providers maintain high expectations for students transferring learning and creating connections, while having little expectation for student integration and active involvement in the workplaces where authentic early experience occurs. Prior work experience, clinically relevant knowledge, and confidence in skills have all been found to be factors in student ease of transition into clinical environments (Shacklady, Holmes et al. 2009). Currently, these issues are not being

fully considered with respect to authentic early experience. This may be due to lack of expectation that it is anything more than a means to acclimatise students in preparation for later years.

Students in my research have come to expect authentic early experience to produce 'non-medical' learning. Although exposed to clinical environments early in the course, the meaning they make from their experiences has been predefined in their minds as within shared social or personal lay perspectives. This has potential to result paradoxically in knowledge from authentic early experiences being assigned a meaning comparable to that of 'basic science' in the traditional curriculum: in a worst case scenario, to be perceived as irrelevant and disjoined from 'real medical practice'. I return to this important issue in both Chapter Six and Chapter Seven.

Social processes are set within a wider social field with influences such as power and control; responsibility (given, received, accepted, acknowledged) and ownership; role and identity, legitimacy and allowed functions all influence meaning-making. Students show, for example through their meaning-making following post mortem experiences, that they are constructing a much broader knowledge in which content learning is inseparable from evolution in their own identity and role constructions. Different expectations placed on students could impair learning from post mortem experiences as students attempt to negotiate between faculty and placement provider objectives. The experience of attending post mortems could potentially be made more educationally effective by aligning assessment with learning of content knowledge and overtly discussing tensions between lay and professional perspectives.

Their narratives demonstrate that students are learning how to survive and create meanings that allow them to make their experiences work for them. Confidence may be gained from the successful completion of challenges such as negotiating uncertainty or meeting placement provider demands. Students build into their meaning-making a sense of needing to act in a professional

capacity which requires leaving behind personal lay and collective social perspectives, in order to cope. Students' uncertainty about their professional identity and role leaves them aware that they are no longer interacting as a lay person before they know how they want to personally react within a professional identity (Lumma-Sellenthin 2009).

The students see themselves as a heterogeneous, but nonetheless clearly defined, outsider group, which needs to make medical education work despite discomfort in the transition from a lay to a professional role. This goes beyond learning what might be contained within a formal / official, hidden, or any other sort of curriculum (Hafferty 1998), to the student body creating their own meaning and deciding how to use this meaning. The use to which students put their meanings is dependent on a belief that 'others' do not understand what it is like for them. This necessitates students developing a way to handle interactions within and between workplaces and the medical school.

Tensions may occur as students identify the need to serve two masters - faculty and placement providers. The perspective of placement providers is that their expectations of students are often met, as these are already low. On the other hand, the faculty understanding of authentic early experiences is shaped by preconceptions inherent in the curricular topics which have been allocated - comparable to those reported in the literature (see Chapter Two). Faculty members are most concerned about students being overwhelmed or acting beyond their capabilities, while expecting placement providers to determine specific involvement according to setting, and students to acclimatise to the workplace with relative ease. Placements were mainly seen as a tool to reinforce in-house learning rather than learn new things.

These findings suggest that early clinical experience in practice does not confer a sense of Legitimate Peripheral Participation to students, despite socio-cultural and experiential learning

theories being the commonest evidence presented in support of authentic early experience. To return to my own metaphor of the 'black box' recorder, presenting and describing these elements of the students' experiences opens the lid of the box. Inside the box is not a void; it contains complex social processes influencing interactions and resultant meaning-making. These processes influence what students take away from their experiences, and how and why meaning-making occurs, with a variety of consequences. Authentic early experience should, therefore, be understood as a socio-cultural process of which intended learning is just a part of the total learning and resultant meaning-making, is undertaken by agents in a context defined through institutional aims and organisation. The meaning made by students from authentic early experience is a consequence of a continuum which starts with the understanding of all participants, and includes their expectations as well as agent and structure interactions before, during, and after placements. To understand the consequences of authentic early experience, intended and unintended, predicted and unpredicted, it is necessary to trace associations along a continuum from expectations through the process of actual experiences to consequences.

5.6 Conclusions

In this chapter, I have demonstrated that, what students take away from authentic early experiences, and their meaning-making is dependent on their ability to find satisfactory ways to make sense of their experiences; how they construct their role and identity including addressing issues of legitimacy; and how they interact with others. In Chapter Six, I will focus further on the underlying social processes identified within the data. These can be broadly divided into two categories: those relating to workplace interactions (e.g. legitimacy, identity, role, and risk management) and those more specifically related to learning medical content knowledge including learning objectives, integration, transferability, and functional learning.

Chapter Six

Workplace and educational spectra: identification of variables to describe interacting social processes

6.1 Introduction

In Chapter Five, I demonstrated that social interactions are fundamental to meaning-making for students. I began to develop the idea that authentic early experiences should be considered holistically as a continuum, from expectations through actual processes to consequences, by showing how expectations drive and shape interactions, and therefore, experiences. In addition, the resultant narratives which facilitate meaning-making for students were discussed.

This chapter provides a bridge to Chapter Seven from the detailed descriptions and meaning-making through narratives, language and metaphor of Chapter Five. In Chapter Seven, I reconceptualise knowledge as meaning-making through the construction of Mētis. I then consider the implications, for knowledge creation and content, of varied meaning-making which depends on social processes and dynamic interactions.

First, in this chapter, I further consider the social processes that are embedded in, and influence on, agents' interactions in authentic early experiences. This is achieved by identifying a series of intersecting spectra. The dyads of variables that form each spectrum describe influences on the social process of authentic early experience; making explicit the parameters within which social interactions are conducted. These are underlying issues for students that go beyond learning

medicine in the sense of an academic or vocational discipline. Issues include power and control; understanding of responsibility (given, received, accepted, and/or acknowledged) and ownership; and concerns about role and identity. Student concerns centre on their survival through experiences which provide challenges to their understanding of themselves as well as the world in which they are now interacting.

Survival requires students to develop both cultural and educational competencies for handling social and dynamic interactions within and between workplaces and the medical school. Students try to make sense of their experiences on at least two levels. First, they need to develop an understanding of the workplaces in which experiences are situated. This can be broadly conceptualised as developing cultural competencies for their perceptions of the medical world. Second, meaning is constructed about knowledge which is medically and/or educationally useful.

The social processes influencing both levels of meaning-making can be conceived as a series of spectra. Two interacting categories of spectra have been identified (from the data) to describe the underlying social processes relevant to authentic early experiences. Workplace spectra describe influences on interactions within experiences, and the consequences of these such as meaning made and development of student *Mētis*; educational spectra describe how the reality of learning is shaped through social influences on knowledge construction. After explaining the concept of interdependent spectra, and providing a note on data comparisons, the remainder of this chapter addresses each of these categories in turn. I will discuss spectra relating to construction of understanding about the place of medical students within workplaces before focusing more specifically on spectra regarding educational consequences in the light of frustrations in medical education. As identified in Chapter One, these frustrations include effective and efficient generation of content knowledge and the ability to transfer functional knowledge between contexts. Considering the social processes of the workplace prior to education as a social process is

deliberate. Unless an authentic early experience is appropriately placed on each of the workplace spectra, then there is no evidence that students will be able to adequately engage in the processes of the educational spectra.

6.1.1 Social co-construction of authentic early experience: a series of interacting spectra

A spectrum can be used to classify something in terms of its (variable) position between two poles. Different experiences can be classified across a range of spectra with each individual spectrum describing a particular social element from one extreme to the other. For example, the themes of participation and exclusion, identified in Chapter Five, are variables which can be conceived as extreme points on a spectrum of legitimacy. This is one of several socially constructed processes influencing the meaning-making and consequences of authentic early experience.

The term spectra has been chosen to describe these paired variables as, while changeable, this is not to imply that one extreme or the other should automatically be regarded as more positive.

Rather, the spectra should be considered as the identification of influencing factors in the development of meaning from authentic early experiences. The desirable point on any given spectra for a particular experience is dependent on achieving balance between potential consequences, which are purpose dependent. The actual point on each of the spectra is also dependent on the perceptions and actions of all agents and structures involved in the experience.

Abstract predictions cannot be made with precision because the social processes of authentic early experiences which influence the resultant meaning-making and consequences are complex, individualised by students, and subject to dynamic interactions with each other (Regehr 2010). A change with respect to one spectrum will also produce unpredictable changes in others.

Comparison of conceptualisations

During interviews with students and teaching faculty, these participants were presented with a fictional scenario and asked to discuss how a student might respond in a PBL session, in comparison with expected responses during authentic early experiences, with particular attention on how the context might make a difference. Students were prompted to answer personally and in relation to their peers. Teaching faculty were asked to respond with their ideas about 'students' in each module, and prompted to discuss the range of possibilities. The technique was not used with placement providers or administrative faculty as they were unfamiliar with the medical school approach to PBL. The case scenario given is replicated in figure 6.1.

Figure 6.1 Fictional scenario

Imagine you are visiting Mrs Smith at home with one of the District Nurses: Mrs Smith is an 80 year old lady who lives alone. She has diabetes and glaucoma and was recently discharged from hospital following a heart attack. The district nurse visits her regularly to monitor her conditions and is seeing her for the first time today since her discharge. As Mrs Smith starts to tell you both about her time in hospital and just how many tablets she has been given to take, the nurse's phone rings. Whilst she is on the phone Mrs Smith shows you her medications which include Metformin, Atenolol, Atorvastatin, Aspirin and Furosemide. She tells you she is sure the tablets are making her feel unwell.

The responses of interviewees to this provided evidence (additional to that of the rest of the empirical data) about how authentic early experience was conceptualised. Comparison of student and faculty responses demonstrates differences between these groups. The range of responses with respect to authentic early experience are summarised here with additional evidence from this part of the interview further discussed when presented in support of individual spectra as each are discussed in turn.

One student responded simply by reading the case and not processing it or analysing it despite prompting questions (M1I7). Amongst the other students there was a spectrum of responses ranging from those who held tightly to their student status through to those who were developing their own concept of a 'doctor' role. This spectrum is discussed in further detail in section 6.2.3 below. Four of the students displayed a mixed role during parts of the case (M1I4, M1I9, M2I4, M2I6). Four particularly emphasised their student status (M1I3, M1I7, M2I2, M2I8) – of whom three showed no evidence at all of developing a doctor-like role. Across both modules all the other students showed evidence of developing a doctor role to some degree. Most students demonstrated drawing on both in-house and authentic early experiences in constructing their responses. Several students commented about having met similar patients. Two module one students did not explicitly demonstrate use of in-house knowledge (M1I4, M1I8), and three in module one did not show evidence of drawing on placement experiences (M1I10, M1I12, M1I9). As can be seen from these results the range of responses present was not distinguishable by student module group. Additional findings included evidence of tensions between lay and professional perspectives. Students were not always definite in their responses about their personal alignment to either of these. The responses showed a possible lack of integration of basic and clinical science with social elements of the course.

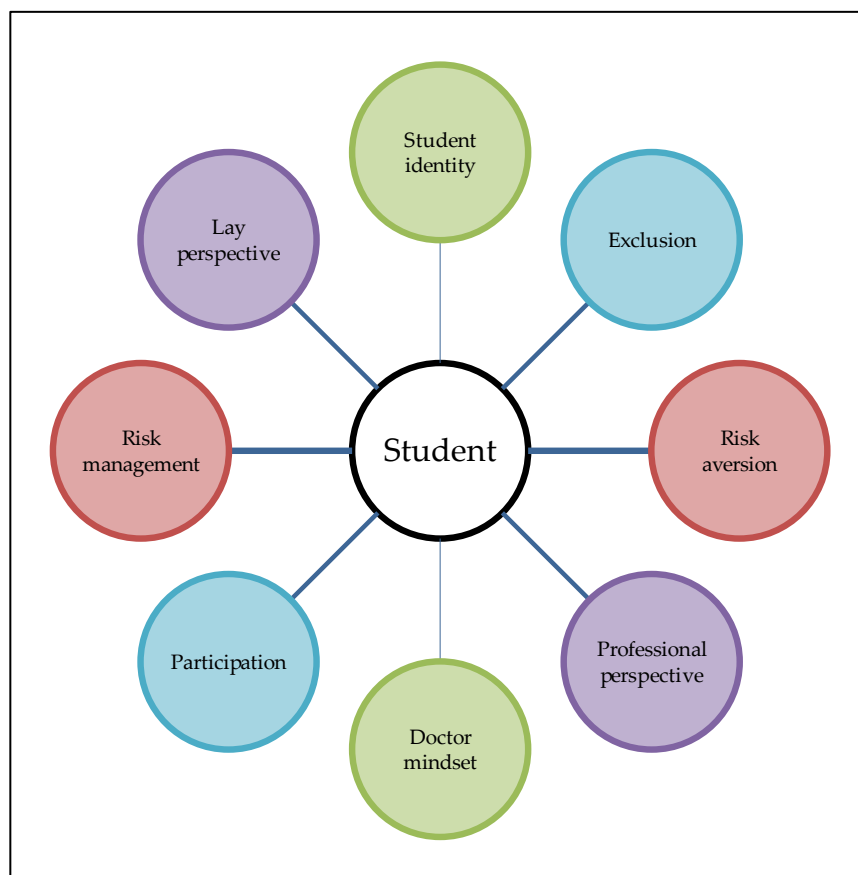
Seven members of the teaching faculty discussed the case with a focus on students holding onto their student status (F11T, F2T, F3T, F4T, F5T, F6T, F8T), although several of these also made comments implying a changing role (mixed doctor-student role) (F2T, F3T, F4T, F5T, F6T, F7T, F9T). In contrast only one faculty member discussed expectations which could be described as students clearly developing a doctor role (F10T). Eight expressed concerns about students overstepping their capabilities (F10T, F11T, F2T, F3T, F4T, F5T, F6T, F7T, F8T, F9T). While eight (F11T, F2T, F3T, F4T, F5T, F7T, F8T, F9T) of the faculty also expected students to draw on their course knowledge (in-house) to deal with the case, only three discussed students drawing on

authentic early experiences (F10T, F2T, F3T). This reinforces the idea that the faculty had low expectations of students learning medical content or constructing a positive role for themselves through authentic early experience.

6.2 Workplace spectra: developing cultural competencies

Four dyads of variables describing social processes were identified which related to being in workplaces and developing the ability to manage interactions during authentic early experiences. These are: (1) legitimacy expressed through invited participation or exclusion; (2) finding a role – a spectrum from student identity to doctor mindset; (3) personal perspectives and discomfort in transition from lay to medical; and, (4) taking responsibility for ‘risk’ – moving from aversion to management through graded progression of responsibility. These are represented in figure 6.2. For each of the four spectra the extreme position is colour-coded and labelled as a pair of themes identified in the empirical data relating to that spectrum. As each is discussed in turn it is illustrated by a figure which represents the spectrum. Quotations in these figures are illustrative of the range within each spectrum but not spatially related to specific points on it.

Figure 6.2 Workplace spectra



Each of these spectra is now discussed in turn, creating a further level of abstraction from the data by moving from the focus on describing and discussing authentic early experiences through student narratives to a focus on interpreting these underlying social processes.

6.2.1 Workplace spectrum one: legitimacy expressed through invited participation or exclusion

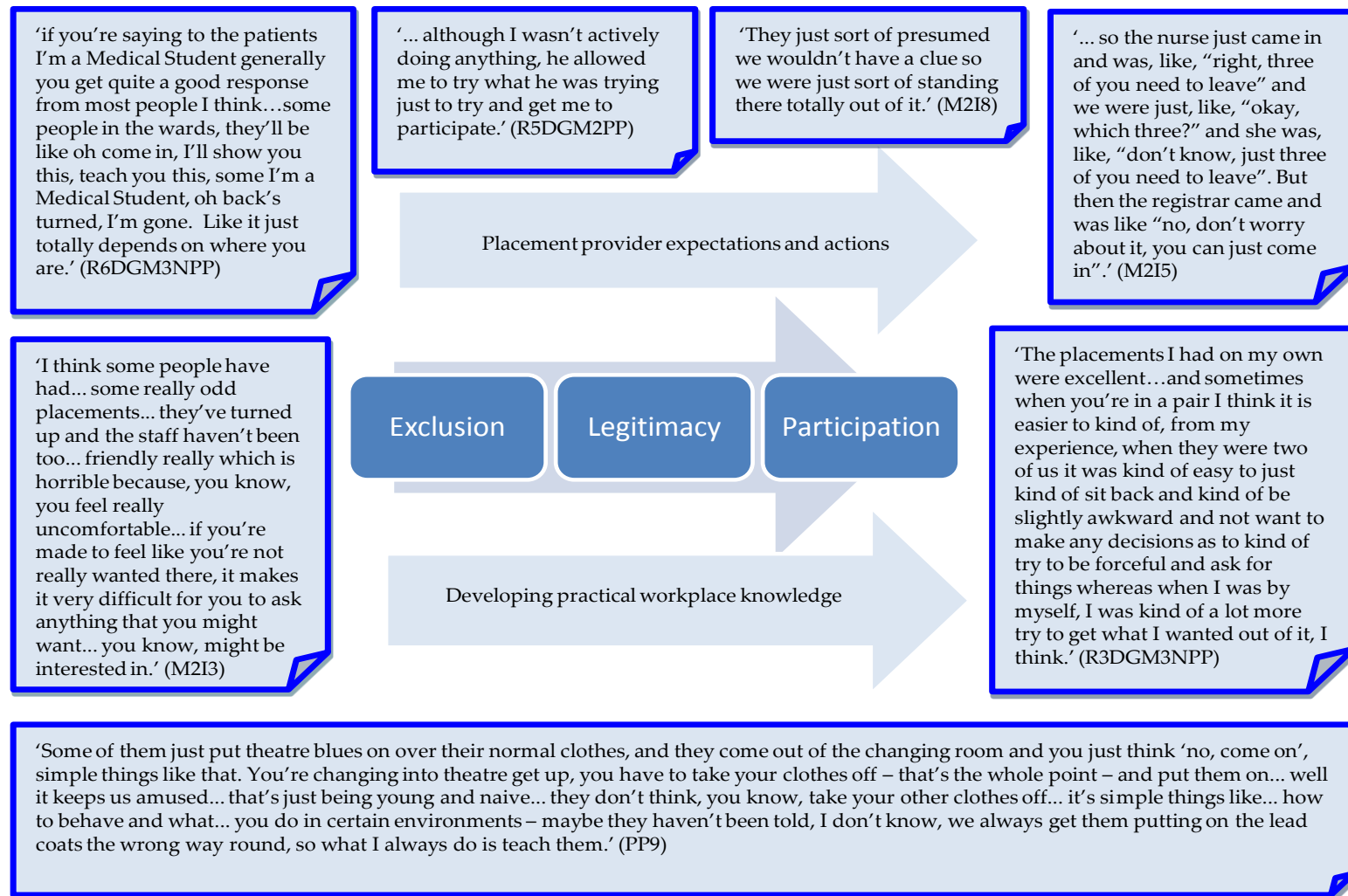
This spectrum related to the following issues which emerged in the data of Chapter Five. Students conceived themselves as outsiders who might be ignored, rejected, left to fend for themselves, or might be made legitimate through inclusion. Subjectively, students needed to feel that they were

not just legitimately present but welcome and offered opportunities to participate. Inclusion was achieved when someone in the workplace was willing to take ownership and responsibility for the student and to share workplace culture and *Métis* with them. This was illustrated in Chapter Five with the example of the placement provider who would orientate students to the ‘common sense’ of hospital operating theatres by explaining how to prepare and behave. In addition, students had an acute awareness of their indebtedness to others – conceptualising themselves as spare parts, and their need to learn as parasitic upon the real medical work taking place. This meant the students did not have a self-determined sense of legitimacy, but relied on others to provide it. This spectrum is illustrated with accompanying quotations in figure 6.3.

R6 from DG3NPP describes the importance of being accepted not just by a named placement provider but also by other agents within the workplace. Both acceptance and rejection had been experienced – attributed by the student to the ‘Medical Student’ label. Even if people did not physically leave students alone, they could still convey exclusion through how they interacted – for example, by being unfriendly, as described by student M2I3, or explicitly telling students that they were not welcome as M2I5 relates. This quotation (M2I5) also demonstrates how the placement provider, (or nominated deputy), could confer legitimacy by standing up for the student.

Once access to the workplace was agreed there were still other hurdles to participation. M2I8 is describing an experience of encountering a patient with problems that had already been covered during the in-house teaching, but of not being included in the question and answer discussion of the doctor’s ward round as it was assumed a student would not be able to participate meaningfully. Other providers clearly encouraged students to participate (DGM2PP) and recognised the need to share basic information which would allow students to ‘fit in’ and become part of the workplace culture (PP9), thereby creating this effect. The quotation from PP9 illustrates the kinds of actions which could be taken to share practical workplace knowledge.

Figure 6.3 Exclusion – legitimacy – participation



Placement provider expectations and actions alongside student development of practical workplace knowledge can move a student experience along the spectrum from exclusion to participation. Students were sometimes able (had the skills, and were offered opportunities) to participate in the workplace activities while at other times, or in other places, they were in the role of observers. Participation does not just refer to whether the student was performing actions beyond observation. Rather, participation is about providers conferring upon students an apprenticeship role where any observation has a focus and purpose, and might lead to action. The apprenticeship role is received through placement providers conferring legitimacy on the students' presence and involvement in the workplace. When students were excluded, their 'observership' lacked focus, came with little guidance, the norms and culture of the workplace were not explained, and other agents acted in ways (perhaps unthinking rather than deliberate) which conferred a sense of being a spare part, in the way, or a burden.

6.2.2 Workplace spectrum two: personal perspectives and discomfort in transition from lay to medical

The stories which students tell to make sense of experiences, and find explanations for what they have witnessed, as shown in Chapter Five, demonstrate a level of discomfort in transition from a wholly lay perspective to their understanding of professional perspectives. The students 'experienced their experiences' from a social viewpoint, which was a combination of personal views and general lay cultural norms, but wanted to be able to make the transition to experiencing, or at least presenting their experiences to others, within accepted medical perspectives. For example, when discussing the fictional case story, several students questioned if it was professional for the nurse to answer a phone call while with a patient. This might be dismissed as naivety on the

part of the student, but it does highlight how students have to negotiate their way between social concepts of 'politeness', ideals, and the pragmatic constraints on professionals in practice.

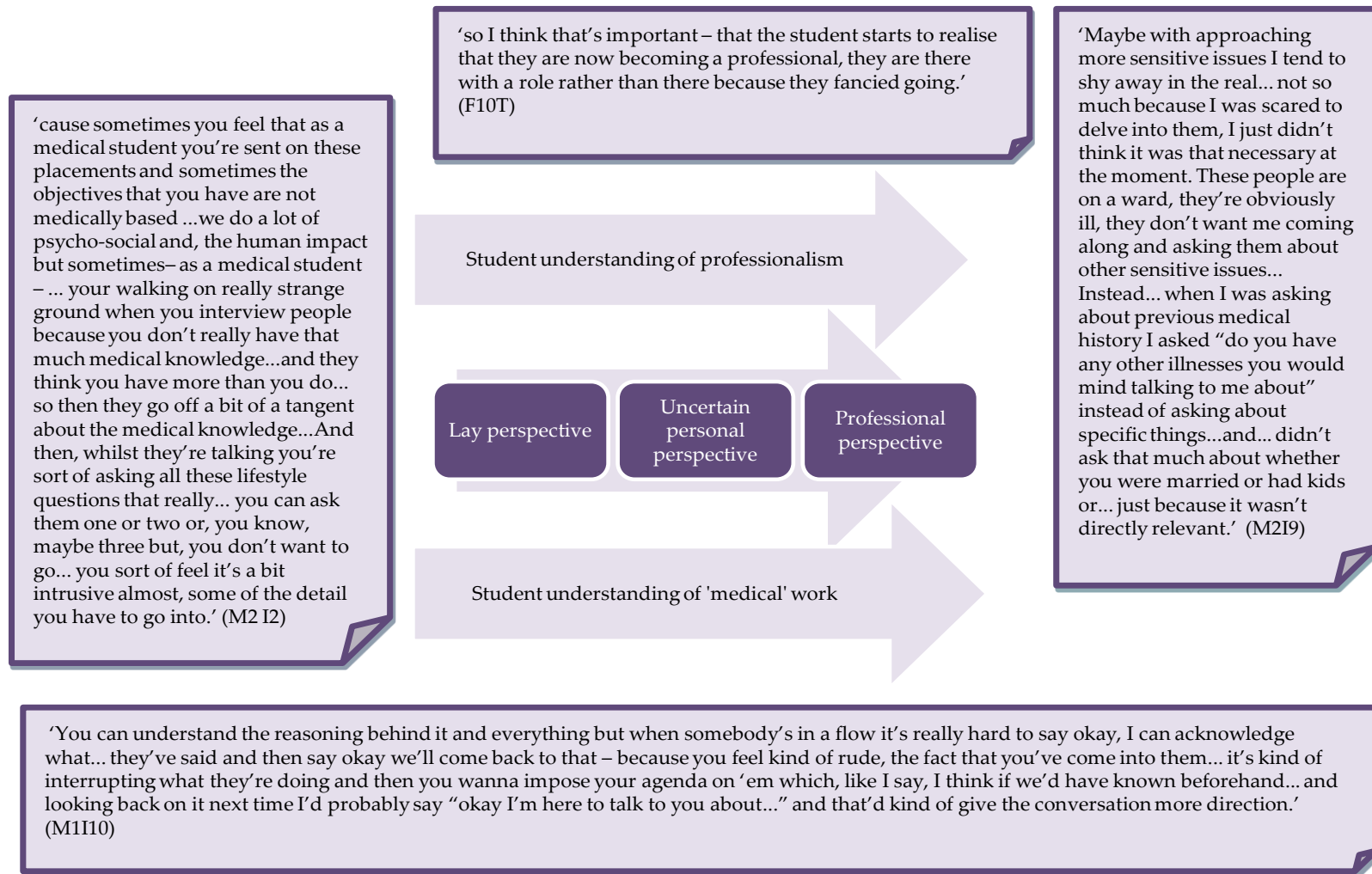
Students generally expressed a willingness to talk to patients. Had the fictional case been an authentic early experience, several had some idea of what they might discuss with the patient, although they also expressed the hope that they would not be left without the attention of the supervising professional for too long. Based on previous experiences, students thought they could offer the patient 'social interaction' which she might be lacking, by talking about 'everyday things' if they ran out of medically focused questions.

Students were uncertain about asking questions related to psychological or social aspects of health and illness, rather than medical issues (as seen from the quotations in figure 6.4, M2I9, M2I2).

Although these interviewees are not explicit, they suggest that this uncertainty arose from discomfort in asking questions which both crossed the boundaries of normal social interactions, and yet might not be perceived as clinically relevant. Students also found it difficult to direct patient conversations to achieve their own agendas in a way which would be expected in a professional role (M1I10).

As a student moves along this spectrum, illustrated in figure 6.4, they develop an understanding of both professionalism and of medical 'work'. When M2I2 describes discomfort in asking patients about lifestyle choices, he considers such questions to be 'psycho-social' and not 'medical'. The underlying implications of this are first, that the student believes the medical school is instructing him to undertake non-medical work in a medical setting and second, that these questions are also beyond what the student understands as normality from a lay perspective.

Figure 6.4 Lay perspective – uncertain personal perspective – professional perspective



Even if students desire to take on a professional perspective, they are currently unsure how to do this, as illustrated by M1I10, who is describing how it felt to attempt to put into practice advice from communication skills training. In this experience, the discomfort arose from lack of confidence about legitimacy to direct patient interactions as a medical student, rather than simply the subject matter. The quotation from F10T is representative of many of the faculty, articulating the expectation that students will work out what being professional entails through authentic early experience without recognition of potential role concerns. The faculty intentions in selecting objectives for authentic early experience placements are discussed in the educational spectra below. Student concerns, described by M2I9, about approaching ‘sensitive issues’ – sensitive from a lay perspective – were not anticipated by the faculty. Instead, these subjects were envisaged instead as easier for the students to approach because there was little specialist medical knowledge required.

Students’ concepts of professionalism, at this stage, appear to include a requirement to set aside personal and/or lay values, which leads to discrepancies in their meaning-making. The intuitive alignment of students might be to patients, but they are keen to demonstrate alignment with medical culture. Hence, social and medical responses to a situation were framed as a dichotomous choice. Similarly, rather than maintaining the positive aspects and strengths of their previous identity, it seems students saw communications skills and other related social or psychological teaching as a means to teach them how to conform to being professional. Professional conformity was then seen as necessarily homogeneous. Perhaps inevitably, this appeared less genuine than maintaining the ability to react to people and colleagues from a shared social understanding of personhood.

There is debate about whether resistance is possible to socialisation and acclimatisation into a medical culture where ‘the doctor’ is a neutral and impartial agent, who has suppressed or

segregated personal identities (Beagan 2000, Coulehan & Williams 2001). Detachment has, however, been reported as a strategy for students to survive clinical training (developing an ‘us versus them’ mentality to other groups) despite recognition that doctors do need to be able to engage with others to deliver good medical care. In making this point, Coulehan and Williams suggest that detachment has been confused with objectivity by students (Coulehan & Williams 2001).

6.2.3 Workplace spectrum three: finding a role and moving from student identity to doctor mindset

In seeking to find a role, students had a choice despite their perceptions of powerlessness. At one extreme of making sense of their status they could choose to hold tightly to the ‘medical student’ label. This label was defined by the low expectations and uncertainty about what was ‘allowed’ described in Chapter Five. The negative constructions present in student language, in the following two quotations, emphasise use of a student identity:

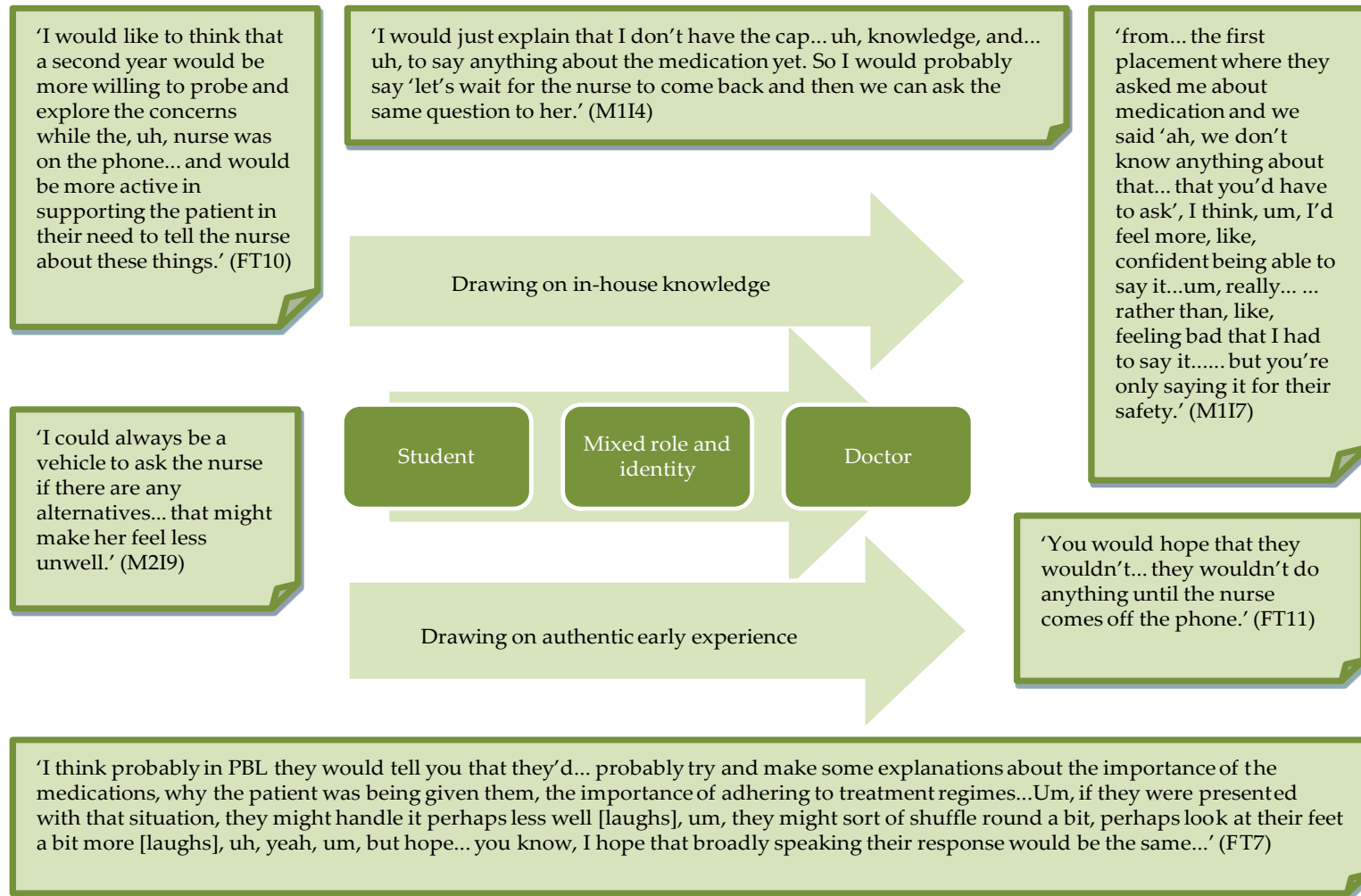
‘...if I was still a first year I’d say, “I’m sorry I don’t... I couldn’t answer that question, I couldn’t say if they were or weren’t feeling... making you feel unwell...because I’m a first year medical student” – I’d try and explain to her that I’m only here to sort of observe, and “I’m only here to sort of speak to you about...” I don’t know what... well, “I’m only here to sort of observe what’s going on but I... I couldn’t answer that question, for you”, so that would be what I’d do at that point...I wouldn’t say yet I’ve had any experiences that could help me with that, but I’m sure – ‘cause it’s a quite a common thing I’ve heard – I’m sure that, like, sooner or later someone will ask me, you know, “do you think I should be taking this drug” and I’d have to say “well, I’m afraid I can’t answer that”.’ (M1I3)

'I would tell her that I don't know anything about the medication so she'd have to speak... to the nurse about it or speak to her GP about it.' (M1I7)

In this spectrum, I want to emphasise that I am not suggesting it is unimportant to ensure students do not take action or offer advice beyond their level of knowledge and competency. Rather, the spectrum refers to converting from a mindset where the student identity is used to limit potential and with an attitude of excessive caution, to a willingness to take the initiative in seeking to contribute and move out of comfort zones when engaging in learning opportunities. The objection of some placement providers to the term 'student doctors' (in Chapter Five) is an example of limiting attitudes which may have been passed to students by others. Also, as discussed in Chapter Five, competency is not the same as comfortableness or even confidence – both of which are often gained through practice and, therefore, acclimatisation. Narrative three in Chapter Five illustrated how students could be challenged by experiences because of their new role rather than because the experience was novel or unique. The themes of 'thinking like a student' and 'thinking like a doctor' have been demonstrated in other research. When Lingard et al. studied the use of case presentations by third year students in Canada they found both these themes ((Lingard, Garwood, et al. 2003) as discussed in Chapter Two).

If the principles of experiential learning are accepted, and learning is constructed as a social process, we are all the product of our previous interactions. From the moment of arriving at university to graduating as a newly qualified doctor, medical students are undergoing transition. Unless students have previously worked in healthcare, then their pre-medical school identities will be formed from a mixture of personal lay and collective social experiences.

Figure 6.5 Student-mixed role and identity-doctor mind-set



Mindset in this context refers to an understanding of role and identity which reconciles personal with professional values to at least a degree. Change in habitus (including developing ability to cope with uncertainty and manage interactions) to produce this mindset will occur through interactions in the students' world.

As can be seen from the figure representing this spectrum (figure 6.5), a period of mixed role and identity is inevitable during the transition. The illustrative quotations in figure 6.5, show that students who were allowing their perceptions of role to evolve and were developing 'doctor mindsets' were still aware of their current level of knowledge and hence their own limitations. However, rather than focusing on what they were unable to do, they had begun to seek to create a role for themselves (M2I9, M1I4). Some students had issues of safety to the forefront of their minds (M1I7) in a way that constricted their interactions. The faculty quotations equally illustrate a spectrum of understanding as to how students might contribute or not.

These students and faculty members are discussing the fictional case which formed part of their interview as explained above. FT10 explains how they would expect second year students to consider themselves legitimate questioners of the patient – exploring the patient's concerns – and to actively encourage the patient to share these with the nurse. FT7 believes that students would focus on medication issues if this scenario was presented to them as a PBL case. Some faculty members' expectations of how well students would manage to address the same issues with a real patient are lower, but there is still 'hope' of an active response. In contrast, FT11 hopes the students would not do 'anything'. Mirroring this range of expectations, the student quotations show a spectrum of role and identity involvement from holding firmly to student status to developing a doctor mindset. The student M1I7 expresses the strongest student status role, as they express the intention to become confident in telling patients they need to ask someone else, rather than 'feeling bad' for not helping. Further along the spectrum M1I4 is also clear that they cannot comment on

the knowledge aspects of medication, but has begun to envisage how they might take an active role in facilitating the patient finding answers to her questions. M2I9 builds on this with a concrete suggestion of how they might seek further specific information. These students are correct that they do not yet have the appropriate knowledge to answer specific medication queries. I emphasise again, the spectrum is not about this. It is about moving from a limiting ‘can’t be anything but a spare part’ identity to a positive attitude of seeking to offer something, however small.

Some students demonstrated that they could develop a doctor mindset and begin to focus on the patient as the agent around which workplace activities were centred, rather than on themselves as learners who were dependent on others. Generally, students were keen to disassociate themselves from their pre-medical school ‘education by spoon-feeding’. The faculty had instilled in students a sense that spoon-feeding was not what doctors needed, as this was not how professionals learnt:

‘Some of them come here straight from A levels and expect to be spoon-fed... and they generally learn to become possibly more professional.’ (F5T)

These faculty attitudes were mirrored by students despite some wistfulness for more assistance:

‘I guess it’s kind of a life lesson as well... I think sometimes they could give us more of an indication [of what to learn or do] but then I guess that’s a kind of spoon-feeding us and as doctors we don’t need that.’ (M2I10)

Others appeared keen to hold onto their dependent status, rather than seek to take initiative with respect to responsibility for their own learning and interactions. Despite the apparent rejection of ‘spoon-feeding’ amongst the student group they, conversely, also used metaphors of ‘implanting’ and being ‘robotic’ (see also Chapter Five, table 5.2). These described the communication skills

teaching provided prior to their first authentic early experiences, suggesting that students might still literally mimic their teachers, at least initially. It is possible that these mixed attitudes are intrinsically linked with an evolving identity. The variable spectrum of responses present was not distinguishable by student module group. Gradually, some students would begin to realise that failure to take the initiative to interact with others and attempt to respond to challenges could impede their integration into the workplace, which had a negative effect on opportunities for learning. This was not the case for all students, raising questions about how students might be guided in understanding the effect they have on their experiences.

6.2.4 Workplace spectrum four: taking responsibility for 'risk' - from aversion to management through graded progression

The narratives of Chapter Five demonstrate that successfully dealing with challenging situations can build confidence and create positive meaning for the students' current and future roles. The creation of such opportunities to put theory into practice is hindered by the uncertainty of what is 'allowed'. The tension between the potential gains of students meeting a challenge successfully and the desire to minimise risk was evident in faculty discourses:

'So one of the big pluses for the placement... is, of course, that there can be a long-term outcome for the... student. But one of the dangers balanced with that is if they don't get it right and none of this is addressed, just as the benefits are great to the student then psychologically the risks are – and realistically the risks are for the patient as well.' (F10T)

Underlying this spectrum is the effect of external influences such as health and safety legislation and patient safety policies which agents can choose to use to remove themselves or others from,

rather than manage, risk regardless of the intention behind them (Brennan, Corrigan et al. 2010).

Students were acutely aware of the risk that they might cause harm, so much so that interactions were sometimes described with warfare-like metaphors. This student envisages interaction in the fictional case as a potential danger to herself, rather than just the patient:

'... sometimes they do, ask you things and I've just learned not to put my foot in it really and... well, explain things simply but to direct them to someone else really... Like dodging the bullet [laughs]... well, we're not allowed to tell people things – to do things – basically...' (M2I6)

Although most students explicitly included seeking patient permission to share concerns with the nurse, in the fictional case the risk that the patient might refuse, and how this would be handled was only addressed by one student:

'and then even ask her if she'd want me to tell the district nurse or would she like to tell the district nurse... 'cause it is important for her not to feel unwell... and that's what I'd do maybe just say it to the nurse... that... with the patient's permission. But I think even if, afterwards... I don't know, would... would... afterwards.... if... actually I'm guessing she'd probably... would want to tell the district nurse anyway...'

[Interviewer: Would that be a worry for you if the patient said she didn't want to?]

Yeah, that would actually. That'd be quite hard 'cause imagining she might just want to die or something, then what would you do? That's a whole um...' (M2I10)

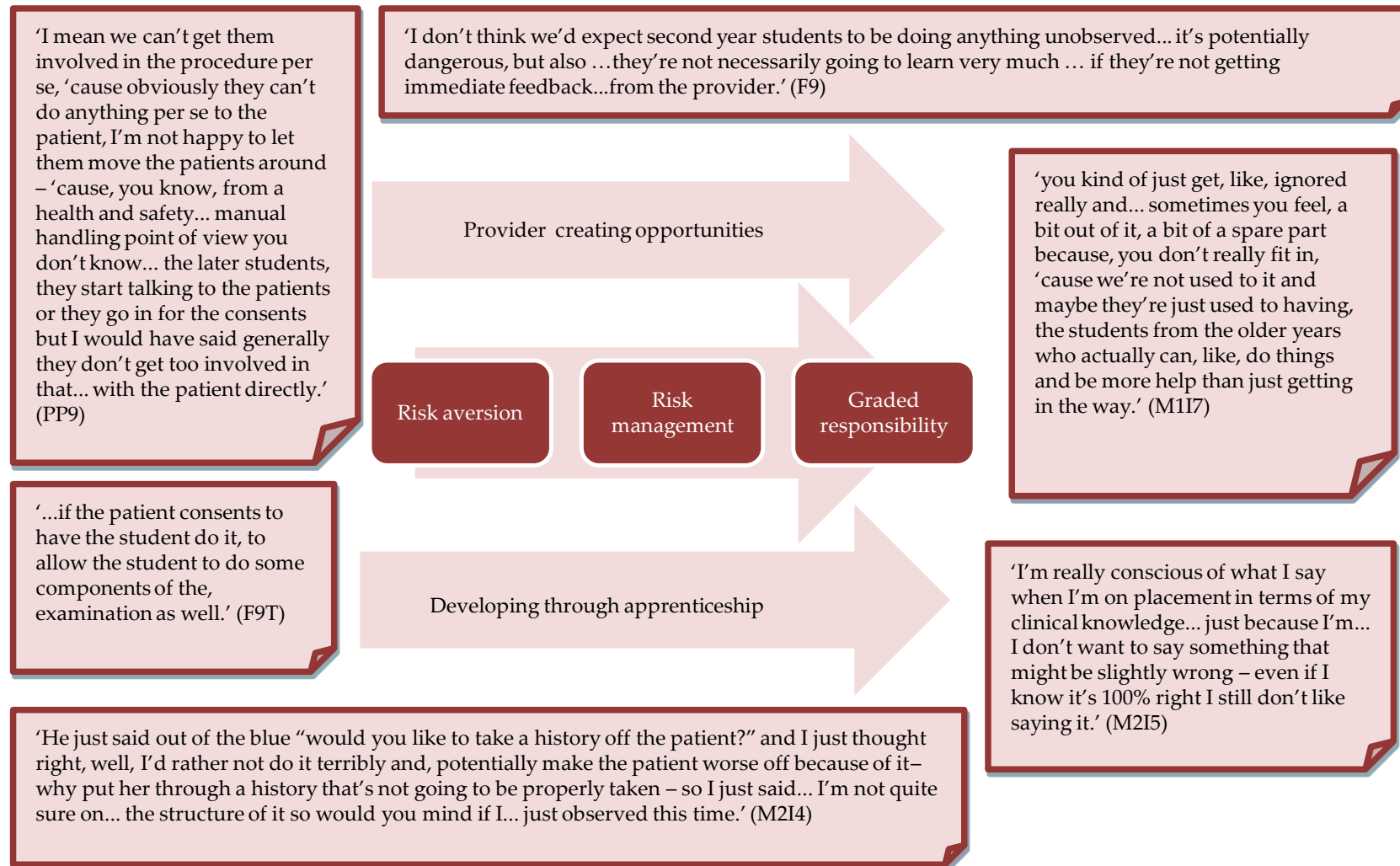
Even this student did not satisfactorily resolve the question, but changed tack instead to tell a story about how much a patient liked the district nurse, with whom she had spent her placement, and then going on to discuss the medical elements of the case. It has to be considered a possibility that students understand the right thing to do in the abstract, but are not sure how to put this into

practice in the face of challenge. How much of a risk this presents will, of course, be situation specific. Agents can choose to remove rather than manage risk. The issue of risk – to either student or patient – is situated within a social context where an unintended consequence of increasing attention to safety (General Medical Council 2009) is a trend towards risk aversion rather than risk management (Gosbee 2005, Jones 2006, Parker & Lawton 2006).

In figure 6.6 quotations are provided which illustrate the tensions in approaches to risk. The interviewees did not discuss on what basis a patient might make the decision to consent to student involvement. From the students' perspectives, it can be seen that they were clearly aware of the responsibility involved (M2I4, M2I5), and suspected that more opportunities to take responsibility would be offered once they could provide a useful service contribution, rather than being present only for their own benefit (M1I7).

There was evidence of a range of experiences ranging from those where the placement provider opted for risk aversion rather than management which prevented students being offered any responsibilities. Providers were concerned about risks to both patients and students as illustrated in figure 6.6. Health and safety requirements are cited by PP9 as a barrier to students being physically involved in patient care, but he then (for authentic early experiences) also applies limitations on verbal interactions with patients. The faculty quotations demonstrate uncertainty in opinion (for one faculty member) ranging from student involvement being dependent on patient consent to students not doing anything unobserved. Students were also variable in their willingness to accept any responsibility offered to them: M2I5 avoiding expressing even established learning (referring to interactions with providers as well as patients) while M1I7 expressed frustration at not being able to contribute more.

Figure 6.6 Risk aversion – risk management – graded responsibility



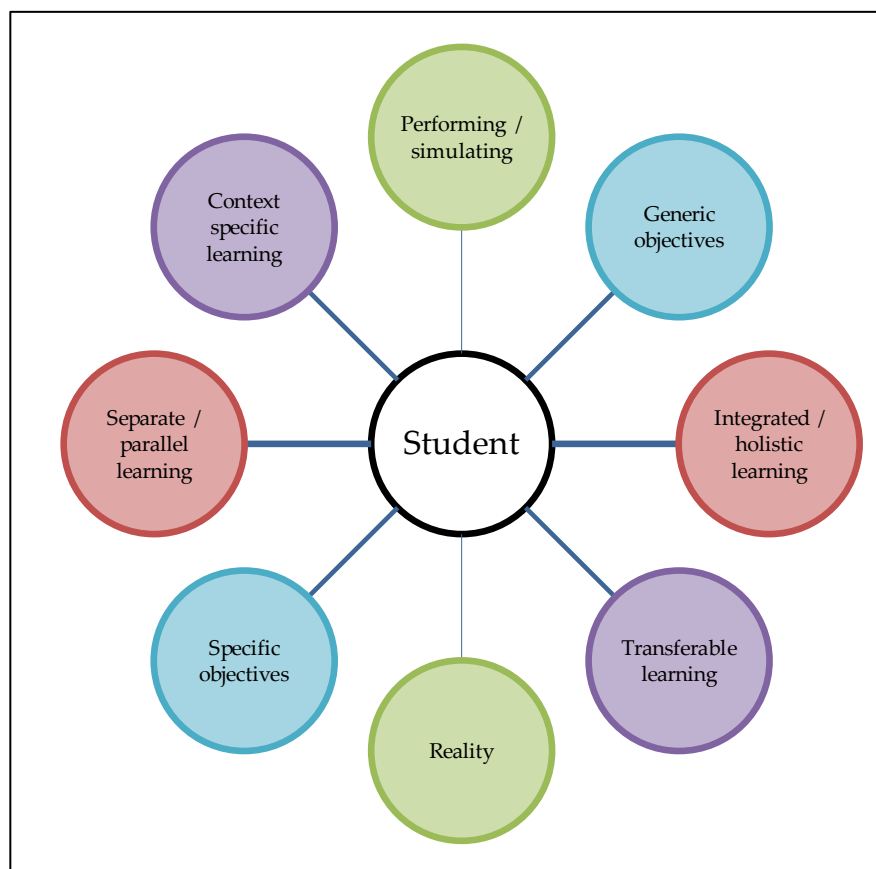
Within workplaces there was an expectation that the students would know (or have been told by the faculty) what they could or could not take responsibility for and which interactions or skills they had the knowledge to perform. The faculty were concerned more with the potential risk of students causing harm, or being challenged to act beyond their capabilities, than potentiating experiential learning as envisaged by theorists; that is as an apprenticeship in which the student gradually participates more and more and responsibility passes in a graded fashion from supervisor to apprentice through collaborative working. Situated Learning Theory is based on the idea that students will be able to legitimately participate in workplaces and that as they gain experience, they will move from the periphery to more central roles in Communities of Practice. To do so there needs to be a gradient of responsibility – both offered and taken. In medicine, there are also situations where one might never feel fully prepared, regardless of support, until having successfully negotiated them; for example, attendance at a post mortem as discussed in Chapter Five.

Competence, from the student perspective, was often reinterpreted as *feeling* prepared and comfortable, both of which are debatable, subjective benchmarks. Some students developed the expectation that no interaction should occur without having been first practised in the medical school. While at some levels these are legitimate and reasonable concerns, the level at which students were interpreting harm and risk was lower than that at which one presumes they would have acted prior to attending medical school. For example, several students had participated in workplaces to a greater extent during work experience, albeit with a different identity. On the other hand, students were keen to develop understanding and knowledge which could be used to bargain and negotiate a more active role in workplaces.

6.3 Educational spectra: competency to gain medically useful knowledge

The four spectra that I have discussed above all relate to social processes within workplaces and, as such, would be considerations for anyone seeking to join a workplace regardless of whether they had external requirements for specified learning, such as those expressed through the medical school. Although this thesis is concerned with social processes related to authentic early experience clearly the workplace spectra might apply in other situations as all human beings seek to assimilate and account for their experiences through meaning-making which occurs through habitus and field interactions. The workplace spectra, can therefore, be considered to affect meaning-making in the sense of knowledge construction about and within a medical world. Learning in the educational sense (as defined in Chapter One) is a significant sub-set of meaning-making.

In the next section of this chapter, I discuss spectra that are more focused on educational consequences of social interactions. It should be understood that, in practice, these spectra are intertwined with and interdependent on the workplace spectra above. The educational spectra are considering in more detail the gaining of medically useful knowledge in workplaces. In Chapter One, I made a distinction between learning (development of awareness or acquisition of knowledge) and meaning (interpretations of and use of this knowledge). The educational spectra might be considered to be more focused on the specifics of learning, but it is the interaction of the variable influences these spectra describe, together with those of the workplace spectra, which results in meaning-making. These spectra (represented in figure 6.7) are (1) generic-specific objectives, (2) parallel-integrated-learning, (3) context specific-transferable learning and (4) performing or simulating-reality. As previously, each spectrum is colour-coded and labelled with themes made up of paired dyads that were identified in the empirical data.

Figure 6.7 Educational spectra

6.3.1 Educational spectrum one: generic – specific objectives

The faculty aim in designing intended learning objectives for authentic early experiences was influenced by the following factors. First, there was little expectation (as shown in Chapter Five) of significant achievement, either in terms of student contribution to workplaces or of learning medical content knowledge. The faculty use of authentic early experience within the curriculum was limited to a fairly narrow set of functions which matched the curriculum themes of communication and personal and professional development as types of psychosocial learning (see table 1.1 of placement types in Chapter One). This, combined with low expectations of novel learning, rather than reinforcement of in-house principles, meant that students were not asked to achieve specific objectives for most placements. The tendency to use such experiences for personal

and professional development objectives and so called 'soft' outcomes is common within medical education (Hopayian, Howe et al. 2007), and is discussed further in the spectrum ranging from a parallel to integrated curriculum below.

Second, there were logistical concerns about establishing enough experience opportunities and placement providers, given the numbers of students involved and time-tabling constraints. This meant that, for any given placement (e.g. meeting someone with a chronic illness), the objectives had to be transferable between settings. There was clearly tension between perceived logistical constraints and faculty desires to ensure that experiences made a valuable contribution to learning, as illustrated by this pair of faculty quotations, both from the same interviewee but at different points in the interview:

'I don't think you can be too structured in terms of what they're going to learn... because individuals take different things from different placement experiences and have different interactions when they're there – it's never going to be the same placement, is it, each time, so I don't think you can be too prescriptive... on what you want students to learn.' (F11T)

'I don't think we should be just sending them out on placements for placements' sake... there have been lots of examples when you talk to students about their experiences at placements where they've not been the best kind of learning experience. So I think, you know, we need to think carefully about what they're actually getting – why they're going out there and what they're actually getting from that experience, rather than just saying "oh they've gone on placement, they'll be all right, they'll work something out, they'll learn something from that".' (F11T)

The intention was, therefore, to identify generic learning which could take place in a number of settings. In theory, this should be achievable and beneficial – potentially leading to student

understanding about transferable knowledge and functioning in a number of contexts. What was underestimated was the extent of influence situational or environmental specifics would have upon students. In Chapter Five the data showed that students reasoned that authentic early experience could not be expected to contribute significant learning *because* of the variability of their experiences. This concern was also found within the faculty interviews:

'the variability of student experience makes it hard to assess fairly so, for instance... we could write a question which was, you know, the case and the basis for care could be a child who's ill and some of the questions about anatomy and physiology and so on but... other students might have had a placement where, it would be unfair to test them on that so... the principle is that it should be assessed but the reality is doing it in a fair and meaningful way is... is hard.' (F4T)

This quotation demonstrates that the faculty member is conceptualising knowledge from authentic early experience in a way that means it would require separate assessment to other areas of the curriculum – matching assessment to pedagogy rather than content. The unintended consequence that arose from this was that the students interpreted 'generic' to mean lacking in importance as the objectives were vague and not immediately and obviously relevant to their concerns of achieving medical knowledge in other parts of the curriculum:

'... if you just turn up and you're a bit ambiguous, it's a bit difficult.' (M2I5)

Students felt that the expected achievement of many of their authentic early experiences was that they managed to attend, rather than any achievement arising from experiential activities:

'The emphasis was definitely on go along to do it rather than do stuff when you there'

(R3DGM3NPP)

As has been established, more generally with competency-based curricula (Taber, Frank et al. 2010), the setting of objectives can result in lack of aspiration – with the objectives seen as maximum not minimum criteria of achievement in practice. Paradoxically, the objectives then are effectively used by some students to limit or exclude learning:

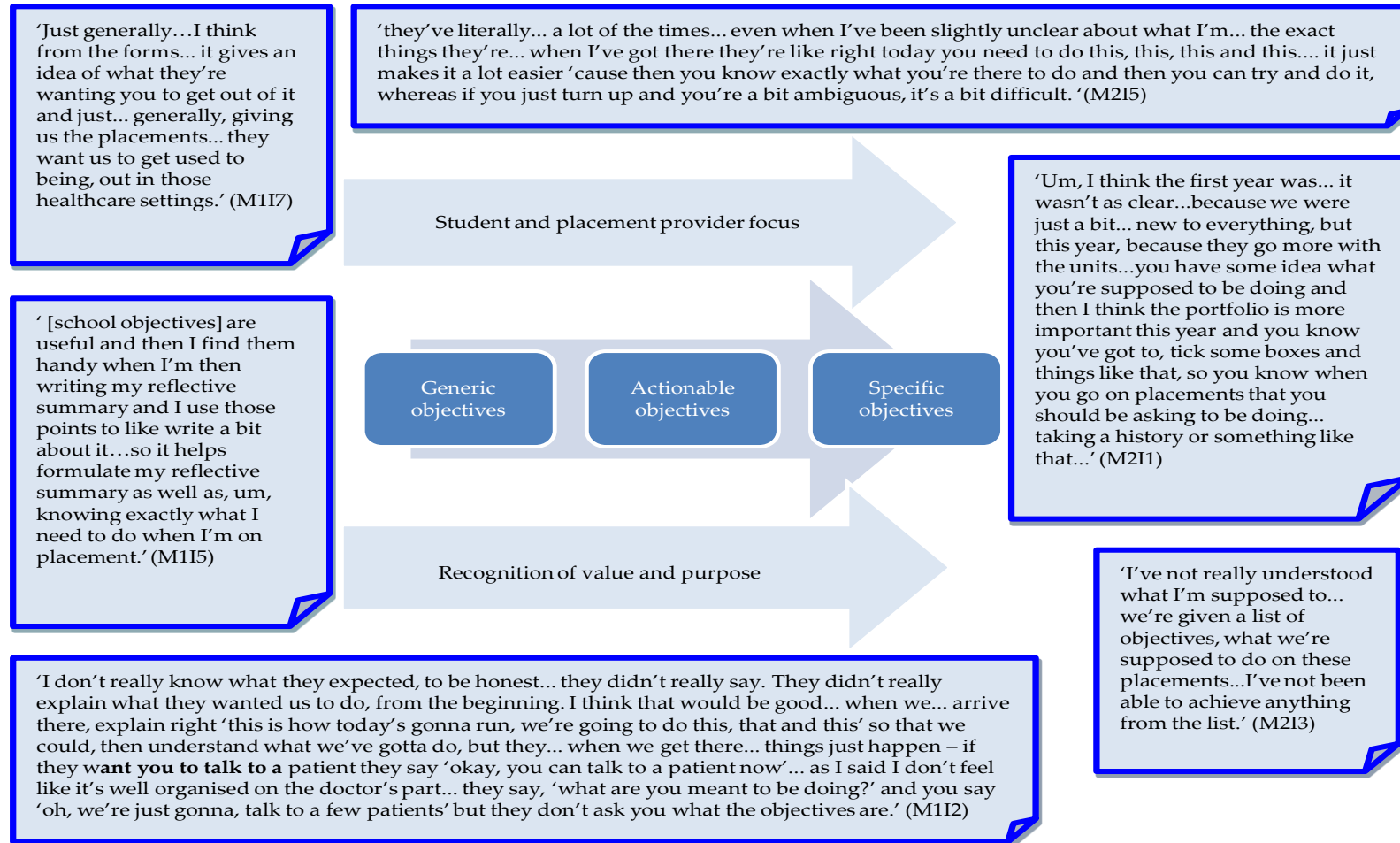
'we've just taken it [what should be learnt from experience] as whatever you get taught in your experiential learning, like you need to have grasped them skills before your placement. Anything else that you're learning within the course, remember that – you may need it, you might not need it.'

(M1I1)

'So in that respect I think we were prepared for them then because the EL [experiential learning] sessions were just like "oh this is how you generally chat to patients, how you to initiate, this is how you close it", so we were prepared for it but it was all very you know, general. There wasn't anything, do you know what I mean?' (R3DGM2PP)

This is despite most objectives being made explicit to address concerns about a lack of accountability previously between opportunities and resultant learning. The student interpretations of generic rather than specific objectives for authentic early experience are illustrated in figure 6.8. The medical school objectives were useful for creating assignments for the faculty (M1I5, M2I1) but not always helpful in practice (M2I3). Students found that placement providers commonly were unaware of these objectives, or chose to deviate from them (M1I2) and they struggled to translate their own briefing notes into action (M2I5).

Figure 6.8 Generic – actionable – specific objectives



M1I7 describes the generality of the objectives, with little expectation of anything more than undergoing initiation to being in healthcare settings. M1I5 interprets the objectives as necessary elements of reflective assignments – perhaps seeing the need to prove these had been met rather than truly reflecting on experiences and limiting focus during experiences to the objectives as a maximum rather than minimum requirement. This view is reinforced by M2I1 who describes meeting the faculty expectations as ‘ticking boxes’. Some students (M2I3) found that they could not achieve the objectives during placements and most would concur with M2I5’s description of allowing placement providers to direct them when this was offered. The student in M1I2 perhaps sums up the general uncertainty for both students and placement providers in practice when generic objectives did not facilitate recognition of the value and purpose for a student’s experience.

Placement providers and students found that the generic objectives were difficult to translate into action points or a learning focus in practice. Instead ‘generic’ was interpreted as vague, variable and of low value, leading students to feel lost and placement providers unsure of how to provide direction:

‘I was with a partner and she didn’t know. When we got there we assumed... the nurses would know – you know, we thought they would be informed. I think they knew we were going to be there...but they didn’t know what we were there for.’ (M1I3)

Students interpreted questions, from placement providers, about what they wanted to achieve as either the provider being uninformed about what they should do, or perhaps party to additional information from the medical school.

Students wanted 'to fit in' and be directed as illustrated by this exchange during a discussion group:

R5: 'Yes, I mean I never took a history in second year. Not once but I think it didn't occur to me that I would need to. Maybe if I'd thought that it was something I should do, I maybe would have told one of the placement providers while I was there that I needed to take a history and could they help me to like get that goal done by the end of the day but like it didn't occur to me that I would have to do it, so I never did, like the point of the placements were never really specified...'

[lots of people saying 'hmmm' in agreement]

...R7: 'Yes, we'd quite often arrive on the placements and the clinicians would always be 'and what are you expecting to get from this placement? Hmmm, no idea.'

R5: 'I don't know. I don't know what you do.'

R7: 'What do you fancy teaching us and we'll go along with the flow?' (DG3NPP)

While the faculty were controlling the design and use of early experience placements, many did not really have a good understanding of the actual processes that might occur. These differences were also compounded in situations where debriefing and / or feedback to the students was lacking; both placement providers and faculty appeared to leave students to their own devices to make sense of their experiences.

6.3.2 Educational spectrum two: parallel – integrated learning

Educational policies as described in Chapter One envisaged that authentic early experience would contribute to the creation of thoroughly integrated curricula. The GMC has specifically emphasised from the first edition of 'Tomorrow's Doctors' the need for integration as opposed to either

co-ordination or synchronisation between components (Education Committee, General Medical Council 1993).

In contrast, my data contains a discourse of authentic early experience as part of a parallel curriculum alongside a discourse of the added value of placements. Authentic early experiences as a part of the experiential learning stream were not conceptualised by students as medically useful knowledge. Placements were conceptualised as additional rather than core activities. Learning which resulted from being situated in workplaces was seen as incidental to the real learning of modules one and two within the medical school. Students did not expect placement learning to be examined:

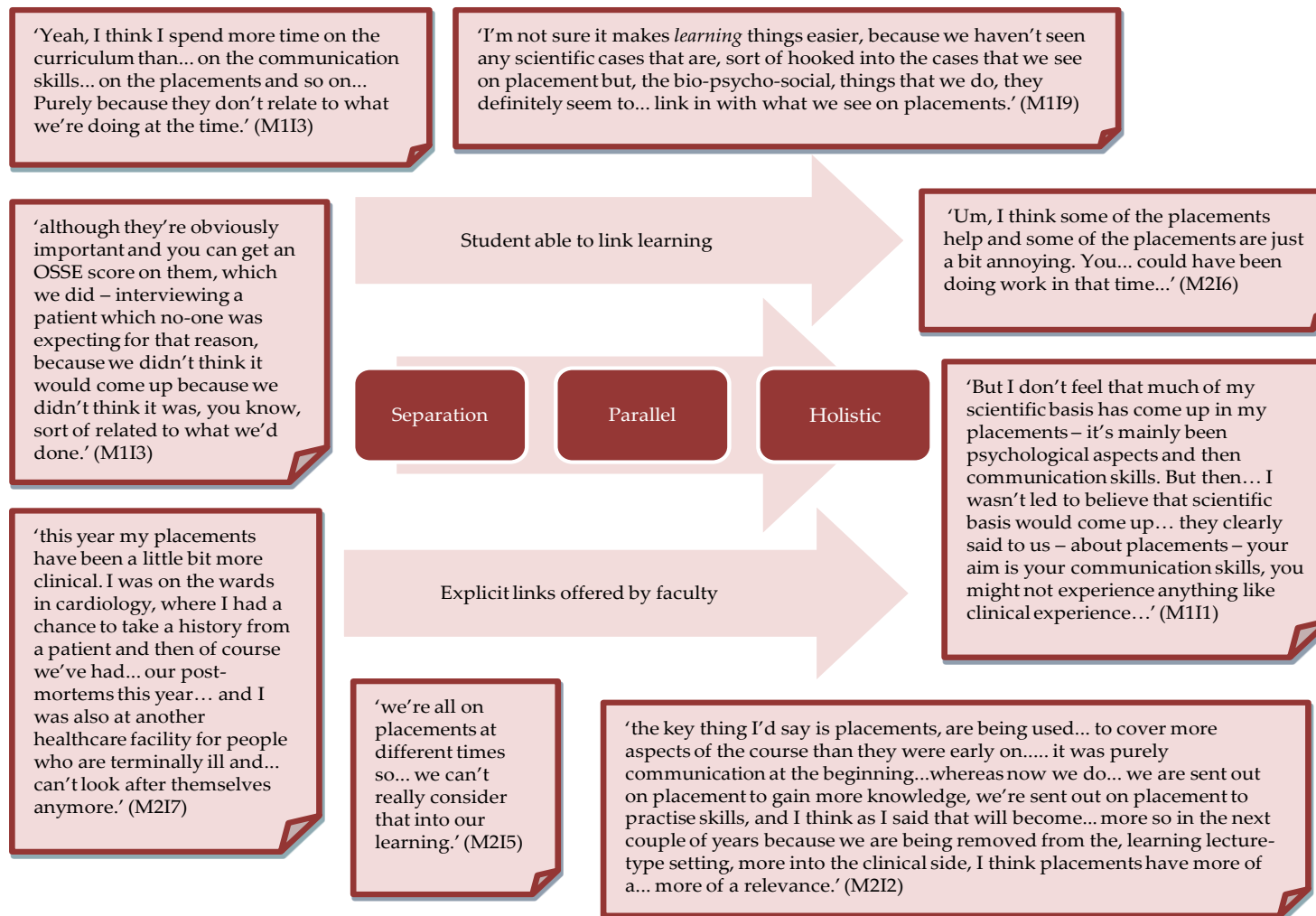
'...we didn't really expect it and it came up in the OSSE [objective structured skills examination] [laughs]... it was, like, interview a patient – we were like “oh, right, okay” [laughs].(M1I10)

And it... it had just completely slipped my mind that they could even [laughs] examine that'
(M1I10)

'... although they're obviously important and you can get an OSSE score on them, which we did – interviewing a patient which no-one was expecting for that reason, because we didn't think it would come up because we didn't think it was, you know, sort of related to what we'd done.' (M1I3)

This is not to suggest that students did not make meaning from their experiences – I have already demonstrated that this occurred. Rather, the students did not see such meanings as important or relevant to the medical school based learning of knowledge which they would use in later years.

Figure 6.9 Separation – parallel – holistic



Learning derived from authentic early experience was conceptualised as part of a parallel curriculum to the medical science of early undergraduate degrees as well as not necessarily related to medical work in a clinical sense. As student M1I3 says, in figure 6.9 they thought ‘the curriculum’ required more time than elements not often related to contemporaneous in-house teaching. Along with authentic early experience other elements conceived as part of a parallel curriculum included communication skills training, medical ethics and personal and professional development.

In figure 6.9 students can be seen to distinguish communication skills from ‘the curriculum’ (M1I3), not to expect learning from placements (such as interviewing patients) to appear in examinations (M1I3), and in some cases not describing a link between placements and actual ‘learning’ (M1I9) – instead describing a ‘bio-psycho-social’ entity which is separate from their perception of scientific knowledge, and in fact hinders them from contemporary ‘real work’ related to the medical school (M2I6). The interpretation of variability of experience, as a sign that the potential learning gained was not as important as knowledge delivered to the whole year, is also part of this spectrum (M2I5).

The foremost definition of ‘learning’ was as medical science (the traditional basic sciences rather than human sciences) as shown by the quotation from M1I9. With this conception, authentic early experience was a distraction from ‘work’ (M2I6) and so students were surprised when interviewing a patient formed part of the formal assessment process (M1I3). The variety of experiences was focused on by students. This resulted in the creation of spontaneous meanings - students reasoned that the differences meant that any learning was incidental rather than making sense through seeking underlying common principles present for their own and their peers’ experiences (M2I5). In module two students often used the term ‘clinical’ as illustrated by M2I7 when describing greater perceived relevance of their experiences in this year. Students

interpreted faculty instructions to mean that while undertaking authentic early experience, there was no expectation to learn either basic or clinical science (M1I1). It was acknowledged that this would change in later years which, as M2I2 suggests, meant the students were not adverse to learning content knowledge during workplace experiences, but they were not sure how to go about achieving this, perhaps needing more explicit links from the faculty.

These views were not, however, universal. As time progressed, some students developed an understanding of the concept of 'clinical knowledge' that could then be a vehicle to link in-house science and experiential learning (M2I7, M2I2). For example, in module two some students started to talk about working 'clinically' or 'properly':

'the key thing I'd say is placements, are being used to... to cover more aspects of the course than they were early on... it was purely communication at the beginning... whereas now we do... we are sent out on placement to gain more knowledge, we're sent out on placement to practise skills, and I think as I said that will become, more... so in the next couple of years because we are being removed from the, learning lecture-type setting, more into the clinical side, so, I think placements have more of a... relevance.' (M2I2)

A possible explanation for why this might occur can be found in the difficulty presented when attempting to define and achieve integration. Although clinical and basic science information, in-house and workplace experiences, theory and practical knowledge, can all be presented concurrently within a timetable, this is not the same as the students creating integrated rather than compartmentalised knowledge. Others have attempted to bridge this gap through the use of real patient cases as the basis for PBL, an approach which the medical school has also adopted in later years. This is usually when PBL is being used to support clinical rather than basic science learning (O'Neill, Duplock et al. 2006, Diemers, Dolmans, et al. 2007).

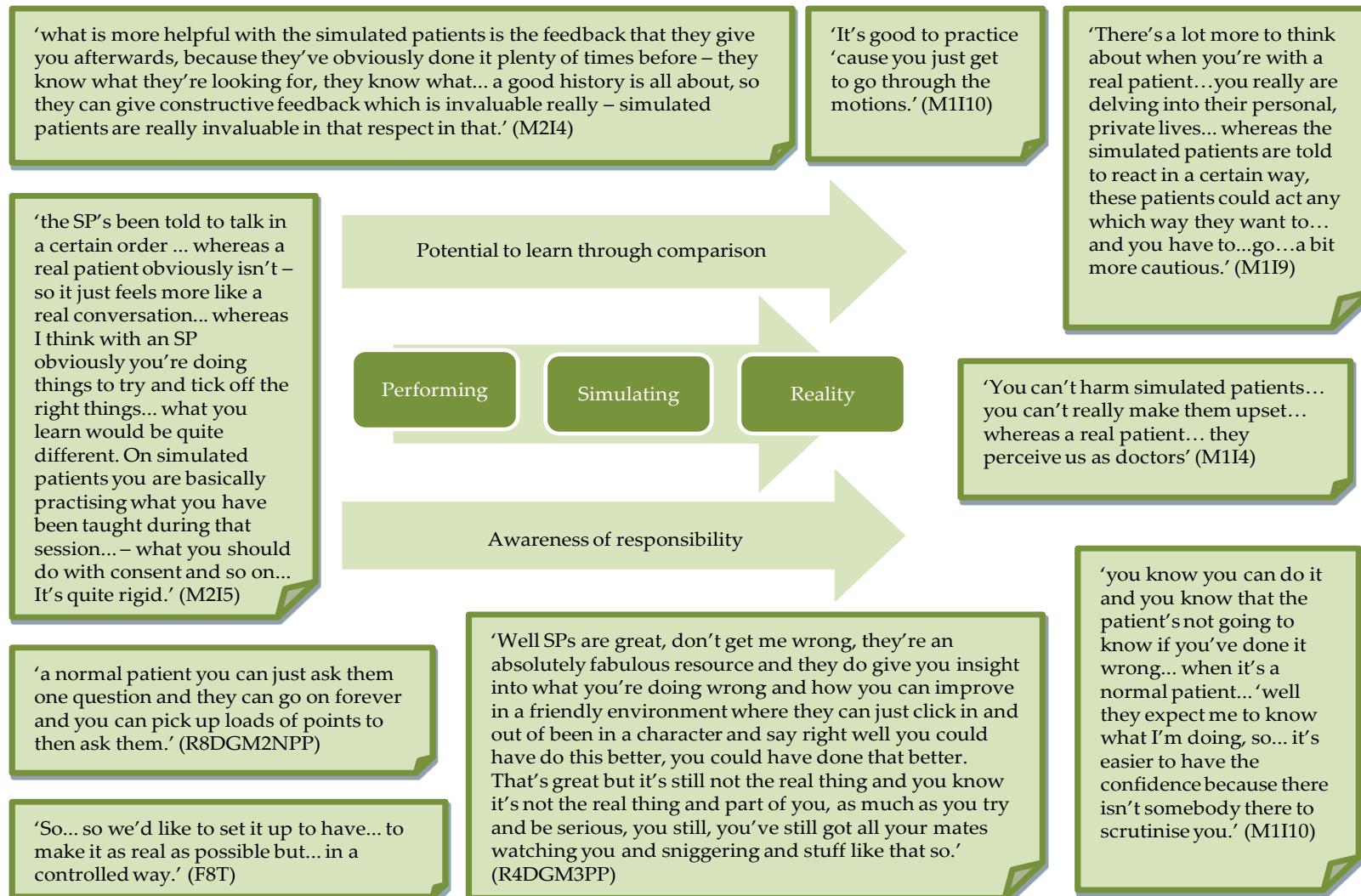
6.3.3 Educational spectrum three: performing / simulating – reality

Students could move along a spectrum (figure 6.10) from attempting to perform for their peers and faculty, through simulating possible scenarios to an understanding of their responsibilities and how interactions with real patients might be (M1I4, M1I10, M1I9). The students perceived simulated patients as agents of the faculty (M2I5) and interactions with them as hurdles which they had to cross (M1I10).

There was some suggestion that the faculty also held these perceptions, albeit for reasons of ensuring students were equipped to cope with real interactions rather than simply as an additional test (F8T). At one extreme, for example, interactions with simulated patients were described as ‘going through the motions’ (M1I10) while other students recognised the value of getting feedback on their interactions which fitted with the medical school’s expectations (M2I4). What is perhaps a concern, from an educational perspective, is the students’ suspicion that learning from simulated patients is for a different purpose to learning derived from real interactions as described by M2I5 and R4DGM3PP.

The faculty wanted in-house experiential learning to have verisimilitude, but without losing predictability, as this meant they could ensure the students had all considered specific scenarios. This is paradoxical, as what the students discovered in practice was the need to deal with unpredictability (M1I9) and handle responsibility (M1I4). Students described real patients perceiving them as doctors and needing to live up to these patients’ expectations as the patients would not know if the student had underperformed.

Figure 6.10 Performing – simulating – reality



Crucial elements of reality are responsibility and accountability for the consequences of one's interactions. This inevitably means that however closely mimicked, or simulated, preparation sessions cannot provide an experience identical to the same scenario met in real life. Students may be more or less able to suspend a sense of disbelief in order to engage with preparative scenarios, particularly with repeated exposure. Nevertheless, this remains a form of performance. The students interviewed were acutely aware of differences between their interactions with simulated patients and with real patients during authentic early experiences. These differences were constructed as contrasts, which some students made sense of by understanding simulated patients to be following the instructions of the medical school; instructions which were not in tune with real practice. For example, simulated patients were not seen as 'normal' (R8DGM2NPP) when students found them less talkative than patients met during authentic experiences, leading students to consider the simulated patients as a form of testing them rather than preparation for 'worse case scenarios'.

These perceptions contributed to students having a sense that the learning defined by the medical school was not necessarily valid in workplaces. The locus of 'real learning' was, therefore, separated from that of 'real (medical) practice'. Differences between the performing or simulating of situations within in-house teaching sessions – whether laboratory or communication skills based and the reality of workplace practices were noted. Students contrasted these, meaning that the potential for learning opportunities across contexts could be identified within the data.

Previous discussions in the literature regarding the use of simulations (whether patient / person based or technology based) have tended to seek to answer questions of whether this is a good enough substitute for apprenticeship learning in real practice. Driving forces for this include the changes in societal expectations about medical training and changes in healthcare delivery as well as concerns about effective and efficient learning for students. From the students' perspectives,

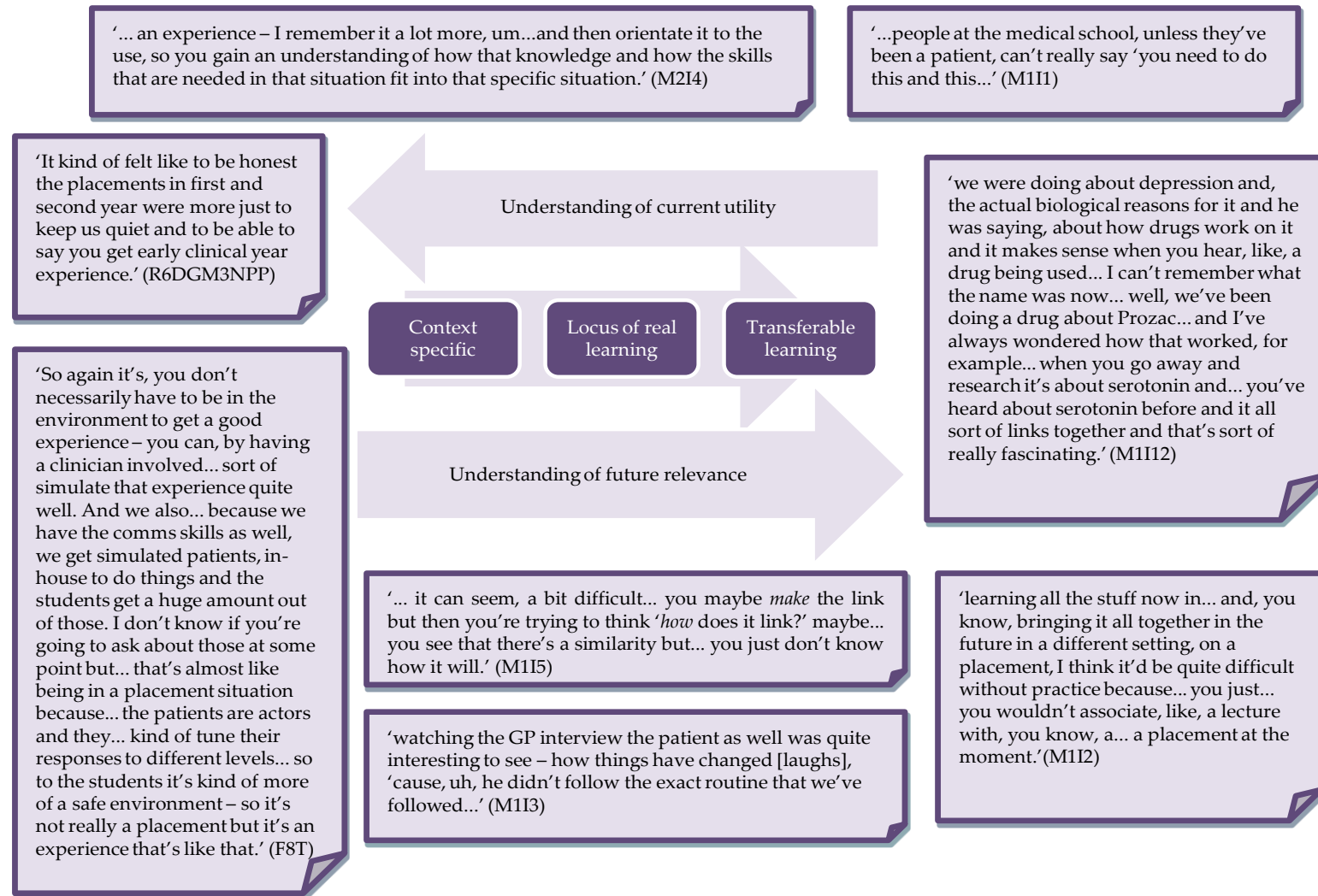
regardless of the objective fidelity of simulated interactions, there is a strong sense of participating in a false performance within their minds. The comparison of simulated and 'real' patients by students is discussed further in Chapter Seven.

6.3.4 Educational spectrum four: context specific – transferable learning

In Chapter Three I discussed Vygotsky's concepts of spontaneous and scientific meaning. The conversion of spontaneous to scientific concepts requires levels of abstraction and re-application to test learning and create further meaning in new situations. In order to do this, students (or any learner) need to be questioned, debriefed and receive feedback as it is difficult to identify what is a principle that can be transferred.

Figure 6.11 illustrates this spectrum. Students could recognise the value of learning in context (M2I4), and the need to learn alongside patients in the workplace (M1I1). Some members of the faculty did not recognise how much students might be affected by a change in environment (F8T) – an issue to which I return when discussing the students' handling of interactions with simulated patients in comparison to interactions with real patients in the next chapter. Students struggled to de-contextualise knowledge or make links across different teaching formats (M1I5, M1I2). Despite this, they could benefit greatly when alerted to the possibility of such links (M1I12).

Figure 6.11 Context specific – locus of real learning – transferable learning



In figure 6.11, M2I4 articulates how actual experience can produce practical understanding rather than simply abstract knowledge. Through experience, he understands how knowledge is applied and orientated to a specific situation. Alone, this may remain at the level of Vygotsky's spontaneous concept – the student creates meanings to make sense of experience, but does not know if these meanings are applicable to any other experience (Kozulin, Chaiklin et al. 2003). The faculty underestimated the importance of environmental context for students in this regard. For example, when M1I3 spent an authentic early experience in general practice he identified differences between the general practitioner's approach to patient interactions and his communication skills training, but the meaning-making does not go beyond noting the difference. To gain scientific conceptions from experiences requires the student to be offered explanations which explicitly demonstrate what might be transferred between contexts by someone who the student trusts to have this knowledge, as explained by M1I5. Some of the students, exemplified by M1I1, did not trust medical school faculty members to understand workplace practices in this way.

Others, such as R6 DGM3NPP did not expect any useful meaning-making in the form of transferable learning to occur, or expect any links between in-house teaching and experiences (M1I2). This was not always the case. The student, M1I12, perhaps assisted through the serendipitous alignment in time of in-house teaching and an experience of the same subject has been able to apply his learning.

Difficulty in identifying the elements of knowledge gained in one situation that have the potential to be transferred, and difficulty in identifying new situations to which these elements apply, has been demonstrated in later years (Dornan, Arno et al. 2006). When describing the expert practical knowledge borne out of many experiences (and being surprised many times), Scott suggests that the more generic a rule, the more local translation will be needed; and that it is necessary not only to recognise that 'rules of thumb' may be transferable, but that these are a codification derived

from actual practices which require new interpretations as to when to apply in other contexts (Scott 1998).

6.4 Discussion of the spectra

Students interpret their legitimacy within workplaces during authentic early experience according to how much they are invited to participate, or to what extent they are excluded through the attitudes and behaviour of others. The differences which students perceive between lay and professional perspectives drive them to seek to set aside lay views in order to demonstrate their move towards becoming professional insiders. Students do not seem to believe that they can hold on to genuinely felt and positively described lay perceptions and reactions whilst developing a professional identity (Coulehan & Williams 2001): they are uncertain of the place of 'being a person' while developing into doctors. Attempts by curriculum designers to instil concern for patients with respect for social, psychological and ethical practice are interpreted as uniform rules for acceptable behaviour. It is as if the students see professionalism as separate from personhood outside of medicine. Beagan suggests that medical culture is intolerant of difference amongst doctors despite societal changes which have demanded recognition of patient individuality (Beagan 2000). To attempt to achieve retention of difference and individual personhood while becoming a doctor requires strong identities and active interactions outside of medicine (Beagan 2000, Coulehan & Williams 2001).

The long-term implications of someone developing a professional identity through suppression of personal values are beyond the scope of my work but are expected to be complex. It is encouraging, from an educational perspective, that some students develop what I have described as a doctor-like mindset, meaning that they are focusing on what they can do or offer to patients.

This does not, however, mitigate concerns either that others deal with the discomfort their student status brings by withdrawing and using it as a limiting reason for participation, or are potentially creating a professional identity which is detached and inflexible. It would be paradoxical if an unintended consequence of the development of 'professionalism' was to seek to serve patient interests in a uniform and detached manner. The different responses of students to challenges of any sort during authentic early experiences, therefore, warrant further consideration, as does the translation of risk management in practice.

The potential for further paradoxical consequences was identified through focusing on educational spectra as a sub-set. Rather than facilitating learning across multiple settings, the generic objectives from the faculty were either set aside as too vague for use in practice, or used to limit educational focus. Students were also uncomfortable with the idea that they would set the agenda for their experiences with the use of these objectives, preferring to 'go with the flow' when interacting with placement providers. Linking to the spectra of lay to professional perspectives, the attempted use of authentic early experiences to deliver specific content of the course, paradoxically led to the development of a parallel rather than integrated curriculum for students. The division of content by pedagogy is a deviation from theoretical experiential learning models, both in workplaces as described in Chapter One and from a socio-cultural perspective, as discussed in Chapter Three. The theoretical models are based on the premise that learning of all or any content is deepened and strengthened through experience, as experience provides the learner with additional meaning. Students were aware of increased responsibilities when interacting with real people (patients or otherwise) in authentic contexts, but interpreted differences between this and the performance or simulation of in-house interactions as an understanding that real practice might be located in workplaces but real learning, as defined by the medical school (and therefore required of them) was located in-house. A division is made between the students' role – interpreted through their

perceptions of the medical school expectations – and ‘medical’ work. This issue is discussed further in the next chapter, when I consider knowledge construction in more detail.

6.5 A re-conceptualisation of the students’ world

The consequences of social processes are, by definition, the result of interactions between agents and structures. Interactions are dynamic, as illustrated by the variables of each of the spectra described in this chapter. It is, therefore, inevitable that there is some overlap between each of the spectra. The value of focusing on each in turn is that it sensitises, and focuses interest, in how and why authentic early experience works for students to build a richer understanding, rather as kaleidoscope lenses produce overlapping colours to give a fuller image of light spectra. Making these spectra explicit, creates opportunity for consideration of the potential impact of delivering different sorts of authentic early experience, based on empirical and theoretical evidence from multiple perspectives.

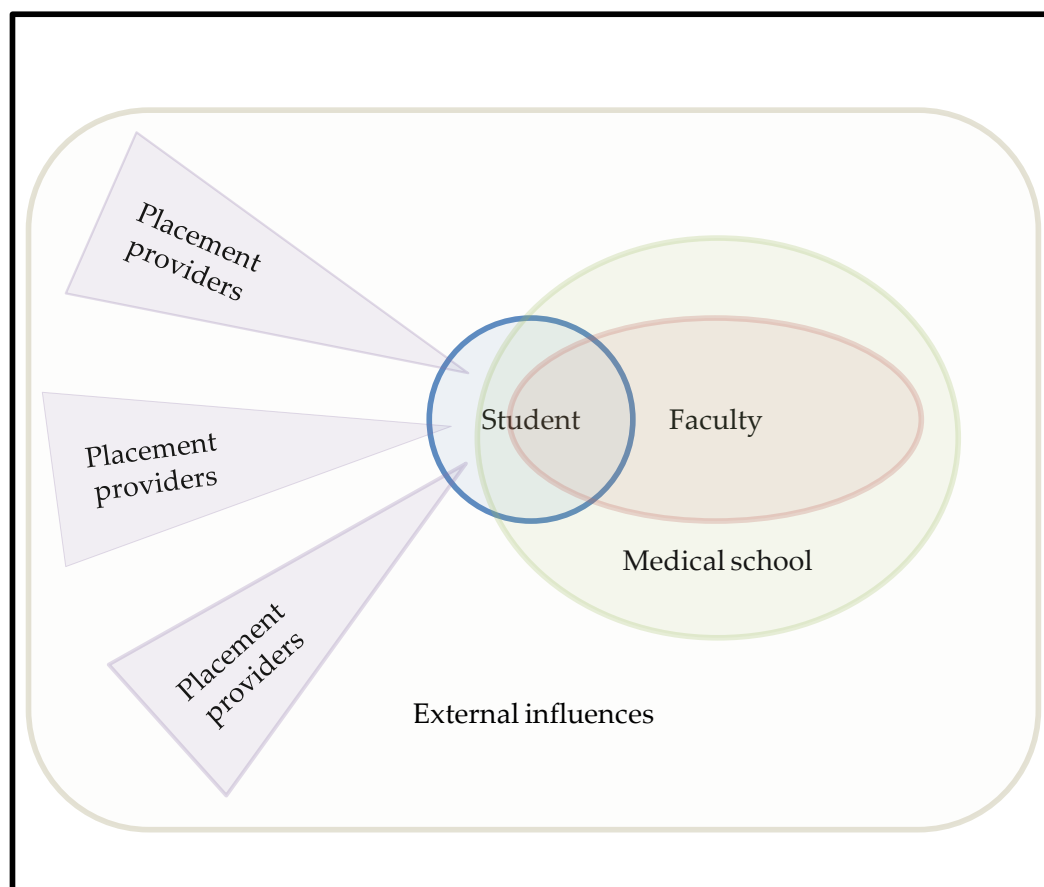
It is unsurprising that the educational spectra identified and described are intertwined with issues of being within workplaces. Negotiating between the demands of workplaces and of the medical school becomes a necessity, given the conceptualisations students have of themselves and others, as illustrated through their language and metaphor use in Chapter Five. The final educational spectrum identified of context specific – transferable learning is dependent on all of the others: each impacted on the ability of students to identify what might be transferable and develop the confidence to attempt transfer, and therefore refine their understanding of functional content knowledge. This may have been due to lack of specific guidance to attempt to do so, a lack of recognition of principles, or a lack of understanding about why this could be important for learning.

It remains to be seen how much potential there is for prospectively engineering experiences by active consideration of the paired variables or influencing meaning-making through explicitly raising awareness of these spectra. Broadening our understanding, through explicit recognition of social processes influencing interactions, is the first step towards addressing this issue. This is in keeping with emergent realist approaches to the identification of links between processes and consequences in medical education (Pawson 2006). Causal links can be identified through plausibility between cause and effect (Merton 1936, Tan, Boshuizen et al. 2010). Such an approach is consistent with my interpretative and constructivist philosophical stance which requires informed judgement of the credibility of findings rather than proof through reductionism of the complexities of real world interventions.

When introducing my research questions in Chapter One, I used the analogy of a black box recorder to describe current understanding in the literature and common practice approaches to authentic early experience. The combined theoretical and empirical work on which this thesis is based has addressed this issue by seeking to open the box; to understand how and why authentic early experiences work for students; and, therefore, the potential range of consequences for meaning-making and knowledge construction. I will discuss the content of knowledge construction further in Chapter Seven, but for now, on the basis of this and the previous chapter, it is clear that inside the black box is a complex multi-faceted process, not a void. The social processes described through the spectra of this chapter influence the consequences of authentic early experience. The spectra contribute to a description of what is happening in the gap between educational or socio-cultural theories of experiential learning in ideal circumstances and what does happen in practice. A more appropriate analogy is, therefore, that of a game in which students perceive themselves not as influential players, but as pieces reacting to faculty members and placement providers resulting in construction of experiences according to the social processes described.

Students see themselves as outsiders within workplaces. Within the medical school they believe they are required to perform to institutional demands often undefined. They find themselves, therefore, illegitimate within both fields and so develop a chameleon identity that allows them to contain the struggle to please two masters (faculty and placement providers), move between two fields (medical school and workplaces) and entertain two dogmas (real learning and real practice). More of this latter aspect of their struggle is discussed in Chapter Seven. The students' circumstances within the game are constituted in their own minds through seeking to survive. Figure 6.12 is an interpreted representation of the students' world which provides the structure of this game.

Figure 6.12 The students' world



Taking the students as the centre, their world is made up of competing parts of what they perceive to be two different fields (Albert, Hodges et al. 2007). A student is situated at the centre and spends most of his/her time within the medical school. The students perceive the faculty to be entirely within the institutional boundaries of the school (metaphorically, and often literally too).

Individual placement providers interact with students intermittently when they are outside the school. Within figure 6.12 this is represented through the visual metaphor of pointed triangles (placement providers) as if piercing the students' understanding of themselves. Students need to make sense of these interactions even when the experience is challenging. All of this is bathed in external influences such as regulatory guidance and policies.

Parallels can be drawn between this world as constructed by the students and the concept of field as described by Bourdieu (Bourdieu & Wacquant 1992, Brosnan 2010). Bourdieu describes a field as 'relations between positions anchored in certain forms of power or capital' (Bourdieu & Wacquant 1992, p. 16). The fields that students identify are, therefore, the social context in which authentic early experience occurs. Students are aware of tensions and variance between the medical school/faculty and workplaces/placement providers, as described in Chapter Five. While students understand the medical school to exist for the education of doctors, they quickly realise there are many competing interests in workplaces, not least the delivery of patient care. The introduction of modern, so-called integrated curricula has not altered this perception which was also present in some of the first sociological studies of medical education (Merton, Reader et al. 1957, Becker, Geer et al. 1961, Bloom 1973). This conceptualisation is different from the collaborative ideal of common purpose as described by Engeström (2001) and discussed in Chapter Three.

Students' reactions and responses to the demands of other agents in the field shape their habitus - including their ability (and personal choices made) to cope with uncertainty and manage interactions with others. The choices students make, particularly in response to challenges during

authentic early experiences have significant influence on the field, and therefore, the consequences of particular authentic early experiences. Some students acknowledged that they made choices in response to challenges that affected their experiences. This is suggestive of the creation of student *Métis*. The impact they could have then became a means for them to create capital in a situation of powerlessness, although they did not necessarily perceive this for themselves. *Métis*, as a theory of what happens in the gap between (idealistic) theoretical positions and practice, accepts that students have the capacity to shape their experiences and create meaning in their 'reality' (world) which differs from the designed scheme, institutional structure or curriculum in which they are participating. This is important, not simply as a consequence of the immediate experience, but also because prior knowledge influences future learning (Vygotsky 1986) in social contexts. In addition, lack of expectation leaves students with little option but to devise their own ways to manage the uncertainties which they face; other studies in later years of medical training have described these as not just relating to knowledge (Fox 1957) but also to relations with other agents and medical reasoning / actions (Light 1979). While the specifics of concerns might differ for students during authentic early experience, the novelty of the workplace might reasonably be expected to produce concerns for them in comparable ways.

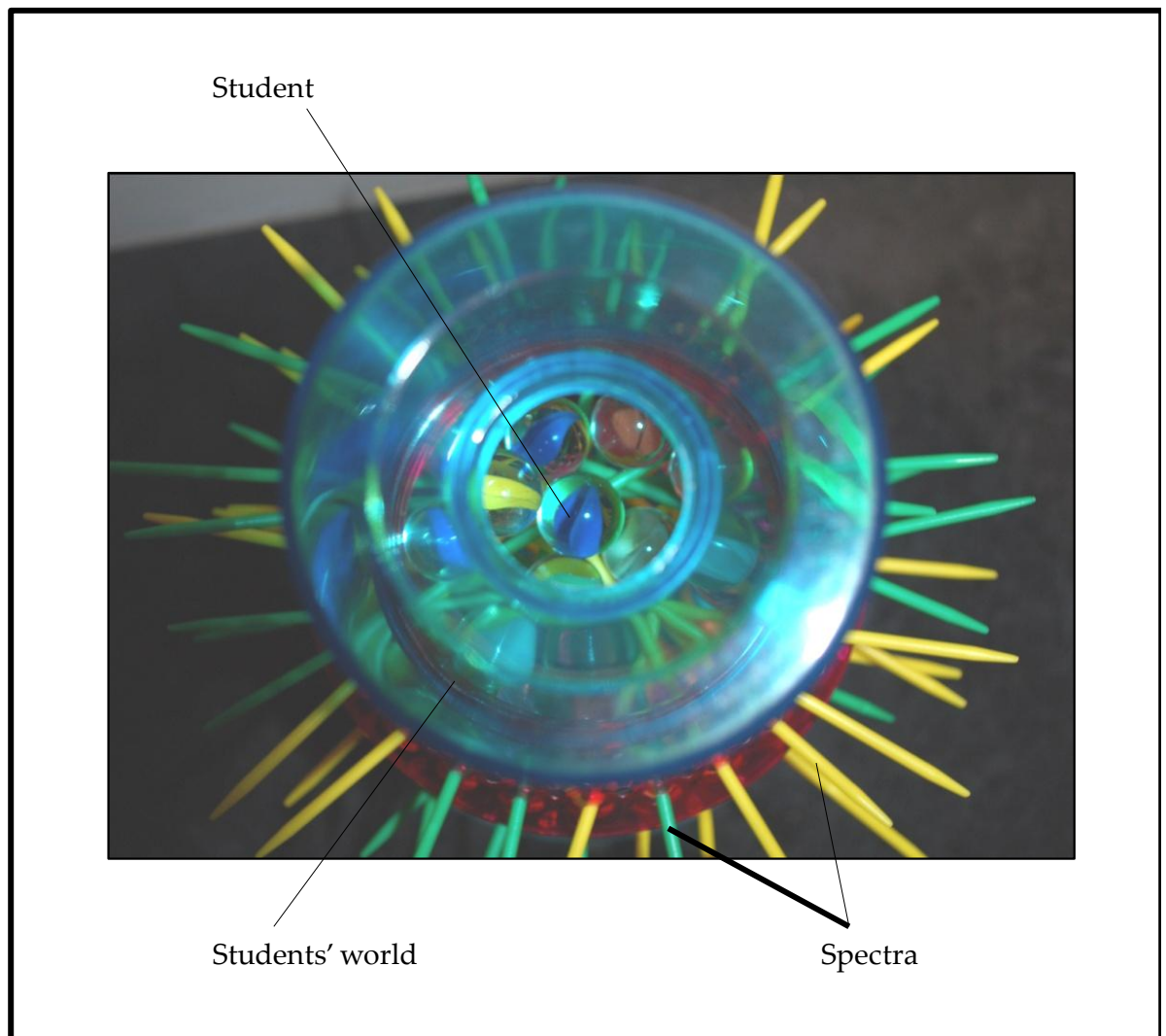
Light describes several choices with which medical education might present students or trainees as means for controlling their uncertainties. For example, with respect to placement providers there are choices about whether to attempt to 'obey, conform, manipulate, avoid or impress' (Light 1979). Whatever choice is made, the student is learning how to handle their interactions. Nothing is solely a means to an end. All experiences, whether involving transitions or not, involve choice regarding interactions. Coping with transition into a new workplace culture, as happens in authentic early experiences, can be achieved in both constructive and non-constructive ways. Tensions during transitions have been found to be about conflict between wanting to belong and remaining true to

personal ideals, making consequential knowledge and meaning unpredictable, depending on the balance an individual strikes (Kozulin, Chaiklin et al. 2003).

Figure 6.13 shows the game 'KerPlunk®' (MB Games 1996) providing a visual metaphor for the contents of the black box, building on the analogy used to describe understanding of authentic early experience at the start of my work. Students are the 'marbles' – they perceive themselves as outsiders, dropped into the game, unable to control their own destiny. The straws are the spectra – both sorts, and the players the placement providers and faculty who as they play alter the variables of students' experiences. Marbles are dropped into the top of the tube. When a straw is pulled the marbles move relative to that straw, but also relative to the other straws and each other. Gradually, the marbles will each take an individual course to fall out at the bottom of the tube. The course and timescale for an individual marble are unpredictable – as is the effect of moving any particular straw.

This clearly leads to consequences but not in a pre-determinable manner. The students as agents in a social process are not, in fact, as passive as this; and it is at this point that Mētis provides a theory of what is happening regarding the construction of meaning by students. Students' reactions and responses to the demands of other agents in the field shape their habitus – that is their ability to cope with uncertainty and manage interactions with others. It was not clear that students necessarily recognised the influence that their habitus, as it developed, would have on the field. Crucially, the two are interlinked. Some students did acknowledge choices that suggest that the creation of student Mētis was a means for them to create capital in a situation of powerlessness, although they would not necessarily perceive this for themselves.

Figure 6.13 A visual metaphor (MB Games 1996) (Photography: (Nowland 2010))



Student Mētis can be considered as a form of cultural capital which agents explicitly or implicitly use for their own purposes. The knowledge contained within student Mētis is discussed further in the next chapter as I turn my attention to the creation, content and consequences of student Mētis through these processes, as students construct their own meanings, knowledge and interpretations of authentic early experience.

6.6 Conclusions

The identification of the eight spectra described in this chapter has implications for all involved in authentic early experience. The inter-dependency of each spectrum with the others creates a multitude of combinations resulting in a vast potential range of experiences. The spectra should be considered by curriculum designers when deciding what kind of experience they hope to create, and to assist consideration of the variety of consequences which might arise. Placement providers should be made aware of the impact their actions (or inaction) can have. Students could benefit from explicit discussion of the influences (and impact) intrinsic in authentic early experiences, in order to potentiate the development of constructive as well as practically useful knowledge. While the precise and specific content of an individual's meaning-making is unlikely to be causally linked to the plot of a given experience on the spectra, due to the complex interactions, it is possible that trends between certain types of habitus and workplace fields might begin to be associated. These issues are discussed further in Chapter Eight, as I consider the implications of my overall findings.

Meanwhile, in the next chapter I discuss the relationship between student *Mētis* and the consequences of authentic early experience. The chapter includes discussion of the different forms of knowledge which can arise from authentic early experience. Findings regarding this lead to my suggestion that 'knowledge' should be reconceptualised as student *Mētis*: an entity which is greater than the sum of its parts.

Chapter Seven

The influence of student Mētis on knowledge construction and consequences of authentic early experiences

7.1 Introduction

It is now evident that, within the context of authentic early experience, institutionally defined learning (expressed through faculty-designed intended learning outcomes) is but part of a greater social process. In Chapter Three, I explained the concept of Mētis in broad terms and considered the potential this concept offered, through application to authentic early experiences, to develop understanding. In Chapter Five, I demonstrated that what students take away from authentic early experiences and their meaning-making is dependent on their ability to find satisfactory ways to make sense of their experiences - a process that requires recognition of many types of knowledge and interpretation of the interactions between themselves (in Bourdieu's terms their 'habitus') and others within the fields that make up a student's world. Chapter Six identified a series of paired variables, formulated as spectra, that describe underlying social processes related to workplace interactions, and more specifically, the learning of medical content knowledge; that is, educational consequences. Whether or not it is recognised by students, their presence (or absence) exerts an effect; the habitus and field are co-constructed (Bourdieu & Wacquant 1992, Brosnan 2010). In addition, when reviewing published literature, I previously found, there was a lack of attention to the potential for authentic early experiences to result in content knowledge. This chapter is designed to both address that omission, and define and describe the concept of student Mētis arising from my work.

7.1.1 The importance of student Mētis

This chapter provides evidence that students construct their own meaning from their experiences in the form of student Mētis. Within this process content knowledge construction is inextricably intertwined with making sense of self, others, and situations. Making sense of others and situations strongly influence student sensitivity to, and interest in, different types of knowledge. The juxtaposition of student Mētis with discussion of content knowledge in this chapter is deliberate. Student Mētis explains the gap between the theoretically ideal and real practice of authentic early experience. With this in mind describing content knowledge – formal and informal – which is consequential to authentic early experiences is the first step towards considering whether there is potential for greater development of functional and transferable content knowledge.

Inverting the order of my research questions, I will initially consider student Mētis as the means by which students can make their experiences work for them. The value system students develop, regarding how different types of knowledge are delivered and when content knowledge is important, will be discussed. Students are seen to understand real practice in workplaces but continue to locate real learning within the medical school. I consider the content of the multi-faceted knowledge contained within student Mētis and discuss why it is created. Formal and informal knowledge arise from authentic early experiences either directly or as a result of the experiences providing students with an alternative ‘something’ to their in-house education. This knowledge is incorporated into student Mētis in that it is assimilated into students’ meaning-making, but the construction of student Mētis is greater than just the sum of these parts. I consider how students currently conceptualise formal and informal knowledge, with respect to authentic early experience, and subject to the greater entity of student Mētis. In doing so, I am suggesting that ‘knowledge’ should be re-conceptualised as meaning-making through the construction of student Mētis.

In this chapter, I use two further examples from my data to illustrate my arguments in detail: one focuses on student conceptualisations of in-house, simulated, patient interactions alongside authentic early experiences with ‘real’ patients; the other on conceptualisations of gaining content knowledge through a focus on learning pharmacology during the early undergraduate years. In addition, I further discuss Scott’s work to demonstrate specific elements which can be drawn from the original concept of *Mētis* into the refined concept of student *Mētis* that I have derived in the new context of authentic early experience. Through these examples, and the rest of this chapter, the continuum of associations from expectations through processes to consequences continues to be traced.

7.2 The relationship between student *Mētis* and consequences of authentic early experiences

The relation of *Mētis* with formal schemes or recognised knowledge depends on participants’ conceptualisations of each other and of institutions. Scott makes the case for a necessary role of local knowledge and ‘know-how’, arguing that this consists of indispensable practical knowledge, informal processes, and the capacity for improvisation in the face of unpredictability (Scott 1998). If a group perceives themselves to be outsiders, or relatively powerless, the *Mētis* created is local in the sense of within the group as well as within the environmental context. For example, Scott describes how, as reforms were considered to the agricultural collectives of the Soviet Union (part of Stalin’s extreme attempt at total institutional control), the new ‘agricultural specialists’ were uncertain that rural populations would have retained their entrepreneurial skills. They saw this as a dilemma –how were they to recreate *their* desired vision of a thriving private sector? Scott quotes a local woman’s response: “‘How do you think the rural people survived sixty years of collectivisation in the first place? If they hadn’t used their initiative and wits, they wouldn’t have

made it through''' (Scott 1998, p. 350). These people had little option but to outwardly comply with institutional directives, but clearly they had retained their own form of *Métis*, which arguably included the skills to subvert any form of institutional control which did not serve their own purposes, old or new (Scott 1998).

Undoubtedly the students' situation is less oppressive. Nevertheless, a similar improvisation in the face of unpredictability, and with a lack of power, is how students derive meaning about interactions from authentic early experiences. Ultimately, Scott's work illustrates that the consequences of improvisation stem from a combination of survival for people constructing *Métis* and a result of both predicted and paradoxical consequences of institutional attempts at control. This was found to be the case not only in the, admittedly extreme, cases of state imposed social engineering, but also when the institutions concerned had more beneficent aims (as the medical school can be envisaged). For example, Scott's study of the building of a 'utopian' city, Brasília, found that, rather than the intended utopia, the planners had produced 'stark spatial segregation according to social class' (Scott 1998, p. 130), thereby demonstrating unintended consequences of well intended actions. These must, as I argue in section 7.4 also be recognised in authentic early experience.

With this chapter, I consider two significant consequences of student *Métis*; that is, to consider the implications of students interpreting their experiences in the ways I have already shown. First, there is the consequence for the students that knowledge is constructed with an inherent division between real learning, located within the medical school, and real practice, located in workplaces. Second, there is the consequential need to consider not just intended learning outcomes of authentic early experiences, but to take a broader more social and holistic view, of the consequences of authentic early experiences. Importantly, student *Métis* incorporates formal and informal knowledge types, but these are subsumed within and, therefore, dependent on

knowledge constructed from students' meaning-making about how to 'make it work' for their own purposes. 'It' refers to, in the widest sense, the students' position within their world. At any given time, 'it' will therefore be a combination of the situation, interactions, and concerns most pressing upon them.

Next I discuss in more detail what is specifically 'student Mētis', by applying and refining Scott's generic concept of Mētis to my empirical data within the broader context of medical education.

One of the strengths of the generic principles that Scott used to build the concept of Mētis is that these have been derived from multiple studies of agent-agent and agent-institution interactions.

The extent to which these principles are found in new settings will be proportional to the extent of *perceived* attempts at institutional control. Scott suggests that the theory of Mētis:

'...is most applicable to broadly similar but never precisely identical situations requiring a quick and practiced [*sic*] adaption that becomes almost second nature' (Scott 1998, pp. 315-6).

The findings presented so far demonstrate that, from the students' perspectives, authentic early experiences can be described as such.

7.2.1 Student Mētis: knowing 'how to make it work'

In this section I explain what *student* Mētis is. Transferable elements of Scott's definition of Mētis which can be applied to my data are that (a) it is knowledge acquired through interacting in real life circumstances, (b) the knowledge is created partly in response to the need to make the circumstances work for the agent (student) concerned, and (c) the circumstances demand that

agents are able to constantly adapt to change. The need for adaptation stems from the continual dynamic interactions between agents and structures, with actions and reactions persistently shaping and reshaping both. The human drive to make sense of self and situations contributes to Mētis as meaning is constructed alongside formal and informal knowledge. In addition, while the concept of Mētis includes de-contextualised elements, the 'ability and experience necessary to influence the outcome - and improve the odds - in a particular instance' (Scott 1998, p. 318) is of equal importance. Scott illustrates this with the example of a sailor for whom it is the outcome of the current voyage in particular, not the probability distribution of safe voyages in general, which concerns them (Scott 1998). For students, it is survival of their current interaction (with either placement provider or faculty) which might be most pressing, not the potential to apply abstract knowledge in the future. Mētis, therefore, encompasses both local and transferable meanings which are gained through experiences and social interactions – as such it is inevitable in some form.

Student Mētis, like all forms of Mētis, is greater than the sum of its parts and is fluid, allowing for adaptation to circumstance (Scott 1998). It includes ideas of common understanding, developing 'common sense', creating cultural capital within the workplace to achieve students' needs, and know-how about how best to survive. It is the ability to reconstruct an understanding of the functioning social order within and between workplaces and the medical school and to improvise in the face of unpredictability, presenting to others what they are perceived to want. The content of student Mētis incorporates students' understanding of integration and transfer, choice and bargaining in the absence of power, and judging knowledge value by importance, relevance and utility. I will return to these themes after considering how Mētis as a whole is constructed and discussing the example of simulated and authentic experiences to demonstrate differences in where students locate real learning and real practice.

Student Mētis has the potential to contain desirable content - both in these areas and in others. In general Mētis should not be misunderstood as necessarily counter-productive. Scott addresses this issue, pointing out that there are many situations where it is desirable to have a workforce with extensive Mētis:

‘...only someone with wide experience will be able to interpret the results of and reactions to an initial step. One would want hydrologists and policy managers [elsewhere Scott’s examples also include doctors] who had been surprised many times and have had many successes behind them. Their repertoire of responses would be larger, their judgement in reading the environment surer, their sense of what surprises await more accurate.’ (Scott 1998, p. 328)

Students who have been surprised, and successfully risen to challenges in their education, would be expected to be well equipped, through the development of their Mētis, for their future careers. This is promising, but what is of concern in the rest of this chapter is the current form of student Mētis as found in my study.

7.2.2 Construction of student Mētis

While the content of an individual student’s Mētis will be to some extent personal, dependent on unique characteristics and the experiences they have, there is also a collective element to student Mētis.

For example, students discussed placements amongst themselves and would pass on both positive experiences and warnings to others:

'Like some people do they just warn you, oh I went there last week and it's terrible, you don't do anything.' (R2DGM2NPP)

R8: *'I think there's a place this year isn't there that when you get it, you're like "oh I've to go there because you hear things about it."'*

R1: *'But similarly you also get placements and you think oh that's brilliant; I've heard people say wonderful things about this placement; I'm really looking forward to it.'* (DGM2PP)

This collective element derives from the common themes in students' data regarding meaning-making such as conceptualising themselves as needing to survive as outsiders in the workplaces in which their experiences occur. Student Mētis can be considered as a form of cultural capital which agents explicitly or implicitly use for their own purposes. Such an approach has the potential to become either antagonistic to, or collaborative with, the medical school. With respect to authentic early experiences, if student Mētis can be perceived as a form of 'cunning' (Scott 1998 pp. 177-8), then issues of suspicion and mistrust need to be addressed. There are parallels between this and Scott's examples of 'working to rule' – used by many trade unions in response to the implementation of unacceptable directives from management. Total compliance to the letter of the controlling institution's instructions, withholding any level of initiative, is extremely effective as a mechanism to subvert desired outcomes whilst appearing to comply fully (Scott 1998). Although students may not be deliberately seeking to subvert faculty demands, unless they have confidence that the medical school understands their situation, and they understand the reasons for particular activities or goals, they can find ways of appearing to comply without actually producing the desired consequences. For example, this might be through asserting they do not know what is

‘allowed’. The problematic nature of the faculty position is also encapsulated in Scott’s concept.

When discussing the implications of Mētis he says:

‘Put positively, the way the trip is made matters at least as much as the destination. Put negatively, a vanguard party can achieve its revolutionary results in ways that defeat its central purpose.’ (Scott 1998, p. 179)

This encapsulates the law of unintended consequences - it is always possible to produce paradoxical effects. On a positive note, the concept of student Mētis provides a mechanism with which to conceptualise a more holistic view of the consequences of authentic early experiences. Scott argues that there are limits on the detail of what we can know about complex functioning social order (Scott 1998). I suggest that this is correct in the sense that there are limits to the predictability of consequences, as these are subject to complex multiple variables that connect in a non-linear, dynamic way, so that effects are not always attributable or proportionate to specific causes, and organisational history can have lasting and hidden influences on learning (Radford 2006). Despite this, we can make use of understanding of the processes at play, that is, the spectra identified in the previous chapter, to facilitate consideration of potential consequences. Elaborating on his basic definition, Scott later says:

‘All human activities require a considerable degree of Mētis, but some activities require far more. To begin with skills that require adaptation to a capricious physical environment the acquired knowledge of how to sail, fly a kite, fish, shear sheep, drive a car, or ride a bicycle relies on the capacity for Mētis...[which] comes with practice and a capacity to “read”... and to make appropriate adjustments...Those specialists [examples include doctors] who deal with emergencies and disasters are also exemplary of Mētis... although there are rules of thumb that can be and are taught... half the battle is knowing which rules of thumb to

apply in which order and when to throw the book away and improvise.’

(Scott 1998, pp. 313-4)

This also suggests that, key to the currently under-researched aspects of developing transferable learning (outside of experimental conditions e.g. Norman, 2009), is the ability to first identify the transfer potential of elements in one context and second, when to make the transfer. If someone is unable to do this, then one would expect, instead, that his or her reasoning would remain at the level of creating dichotomous contrasts between the two contexts, rather than progressing to constructive comparisons. In fact, this can be seen to occur within my data. The strongest example was how students related their conceptualisations of in-house simulated patient interactions and interactions ‘with real patients’ during authentic early experiences. I discuss this next.

7.2.3 Contrast or comparison: how students construct meaning between in-house and authentic early experiences

Students understand and make meaning through comparing and contrasting their experiences.

While this may happen across the curriculum, within the interviews the students tended to make most of their spontaneous comparisons of authentic early experiences with other ‘experiential learning’ labelled activities. In particular, they would contrast experiences with simulated patients and real patients - rarely providing their evaluations of authentic early experiences without using simulated patients as a reference point. Identification of this, within the interviews, sensitised the analysis to consideration of contrast and comparison as a tool for making meaning.

Simulated experiences differ from authentic early experiences in several elements beyond the use of actors or volunteers to take the patient role. For these students, the workplace environment was

not simulated as the interactions took place within standard medical school rooms, and without the students needing to interact with other professionals. Students would practise interacting with the simulated patients (who had learnt a role) while being observed by their peers and tutors. They could choose how challenging an interaction to practise undertaking and also 'pause' the interaction mid-process. Tutor-facilitated feedback was included in all the sessions. In contrast, during authentic early experiences, students were often observing rather than interacting directly. If they did interact with a patient or member of the public, this would usually be in a pair, often without the placement provider being present to observe them, (and, therefore, be in a position to give constructive feedback), for at least some of the time. The importance of environmental differences between in-house and workplace interactions was under-recognised by some faculty members:

'you don't necessarily have to be in the environment to get a good experience – you can, by having a clinician involved, sort of... simulate that experience quite well... that's almost like being in a placement situation because the... the patients are actors and they... and they kind of tune their responses to different levels... so to the students it's kind of more of a safe environment – so it's not really a placement but it's an experience that's like that.' (F8T)

In fact, students in the discussion groups, when reflecting back on their initial authentic early experiences raised the importance of both these differences, and the realisation that there are some things for which one might not ever feel fully prepared due to strength of environmental influences:

'although we were adequately prepared for placements, I didn't feel that prepared because I hadn't actually gone out and spoken to patients yet because I think the actual preparation of, what I mean is the actual development of getting better at talking to patients is by talking to more patients and,

so I think I really needed to develop the confidence, really... get out in the real world before I felt adequately prepared for placements.'(R3DGM2NPP)

The empirical data from student interviews demonstrates that first and second year medical students can generate meaning from simulated and authentic early experiences by making use of the opportunity to compare and contrast modes of experience. These quotations demonstrate that the two were very different experiences:

'with simulated patients you've got... the other ten people in the group watching you – it's really awkward, it's the first time you've done ityou ... don't get ... the adrenalin rush and you're not... thinking on your feet – like you are...in a real situation...so it's a little bit forced. It's good to practise 'cause you just get to go through the motions.' (M1I10)

'if they just gave us communication skills and left it at that, it would just be learning a set of theories or a set of questions... you can't take this rigid structure as gospel anyway, it's meant to be a framework which you work from because not every patient's gonna be the same... But it's... invaluable to have the grounding first... with... simulated patients...with a tutor there to guide you where you're going wrong and to tell you when you're going right... then actually going out and doing it.' (M2I2)

In the first quotation, the student refers to going 'through the motions' – a phrase that suggests rehearsal or performance, and importantly is contrasted to a 'real situation'. In the latter, the student is aware that they will have some form of impact on others, and this confers a sense of responsibility. The second student describes the in-house teaching as a rigid, but interpretable framework. The use of 'gospel' as a metaphor could suggest a perception that the medical school, unlike the student, does believe there is a single right way to communicate. This is supported by

the use of 'right' and 'wrong' when describing feedback. Tutors are, in fact, instructed to facilitate feedback in terms of positives and improvements rather than right and wrong - although there is no way to know if this is always followed. Taken to a logical conclusion, these findings suggest students could be creating *Métis* which includes choices to behave in one way in-house and another in workplaces.

When contrast was identified, students made meaning about what was 'real' in the workplace and what was important to the medical school faculty. Differences were noted in authentic situations as students found it difficult to suspend the sense of giving a performance in-house. Authenticity produced a contrasting sense of responsibility. In authentic situations students believed patients might not detect underperformance, as the patients would be expecting competency. This meant that some students were actually more at ease during real patient experiences, but the responsibility caused others some discomfort. The quotations related to this demonstrate a range of views within the student interviews. In Chapter Five I used the example of a student who when describing confidence in her own abilities, justified this with an assumption that real patients would not detect underperformance, and by default have confidence in her. Other students were more cautious, voicing concerns about upsetting patients and crossing the expected norms of lay interactions, which might produce unpredictable reactions from patients:

'You can't harm simulated patients... you can't really make them upset... whereas a real patient... they perceive us as doctors.' (M1I4)

'there's a lot more to think about when you're with a real patient...you really are delving into their personal, private lives... whereas the simulated patients are told to react in a certain way, these patients could act any which way they want to... and you have to...go...a bit more cautious' (M1I9)

Students also attributed greater credibility to placement providers with respect to how things were done in practice (as opposed to *should* be done to meet the medical school demands). This credibility was based on placement providers' positions situated within workplace cultures:

'Until it's for real you never can judge yourself on how well you've done... but at the end of the day you've got experienced clinicians telling you what to do, how well you've done it, how well they feel you can improve, how... which way to go – and if you listen and just try and understand what they're telling you.' (M2I11)

A tension existed, therefore, between student understanding of 'real practice' and 'real learning' that was about meeting the demands of the faculty and the institutional benchmarks of the medical school, rather than cultural norms of the workplace. The quotations in section 5.4 illustrate how students sometimes missed nuances of context which then led them to create paradoxical meanings. In particular, the suggestion that the medical school was mistaken about the importance of consent and confidentiality was common amongst students. This was because they had not seen placement providers explicitly talk about these issues at the start of every patient encounter in practice. Very few students appeared to realise that often practitioners had ongoing professional relationships with their patients, or that, while some patients might on occasion be dismissive of the issues, equally others might, in certain circumstances, see consent or confidentiality as of vital importance. In Chapter Five it is seen that a student may spontaneously draw the conclusion that real patients do not see confidentiality and consent as important, rather than considering alternative explanations such as, for example, that real patients believe observing good practice in these areas to be a given and, therefore, not requiring discussion.

Within some of the data it is evident that students also perceived simulated patients as lacking authenticity as they were under instruction from the medical school and, therefore, viewed with

some suspicion. Aside from the content of authentic interactions, students conceptualised the medical school as exerting authority over simulated patients in terms of how they interacted, and this made the interactions ‘unnatural’:

‘the SPs [simulated patients] been told to talk in a certain order ... whereas a real patient obviously isn’t – so it just feels more like a real conversation... whereas I think with an SP obviously you’re doing things to try and tick off the right things... what you learn would be quite different. On simulated patients you are basically practising what you have been taught during that session... – what you should do with consent and so on... It’s quite rigid.’ (M2I5)

Students in the discussion group framed interactions with simulated patients as more awkward or antagonistic than with real patients, as illustrated here:

‘Yes the simulated patients like, it’s like they’ve been primed, they’ve only been told that they can say certain things if you ask a question in the correct way. If you don’t say it in the correct way, they don’t give you that bit of information that you need to then ask your next question whereas a normal patient you can just ask them one question and they can go on forever and you can pick up loads of points to then ask them.’ (R8DGM2NPP)

Conversely, this perception meant that the simulated patients were considered valuable sources for the identification of the medical school benchmarks, which the students needed in order to prepare for in-house assessments:

‘... what is more helpful with the simulated patients is the feedback that they give you afterwards, because they’ve obviously done it plenty of times before – they know what they’re looking for, they

know what... they know what a good history is all about, so they can give constructive feedback which is invaluable really – simulated patients are really invaluable in that respect.’ (M2I4)

With respect to learning content and practically applicable knowledge for the future, the unpredictable agendas of authentic patients were reported as valuable opportunities to learn and derive meaning, whereas simulated sessions were treated by students as a performance of parts in a script. Students could identify potential learning beyond the faculty designed objectives when interacting with real patients, for example understanding the patients’ life:

‘They might come out with... a lot of things which you don’t expect or which you never asked but somehow it came out... they came out with something totally unrelated but still a good insight to their lives.’ (M1I11)

Amongst the faculty, there was a spectrum of views on whether the simulations should focus on preparing students for worse case scenarios versus common interactions, how closely to mimic reality, ensuring awareness of good practice, and preventing students displaying inappropriate behaviour:

‘some circumstances not being completely realistic is an advantage... having a... simulated patient completely over-act and over-egg the pudding with that, and give the student constructive ways to deal with it and when the simulated patient, when the student uses those techniques, tones down their response accordingly, gives the student a very subliminal positive feedback loop...that I’ve done the right things and they’ve worked... Um, so you can exaggerate reality to give the students confidence that if they could deal with that, then they can actually deal with this ‘cause this won’t be anything like as tough as that was... so reality is important but you can also tinker with reality for positive effect.’ (F10T)

Simulated patients are intended to offer safe opportunities to learn patient-centred interviewing, but students were instead focused on personal performance (LeFroy, Brosnan et al. 2011). Social anxiety regarding performance has been identified as a potential issue in communication skills teaching (Laidlow 2009). These findings are supported by the student interview data, which uses the language of rehearsal and performance to describe interactions with simulated patients.

Findings regarding the importance of authenticity have been challenged in the literature because of the difficulties doctors have in identifying covert simulated patients in practice (Rethans, Gorter et al. 2007). These findings are not transferable in a straight forward way, as to do so is to ignore the importance of context. For an educational intervention, unless one is going to pursue a covert teaching and learning strategy, the findings of Rethans et al (2007) are not relevant. For the students it was the 'knowing' that matters from a learning perspective - not that the patients and environment are not real but they are known not to be real, that is the fundamental difference in the interaction.

In other studies, which have suggested simulated patients offer better feedback than real patients, the simulated patients have been trained to do this, but not the real patients (Bokken, Rethans et al. 2010). This may also explain why real patients have been found to focus more on medical content than communication during interactions. From the patients' perspectives, unless told otherwise, their expectations of what the interaction with the student will be are likely to be based on previous interactions with practising doctors.

Learning context is clearly significant, but analysis of the student interviews with respect to contrast and comparison has also shown that different contexts can be positively compared by some students (with appropriate insight) to potentiate learner-created meaning from authentic early experience. This consequence is a positive form of student *Mētis* which might be potentiated

by more explicit discussion with all students of the differences and potential reasons for these. There was no evidence that the students in my work were currently either discussing real patient experiences with the faculty unless specifically asked to do so, or that they discussed their communication skills training and simulated patient interactions with placement providers. It is possible that exposure to both modes of teaching could be used to expand overall learning if students were actively encouraged to critically appraise their simulated and authentic experiences in comparison to each other (Kneebone, Scott et al. 2004).

There was nothing to suggest in the faculty or placement provider interviews that they had considered the implications of students moving in and out of workplace environments in a series of rapid transitions; nor the likelihood of students contrasting their different experiences rather than simply seeking reinforcement of in-house teaching in practice. Theoretical and empirical evidence shows that reasoning and meaning-making in medicine often involves the use of comparison and contrast (Cook 1991, Bokken, Rethans et al. 2008, Carney, Bar-on et al. 1999, Norman 2005, Norman, Young et al. 2007, Norman 2009, Bokken, Rethans et al. 2010). The meaning that results is dependent on the individual concerned. Currently, some students are mainly creating meaning through the creation of dichotomous contrasts, although they do show the potential to create more useful meaning through the use of constructive comparison if given greater opportunities for support. The student *Métis* created at present, therefore, includes a sense of fallibility about the in-house teaching resulting in a perceived need for students to dislocate real learning for the medical school from real practice. I discuss this aspect of knowledge construction next.

7.2.4 Knowledge construction: locus of real learning versus locus of real practice

If real learning and real practice coincided, students would be more convinced of the applied 'truth' of the in-house teaching. Serendipitously matched placements (e.g. seeing a patient with cancer while undertaking the cancer unit of the course) were much more likely to produce links in the students' minds, indicating that the timing of experience matters as well as the content, as seen in this student quotation:

'We were doing a unit on cancer and we got to go to oncology paediatrics and that was really good because it fitted in exactly with a case we were doing, and because it was with children it was... it was quite memorable as well... so it is good 'cause... it does all tie in and it's a lot more relevant, I think.' (M2I11)

Nevertheless, when there were differences, students held the existence of these two realities as evidence that the medical school was mistaken, while maintaining a presentation to faculty of what the students perceived they wanted to hear. For example, when describing the reflective assignments which had to be submitted following some authentic early experiences, this student notes that these assignments were easier to do once they had worked out what the faculty wanted to hear, without reference to what meaning might have personally been made following his experience:

'progressively they get a bit easier 'cause you just kind of know what... obviously the more practice [of writing the assignments] we have the easier they're gonna get... 'cause we kind of know what to expect – what they want us to write and things like that.' (M2I5)

Students in the discussion groups emphasised this approach, stating that they would be reluctant to discuss any unmet challenges or provide critique of others within their reflective assignments in case this led to faculty repercussions.

Paradoxically the expectations of faculty and placement providers were both too low (in terms of medically useful content knowledge that students might gain) and too high (in terms of what students could negotiate within workplaces) meaning that students locate useful (real) learning within the confines of the medical school while the 'truth' of medical practice is located in the workplace. The disjoint between real life and real learning suggests that students did not see authenticity as their current priority, in educational terms, for either gaining content knowledge or transferring in-house knowledge for refinement through experience. From the students' perspective, the workplace reality was not thought to influence their personal progression, which was defined through their relationship with the institutional demands of the medical school. Taken together, the narratives of Chapter Five demonstrate that it is this conceptualisation which devalued authentic early experiences as a source of content learning, and reduced declaration of useful knowledge, as evidently students could and did derive both of these from their experiences.

Throughout my data, students clearly want to suggest they are motivated by a sense of what a future career as a doctor will entail (caring for people, working as part of a team, being responsible for others etcetera), yet they are only too aware of the need to pass examinations in the short term in order to make any progression towards this goal. The suggestion that student learning is driven by assessment is neither surprising nor novel. What is of interest is why students should see the learning required to pass examinations as so separated from the ultimate aim of practising as a doctor. While authentic early experiences are seen as opportunities to remind students about why they are studying at medical school, this is disconnected in the students' minds from learning medical knowledge.

Contextual factors and relationships influencing knowledge construction

Students construct meaning and ‘take away’ knowledge from authentic early experience through their relationships and interactions with placement providers and faculty. All this is situated in the wider context of the medical school as an institution and influenced by the students’ sense of place in work environments. Together these factors are influencing students when they are developing an understanding of their identity and reality as defined by their medical student status. Within this world students attribute power over their progression through medical education mainly to the faculty, but recognise the control that individual placement providers have during the actual timeframe of particular early experience placements. They do not see either the faculty or placement providers as expecting from them, or offering to them much responsibility, and are unsure of their role and identity in the workplace. Students describe finding themselves on placements where they were being asked to set an agenda in practice, despite a lack of understanding about the workplace. When attending early experience placements, the influence (omnipresence) of the medical school remains apparent in the students’ minds. The influence of individual placement providers on students is acute but short lived in comparison. Meaning will still be made, albeit perhaps in a negative rather than positive sense.

In potential opposition to this, placement providers have greater credibility for knowing what matters for ‘real practice’ in the ‘real world’ simply by being situated there and carrying out workplace activities every day. In theory, these realities do not have to oppose each other. In this study the students began to conceptualise the realities as such because of differences and tensions between what they perceived as being the faculty’s values and interests and those of placement providers. This suggests that achieving constructive alignment between the curriculum design, faculty controlled learning opportunities, and assessments is necessary but not sufficient to avoid the development of dichotomies; greater account of authenticity is also required.

Low expectations from the faculty, alongside reassurances intended to reduce anxiety regarding level of competency in the early stages of the course, seemed to also impede students from presenting certain sorts of meaning, such as content learning, from placements to the faculty, if not realising them. It was unclear whether the faculty actually thought educational content was undeliverable through authentic early experience, or simply had concerns about equality of content, and equity of opportunity, as expressed by this faculty member:

'... ensuring equality and consistency of what students were learning would be very difficult to manage if it were done in that way [content knowledge delivered through experiential learning].' (F9T)

Opportunism, rather than design, was seen as the main mechanism through which content knowledge might be acquired during authentic early experiences:

'... but in terms of... knowledge... I think that's probably the least important area for placements. As I was saying earlier there might be some opportunistic learning in terms of putting some of their other knowledge into a clinical context, but that's not really the prime driver.' (F6T)

The reasoning behind this was that if content knowledge was formally assessed, then the faculty needed to be certain that they could prove it had been presented to students. This was only problematic because of the tendency to seek to divide knowledge types between particular pedagogies rather than cross-covering opportunities to learn content through a variety of means.

Such a conceptualisation gives the students an unintended message about authentic early experiences, suggesting these elements are less important to the medical school as they are the elements that are not retained in-house, under the close control of the faculty. The lack of student

expectation to learn relevant medical content knowledge during placements was likely a consequence of this faculty consensus over what should be learnt where and why. Chapter Five included data from students describing their perceptions of the medical school intentions and the belief that they are not supposed to know 'anything about diseases', suggesting they are interpreting something from the faculty as active discouragement from learning content during authentic early experience.

Conversely, several placement providers (not just the pathologists but also, for example, those discussed at the beginning of Chapter Five in the voluntary sector) were interested in delivering content learning opportunities, describing benefits not only to the students but also their future patients. It appears, therefore, that there is something about the current process which prevents some students, but not all, from either making or declaring this learning and the resultant meaning made from it.

Having discussed reasons behind how content learning was viewed, supported by data illustrating participants' conceptualisations in general terms, the next section considers the learning of medical content knowledge in more detail, through consideration of what, where, and how students conceptualised pharmacology learning during the early years.

Pharmacology as an example of the current implications for content learning

When I reviewed the curriculum design in preparation for my work, pharmacology was identified as a possible area of integrated learning where students might acquire novel content knowledge from both in-house and workplace learning. In addition, intuitively it seemed likely patients might talk to students about their medications. This intuition was borne out by student experiences when, for example, a student recognised the central role medication could play in practice:

'Patients tend to have lists of them in their pocket [laughs] and it's nice when you actually know what it is. And consultants talk about drugs... whoever the doctor is that we're going round with, do tell you a lot about the drugs and a lot of the time it does go over your head but some of them you just recognise [laughs] and you're like, "oh, I know what that one is".' (M2I5)

Therefore, this was followed as a thread looking for links, influences and integration with authentic early experiences from both years including pre- and post-experience awareness of pharmacological learning objectives. I was interested in understanding what students would identify as 'pharmacology knowledge', whether they would be interested in this information during authentic early experiences, given that it was not a specific objective for the experiences, and whether there was any evidence of integration or transfer of learning between teaching pedagogies or settings. These findings are presented in some detail, as since commencing my work there has been increasing attention to pharmacology/prescribing within medical curricula from policy-makers (General Medical Council, 2009).

From a faculty perspective, pharmacology was one of several basic sciences, learning of which was prompted by PBL cases. The learning expected was a preliminary model that students would then be able to use as a foundation for learning from real patient experiences in the future. Integrated learning was conceptualised as the need to draw on scientific knowledge from different academic

disciplines within a specific PBL case, with a view to later application in workplaces. The ‘real world’ scenarios, referred to below, are fictional cases rather than scenarios experienced by the students in practice:

‘we’re very conscious of avoiding the separation of academic study into different ‘ologies’ so that we don’t try to get students to learn biochemistry, physiology, pharmacology as compartmentalised academic subjects but to have them identify all of the learning they need to do in those areas from real-world scenarios presented in PBL cases.’ (F9T)

Conversely, students mainly identified pharmacology learning within the lecture and laboratory practical timetable with variance in their views about whether PBL also had pharmacology learning objectives embedded in the cases, often recognising potential but not centralising the need to use these cues to create learning objectives:

‘the majority of it through lectures, to be honest... ‘cause in each PBL case we might have one or two drugs that come into it. We might look at the actions of them and then sort of relate them to the broader type of drugs that they are – for example, antibiotics and that sort of thing... but the majority is through lectures.’ (M1I3)

‘we’ve done very little pharmacology ...we were always told to just learn a bit about what it [a drug] does, not... don’t go into too much depth about how it works.’ (M2I2)

There was no suggestion from the students that lectures or PBL cases might be a prompt to learn more about similar content knowledge during authentic early experiences. Instead, this next student describes setting aside the patient’s list of medications because she was trying to ‘focus on

the patient’ – apparently oblivious to the irony of patients sharing information which they perceive as being important:

‘... with regards to pharmacology it doesn’t apply as much on placements... when you are talking about medication with patients they’ll just hand you a list of medications and... because I’m trying to focus on the patient, I don’t necessarily have the time to write down the list or really even pay very much attention to it, so I move on, to other things... Yes [laughs], they give me the list and then I look at it and go “thank you” [laughs] and give it back to them.’ (M2I7)

Some students went even further, for example, describing how they might use skills gained in communication sessions to ensure that patients understood that they were uninterested in medication issues. This student removes herself from participating or facilitating information sharing between the patient and nurse:

‘anything we’ve learned on the course so far, just being like there for them and just... it would be communication because we... wouldn’t know what the drugs were, we wouldn’t know why they were making them feel ill and it’d be something you’d have to get the district nurse to look at so it... it’d just be like using your skills to, say “yeah, it’s okay that you’re worried about that, do tell the nurse”...’ (M1I10)

The expectation, of faculty, that students could create links for themselves between contexts remained higher than their capacity to do so independently. Other students had also met patients for whom medication was a significant part of their lives, but chosen not to focus on this. Possible interpretations of the choices and reasoning of these students include the need for further support to make connections, but also the potential for the faculty views to unintentionally prime students towards excluding content learning from authentic early experiences. This interpretation is

supported by student data, already shown and below, which suggests they believed that, given there was so much to learn, content that was unlikely to be examined had to be automatically set aside:

'... things you pick up on placements, you never know whether you're gonna need them and at the minute, a lot of things you do think well "am I actually gonna need that for my exam?" just because of how much stuff you do physically need to know – you don't want to be storing... things that are not 100% necessary to you.' (M1I10)

Conversely, there were others who found that making connections helped them to remember specific drugs and conditions:

'...for example we've been doing, different types of drugs and it was really hard to remember which one does whatever and then on placement, this woman we were interviewing said that she was on the said drug we'd been learning about and since then I've been able to... I know what it is just because I remember her telling me that she... was on it, so when you actually find people who are actually on something you've been learning about it... it just makes it a bit more real so it's much easier to remember.' (M2I1)

Another barrier to creating links between in-house and experience-based exposure to pharmacology was the perceived differences in what the students were learning in-house and the daily working knowledge of placement providers (Tichelaar, Richir et al. 2010). This difference was accentuated within the students' minds as they struggled to understand why the medical school demanded a level of scientific knowledge from them, which they did not see explicitly replicated and applied in practice. Students were surprised to discover the concerns of practitioners differed

considerably to their own and made specific distinctions between scientific knowledge and workplace practice:

'No-one's ever questioned me about a drug, or... they might have mentioned it... they never talk about the pharmacology of it particularly – never ask me what receptors it's working on – I mean it's... they might talk about the side-effects or roughly what it's doing for the patient, not in a pharmacological sense, though, more in a treating symptom kind of thing.' (M2I9)

In the worst case scenario this could exacerbate a sense of mistrust. For example, this next student suggests that members of faculty have lied to them, when in fact it is more likely that the student is struggling with the realisation that the applied science is complex:

'we've had a few lectures on, like the basis and theories and things and then you read a book and think... realise that they're lying [laughs]... and I suppose when you see patients you see how different patients react differently to different medications and how some people they just aren't effective on and some others have different side effects and things like that and some it's like the miracle cure but... it's... mainly... with pharmacology it's mainly just reading out of a book and BNF [British National Formulary]...and things like that, but you do see things that... you do... it is quite remarkable what a difference it... certain drugs can make to different people.' (M2I6)

This emphasises the difference between students learning detailed pharmacology for the first time, with the purpose of passing medical school examinations, and the practical knowledge used daily by clinicians. It was unclear whether they appreciated why this might be, or given this, why detailed learning during the undergraduate course mattered.

These varied responses suggest that students can struggle to extract generic knowledge or principles from their specific in-house examples. Although they have placement objectives around what it is like to be a patient and receive healthcare, they are not seeing these as a way of integrating pharmacology knowledge in practice, possibly because of the variability of their experiences and their reasoning that this knowledge will not be required from them yet. Content knowledge is not seen as an integral part of their communication skills. On the other hand, the data clearly demonstrates potential for the learning of content knowledge, and developing understanding of nuances of applied scientific knowledge based on experience if support to do so was available. In particular, as this student says, there is a difference between a) recognising that understanding about disease in purely scientific terms is not the same as understanding disease as experienced by a particular patient and b) being able to make sense of variations:

'I mean it's... not necessarily in terms of scientific, we covered this and this lady had exactly the same condition kind of thing... if they have certain conditions and you're trying to think okay well that's not what's supposed to happen, this is supposed to happen and in... my head just being able to, you know, to regulate that information.' (M2I6)

Placement providers were keen for students to understand these nuances, often stressing in their interviews the value of experience in practice, and of being surprised:

'The other thing, I think, which I read in books what drug you should give such and such and it's all dead forward [sic] – you have a chart and it's dead simple – how often does it work in reality? And they see why... I think they see that... the difference between theory and practice – that you've always got some... well, nobody ever fits a template, do they, or the ideal patient. There's never a simple... there's always a reason why the theory doesn't apply necessarily and I think they see that

you've got to maybe look sideways at things rather than just, following simple systems that a book doesn't always... solve the problems.' (PP12)

Experiencing multiple instances of 'surprise' is also one of Scott's suggestions for creating positive forms of Mētis. Unfortunately, without both placement providers and faculty explicitly and coherently guiding students to the importance of this sort of learning, it was easily lost.

7.3 Key elements in the content of student Mētis

For the students, their Mētis incorporates three key elements: understanding of integration and transfer; choice and bargaining in the absence of power; and judging knowledge value by importance, relevance, and utility.

Understanding of integration and transfer

What is 'working' for the students as they seek to fulfil the purpose of progression through medical school is not integration and transfer between settings but division by content and pedagogy to allow prioritisation. Their Mētis - already forming from experiences of examinations compared to authentic early experiences - has led them to the conclusion this is the best way to achieve their goals. For many students there was a clear separation in their minds between in-house and workplace-based learning during their experiences, described by this student as having 'different minds on' in a way reminiscent of a metaphor of wearing different hats to delineate what role a person is taking at any given time:

'I can imagine it [integration of learning] being a problem because you've got your different minds on. So, for example if I did go on a placement, I'd have my communication head on – try and

remember them skills... for them to suddenly ask me a science question on it, I'd probably be able to get... remember, but it'd probably take me a lot longer than, say, if I was in PBL and we were discussing them things specifically...' (M1I1)

Telling their stories of experiences in terms of survival was, therefore, perhaps also a consequence of trying to make sense of experiences which they could not link with their medical school in-house teaching. I have already highlighted where students made distinctions between what they were currently doing (in-house and during authentic early experiences) and future years of their course. The students also appeared to believe that there was a discontinuity between what they were currently doing and what a doctor would do. The student perception was that elements of the curriculum, including authentic early experiences, were (albeit sometimes enjoyable) hurdles set institutionally to test them (a challenge by the medical school) or through external control (a challenge to the medical school, for example by the GMC – which might in turn be perceived as comparable to the states described by Scott, acting with good intentions but not always achieving expected consequences). Experiences were perceived in this way if they did not explicitly serve students' current purposes. It is possible this may explain, in part, why generally skills seem to remain context bound (Norman 2005). There was, however, a subtle but definite shift in the student language and focus on content in module two towards discussing 'clinical' work. The experiences of this module were perceived by students as more purposeful and held more meaning in relation to 'becoming a doctor' and 'real practice'. It was not clear if individual students reached a point of achieving integration, or of achieving enough experience to no longer be concerned with the non-medical work that they conceived earlier elements of the curriculum to contain.

Choice and bargaining in the absence of power

A significant part of student Mētis was that students learnt that they needed to be able to bargain and negotiate within the workplace to meet their own needs. When, in module two, students had

sessions related to negotiating during consultations with patients, they felt that this was too late, and the skills of negotiation would have been useful to assist them in potentiating learning from authentic early experiences. This was illustrated in section 5.4.1. Although the negotiation skills were apparently being offered to students to improve their ability to interact with patients the use to which the students planned to put these skills covered managing interactions with anyone in the workplace, and the faculty.

Students expressed frustration at not always knowing what was wanted from them - the underlying frustration was due to the students being more keen to please those who held some form of power than to learn experientially out of curiosity. Achieving this is the students' immediate focus - and therefore, they are most interested in developing Mētis to achieve it. Students would usually handle being told to do things in different ways passively during the actual experience in order to avoid confrontation, as illustrated in this discussion group exchange. The students had learned to alter their way of working to meet their perceptions of either the placement provider or examination requirements with this increased confidence:

R1: 'I just nod and smile and say yes o.k. fine.'

R4: 'I'd say o.k.'

R5: 'Perhaps if you're with that Consultant on a long term placement then you'd just try and keep doing it his way for a bit but for us we get examined by the people who teach us at the CEC [Clinical Education Centre – at the hospital].'

R3: 'So you forget what they think.'

R5: 'So we need to do what they've taught us to do in order to pass any OSSE stations really.'

R6: 'I think it's up the student to decide whether that is an improvement that you can add to your, your own sort of way of doing it. You know, by all means make sure that you do the exam style one

that we've been taught in an exam but if this is adding something that is very useful, who knows you could say it in an exam and you might get an extra mark for it but...' (DGM2PP)

The ability of R6 to develop the more sophisticated approach (although still focused on the exam) at the end of the exchange varied across both modules of students interviewed.

Students also described 'dealing' with patients on placement and using previous observations or interactions to guide subsequent ones. While these are opportunities to put communication skill training into practice, they also present the student–patient interaction as a challenge. The use of phrases such as 'deal with', 'warned us', 'only positive thing' suggests that the interaction was perceived in this way. This student describes pretending to agree with patients rather than getting into confrontation:

'You know, a way of thinking or feeling when interviewing a patient... because you have to sort of think... you have to sort of appreciate what they're saying, even if you don't agree with it, that sort of thing – because they might say "oh the healthcare system is rubbish"... "all doctors are rubbish" and you think "well, yeah, really?" but you have to sort of listen to what they're saying and at least pretend [laughs] to sort of agree with them, or at least pretend to sort of take note of what they say.'
(M1I3)

Here, the student's *Métis* suggests the best way for him to interact with patients is to falsely empathise. Everyday life tells us that it is often easier to agree with others than to confront their misconceptions. This currently works for the student but it would be undesirable if more experience with patients continued to reinforce this view: at best it could result in an increasingly cynical attitude; at worst a failure to seek to really understand patients' position which might have serious implications for their healthcare. This is an example where the meaning made by the student is perhaps spontaneous and could be more sophisticated if he had opportunity to develop

his Métis through supported workplace participation that discussed the nuances of patient interactions further.

In module two, some students had begun to take more personal responsibility for their experiences and assert themselves more in the workplace. At this stage students began to consider content knowledge as a way to perform better on placements, giving the students confidence and security as a bargaining tool. There is a clear contrast between the previous quotations and this next one. This student believes they have some relevant content knowledge:

'It's just being more familiar round the wards and... I think knowing a little bit more helps as well [laughs], 'cause, like, some of the placements we go on obviously we know a bit about the conditions... and things like that and if you know a bit about the condition it makes interviewing the patient so much easier... whereas first year obviously we didn't know as much about the conditions, so it made it... it made it really difficult to, like... you just end up asking really general questions...Whereas now we can ask... questions a bit more specific to the actual problems we know they're going to have and things like that.' (M2I5)

The concept of a continuum from expectations, through process to consequences of authentic early experiences, was reinforced when students, participating in a discussion group and now in their third year of medical school, attributed increased participation and drive to learn to the greater expectations of placement providers in module three:

'It's expected of us. Like if we go onto a ward in second year you could quite happily probably stand in a corner and no one would have said anything to you whereas now if you stand there, they would be like "what you doing, sort your life out, do something."' (R4DGM3PP)

Previously both faculty and placement providers had suspected that there might be reluctance to admit to knowledge on the part of students, not realising that there was a fine line between reassuring students that it was permissible not to know everything at the start of the course and giving the students an impression that there was no level of expectation to learn. For example, this faculty member describes how students might hold back in order to check their knowledge and in the second quotation a placement provider expresses the difficulty between identifying what is lack of content knowledge and what is lack of confidence:

'I know that you would expect them all to know but they probably... many will... even if they do they'll pretend that they don't, just to have it cleared up.' (F2T)

'... you don't know if they know the anatomy ... it's that balance between knowledge and confidence to say you either know it or not... That's down to the individual.' (PP9)

Applying the concept of Mētis, I would argue these findings require further exploration to understand why students might choose to behave in this way.

Judging knowledge value by importance, relevance, and utility

Recognising the potential importance of what can be learnt from any given experience is a fundamental tenet of experiential learning theories. With respect to authentic early experiences, the Mētis students construct for judging importance is derived according to the value of any given experience as important in general, relevant to immediate goals and containing current utility for the student. Each element of this value judgement will now be discussed in turn.

Students were effectively asking themselves ‘is this something that will ever matter?’ when making judgements about perceived importance. This is an issue of whether the student thinks what they are experiencing is ‘medical work’ or not. Despite the institutional presentation of the curriculum as a spiral integrated multi-mode way of learning, the students continued to interpret the presence of lectures as an indication of what really mattered, reasoning that the faculty would place the most important knowledge into this format as it was available to the whole student body without variability in content or detail. Students were correct, as shown earlier in this chapter, that the faculty had concerns about how to assess content when they had not directly controlled its delivery. Students replicated these concerns about fairness; this led to them constructing a self-perpetuating argument about the value of authentic early experiences. Student perceptions of the value of authentic early experience compared to learning what the medical school demanded were reduced due to the variability of the experiences - but they also reasoned that if these experiences really mattered, then it would be unfair for some people to have ‘better’ experiences than others. Therefore, the experiences could not be that valuable. This was demonstrated from the data in Chapter Five.

The drive to follow the faculty example of dividing content knowledge by pedagogy is exemplified in the following quotation. The student is explaining that to interpret ‘what the faculty wants’ and how it should be achieved, they have allocated specific intended learning outcomes from the curriculum to specific parts of the timetable. Linked to this is the assumption that anything identified as learning through authentic early experience is unlikely to be examined as it is not ‘proper’ medical work:

‘PBL, anatomy, histology... what people would think of like proper medical things... what you get from your textbooks or... lectures... as opposed to... placements which is more, is it community... and communication...and that side of it comes from your placement....when you look at your ILO’s

[intended learning outcomes] at the back of your handbook... and you can pick out where your placement experiences fit into what you're supposed to have learned. Because a lot of them are things that they couldn't really test in an exam – they're things you need to know and be aware of but it's stuff you have to kind of take on board as a personal thing.' (M1I10)

Students did not routinely expect to be examined on placement learning. Despite some students acknowledging the faculty had told them some content from placement learning could be included in the examination, the students did not all believe this, raising the question of faculty suggesting or students interpreting other messages from the explicit one given.

As the students were using their perceptions of faculty and medical school priorities as a measure of importance, the lack of follow up after placements could also prevent them from recognising potentially relevant learning. This second requirement of perceiving knowledge as relevant to immediate goals was mainly focused on whether the knowledge would help achieve the demands of placement providers and / or faculty. Students are trying to fulfil two separate objectives: first, to achieve what they think the faculty and institution requires of them, and second, to avoid confrontation with placement providers during the placement itself. Relevance, when identified, would be used, indicating that perhaps transfer is inhibited by the lack of explicit guidance for making connections and recognising relevance. For example, this student describes relating patient experience of something to a PBL case and, therefore, sharing experiential knowledge with their peers:

'sometimes we, like, relate it in PBL... like if you've got... if you're talking about a particular thing and you've seen a patient that's got that and you can tell the rest of the group, like, what you heard from the patient.' (M1I7)

Students scarcely reported any feedback relating to interactions during authentic early experience and appeared to rarely be observed when spending time with patients. Linking to the previously identified issue of who was taking responsibility for students during their experiences was uncertainty over who should be responsible for any debriefing. Students described variance in placement provider behaviour ranging from the sudden end with no form of debriefing to constructive suggestions for improvement, albeit improvement which may or may not match faculty expectations.

This variance is illustrated in the following quotations from students:

'quite a lot of the time... the placement comes to a very abrupt end, "oh it's 12 o'clock bye-bye".'

(R6DGM2PP)

'... it is very wildly between the different providers. Some of them really do give you a good breakdown of what you did and what you can improve and others just sort of send you on your merry way with a pat on the head.' (R7DGM3NPP)

Students also based their judgements of importance and relevance on how much attention was paid to authentic early experiences in-house. This attention was very little explicitly, leading the students to conceptualise their experiences as something outside of the faculty interest:

'If someone ever said we're gonna have a debriefing and feedback and plenary or if someone ever said that was going to happen, I think it would have made it seem more important to us then when we went out we would have maybe tried ourselves to make it more worthwhile once we were there.'

(R5DGM3NPP)

This suggests that more guidance and explicit prompting to make connections with matched placement learning situations could be a worthwhile approach to increasing understanding and content knowledge, bringing about greater integration.

Lastly, to truly have current utility for the student, – the knowledge had to ‘work’ for the student. This is the issue of whether the knowledge construction and subsequent meaning derived from experiences under the influence of social processes serves the student’s own purposes, such as needing to survive. It was for example, a source of irritation to students that they found they had to justify the faculty-designed new curriculum to placement providers. This was not perceived to be their role, and they did not want responsibility for the design if it conflicted with the placement provider’s view of what they should be doing. The strength of feeling related to this was evident during the discussion groups:

R7: ‘she was basically quite appalled at how poor our anatomy was and both of us were kind of you know, we couldn’t believe it. We were on this kind of course that we haven’t designed, have had no control over but that’s what the people who are qualified seem to think is acceptable for us but other people in their cohort don’t think it’s acceptable but none of this is our fault and it was quite, it was a bit embarrassing really because we felt like that she was kind of basically saying “what kind of students are you, what kind of degree are you doing?” It’s not our degree, we didn’t design it, we just pay three grand for the privilege of studying it.’

R1: ‘I don’t really mind telling people what I know. I mean if I don’t know something, I don’t know, I’m not going to pretend I know things. What frustrates me is feeling like I have to apologise for what’s on the course.’ (DGM3PP)

In addition, in one discussion group students also chose to replicate the behaviour of role models in their interactions with anyone more junior to themselves, thereby replicating a potentially unhelpful educational environment:

'But some people did and I think it really did just depend. I mean, and it's still happening coz there's first years on cardiology and I'm just thinking why are you here, what are you gonna be able to do? Do you know I'm just thinking you don't do a cardiology module in the first year?... What's the point?' (R5DGM3NPP)

These are problems reported elsewhere in the literature (Wray & McCall 2009) and highlight how the students perceived themselves to be negotiating the interface between faculty and placement provider expectations in their interactions. It has been shown consistently that students seek to conform to what they perceive to be their teachers' (and in particular examiners') expectations (Newble & Jaeger 1983, Marton & Säljö 1976a). What is of interest here is how they 'handle' the challenge of differing requirements and perceptions between in-house faculty (who hold power in relation to immediate course) and placement providers (who hold power in relation to immediate placement and potentially future career). The following discussion group exchange illustrates this dilemma, as the students see it. First a student describes being inferior to placement providers, second, another student points out the potential future implications, and third, the last student reinforces how these concerns impact on student willingness to share perceived challenges with the faculty:

R2: *'And you don't want to complain like I think we were talking about it last year, you don't want to complain about someone who's superior to you because you don't feel it's your place to do that.'*

R1: *'And then you don't know, you might end up on a ward or in the GP practice with them come two years time.'*

R3: *'You don't want to get involved with it and stuff... you don't want to get in trouble with anyone and you don't want to sort of create bad feeling with anyone if you're just in your first year of medicine or your second year.'* (DGM2NPP)

Students' feedback to faculty is influenced by their understanding of what the resultant consequences of whatever they say might be. Students do not see themselves as agents for change with choices to make. The reproduction of faculty and placement provider attitudes stems from students desire to 'fit in' and be accepted as suitable candidates to become doctors.

7.4 Working with Mētis: a social and holistic view of consequences

Merton, writing in 1936, discussed what he called the 'unanticipated consequences of purposive social action' (Merton 1936). He argues that unanticipated consequences are found following so many purposive actions in such a range of fields that these occurrences should be expected despite the impossibility of predictive definition. His theoretical paper is pertinent to the findings of my work as he asserts that the unforeseen is not necessarily undesirable. The individual nature of agent interactions alongside the ability of agents to act in both formally organised and unorganised ways are recognised. Either form of action might produce unintended consequences, but Merton explains how socially organised interactions offer opportunities for further work as these tend to have defined purposes with which to compare unanticipated consequences. He acknowledges that demonstrating causality is problematic; more so with increasingly complex social contexts which contain agents pursuing varied purposes. His suggested way forward is for researchers to seek understanding of interactions, while recognising that 'the factors involved in unanticipated consequences are - precisely factors and that none of these serves by itself to explain any concrete

case.’(Merton 1936) This might also be considered good advice for educators charged with curriculum design and implementation.

There are potential consequences for all involved in the continuum resulting from students’ interpretations of the expectations and processes of themselves, their placement providers, the faculty, as well as the institutional influences of the medical school and cultural inferences of workplaces. It would be possible, although I would argue a misapplication, to see the findings of my work as shedding a negative light upon authentic early experiences. To do so would be to engage in making at least two mistakes. First, it would entail a return to simplicity and reduction of the findings rather than remembering the complexity of the intervention. Unintended and unpredictable consequences should be expected from human interactions. Nothing is solely a means to an end. Second, it would require rejection of what has been called the ‘nevertheless’ principle present in human experiences (Stannard 2010). This is the idea that ‘nothing is one thing only’, and despite limitations unexpected benefits might arise from an experience. It might, therefore, be used as the ‘ultimate statement of justification’, in support of learning from experience and surprises (Stannard 2010, p. 3), for moving from certain but remote (unreal) knowledge of controlled interventions to developing understanding within the real world of embedded interventions (Regehr 2010, Eva 2009). *Mētis* can be positive or negative and paradoxical, if the intention of authentic early experiences as designed by the faculty is taken as the yardstick against which judgments are made. As shown, with the example of how students construct meaning between simulated in-house and authentic early experiences, without guidance, contrast between in-house and workplace experiences can be used to dichotomise meaning as better or worse rather than learning through comparison. Not only should consequences be expected to exceed those intended but the temptation to dichotomise into positive or negative, good or bad, should be resisted; instead accepting that often valuable meaning and learning can come from challenges. Scott describes the problem of paradoxical consequences resulting from the

best intentions. His work suggests that these are most likely when either an institution or agent considers the subjects of an intervention to automatically benefit from imposed structure without adequate collaboration with these subjects (Scott 1998).

Providing a mechanism with which to conceptualise a more holistic view of the consequences, which by their nature cannot all be identified in the abstract – the findings of this work instead offer a framework to ensure greater consideration of the breadth and depth. To ensure that a social and holistic view of potential consequences of authentic early experience (or other educational interventions) is taken it might be helpful to use two-by-two tables during both design and evaluation. This is illustrated in table 7. 1 with each possibility explained further in the subsequent paragraphs.

Table 7.1 How do we identify consequences?

	Predicted consequences	Unpredicted consequences
Intended consequences	Should be discussed and explicitly considered prospectively, during the process, and retrospectively. For example, students understand the impact multiple medications can have on a patient's life after seeing someone with a chronic illness. These are relatively controllable consequences given appropriate planning and resources.	Should be discussed and explicitly considered prospectively, during the process, and retrospectively. For example, students meet positive role models and may develop speciality interests. These are desirable but uncontrollable consequences.
Unintended consequences	Should be discussed and explicitly considered prospectively, during the process, and retrospectively. For example, students meet negative role models, and potentially emulate their behaviour. These are recognisable risks.	Can only be discussed and explicitly considered through collaborative work with students during the process and retrospectively. For example students paradoxically derive meaning contrary to both intention and prediction of curriculum designers – such as the students in this study deliberately trying to set aside lay and personal perspectives in order to become 'professional'.

Intended and predicted

In the case of authentic early experiences what is intended and predicted are the faculty-designed learning outcomes. The content of these learning outcomes will be dependent on the faculty expectations of: what experiential learning as a pedagogy has to offer in terms of content and purpose of learning such as reinforcement or novel acquisition; what they believe the students need to know at this stage of their course; and logistical issues. There is a risk, if expectations in any of these areas are too low that the outcomes will be limiting in practice and de-motivate students from striving for excellence or acquiring contemporaneously non-essential knowledge. From the student perspective this part of the table maps to the 'conscious competence' (Kolb 1984) they are required to achieve.

The faculty can exert control over students themselves through not just creating a sense of omnipresence for the medical school as an institution, but also through the process of assessment and permission to progress through subsequent years of education. As such, students perceive the faculty to hold the key to determining what 'counts' as real learning. Any perceived misalignment between intended learning objectives, actual experience and assessment can, therefore, devalue the learning potential of experiences as demonstrated when students discussed setting aside learning that was not perceived as directly relevant.

Intended but unpredicted

These consequences include the so-called 'soft outcomes' which the faculty often hope for but currently express in terms which leads to the development of a parallel curriculum in the students minds. The generic expressed desires that authentic early experiences will be positive experiences are an example of this. In addition, any consequences which might be classed as additional experience to that required for the 'early' stage of education fall into this category. The precise content of what these consequences might be, and hence the resultant meaning cannot be predicted

in advance for an individual student, but attention to the social spectra discussed in Chapter Six could inform understanding of potential likelihoods.

Unintended but predicted

No one was naive enough to suggest that ‘negative experiences’ would not occur during authentic early experiences. Several members of the faculty expressed concern about lack of control over the process of authentic early experiences and the possibility of students being influenced by poor role models. The narratives of Chapter Five demonstrate this was indeed the case. Again, the consequences are not easily defined in advance, but understanding the need for greater support to develop constructive ways of working within workplace cultures and recognising the range of responses of individual students to challenges could inform educational strategy to reduce the content of this box. Influencing the meaning-making of students, for example, through more engaging opportunities for debriefing might reduce the potential for predicted but undesirable consequences.

Unintended and unpredicted

Clearly, in advance of an individual student’s experience(s), consequences which are unintended and unpredicted are unknown. The meanings derived which are unintended and unpredicted are comparable to ‘spontaneous’ knowledge identified by Vygotsky as the personal learning that students gained through experience. Within this box lies the potential for greater content learning and better integration and transfer of knowledge as demonstrated above. With my work, evidence was found of general paradoxical effects – where opposite meanings to those intended were created due to perceptions and reinterpretations by students of the intentions of others. For example, the faculty concern that students were aware of their novice status and limitations, could be reinterpreted to produce an over-inflated fear of harm, and the need to feel comfortable rather than be competent when talking to patients. The conceptualisation of social sciences as a parallel

curriculum, in the minds of the students, might also be viewed as an unintended consequence of the faculty's agenda to instil a sense of professionalism and awareness of patients' perspectives through separate emphasis on these elements, and the offering of 'rules of thumb' for 'professional behaviour'.

Perhaps the overarching paradox occurring here is explainable by the theory-practice gap (Scott 1998). Social processes are more complex than the curriculum designs (or any agenda individuals may have) devised to map intended learning outcomes can possibly be: It is in this gap, between formal schemes and informal processes that students are creating their own *Mētis*. I suggest, as Scott does in other situations, that this realisation cannot be remedied by removal of the gap because social processes will always remain more complex than can be planned for, and, therefore, should not lead to attempts to do so. It should be considered how and why students create meaning in the way they do, in order to identify experience-specific relevant variables (from the underlying spectra discussed in the previous chapter) that might be influenced to potentiate experiential learning, which should be purpose dependent. Currently, students are paradoxically experiencing 'less experience earlier' due to the effects of competing theoretical and policy influences. At the extreme the paradox of authentic early experience resulting in the opposite consequences to those intended by educationalists can be described as the students themselves experience the intervention: they are not seen as legitimate participants, however peripheral, within the workplace, which fundamentally differentiates their educational experience from that envisaged by Lave and Wenger (1991). They do not experience placements as part of integrated learning within the curriculum, as they are unable to resolve for themselves the different and often contradictory knowledge presented to them by medical school faculty and placement providers. They struggle to link scientific and spontaneous concepts as demonstrated in this chapter, and instead of focusing on their personal development and expanding learning they are distracted by

the more immediate aims of presenting to faculty and placement providers what the students perceive to be 'right answers' or demanded outcomes.

7.4.1 Knowledge: a reconceptualisation as student Mētis with multi-faceted content and meaning

The content of Mētis is multifaceted containing collective and individualised knowledge. Mētis encompasses what one knows in multiple domains (i.e. any type of knowledge), how one perceives self, others and situations, plus the meaning, understanding and resultant choices made to make things work for oneself within the world (Scott 1998).

At least three types of knowledge are created and encompassed in student Mētis following authentic early experience. Student Mētis incorporates practical knowledge about survival and negotiation of tensions present when meeting both the important requirements of faculty and the more immediate demands of placement providers. It encompasses all learning and meaning-making consequential to social activities and how students choose to use, value and present learning or meaning in future interactions with faculty and placement providers to serve their own needs. There is some, albeit currently little, overlap between this Mētis of the students and the Mētis of others (either in the medical school or workplaces) when cultural understandings are shared. The other types of knowledge which inform the 'making it work' aspect of student Mētis are formal knowledge (educational content which students perceive to be faculty approved, this knowledge requires facilitation through workplace spectra but is set within the boundaries of the educational spectra), and informal knowledge through interpretation of experiences, which is less predictable and arises from interactions and student interpretations of the hidden curriculum. Students can and do make distinctions between Mētis which is their own, and 'work', which is

recognised by the medical school, keeping the former to themselves. This was also a finding of Bloom's study of an American school (Bloom 1973). As such, student *Mētis* is intrinsically neither negative nor positive but a way for students to gain some self-determination in choosing how to use and value meaning derived from experience in relation to formally recognised knowledge.

7.5 Conclusions

In this chapter I have demonstrated that there is currently unrealised potential for authentic early experiences to contribute to content learning. Through exploration of how and why integrated learning and meaning-making do or do not result for students, I have suggested re-conceptualising knowledge as student *Mētis* – within which is contained formal, informal, (together forming the hidden curriculum of what students learn, rather than what they are taught) and 'making it work' knowledge (created meaning which allows students to 'handle' all they learn). Students learn more than they share with faculty or placement providers (incidents below the critical radar), but locate real learning within the medical school, while real practice is located in the workplace. Students evidently did contrast different types of learning (e.g. simulated and real patient communication) but mainly in a dichotomous way - better/worse, more/less value rather than critiquing and deconstructing differences to learn from both experiences. It is perhaps those students who cannot or do not obviously make authentic early experience work for their own purposes who should be of most concern, as they are the students who might have least insight into the influences of their experiences. The potential for this can be seen in students who begin to replicate the placement providers in practice despite expressing allegiance to the faculty in theory, thereby perpetuating the divide in their minds between pre-clinical and clinical educations, and divorcing communication skills from other sorts of learning.

I have proposed that a more holistic view of consequences is taken in order to move away from the temptation to dichotomise processes and outcomes. Explicit attention to the different consequences in the two-by-two table in this chapter (table 7.1) proposed for design and evaluation may facilitate greater consideration of how to strive for the development of transferable and functional knowledge. *Mētis* will inevitably be developed by the students, and as such should be recognised by educators if there is to be any possibility of influencing it to be a positive development. Scott makes a case for ‘*Mētis* friendly institutions’ that are ‘multifunctional, plastic, diverse and adaptable’ (Scott 1998, p. 352). His challenge is to the tendency for institutions to seek to organise and categorise in order to achieve simplification of complex learning. In the next and final chapter, I will consider the implications of this and potential applications of the principal findings presented in Chapters Five to Seven, with particular attention to what these findings add to the understanding of authentic early experiences as a social and educational intervention. In doing so I will both relate the findings to other theoretical and empirical literature and discuss how these findings build up existing knowledge in the generation of mid-range theory about how and why authentic early experience ‘works’ for students.

Chapter Eight

Conclusions: understanding gained from ‘minding the gap’ between theory and practice

8.1 Introduction

This thesis is the result of using theoretical and empirical work to develop an understanding of authentic early experience. It offers an analysis that retains and allows for the complexities inherent in this educational intervention. It is essential to understand the processes of authentic early experiences if useful outcomes are to be maximised and undesirable outcomes minimised (Marton, & Säljö 1976b). My work accepts that reality is socially constructed and people use personal and collective constructs to create meaning. From the conceptualisation of research questions, to the interpretation of findings, the conceptual orientation aligns with the philosophies of constructionism, interactionism and interpretivism. These philosophies are a common thread running throughout the use of mixed qualitative methodological approaches and applied methods of analysis, alongside multiple theoretical perspectives. This approach has produced interpretative findings which remain coherent with the original empirical data.

In this final chapter, I follow this thread to summarise the original contributions my work makes to the field of medical education. Whilst the work has focused on authentic early experience, the abstracted findings have potential to be more widely applied within the field. I discuss this under the section on implications and applications. Before that, I draw together the principal findings of my work in order to discuss the contribution of this thesis to the understanding of authentic early experience in undergraduate medical education. In addition, a note on the methodological

developments of the work is provided alongside consideration of the strengths and limitations of the approach taken. At the end of this chapter, I consider further work that might result from these findings.

8.2 Summary of principal findings

I have made a distinction between learning and meaning throughout my work. 'Learning' describes how a person develops awareness of, or acquires, any sort of knowledge. 'Meaning' describes how a person interprets and chooses to make use of this knowledge. Drawing this distinction is crucial to addressing how and why the social process of learning is subject to unpredictable and unintended consequences. Such consequences emerge as students derive meaning through their interpretations of dynamic interactions with the other agents and structures present within their new medical world. The study identified six specific findings that together provide understanding of the complexity of consequences from authentic early experience. These are now summarised and discussed in turn.

Finding one: expectations were simultaneously too high and too low

Overall, how the faculty and placement providers conceptualised authentic early experiences was mismatched to the conceptualisations of the students. The expectations of the faculty and placement providers were simultaneously too high and too low. Too high in relation to the ability of students to access and integrate themselves into workplace culture, but too low with respect to the potential learning to be gained. From the student perspective, the commonalities found across disparate authentic early experiences (e.g. within General Practice, community health and social care, hospital or voluntary organisation) outweighed differences between these settings. Common

features included the extent to which going to these places with a label of 'medical student' made the experiences novel, and a general unfamiliarity with whatever workplace they encountered. The faculty and placement providers may have presumed a level of 'common sense' which was not yet common to these students. Alternatively, they may have underestimated the strength of desire from students to move from being outsiders to insiders within workplaces during their placements by identifying the norms, and if possible conforming to them. To address these assumptions requires recognition of the variable interpretations of dynamic interactions, and both spoken and unspoken communications which influence students' meaning-making.

Authentic early experiences were rarely compared in terms of whether the context was one in which qualified doctors would find themselves. A possible explanation for this is that different students went to different workplaces with faculty instructions to attempt the same generic learning. Another possible explanation is that even in traditional medical contexts students were not being asked to participate in what they perceived as medical work. In addition, with the notable exception of the post mortem placements, students rarely focused on the content of knowledge on offer. The findings suggest that it was more fundamental to students' sense of wellbeing to feel that they belonged, that is to have conferred upon them immediate legitimacy, than to be party to 'doctor exclusive' activities.

The high expectations regarding access and integration into workplace culture impacted on the potential of students to learn. As I explained in Chapter Six, the educational spectra were inter-dependent with workplace spectra. A student, who felt excluded and under pressure to avoid any form of risk, might overtly hold onto the student status. This is one mechanism, albeit perhaps unconstructive, for students to handle their keen sense of discomfort in the transition from a lay to a professional role. Such a student would be unlikely to engage in learning that would meet the faculty-designed intended outcomes. The low expectations of faculty members for authentic early

experiences to realise useful content learning also reduced the potential of these experiences. These low expectations extended from what could be delivered through authentic early experience, in particular, to experiential pedagogies in general.

Authentic early experiences have generally been considered educationally effective if there is evidence of outcomes which match to the learning aims of the specified course, and/or students submit positive evaluations of their experiences. Specifically, the faculty do not conceptualise authentic early experiences as open opportunities for the discovery of medical knowledge. Instead, these experiences are perceived only to be a means to reinforce in-house teaching and prepare students for the future. Focusing only on whether students report achieving intended learning outcomes or objectives, diminished their experiences. It ignores the potential for unpredictable and unintended outcomes from authentic early experiences (which may be either positive or negative).

The almost exclusive assignment of generic and so-called 'soft' intended learning outcomes primed students to set aside or ignore other potential learning. Consequently students conceptualised the content of experiential learning in parallel to, rather than integrated with, useful medical knowledge. While not all placement providers held such low expectations of the potential to learn medical content knowledge, they did not expect students to be capable of much. They often deferred challenging students while they were at such an early stage of the course. Even if students were challenged, they would continue to compartmentalise some of the medically useful knowledge on offer as belonging to real practice rather than real learning, perceiving the latter to be defined by the medical school (especially within assessment processes).

If the premises of experiential learning are accepted, then authentic early experiences will generate consequences for knowledge and meaning-making: predictable and unpredictable, intended and unintended. These experiences should not, therefore, continue to be conceptualised merely as a

means to the end of easing transition in later years. An underlying premise of all experiential learning and socio-cultural theories is that people are altered by experiences through meaning-making which results in assimilation and accommodation. It is probably more important that these are the first experiences rather than the precise timing within the early years. Left to their own devices, students will develop their own meanings from experiences, and decide how to use these meanings (development of student *Métis*). This may or may not prove a positive development.

Finding two: dynamic social interactions are fundamental to meaning-making and knowledge construction which, in turn, are inextricably intertwined with identity evolution

Two fundamental concerns are central to students' conceptualisations of authentic early experiences. When moving between workplace locations and the medical school, they need to adjust to and develop ways to negotiate differences. They also want (need) to ensure they are serving the expectations of faculty and placement providers, to avoid confrontations or undesirable consequences, during interactions. Students struggled to make sense of differences between in-house teaching and authentic early experiences; they often created spontaneous meanings from the contrast, ignoring significant nuances that greater support might have made clear. They suspected that the medical school was hiding an alternative agenda from them – one in conflict with their aim of presenting, to placement providers and faculty, knowledge which they perceived as most desired by these groups.

Students were offered little responsibility for anything beyond the most basic levels of conduct. This impacted negatively on their levels of participation and sense of legitimacy in workplaces. The

cross-referencing of potential responsibilities identified by groups (students, placement providers, faculty) in Chapter Five (table 5.5) exposes a paradox. Faculty members, the one group not present during experiences, were credited with the most significant responsibilities by all three groups. The uncertainty of the students' role also led to the creation of a myth around what was allowed, despite no one sourcing the authority by which this was determined. In turn, this produced a tendency to address any potential risk through avoidance rather than through management with graded responsibilities according to developing competence.

While students might assert that they were rarely engaged in medical work during authentic early experiences, this did not prevent them from reconstructing their identities during the process. Rather, they were constructing an understanding of what it meant to be a medical student, which was detached from the ultimate purpose of becoming a doctor. As all human beings have their own individual characteristics, no two social interactions are identical, neither are their consequences. The unique sequence of interactions between any student and those they met influenced personal meaning-making and knowledge construction. Some students demonstrated actions and reactions which enabled a positive cycle of meaning-making and knowledge construction through meeting challenges. However, there has to be concern about lost potential when this did not happen.

As tools for analysis, both Situated Learning (focusing on the individual as the unit of analysis albeit within contexts) and Activity Theory (focusing on the context as the unit of analysis albeit containing individuals) have limitations. Either approach underestimates the significance of underlying social processes on dynamic interactions. Bourdieu accounts for this through his conceptualisation of bi-directional influences between field and habitus (Bourdieu & Wacquant 1992). The varied response of students to their experiences demonstrates the co-construction of student habitus and the social field. This co-construction causes development of student

knowledge and student identity to be intertwined. Relating this to the development of Mētis, there are both collective and individual elements of Student Mētis as different students choose diversely how to interact and develop understanding based on the consequences of these interactions, but at the same time collective understanding is shared between students as outsiders to both the medical school institution and workplaces.

Finding three: social processes influencing authentic early experience can be described through intersecting workplace (related to cultural competencies) and educational spectra (related to creation of medically useful knowledge)

In Chapter Six, I identified four workplace spectra (related to cultural competencies) and four educational spectra (related to the creation of medically useful knowledge). Each of the spectra covered a range between dyads of variables that were found to influence the social processes of authentic early experiences. The interdependent interactions of the spectra are complex. This means that there will always be elements of consequential meaning-making and knowledge construction which cannot be pre-determined. Despite this, identification of the spectra does make explicit the processes that should be considered at all stages of authentic early experience from design and implementation, through process, and beyond. The spectra also demonstrate that learning is a social process. They suggest that, while outcomes cannot be controlled, certain variables can be seen to affect trends related to the interactions between agents and structures; exposing what does happen, rather than what should. If attention is paid to these spectra at all stages of authentic early experiences (from expectations to consequences), then it may become possible to anticipate how students with particular attributes will commonly be received in, and impact on workplaces, if not pre-determine all possible content knowledge that might be derived.

The workplace spectra are built on and develop further the findings of Chapter Five. It was found that participation requires inclusion through others conferring on students a sense of legitimacy. Both professionals and patients needed to confer legitimacy if the student was to cross normal social boundaries during conversations and interactions. The concept of role for students was elaborated with the finding that some students developed the ability to move from a limiting 'can't be anything but a spare part' identity, to a positive attitude, to seeking to offer something however small. Crucially, students still depended on placement providers to create opportunities and to accept what they could offer. Focusing next on the educational spectra that were identified, I began to consider the impact of social processes on the construction of medically useful knowledge in more detail. The paradoxical effects of generic rather than specific objectives for authentic early experience were discussed. It should be understood here that the problem with 'generic' objectives was that these were not perceived as translatable into actions. Students were willing to gain transferable knowledge if they could identify it and understand to what future purposes it might be put.

It is not completely clear why students conceptualised social sciences as part of a parallel curriculum. A possible interpretation is that it resulted from a disjuncture between what the students were currently labelling under 'psycho-social' in the curriculum and what they perceived as 'real' within workplace practices. Another possible interpretation is that this conceptualisation was formed under the influence of a hidden curriculum. This hypothetical 'hidden curriculum' placed less value on experiential learning as only useful for learning 'psycho-social' content rather than undisputedly necessary 'medical' content knowledge. A divide may also have been created within the students' minds as they were taught communication skills separately from content knowledge at this stage of the course. If a student perceived clinical relevance, the divide was narrowed. The spectrum related to performance or simulation at one extreme and reality at the other is an example of potentially lost knowledge construction. Left to their own devices, students

were more likely to create dichotomous contrasts than constructive comparisons from the differences between encounters simulated in-house and ones with real patients.

Finding four: a holistic social view identifies unpredictable and unintended consequences of authentic early experience

All human interactions produce unintended consequences. If experiences are assimilated and knowledge refined in the light of this, then every experience has the potential to colour future actions and consequences for better or for worse. In the context of medical education, it is perilous to ignore this reality. This is not because of concerns about the majority of students - who are expected to survive and reach what society considers reasonable and sensible conclusions about their vocation eventually. Rather, the concerns are about the potential for problems and undesirable consequences to occur during the process and remain with those who do not manage to achieve acceptable practice. It is ironic, given the emphasis placed on competency-based curricula, that the risks of deferring responsibility through risk avoidance rather than seeking risk management through Legitimate Peripheral Participation have been generally ignored in educational policy until relatively recently (Brennan, Corrigan et al. 2010).

Students' conceptualisations of placements are highly influenced by what the faculty expects, and by a desire to present themselves and their learning to the faculty in acceptable terms while also avoiding confrontation with placement providers. Authentic early experiences are just one pedagogical activity within complex educational systems that cross over between medical school and workplace institutions. Expecting only pre-determined outcomes to arise from specific pedagogies is not simply a reduction of the complex interactions which influence learning,

meaning-making and knowledge construction. It is also a distortion which can paradoxically reduce the potential for minimising undesirable and maximising desirable consequences.

The findings relating to personal discomfort in the (enforced) transition from a lay to a professional role are challenging in the light of trends to use authentic early experience with the intention of ensuring students understand patient perspectives (as discussed in Chapter Two). The students demonstrated through their narratives both a close alignment with patients and a desire to leave this behind in order to take up a professional perspective. Their conceptualisations of a professional role did not include being able to explicitly retain personal or collective lay views. Several of the students are seen to construct narratives which distance them from these views. Students are deliberately choosing alternative perspectives that they perceive to be more professional despite the discomfort felt. These findings were particularly poignant in the worked example of post mortem placements which illustrated how differently the groups of interviewees conceptualised the experience.

Finding five: students do not align the locus of ‘real learning’ with the locus of ‘real practice’

As alluded to above, it might be argued that the choice of intended learning outcomes allocated by the faculty to authentic early experience conveyed through a (possibly unintentional) hidden curriculum to students a message about the lesser importance of these curriculum elements. It is in the domain of formal knowledge that the influence of limited expectations can most strongly be seen to restrict the potential for students to gain medically useful knowledge. This is exemplified by how students conceptualise the presence of pharmacology in-house in contrast to largely

ignoring it during authentic early experiences. The finding that students were less capable of creating links laterally across different contexts was also reinforced here.

Content knowledge construction which is both functional and transferable has long been problematic for educators. In order to develop such knowledge, a person needs to follow a multi-stage complex process. First, to identify what is specific knowledge (of any sort) which might be gained from an experience or other educational activity, second, to identify within that knowledge that which can be abstracted, third, to identify when it can be appropriately applied in new contexts, and finally, to understand when and how to refine it in the light of further experiences (Kozulin, Chaiklin et al. 2003, Norman 2009). Students need to experience multiple examples which provide a spectrum of experience plus support through the use of guidance to develop analytical strategies for handling new situations (Norman, Young et al. 2007, Norman 2009). Problems can occur at the stages of intention (design influenced by expectations), process (social interactions often ignored) and consequences (limited view of outcomes). Any of these will hinder the ability to function or transfer knowledge from one particular experience to another. So-called 'common sense' and appropriate lateral thinking are not common to new participants in any setting. Without support, it is much easier to contrast experiences creating dichotomies (such as good/bad, better/worse) rather than compare experiences in a positive manner in order to potentiate learning and meaning-making from differences. This finding may be explained by students lacking appropriate time and opportunity for creating meaning with someone who can guide them from spontaneous to scientific concepts (Kozulin, Chaiklin et al. 2003).

Finding six: students create their own form of Mētis which crucially includes understanding about how to handle knowledge and meaning and how to make experiences work for them

The knowledge students that create may or may not include that which the experience was intended to produce. At the heart of student meaning-making are found the key premises of Scott's theory, relating to how and why individual agents, regardless of lack of power or capital, choose to interact with other agents and institutions based on their perceptions and personal needs. Mētis is, therefore, a useful concept for educators to consider as it describes how and why students seek ways to gain practical knowledge to suit their immediate needs as well as educational goals. Students will do this regardless of the curriculum support offered within the medical school, or by faculty, because no institutional place can control the effects of interventions that take place in diverse local contexts. Learning that is unnoticed, or is at least unattended to, by placement providers and faculty generates the very practical knowledge with which students make choices about how to interact and present their content learning. By developing a chameleon identity ('fitting in' with workplaces during authentic early experiences, but conforming to institutional demands when in the medical school), some students appear to be choosing to defer choice about the professional role and identity they might personally develop in the future.

The concept of Mētis elaborates on the concept of a 'hidden curriculum'. Mētis is not just about formal and informal or hidden learning but also about the creation of meaning to 'handle' the learning, and choices regarding resultant actions. Students used narratives to make sense of their experiences, to situate themselves within the medical world and to find explanations of other agents and structures. In recounting these narratives students revealed how they were making sense of their experiences, and deriving meaning from them. The most common concept within

these stories was that of survival. Conceiving themselves as outsiders, students were concerned with how best to survive, and respond to perceived challenges in a way which worked for them through avoiding confrontation with workplace cultural norms. Student Mētis includes a combination of Merton's professional socialisation (Merton, Reader et al. 1957) and Becker's student culture (Becker, Geer et al.) as identified in their early sociological studies of medical education. Retrospectively, students identify the uncertainties around preparation for authentic early experience as actually becoming their preparation for the future. A meaning they have created from their experiences is that the best they might hope for is to learn how to deal with uncertainties that arise from a sense of unpreparedness. Some of the students also came to realise, and accept, that the best preparation possible cannot accurately mimic the psychological and social senses which arise from genuine participation in authentic situations.

The relationship between Mētis and formal schemes of recognised knowledge depends on participants' conceptualisations of each other and the institution. Students perceive themselves in a position of powerlessness, but nonetheless create choice through meaning-making about the consequences of different experiences and different types of knowledge. Regarding content knowledge, they develop a value system based on relevance, importance, and utility. This allows students to make authentic early experience work for them, serving immediate needs and educational goals depending on which is more pressing. Students desire integration into workplaces during authentic early experience, and are keen to develop bargaining tools to achieve this. They seek to gain skills which would create choice and allow them to bargain within the workplace despite their sense of dependency and powerlessness due to a lack of role. Therefore, if students are blocked from accessing existing workplace Mētis through integration, then they can create their own Mētis. This is a form of practical (in the sense of useful and fit for their purposes) knowledge about how to make early experience work for them. They deduce how and when to use

different types of knowledge and manage interactions with others, by improvising in the face of unpredictability to aid survival.

Mētis is also the means through which students create their own role, identity and ability to exert choice when they have little power either in the medical school or workplaces. Students are creating meaning and using knowledge in ways that they perceive will assist survival in the face of their perceived outsider status and the lack of anyone taking ownership or responsibility for them during placements. There are striking differences in the language used by students compared with that of faculty and clinical placement providers. For example, conceptualisations of post mortems provide additional evidence of how students felt excluded and denied legitimate participation (Scott 1998). If, as Scott asserts, an official language is one of the most powerful determinants that can be used to circumscribe a social role, then the language of medicine can be seen to maintain the other status of placement providers from students. This is, therefore, a divide which students must cross to move from lay to professional inclusion. With respect to the students interactions with non-clinical providers a comparable 'otherness' was maintained due to uncertainty about the students' role and identity within these workplaces. In addition, some of these non-clinical workplaces also had their own language discourses expressed, for example, in how members of staff interacted with the 'clients' of their services.

8.3 Development of a mid-range theory of the consequences of authentic early experience through analysis of social interactions

A mid-range theory of how authentic early experience works for students can be achieved by conceptualising as emerging from a continuum the meaning and knowledge constructed by students. The principal findings above are deliberately presented in a sequence that allows the

reader to trace associations along a continuum from expectations, through dynamic interactions, to variable consequences in relation to authentic early experience. Overall, the work demonstrates the need to conceptualise authentic early experience as this continuum, subject to the influence of multiple variables. Individual student meaning-making and knowledge construction is dependent on how individual students experience the continuum.

This 'continuum theory' was derived from the application of *Mētis* to empirical data explaining how and why students make authentic early experiences work for them. Students formed expectations through their perceptions of faculty demands, and focused on meeting these (by seeking to conform to institutional expectations), while achieving their perceived requirement to serve two masters. This meant that students were reluctant to share faculty expectations with placement providers or vice versa. At the same time students perceive themselves as powerless in the field, subject to the whim of faculty and placement providers. Students do not see their reactions to changes in workplace variables as giving them an active, rather than passive role. From the perspective of placement providers, their expectations of students were often met as these were already low. This compounded the lack of faculty expectation for medically useful content knowledge to be derived from authentic early experiences. As a result many students displayed a tendency to overtly seek to meet placement providers' demands during the placement, and then edit experiences for presentation to the faculty. This process resulted in students learning how to survive and manage interactions in the workplace, while being primed to set aside content learning and focus on 'soft skills' when reporting learning outcomes to the faculty. They kept to themselves other learning, such as the informal meaning-making and student *Mētis*. Consequently, students develop a value system based on relevance, importance and utility regarding content knowledge. Students learn more than they share with faculty or placement providers (avoiding discussion of any incidents below a 'critical radar' such as the ethical challenges discussed in Chapter Five), but locate real learning within the medical school, while real practice is located in

the workplace. Potential for learning content is therefore, not fully realised although the meaning and knowledge students create goes beyond intended and predicted consequences.

8.4 Implications and potential applications

8.4.1 Theoretical developments and implications

I have demonstrated with this work that combining theoretical and empirical understanding of what *is* happening in authentic early experience is of value. The theory of Mētis is coherent with, and offers a theoretical explanation of, students' meaning-making and knowledge construction which retains the socio-cultural complexity of their experiences.

The concept of Mētis suggests that unless the complex and unpredictable consequences that arise from interactions between agents are made explicit there is a risk that new initiatives will not yield their potential benefits. Mētis is of most value to agents in uncertain but particular settings where there are complex interacting unknowns. Fox demonstrated and, as discussed in Chapter Two, others have elaborated and re-emphasised, these characteristics to be intrinsic to medical education and medicine (Fox 1957, Light 1979, Lingard, Garwood et al. 2003, Schryer, Lingard et al. 2003). The capacity to understand others and adapt successfully potentiates desirable conditions for the purposes of an agent – be that survival, or anything else.

Appropriate application of socio-cultural and education theories

The tenets of both socio-cultural and educational theories of experiential learning require the use of experience to transform previous knowledge and understanding. An ever evolving construction of

meanings follows, with the development of identity alongside knowledge. This is driven by the intrinsic human need to make sense of self and experiences. Within the field of medical education, there is increasing use of Vygotskian-derived socio-cultural theories such as Situated Learning (Lave & Wenger 1991) and Activity Theory (Engeström 2005). These theories have much to offer if applied appropriately and critically, through researcher-created dialogue, to allow empirical findings to refine and shape theory, as well as theoretical constructs to guide empirical work. With respect to authentic early experience, this has not often been the case; the underlying assumptions of these theories must be recognised to relate to ideal circumstances – these are theories of what *should* happen rather than what necessarily *does* happen. Failure to recognise this leads to confusion between developing understanding of what is aspirational and developing understanding of what is actually occurring. *Mētis* is the creation of meaning to ‘handle’ the knowledge created within this gap.

Challenges to theoretical idealism

There are several challenges to theoretical idealism in practice. Experience *per se* is necessary, but not sufficient, for developing functional and transferable knowledge. Undergraduate medical education is significantly different from the settings in which experiential learning theories were originally envisaged. There is *de facto* a specific and necessary core curriculum enforced through examination and governance bodies. Anything which is optional, or not assessed, may be marginalised by students, faculty and placement providers. Socio-cultural theories such as Situated Learning and Activity Theory do recognise the importance of context, and the requirement of supporting activities, but are not without assumptions. In Situated Learning Theory the potential for Legitimate Peripheral Participation is assumed as a realistic pre-requisite to learning. Activity Theory assumes the presence of common and unifying purposes within activity systems. For example, particular learning outcomes are considered as shared, if not sole, goals amongst all participants and structures in the system. This ignores the potential for conflicting

conceptualisations of the system, activities or goals. Neither the concept of Situated Learning nor that of Activity Theory matched the students' perceptions of 'experiencing their experiences'. From the student perspective, authentic early experiences are occurring in a gap between two (or more) activity systems rather than an overlap. Students are experiencing their entrance to a medical world while being required to negotiate dynamic interactions between this and the institutional demands of the medical school. They perceive themselves as needing to gain bargaining tools to survive and serve two masters.

Working with student Mētis

The overarching findings are of a continuum, running from expectations through the processes of experiences to consequences (subject to multiple spectra of interacting variable dyads). These findings, suggest that there needs to be a change in focus in order to develop authentic early experience further as an educational entity. Instead of considering questions of 'How do we close the gap between theory and practice?' educationalists need to ask 'How can we seek to create dialogue within the gap for the benefit of students, and ultimately patients?' The principal findings of this study are all related to social interactions – and how people know themselves and others. Students were keen to have greater opportunities to develop negotiation skills. This would allow them to develop their own Mētis more quickly. As all people represent themselves according to how they wish others to see them, it is necessary to change perceptions of 'what is wanted' if the faculty are to understand the holistic consequences of authentic early experiences from students' perspectives. It is possible that mentoring, or some other form of interactive reflexive opportunity, would lead to declaration of more of the knowledge construction, meaning-making and challenges which students identify from their experiences. At a policy level, the implications of risk aversion in preference to risk management and graded responsibility, particularly with respect to patient safety initiatives, need further consideration.

The challenge, given the complexities, is therefore to seek to work with student Mētis. This requires a shift towards greater collaborative working between students, placement providers and members of faculty. The faculty members are in the difficult position of being asked to take responsibility for educational interventions which they cannot control, or possibly even fully understand. The expectations that students will be able to integrate into workplaces need to be matched with greater understanding and support of access to these communities. Workplaces where education itself is not perceived as an integrated activity should be identified, and this disjuncture addressed. It was not within the parameters of this study to assess patient roles, but the potential for patients to contribute positively to such collaborations should also be considered.

The findings suggest that greater expectations might potentiate the learning of content knowledge. Authentic early experience requires considerable resources: human, system, and financial. Despite this, the expectations of subject and depth such experiences can contribute to student learning are relatively circumscribed. Most medical schools construct intended learning outcomes for authentic early experiences which focus on personal and professional development objectives and/or the reinforcement of skills such as communication, rather than content learning or knowledge (Hopayian, Howe et al. 2007, Howe, Dagley et al. 2007). This is in direct contrast to later years when students are expected to acquire knowledge of clinical sciences largely through workplace-based experiential learning. Students are aware of this contrast and may draw dichotomous conclusions about the early and later workplace experiences, believing the former not to be 'real' medical work, even when in explicitly medical settings.

As I discussed in Chapter One, Irby et al. (2010) recently suggested that the learning process should be individualised with multiple forms of integration promoted. These authors also endorsed greater recognition of the formation of professional identities, alongside knowledge construction, through meaning-making. Concurrently, Tan et al. have suggested, in the third

iteration of their experience-based learning model (also discussed in Chapter One), that greater attention be paid to the bi-directional influences students and workplaces (including other agents as well as structures) have on each other and consequent learning (Irby, Cooke et al. 2010, Tan, Boshuizen et al. 2010). The finding within this thesis, that individual students act and react differently to authentic early experiences, provides some empirical evidence to support the application of these ideas from the very start of undergraduate medical education.

Closer attention to student meaning-making, through supported comparisons of in-house simulated and real patient workplace encounters, could result in students developing a more sophisticated and transferable understanding of how to apply knowledge in different contexts. There may be a need to be explicit about possibilities for linkage and transfer, and a need for greater co-operative working. This should treat students as partners in a social process, empowering them to declare learning and meaning, rather than their perceptions of desired outcomes, and maximising the positive value of authentic early experience. A co-operative, collaborative approach would be consistent with developing a pedagogy that could make positive use of the inevitable construction of *Mētis*, regardless of formal schemes for education.

The spectra identified offer a model, which might be used as a tool, to encourage explicit discussion and transparency about the many concerns that have been raised. If we want to effect useful consequences from authentic early experiences, students should be engaged in collaborative exploration of an agenda that includes the following topics. First, variables should be discussed which contribute to dynamic interactions and consequences of workplace knowledge and learning in a given experience or set of experiences. Second, explicit sharing of purpose and co-construction of consequences should be achieved. Third, the important influence of dynamic interactions between agents and structures / institutions should be acknowledged. These interactions are significant for student identity development. This together with their simultaneous construction of

‘who’s who and what’s what’ (Jenkins 2008, p. 5) form the basis of their decisions about presentation of knowledge. Useful consequences should, in this context, be understood to mean practical knowledge which is both of current use to students, and meets the expectations of society for doctors with respect to desirable meaning-making and knowledge construction. There will, hopefully, be overlap between these two sorts of use, but it should not be forgotten that greater overlap requires a common understanding of purpose.

Curricular implications of Mētis

The implications of student Mētis may not be confined to the early years of undergraduate medicine. These students are new entrants to the medical profession, positioned between those who aspire to do the same and those who they perceive as having achieved greater integration into the medical world. Student Mētis potentially has implications for not merely these students but also to those who follow them into the medical school. Although not within the remit of this work, a far reaching potential consequence of student Mētis might be what students choose to share with new entrants to the medical school about how to make authentic early experiences ‘work’ from a student perspective. For the students within this study, the meaning-making and knowledge construction, within their personal and collective Mētis, holds potential for continuing to influence their future interactions within later years. Meanings made now will shape future experiences, as students either build further upon them, or refine, or reject them. It is possible, and on the basis of my work and that of others looking at later transitions (Godefrooji, Diemers et al. 2010), I would say likely, that these findings are not an issue of timing. What matters is less that these are ‘early’ experiences and more that they are ‘first’ ones. Different students will make different choices regarding the extent to which they opt for the replication of existing culture (Brosnan 2007), or to seeking to influence and change it. Choosing the former risks creating ‘them and us’ divisions between students and the faculty; the latter choice creates similar divisions between students and placement providers. The finding that students are retaining a different locus for real learning to

real practice during their experiences might have arisen because it provides students with a useful mental tool to defer such choices. Instead of making a choice they seek to blend in with wherever they are immediately situated – described above as developing a chameleon identity.

There are implications of these theoretical developments for the design of medical curricula more generally. For example, the gap between planning within the medical school as an institution and implementation / execution of these plans outside, in local contexts, cannot be viewed as a void, or a neutral aspect of educational interventions. It is possible that some of my findings, such as the students' perception that they needed to deliberately set aside lay perspectives to become professionals, for example, identify a starting point for considering the development of apparent cynicism, or disillusionment, in later years. The effects of the other spectra identified may also have associations and implications for how students build on, and assimilate experiences in the later years.

Within the curriculum of the medical school in which this work took place, students were being expected to integrate across academic disciplines and between the medical school and workplaces for themselves. Evidently, this was a struggle. Perhaps, it is necessary to reconsider the relationships between faculty and placement providers (as individuals) as well as institutional relationships between medical schools and medical workplaces, instead of seeking to achieve integration driven by students (who from a socio-cultural perspective, and within my empirical data, have the least power and capital). Role-modelling of the cross-over between in-house and workplace activities through either greater involvement of people who already work, and have credibility in both settings would perhaps be ideal. As this population is likely to be limited, given the problems of combining clinical and academic work, a more imaginative approach to creating partnerships between faculty and placement providers (and within these groups across disciplines)

might be a more realistic way to begin change the concept of integrated learning from rhetoric to reality.

Competency and experience

Another theoretical implication, which has potential to reach beyond the context of my work to the broader field of medical education, is regarding the relationship between competency and experience. Wenger, when refining the concept of Communities of Practice, emphasises that experience should drive competency as well as competency driving experience. He notes that, while it is possible for a new participant (such as a student) to follow a trajectory from peripheral to central within a Community of Practice, it is equally possible for the trajectory to be from peripheral to marginal (Wenger 1999). My work suggests this latter trajectory is a risk in authentic early experiences; a risk explained by the potential for unintended and unpredicted consequences, for students' *Métis* to contain understanding of how to survive that is not necessarily constructive. It is arguable that this is associated with the current lack of graded responsibility within experiences. Students recognise they cannot be completely prepared for workplace interactions and activities without actually undertaking some. There is a need to shift the emphasis, from achieving patient safety agendas in practice, through out-of-context preparation or risk aversion. A preferable emphasis would be to build in-context support through supervision and risk management.

To do so, confusion must be addressed, at the very least, about what student participation is or is not allowed. It would be interesting to know what the effect would be of changing policy guidance to express in positive terms participation levels for students, rather than in negative terms what they must not do. I do not expect this to happen, but still hope that greater problematisation might ensue of the sense which arises throughout all my data of the medical school as a fourth, silent,

faceless but omnipresent participant in the minds of faculty, students, and placement providers. Myths about the demands of the medical school as an institution should be identified and addressed. Otherwise, these inevitably create a form of *Mētis* which influences the interactions between players in the field – the students’ world – in unpredictable and potentially undesirable ways. For example, in Chapter Five, I discussed the suggestion from Rees and Monrouxe that students’ narratives could become ‘acts of resistance’ (Rees & Monrouxe 2010). Narratives from my data were demonstrated to be a mechanism for meaning-making and knowledge construction. As it arises in part from these myths it should be of particular concern to recognise how students’ develop individual and collective *Mētis* about how to survive, that is, resist defeat in their purpose of serving two masters through the development of a chameleon identity and separation of real learning for ‘the medical school’ and real practice.

8.4.2 Practical implications and potential applications

Scott describes the development of *Mētis* with an analogy of language. He compares ‘rules of thumb’, that is abstractable and transferable principles which can be learnt. These are, in the case of language, the use of grammar, with *Mētis* (making ‘it’ work here and now) being equivalent to forms of actual speech. In doing so he implies that experience is vital – and institutions need, as parents with a child, to allow some form of trial and error rather than attempts to impose or indoctrinate with formal rules and plans. This is simply because such simplified generic rules do not generate rich or complex results. Scott makes four suggestions for developing appropriate ‘*Mētis*-friendly’ plans (Scott 1998). First, take small steps and consider all consequences – demonstrated to be a current deficiency with respect to authentic early experience from my empirical work. Second, favour reversibility; by which he means, ‘prefer interventions which can easily be undone if they turn out to be mistakes’ (Scott 1998). This is a challenge to medical schools to understand their interventions in context to a greater extent; and for regulators and

policy-makers to find means of evaluating for both intended and unintended consequences, as I suggest in Chapter Seven. Third, Scott argues that institutions should ‘plan on surprises’ – both to make constructive use of the Mētis people create from ‘being surprised many times’ – also discussed in Chapter Seven, and to build into plans accommodation and flexibility. To do the latter, again requires an in-depth understanding of one’s local context. Lastly, Scott advocates that institutions should plan on human inventiveness – that is seek to collaborate and make use of those ‘experiencing the experiences’ in order to create a continual cycle of improvement in design. To do so in medical education may require faculty and placement provider development to encourage conceptualisations of students as ‘junior colleagues’ rather than ‘on probation’ (Bloom 1973).

A practical suggestion for change

To make a concrete suggestion of how this might be achieved, in the context of my work, communication skills teaching could be changed in the following ways. Rather than teaching students semi-formulaic basic skills in-house with rehearsed simulated patients, partnerships could be set up where students and their faculty teachers are linked to placement providers in a setting. Placement providers could demonstrate their communication skills by engaging with real patients. Faculty, having witnessed the interaction with the students, could draw out the principles which they want students to understand. Patients and placement providers could add nuance, and discuss variability. I can hear in my mind objections to this – it would be resource heavy, logistically difficult, and so on. In reply: first, these have been the objections raised to almost every change ever suggested in medical education; and second, the potential costs of the complex meaning-making and knowledge construction which I have demonstrated in this work are not currently being taken into account. Medical schools could reconsider current categorisations of people into ‘simulated patients’, ‘patients’ and ‘general public’. The UK population (mid-2009) is estimated at almost 62 million people (Office for National Statistics, 2010), the National Health

Service deals with 1 million patients every 36 hours (NHS Choices, 2009). Simulated patients are often recruited from healthcare environments, or are people with an interest in healthcare delivery (Jha, Quinton et al. 2009a). Even allowing for ongoing and repeated use of services these figures suggest that many people will fall into more than one of these categories. Combining authentic early experience and communication skills teaching could both save money and increase educational value to students. There is currently a trend in medical education discourse concerned with seeking excellence, not competence, from students. It would seem an injustice to not seek the same from their educators and institutions. Any form of authentic early experience is relatively resource demanding, even if the end result is simply enjoyment or distraction from the student perspective. It would be better to know if a little more time, effort, and resource could produce much greater educational potential and give greater 'minute for minute' value overall. This is particularly so in an environment where this intervention is demanded by policy guidance. At the very least, there is a need for the faculty to explore the workplaces in which they hope their careful designs will be enacted in more detail.

Other strategies with potential

Other strategies which have potential would be to consider ways of improving alignment between PBL cases and authentic early experiences. Joint faculty and placement provider development might identify further possibilities for collaboration and the creation of complementary experiences, particularly if partnered with opportunities for students to explicitly discuss and learn from differences, as highlighted in Chapter Seven. A review of how reflective practice is used within schools could lead to better use of this method of meaning-making if ways could be found to reconnect the narratives students create for themselves with those they present to the medical school. I suspect that a move away from conceptualising this as 'teaching students to reflect' - in the sense of a skill divorced from practice, and as a written exercise - would be required to achieve this.

In Chapter One, I discussed the school's current assessment methods for authentic early experience. The widespread finding in medical education, and elsewhere, that assessment drives learning is explained by the theory of *Mētis*. To achieve progression in any sphere requires delivering evidence of what they want to those who have power. Rather than simply instituting a formal and explicit assessment of authentic early experiences (if this were possible), this issue should be addressed by reconsidering the low expectations of content learning from experiences, and the division of the curriculum by pedagogy. If the principles of experiential learning and ideal socio-cultural theories were adhered to more closely, then assessments could be designed which asked students to illustrate their medical content knowledge with examples from their own experiences.

Further work, to understand the possible consequences of teaching students negotiation skills, could facilitate greater collaborations between students and the other groups within my study. A question that would have to be addressed is 'who should provide students with this teaching?'. Clearly, how it is received and the possible uses it is put to would be dependent on this. To undertake this challenge would require an institution prepared for uncertainty. As discussed elsewhere in this chapter, a key tenet of *Mētis* is that it cannot be taught, in the sense of controlled and regulated, although it can be shared. If an institution was brave enough to engage in providing their students with externally delivered negotiation skills, there would, however, be potential for significant benefits. It is also possible that sharing such skills with students and therefore providing a form of explicit recognition of their situation might be interpreted as compassionate empathy. The implications could be far reaching, with respect to the suggestions I make in this chapter, for reconceptualising the students' place and role within the fields of medical school and workplaces.

8.5 Methodological notes: strengths and limitations of the work

I began by dissecting the concept of authentic early experience as an emergent term in medical education. I then provided an overview of the pedagogy of experiential learning, which provides the theoretical basis for learning through experience within any educational field. In the absence of models which specifically apply these theories to authentic early experience, I discussed the development of workplace (experience-based) learning models through both theoretical and empirical work in later years of undergraduate medical education and postgraduate training. Parallels arising from issues of authenticity and experience-based learning (such as essential inclusion of participation as a core process in experiences plus supported challenges and constructive interactions) between this work and authentic early experiences have been confirmed through my study. There are, however, also differences of nuance in how these issues play out with authentic early experiences. Such nuances both affect collective experiences at the initial stages of undergraduate entry into workplaces and individual consequences for individual students as shown in the spectra of Chapter Six.

A tendency to reference policy imperatives rather than theoretical concepts to justify specific authentic early experience interventions was found in my critical review of published literature. The majority of empirical evidence, previously published simply documents the achievement of desired outcomes. Aside from any potential priming effect, or publication bias, such studies do not explain how or why consequences occurred. The intrinsically social and contextual nature of learning, and the significance of interaction between agents and structures in the construction of meaning from experience has been relatively neglected (Peeraer, Muijtjens et al. 2008). Without a more sophisticated understanding regarding the complexities of educational interventions and the wider setting in which these are implemented, neither effective solutions nor potential problems

can be addressed (Regehr 2010, Eva 2009, Eva 2010). It remains to be seen whether recent interest in workplace-based assessment at undergraduate level will have any impact on these issues, with trends to extend this to include the early years.

Unless the processes of educational interventions are understood, then it is difficult to have confidence that useful outcomes are being potentiated and undesirable outcomes minimised. Other studies have sought the student perspective, or that of other participants in authentic early experience, and have only occasionally contrasted these. A strength of this work stems from detailed consideration of the differing conceptualisations encompassed in multiple perspectives regarding influences on dynamic interactions. In addition, rather than seeking to document achievement of intended outcomes, a theoretically grounded holistic approach has been taken. This has identified findings that contribute to an increasingly sophisticated understanding of the complexities of authentic early experiences as an educational intervention.

In Chapter Four, I drew attention to necessary considerations when interpreting qualitative data. Through the use of multiple methods, multiple groups of participants, multiple phases of data generation and concurrent analysis, seeking further student discussion of emergent findings and allowing empirical and theoretical work to challenge each other, I have sought to increase the credibility of the findings. The evidence from student discussion groups, involving both previous student participants and new participants, confirmed the credibility of the emerging findings now encapsulated in the six principal areas above. Intrinsic to the design of my work was a focus on what the students (and to a lesser extent, other participants) considered of significance. The finding that the worst experiences were, according to the students, non-events suggests that further work might be needed to develop understanding of these.

Evidently, this work has been conducted in a particular combination of place, time and circumstances. It is possible that elements of the findings relate to this particular school. For example, during the study there was uncertainty consequent on curriculum change (although, as I suggest in Chapter One, this may have been beneficial to data generation). All studies of complex situations related to human interaction are inevitably situation specific to a degree, but the reader should consider the similarities and differences compared with their own context and make a judgement based on that. Despite this, I would express caution about 'writing off' any 'negative' findings or unintended consequences as being Keele-specific on two counts. First, there is no evidence in the literature that other schools had made such an investigation of their authentic early experiences and Keele has consistently been praised by regulatory bodies for its approach. Second, given the resonance these findings have with those of previous sociological studies (Merton, Reader et al. 1957, Bloom 1973, Becker, Geer et al. 1961, Hafferty & Castellani 2009), and the use of theory to abstract underlying concerns, the findings should be considered as potentially transferable.

The use of both theoretical and empirical methods has allowed me to generate new theory in the form of the spectra, re-conceptualisation of consequences and knowledge as student *Mētis*, and ultimately, a mid-range theory of authentic early experiences as a continuum that now can be tested in other settings for transferability. The concepts of spectra can accommodate both norms and so-called deviant cases. These theoretical developments have the potential to transcend the original empirical data generation. *Mētis* is neither inherently positive nor negative. Used positively it could facilitate Legitimate Peripheral Participation and Situated Learning. In contrast, used negatively it could facilitate an attitude of cynicism and 'playing the game'. It should, nevertheless, be recognised as providing a theory of how students construct meaning from their experiences; and worked with if one aims to potentiate recognition of different types of knowledge from authentic early experiences.

While I have striven to use the differing perspectives of my three groups of participants to interpret the dynamics between them, there is, inevitably, the need to also consider my own position as the researcher. I have argued that the meaning which students construct and take away from their experiences matters from an educational perspective more than whether this is perceived to be an accurate account by others. It is possible that someone from an alternative background or with a different conceptual orientation would have produced some differences in the findings. This possibility should be understood as a potential to enrich understanding further and develop the theory generated in this work, if someone were to undertake such analysis. The detailed and transparent description of my methods contained within this thesis would facilitate this.

With the benefit of hindsight, there are some changes I would make, if I were to undertake the work again in order to enhance the findings. It was beneficial initially to interview students individually, so as to allow personal views to be expressed, and then to confirm or refine the emerging findings through the discussion groups. Nevertheless, I suspect that, had time permitted, a more participatory ethnographic approach to fieldwork, such as being present during authentic early experiences, some 'on the spot' interviewing of students might have provided greater detail. This would not, however, be without disadvantage. It would be hard to tell how much the researcher's presence, which in most of the experiences would have been significantly noticeable, altered the process. In future work, and if I were to repeat similar studies in other environments, I would consider using a more participatory action-based model with participants, especially if I were in a position to negotiate change. This may not have been appropriate for this study, as it self-evidently commenced before the understanding began to emerge of how sense was made through the development of *Métis*.

8.6 Further work

My principal findings integrate and incorporate elements of each of the three major components of the work set out in Chapter One. The three components are as follows. Critical analysis applied to current applications of socio-cultural and educational theories identified a distinction between what should and what does happen in authentic early experiences. This distinction produced was then explored through the generation of novel empirical data addressing two inter-related research questions: 'How and why do students construct useful knowledge and meaning-making from authentic early experience?' and 'How and why do students make authentic early experiences work for them?' The use of further theory then enabled the interpretation of spectra which describe the social processes and, therefore potential consequences embedded in authentic early experience. Overall, my work contributes a holistic understanding of authentic early experiences that includes how students construct their own form of Mētis.

Further work should investigate the potential to make practical use of the concepts of spectra and student Mētis to positively influence the continuum linking processes and consequences in authentic early experiences. There is potential to apply these findings to the design and implementation of educational interventions, in order to potentiate the development of functional and transferable content knowledge. The testing of my findings – particularly in abstracted form - in other settings could also lead to refining of the theory I have generated.

It remains to be seen how much potential there is for prospectively engineering experiences by active consideration of the dyads of variables within the interacting spectra or influencing meaning-making through explicitly raising awareness of these spectra. To broaden our understanding by explicitly recognising social processes influencing interactions and, therefore,

consequences is but the first step towards addressing this issue. Understanding social processes opens up the potential for further research to address ongoing frustrations in medical education regarding effective and efficient generation of content knowledge and the ability to transfer functional knowledge between contexts. This is in keeping with emergent realist approaches to identifying links between processes and consequences in medical education (Pawson 2006). Causal links can be identified through plausibility between cause and effect (Merton 1936, Tan, Boshuizen et al. 2010). Such an approach is consistent with my interpretative and constructivist philosophical stance, which requires informed judgement of the credibility of findings rather than proof through reductionism of the complexities of real world interventions.

Scott recommends working with change and uncertainty rather than seeking to achieve certainty through reduction into rules. He argues that rules are bound to be subverted due to the greater potential of people to create *Mētis* than for institutions to impose formal schemes. The evolution of language and common law are two very different but significant examples of how it is possible and desirable to embrace evolving circumstances:

‘All social forms are “artificially” constructed to serve some human purpose. Where that purpose is narrow, simple, and invariable over time, it may well be that codified, hierarchical routines are adequate and possibly the most efficient in the short run. Even in such cases, however, we should be aware of the human costs of stultifying routines and the likely resistance to rote performance... A good many institutions in liberal democracies already take such a form and may serve as exemplars for fashioning new ones. One could say that democracy itself is based on the assumption that the *Mētis* of its citizenry should, in mediated form, continually modify the laws and policies of the land. Common law, as an institution, owes its longevity to the fact that it is not a final codification of legal rules, but rather a set of procedures for continually adapting some broad principles to novel

circumstances. Finally, that most characteristic of human institutions, language, is the best model: a structure of meaning and continuity that is never still and ever open to the improvisations of all its speakers.' (Scott 1998, pp. 356-7)

This might provide salient advice as medical schools seek to implement the policy refinements of 'Tomorrow's Doctors' version 2009 (General Medical Council 2009). Further work to be done, preferably as both research and pedagogical development, within medical education should be focused on achieving a similar collaborative working with students. Individual components of undergraduate medical education, such as authentic early experience, should not be benchmarked only against a narrow selection of outcomes. Instead there is a need to develop a pedagogical framework which seeks to allow complexity within both mode of delivery of education and assessment of individual student performance. The re-conceptualisation of knowledge as student *Métis* offers a theoretical basis for no longer framing one form of knowledge in opposition to another. Rather, we should consider the multiple forms of knowledge as complementary, and recognising the sum of meaning-making and knowledge construction from authentic early experiences is likely to be greater than its parts. If this is accepted, it becomes possible for further work also to focus on how to positively use both intended and unintended consequences of early experience for student learning and development. This might be achieved through application of the two-by-two table and associated suggestions made in Chapter Seven.

Specific research questions that might be addressed include the following. How do the spectra develop over time? Are the spectra a feature of transitions? If experiences are continually assimilated into a person's meaning-making, knowledge construction and sense of self, then what is the association between these findings and later years of the curriculum? Is it possible to identify those students whose unsupported meaning-making is counter-productive for their future careers? Could the findings of this work with respect to identified spectra and *Métis* form the basis of

collaborative action research with the participants and patients / the 'general public'? Given the importance of dynamic interactions in these experiences, there are other areas of medical education which might also be further studied regarding this. For example, what is actually happening as a result of dynamic interactions in inter-professional or inter-disciplinary education and practice? How is knowledge constructed alongside identity? Lastly, in this work I have focused on common meanings and knowledge construction from authentic early experiences which were situated in a wide range of settings. Further work could consider particular settings in more detail with respect to both the spectra and potential consequences - seeking to understand nuances of local context which might be significant. This could build on and further develop understanding of the complexities which I have begun to address in this thesis.

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Appendices

Appendix 1 Literature search strategy

After a series of scoping searches using the terms 'early experience' and 'medicine' the following articles were used to inform the development of a search.

- Wolf, F., Shea, J., & Albanese, M., 2001. Toward Setting a Research Agenda for Systematic Reviews of Evidence of the Effects of Medical Education. *Teaching and Learning in Medicine*, 13 pp. 54-60.
- Haig, A., & Dozier, M., 2003. BEME Guide No 3: Systematic searching for evidence in medical education – Part 1: sources of information *Medical Teacher* 25 pp. 352-363.
- Haig, A., & Dozier, M., 2003. BEME Guide No 3: Systematic searching for evidence in medical education – Part 2: constructing searches *Medical Teacher* 25 pp. 463-484.
- Wolf, I.E., & Sanson-Fisher, R.W., 2002. Translating learning principles into practice: a new strategy for learning clinical skills *Medical Education* 36 pp. 345-352.

My refined database searching established that relevant publications could be identified using nine databases. These were Embase, ERIC, Medline, Sociology Abstracts, Cochrane, Web of Knowledge, CINHL, BEI and Applied Social Science Index. All search terms were used as MeSH (or equivalent) headings, when possible, in addition to searching as keywords. The 'explode' function was used throughout. The following terms were used: medical students, students of medicine, first year / year one / year 1, second year / year two / year 2, undergraduate medical, medical education, early clinical experience, early patient contact, early placement, clinical experience / patient contact / placement (combined with year categories), community education, community based education, experience, learning, teaching, education, workplace, cognition, vertical integration, horizontal integration, content knowledge, history taking skills, pharmacology, explicitness, links, integration, environment, dealing with uncertainty in clinical reasoning.

The results of these searches were used to provide reading for situating my study in a broader context and relating the literature to my developing research data. After trialling various

combinations of the above, the following strategy was used to focus ongoing identification of new literature:

1. learning OR teaching OR education AND medic* AND student* AND experien*
2. workplace* OR placement* OR experien* AND medic* AND student* OR undergrad*

My original search included these terms throughout whole texts and I screened the references lists of relevant articles in addition. I then repeated this strategy at six monthly intervals (limited to title and abstract after testing showed this limitation maintained sensitivity for articles of significance).

No other limits such as date of publication or language of publication were used.

Table A1.1 Search Results

Date	Medline	Embase	Eric	CINHL	Sociol Abs	ASSI	BEI	Web of Knowledge	Notes
Dec 08	1355 articles reduced to 21 by title and 12 by abstract	334 articles reduced to 14 by title and 3 by abstract	62 articles reduced to 4 by title and 2 by abstract	196 articles reduced to 3 by title and 1 by abstract	204 articles reduced to 0 by title	275 articles reduced to 1 by title and 0 by abstract	31 articles reduced to 13 by title and 0 by abstract	50 articles reduced to 0 by title	Duplicates removed left to right across databases
Jun 09	423 articles reduced to 28 by title and 6 by abstract	222 articles reduced to 0 by title	0 articles	136 articles reduced to 3 by title and 0 by abstract	13 articles reduced to 0 by abstract	49 articles reduced to 2 by title and 0 by abstract	0 articles	0 articles	
Dec 09	299 articles reduced to 24 by title and 2 by abstract	468 articles reduced to 38 by title and 3 by abstract	0 articles	162 articles reduced to 7 by title and 6 by abstract	2 articles reduced to 1 by title and abstract	0 articles	0 articles	0 articles	
Jun 10	462 articles reduced to 37 by title and 8 by abstract	613 articles reduced to 46 by title and 0 by abstract	0 articles	170 articles reduced to 6 by title and 1 by abstract	128 articles reduced to 0 by title	0 articles	0 articles	402 articles reduced to 32 by title and 0 by abstract	
Dec 10	41 articles reduced to 6 by title and 5 by abstract	103 articles reduced to 1 by title and 0 by abstract	0 articles	164 articles reduced to 12 by title and 8 by abstract	0 articles	0 articles	0 articles	104 articles reduced to 0 by title	

Appendix 2 Literature review table

Table A2.1 Questions of how and why does authentic early experience work mapped to content of best empirical evidence

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Abramovitch, Shenkman et al. 2002)	Unclear how and why outcomes result – similar outcomes reported from two different approaches. Identified students with emotional concerns.	Unclear / not addressed / not focus of study.	Early identification of student distress through increased contact time with faculty or other seniors.	Self-reported satisfaction and increased motivation.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Further evaluation needed.	Described as experiential learning but without theoretical references.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Alford, Miles et al. 2001)	Focus on speciality (geriatrics).	Contact with elderly people.	Interactions between students and patients changed reported student attitudes.	A more sophisticated understanding of aging and more informed opinions about healthcare in old age.	Students appear to have moved from stereotyped generalisations to appreciation of individuality and uncertainty. Illustrates the potential to 'learn' rather than reinforce on placement.	No impact on career choices was found, otherwise this question was not addressed.	None	Desire to impart contextual and medical content knowledge.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Alford, Currie 2004)	Intervention was first year students shadowing third year students. Outcomes are not linked to specific processes.	Unclear / not addressed / not focus of study.	No	Students reported learning about the practice of medicine, process of becoming a doctor, providers of healthcare, nature of real patients and procedures of medicine.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Further 'peer' led education.	Experiential learning theory.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Allen, Bland et al. 1991)	Set out to test if a structured clinical experience improved clinical performance in an exam – it did not. There are several potential sources of error in this study, some of which are noted by the authors.	If exam performance is taken as the measure of effectiveness then this was not achieved.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Consideration of how experiences are structured.	Policy suggestions for clinical experience.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Barley, O' Brien-Gonzales et al. 2001)	Experience reported to increase confidence by early introduction to patients.	Unclear / not addressed / not focus of study.	No	Motivation to learn basic sciences reported.	Unclear / not addressed / not focus of study.	Students were reported to approach patients with better integrated scientific knowledge and to be subjectively 'different' themselves.	Building further on positive subjective outcomes	None
(Basaviah, French et al. 2003)	Students reported recognising importance of team work but not what contributed to this.	Unclear / not addressed / not focus of study.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None
(Bucci, Maddox et al. 1993)	Unclear	Unclear / not addressed / not focus of study.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Carney, Bar-on et al. 1999)	Reports that type of preceptor did not influence development of clinical skills, community experience was as effective as hospital experience with respect to clinical skills and in addition improved critical thinking and problem solving skills.	Unclear / not addressed / not focus of study.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Chisholm, McCall et al. 1997)	This intervention does not meet the definition of authentic early experience as it describes using patients in a lecture / workshop.	Unclear / not addressed / not focus of study.	Students enjoyed patient interactions.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Use of patients for university based teaching	None
(Cooper, Gibbs et al. 2001)	Students are reported to have learned about team working, perspectives on healthcare, and developed interpersonal skills. How and why this was achieved is not interpreted.	Logistical elements are focused on.	Not in detail – student quotations of their perspectives are given.	A broader understanding of delivering healthcare in reality.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Further emphasis on team working to meet policy directives	General Medical Council Policies.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Corbett, Owen et al. 2002)	Focus was on effect of early experience on career choice.	Unclear – found the effect of preceptorship in generalist careers was short lived.	No	Immediate interest but only maintained if had pre-existed intervention.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Related to career influences.	None
(Crosson, Heaton et al. 2003)	Focus on students delivering public health interventions.	Student support.	No	Some were more inclined to pursue family practice.	Students appear to have wanted the role of patient educator.	Unclear / not addressed / not focus of study.	None	None
(Dobie, Carline et al. 1997)	Not focused on learning outcomes but on career choice.	Multiple factors make clarification of essentials difficult according to authors' own admission.	No	Reinforcement of already held views – students opted for additional rural experience.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	Need to produce rural workers in healthcare.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Duque, Gold et al. 2003)	Shows that students preferred receiving teaching and early experience in one integrated week rather than ten weekly sessions.	Unclear / not addressed / not focus of study.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Considerations of timing of teaching	None
(Durak, Valansever et al. 2006)	Focused on feasibility of offering early experience.	Effective collaboration, bottom up planning, teacher training programmes, guidelines, teacher enthusiasm, student motivation.	No	Students reported becoming able to take a history and perform a clinical examination.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Dyrbye, Harris et al. 2007)	Interaction with specific patients had a significant impact on students.	Patient contact.	Study specifically set out to analyse role of interactions with patients but does not address interactions with others.	Patient stories which were made into their own narratives through reflection.	Meaning about relationships, learning in early encounters, integration, doctoring, physician role and professional development.	Issue of impact raised but not elaborated on.	Further investigation of the significance of early experience to both patients and students.	Apprenticeship model of professional learning – cognitive, practical and moral apprenticeship, constructionism, AMA policies.
(Elnicki, Halbritter et al. 1999)	Focus of study was to see if early experience improved later performance and interest in internal medicine.	Compared to a control group students preformed better post preceptorship although this could be simply because they received more education or selection factors.	Not beyond instructions to preceptors to allow student active participation.	Not assessed other than in exam results.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Suggests program is used to facilitate interest in internal medical.	Policy – need to increase internal medicine recruitment.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Fernald, Staudenmaier et al. 2001)	The overall outcome identified is enhanced preceptorship experience rather than specific elements of this.	Active teaching, active learning, trusting relationship, sufficient time, shared understanding of objectives.	When the essential features were present students experienced an enhanced learning environment – comfort, confidence, responsibility, skills, knowledge, reinforcement, learning opportunities, teaching opportunities and models for practice.	This paper describes the in situ workings of 'good' experiences rather than the take away value.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Focus on active approach to early experience teaching and learning.	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Fillipetto, Weiss et al. 2006)	Aimed to find a way to teach students communication skills without requiring additional curriculum time.	Students had to arrange experiences in their own time and preceptors volunteer.	Students were limited to observing.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Students may need to actively participate.	
(Frank, Handfield-Jones et al. 1996)	Unclear – student enjoyment and general satisfaction reported.	Logistical and administrative support.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	References US policy to introduce integration into curricula.
(Friedberg, Glick 1997)	Unclear / Not addressed / Not focus of study.	Unclear / not addressed / not focus of study.	Senior physicians and primary care physicians reported to have more positive attitudes than others.	Enjoyment and personal satisfaction.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Freeman, Cash et al. 1995)	Descriptive focus on logistics and addressing expectations of preceptors.	Unclear / not addressed / not focus of study.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None
(Grayson, Klein et al. 2001)	Focused on recruitment to primary care careers.	Found that actually experiencing primary care in preclinical years had an effect on career choice beyond that of the desire to experience primary care.	No	Actual experience to support general interest.	Unclear / not addressed / not focus of study.	Suggests that early experiences can have a long term impact on career choice.	None	Recruitment policy.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Hampshire 1998)	Links between reported benefits and recounted experience not made.	'Quality' teaching Interested placement provider who agrees experience can be useful.	Communication problems with students and staff noted. No further consideration of actual interactions.	Students thought they had learnt to talk to patients but were less confident about examining them.	Students thought they now knew what a doctor's role was.	Unclear regarding the content of what the students took away. This is not interpreted beyond suggesting it was the start of socialisation into medical practice.	Need for quality assurance and training for placement providers. Discusses trend towards community healthcare.	General Medical Council
(Howe, Dagley et al. 2007)	Focus on feasibility, educational effectiveness and acceptability. Identifies perceived value of 'real' learning but not how.	Ongoing support	Not in detail.	Students appeared to develop a patient-centred approach.	Appreciation of empathetic and holistic approach, some content knowledge.	Unclear / not addressed / not focus of study.	Ongoing development of early clinical experience.	General Medical Council Policy, Contextualisation of learning, literature suggesting value of early experience.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Johnson, Scott 1998)	Identifies increased student satisfaction with their education when early clinical experience occurs but not how or why this effect is seen.	Unclear as in the cohort 40% reported some degree of cynicism which was not less in those exposed to early clinical experience.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Suggest further work is needed to identify specific factors affecting student attitude.	None
(Kent 1991)	Student experiences are reported in detail but not interpreted by linking experiences to later outcomes.	Unclear / not addressed / not focus of study.	Students reported uncertainty and emotional reactions to their experiences including lack of orientation and support, and ethical concerns.	Students were reported to gain understanding of patient care, nursing and medical roles, and professional relationships.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Need to address student concerns regarding experiences and ethical dilemmas.	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Khan, Fareed 2003)	Focus on community based education – experience of this increased student awareness of community practice.	Resources, positive perceptions of delivering teaching in this way	No	Better understanding of relevance of basic sciences reported.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Longitudinal studies of the intervention.	WHO / Governmental policies.
(Lalumandier, Victoroff et al. 2004)	Students appreciated need for service delivery from direct involvement in delivering services to resource poor populations.	Logistical organisation, ensuring students could deal with issues when remote from the medical school.	No	Fulfilment of desire to 'give back' – a role of their own.	Challenged perceptions about equity of care, awareness of wider responsibilities, and societal influences on health.	Unclear although increased sense of moral obligation to communities suggested.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Levy, Hartz et al. 2001)	Focus on career choices.	If students valued experience then a positive effect towards Family Practice was seen but other factors were also relevant.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Predictions for recruitment.	Recruitment policy.
(Lie, Boker et al. 2006)	Identified learning themes for students but not how and why these occurred during the experience.	Unclear / not addressed / not focus of study.	No	Unclear – does include theme of feeling useful.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Systematic selection of experiences.	None
(Linder, Saha et al. 1992)	Students could be trained to take blood pressure accurately.	Intensive preparation of students.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Further work to allow students to deliver services.	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Lynch, Pathman et al. 2001)	Focused on increasing recruitment to rural practice.	Suggests exposure to rural practice improves recruitment for interested students.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	Recruitment policy.
(McLean 2004)	Focus on student preparation for experience.	Unclear / not addressed / not focus of study.	No	Stories of their experiences.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	Government policy.
(McLean 2006)	Identified that early experience leads to students finding clinical role models sooner than in traditional curricula probably due to early contact with clinicians.	Need to ensure clinicians are aligned with school curriculum discussed.	No	Unclear with regard to details but more students could identify a role model – potentially either positive or negative.	Possible effect on student understanding of professional behaviour.	Unclear / not addressed / not focus of study.	Role model development.	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(MacLeod, Parkin et al. 2003)	Student perceptions of dying were changed by meeting a patient in this situation.	Student support.	Student –patient interactions focused on.	Changes in understanding from anticipated experience, emotional and spiritual engagement with patients.	Students reflected on personal meanings and suggested how to approach such patients in the future.	Not discussed beyond student expectations of future encounters. Suggests students are open to responding to patients with a mixture of lay and professional roles.	Expansion of the model for student contact with dying patients.	Palliative Care policy initiatives.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Maldray, Pfeiffer et al. 2000)	Set out to test if teaching 'wellness' had a detrimental effect on student ability to elicit histories – it did not but a complex change occurred making it unclear how and why any effect was made.	Difficult to untangle as early experience introduced as one of many curriculum changes.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Mann 1994)	Specific links are not made but the experience as a whole is considered to be a transformational one.	Unclear / not addressed / not focus of study.	Reports positive experiences of students telling stories of their encounters with doctors. The importance of interactions between students and doctors is noted.	Students reported beginning to consider doctor rather than patient perspectives. Themes were identified of what doctors do, clinical mind and light at the end of the tunnel.	The real world was seen as an 'uncertain' one Some students noted differences between their in-house teaching and actual practice	Potential tension between medical school teaching and different practices not explored further. Lave and Wenger's theories are considered as ideal standards for early experience.	None	Legitimate Peripheral Participation / Community of Practice.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Mengel, Davis 1995)	The involvement of family physicians in generalist early clinical experience found to be a positive influence on career choice towards family practice.	The authors suggest the effect is due to role model exposure rather than the experience itself.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Further involvement of family physicians.	No
(Miettola, Mantyselka et al. 2005)	Early experience was identified as offering students access to role models –both positive and negative.	Unclear / not addressed / not focus of study.	No	Students regarded both positive and negative experiences as learning opportunities.	Consideration of general practice as a career option.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Naga Rani, Sharma et al. 2002)	Global assessment of how early experience was received only.	Unclear / not addressed / not focus of study.	No	Students were able to identify faculty who did not believe early experience was necessary, useful, or their responsibility.	Tension between old and new curricula.	Unclear / not addressed / not focus of study.	Development of clear objectives and organisational resources.	Previous literature suggesting early experience will improve knowledge integration.
(Newbury, Shannon et al. 2005)	Intention was to increase knowledge of rural practice which was achieved through rural early experience.	Resources	Students said to benefit from the generosity of rural communities.	Understanding of rural communities and medical practice.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Some issues arose around expectations and understanding of the experience as students were living within a rural community.	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Nieman, Foxhall et al. 2001)	Students learnt how to assess foot care in diabetic patients by taking responsibility for it in practice.	A preceptor who thought it was a useful exercise and could provide appropriate opportunities.	No	Satisfaction at having been useful to patients and preceptors.	Students recognised they had a functional role.	Unclear / not addressed / not focus of study.	Need to select and support preceptors.	None
(Nieman, Cheng, et al. 2006)	This is not addressed – students who had undertaken early experiences were found to perform better in a clinical examination but how and why is not assessed.	Not focused on.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Niemi 1997)	Addresses the questions of how students self-reflect and form professional identities in preclinical years. Students were asked to ascribe meaning to their described experiences.	Unclear as students distributed between 4 groups evenly in patterns of reflection and identity status was diffuse in about half of the students.	No	Identifies four types of reflection in students learning logs: 'committed reflection', 'emotional exploration', 'objective reporting', and 'diffuse reporting'.	Students were found to fall into one of four groups of identity status: achieved professional identity, actively exploring alternatives, vague fantasies and tentative ideas, diffuse identity.	Unclear – suggests identity formation is postponed until students have more clinical experience.	Suggests implicitly that increased authentic experience might produce professional identities sooner.	Constructivist theory – active role of learners, reflection and construction of self – identity Marcia's Identity status paradigm. A relatively unusual example of a theorised study.
(Novack, Dube et al. 1992)	Description of specific interviewing skills course – how and why it worked not addressed in detail.	Unclear / not addressed / not focus of study.	Not in detail.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	Not beyond a 'need to learn the art of medicine'.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Orbell, Abraham 1993)	Suggests participation in unsupervised interviews was valued by students who gained knowledge of broader issues related to chronic illness.	Logistical support.	Not in detail.	Students reported increased confidence and awareness of social and psychological aspects of ill health.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None
(Paines, Herold et al. 1994)	Focused on whether student performance in formal assessments improved following early experience.	Unclear as the results were inconclusive – possibly due to confounding factors.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Quinby, Papp 1995)	Focus is on mentoring aspects of experience in the early years.	Unclear / not addressed / not focus of study.	Some students had positive (active participation and teaching) and some negative (lack of time) interactions.	Enjoyment reported.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Recommended for increased community experience.	Change made in response to policy reports to improve students 'professional education'.
(Riley, Myers et al. 1991)	Focus on logistics of arranging experiences rather than educational value.	Collaboration	No	Not addressed beyond 'a positive experience'.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Organisational collaboration.	None
(Rogers, Sweet et al. 1991)	Found that teaching decision making in a preclinical course had no positive effect on problem solving rating in later years.	Authors suggest further work is needed in this area. Not authentic early experience in practice.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Rogers, Dains 2001)	It is unclear if this intervention took place in an authentic setting. Shows that first year students could learn examination skills as well as second year students. Several problems with drawing specific conclusions are highlighted by the authors.	Unclear / not addressed / not focus of study.	No	Ability to clinically examine during a clinical examination.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Rooks, Watson et al. 2001)	Confidence produced from experience. Although other aspects such as developing a professional identity are referred to it is unclear how and why early experience specifically had this effect.	Unclear / not addressed / not focus of study.	Not in detail	Confidence, better communication skills, confirmation of chosen career.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	None	None
(Sathishkumar, Thomas et al. 2007)	Unclear as early experience was part of complex new intervention for teaching endocrinology.	Unclear / not addressed / not focus of study.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	To continue with early clinical experience.	Use of multiple teaching methods to deliver education.

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Satran, Harris et al. 1993)	Focus on whether students could learn in outpatient as well as inpatient settings.	Unclear – students gained equitable history taking skills in both settings.	No	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Use of outpatients.	None
(Steele, Susman et al. 2001)	Aim of intervention was exposure to primary care which was achieved by organising the experience.	Unclear – specifically states structure is not needed for experience to be valued by students.	No	Students were 'positive'.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Logistical suggestions only.	None
(Thistlethwaite, Cockayne 2004)	Focus on the patient perspectives of early experience.	Not discussed beyond need for patient volunteers.	Student –patient only: patients found quiet students difficult.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Consideration of repeated use of same patients to deliver early experience raised as a question.	None

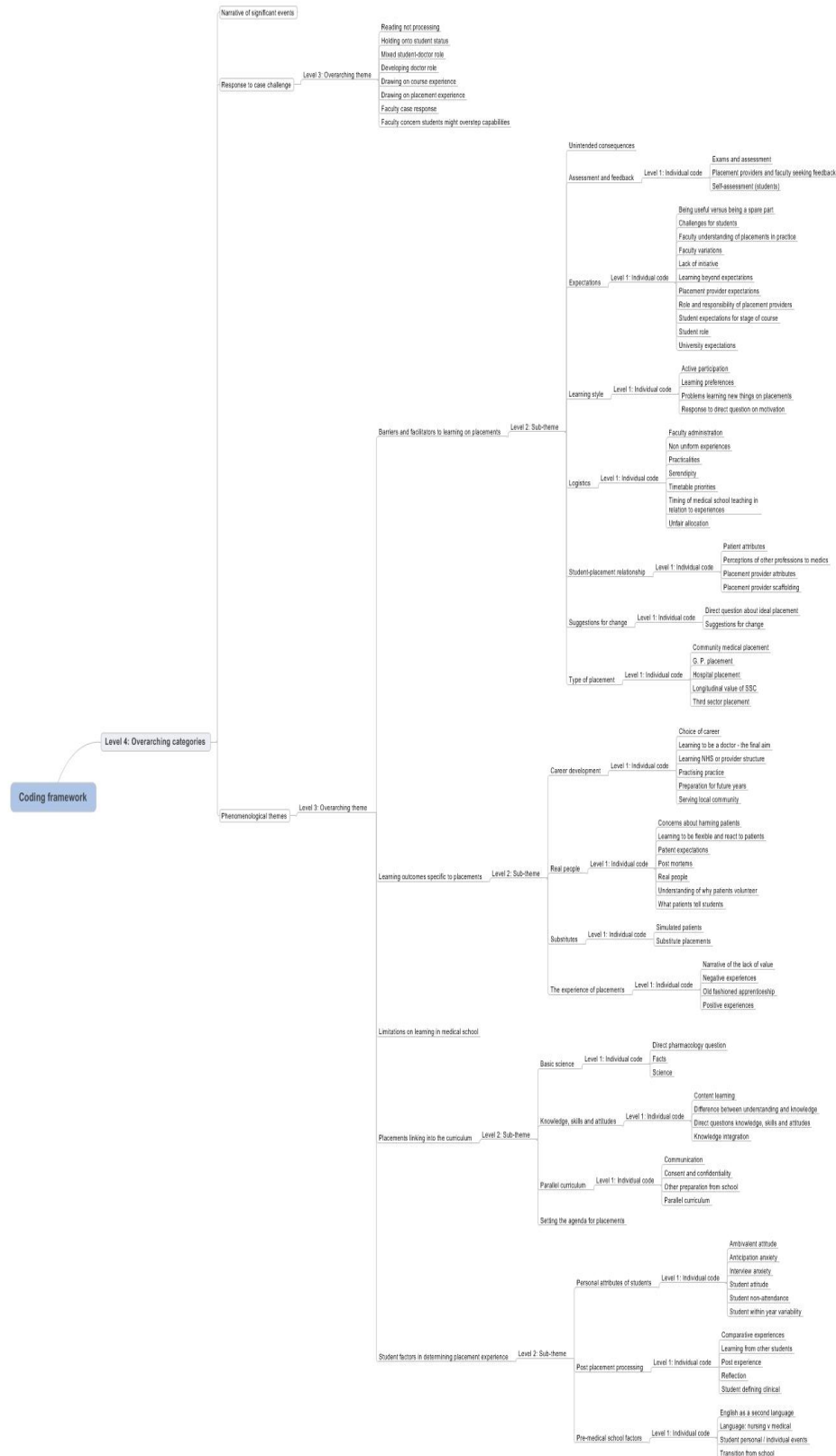
Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Thomas, Hafler et al. 1999)	Focus on patients perspective rather than learning outcomes – patients had favourable impressions of students and thought the teaching was important.	Unclear / not addressed / not focus of study.	Patients reported students to be professional and respectful.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Encouraging faculty to offer patients involvement.	None

Paper	How and why did the early experience intervention lead to specific learning outcomes? Were affective and cognitive elements identified?	Essentials identified to make experience effective.	Are interactions between students, placement providers, and faculty discussed?	What did students 'take away' from their experiences?	What meaning-making occurred from the student perspective?	What does this mean for students and for their learning? What do they do with their knowledge?	What is the focus of any suggestions for change?	Are there explicit policy / educational theoretical references?
(Vaz, Gona 1992)	Exposure to rural healthcare was main aim – not explicitly linked to evaluative outcomes.	Logistics discussed.	No	Authors were concerned that students appeared to take away the idea that more doctors would solve rural health problems when in fact public health measures such as better sanitation were probably more important.	Students were perhaps left to make their own meaning – could explain misunderstandings.	Unclear / not addressed / not focus of study.	More support for supervisors, seeking uniformity of placements.	Policy – orientation towards community / rural care.
(Waddell, Davidson 2000)	Students were used to facilitate access to healthcare services through a health promotion model.	Logistical elements only discussed.	No specifically – student preconceptions are reported to be challenged.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Unclear / not addressed / not focus of study.	Further use of students to deliver health services.	Policy for health promotion.

Appendix 3 Coding framework

a) Figure A3.1 Coding framework

(representation to illustrate coding – see table A3.1 on next page to read codes)



b) Table A3.1 Coding by group

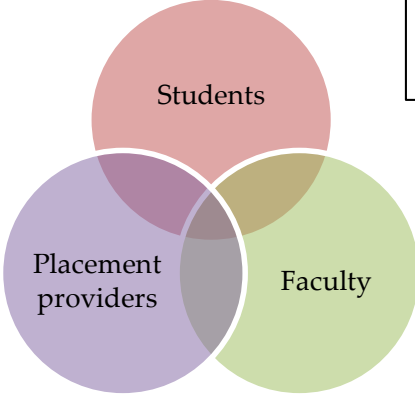
	A : admin faculty	B : faculty teaching	C : module 1 interviews	D : module 2 interviews	E : pp interviews
1 : narrative of significant events	0	2	34	40	0
2 : phenomenological themes	0	0	0	0	0
3 : barriers and facilitators to learning on placements	0	3	49	42	22
4 : assessment and feedback	0	0	0	0	0
5 : exams and assessment	0	34	34	37	5
6 : placement providers and faculty seeking direct feedback	7	27	0	0	18
7 : self assessment	0	0	4	4	0
8 : expectations	0	0	0	0	0
9 : being useful versus being a spare part	0	1	19	19	0
10 : challenges for students	10	17	54	51	12
11 : faculty understanding of placement in practice	4	22	0	0	0
12 : faculty variations	0	0	5	7	0
13 : lack of initiative	0	4	6	6	6
14 : learning beyond expectations of medical school	0	1	1	1	7
15 : placement provider expectations	6	10	49	49	91
16 : role and responsibility of placement providers	15	48	0	0	46
17 : student expectations for stage of course	4	21	41	41	35
18 : student role	17	37	13	9	18
19 : university expectations	28	83	50	43	54
20 : changes from old to new curriculum	18	27	0	0	0
21 : faculty responsibilities	13	47	0	0	0
22 : placement group chair	0	1	0	0	0
23 : learning style	0	0	0	0	0
24 : active participation	3	16	17	29	26
25 : learning preferences	0	7	39	17	0
26 : problems learning new things on placement	0	0	0	1	5
27 : response to direct question on motivation	0	0	12	12	1
28 : logistics	0	0	0	0	0
29 : faculty administration	30	18	0	0	0
30 : non uniform experiences	1	0	6	2	1
31 : practicalities	13	28	26	36	60
32 : serendipity not organisation	0	1	9	6	4
33 : timetable priorities	7	19	18	36	5
34 : timing of medical school teaching in relation to experiences	7	8	16	14	11

	A : admin faculty	B : faculty teaching	C : module 1 interviews	D : module 2 interviews	E : pp interviews
35 : unfair allocation	4	10	0	0	0
36 : student-placement relationships	0	4	0	0	2
37 : patient attributes	1	2	45	20	21
38 : perceptions of other professionals to medics	1	13	10	16	9
39 : placement provider attributes	0	10	38	62	27
40 : placement provider scaffolding	4	20	35	35	32
41 : suggestions for change	0	0	0	0	0
42 : direct question about ideal placement	0	0	14	15	2
43 : suggestions for change	3	3	10	13	6
44 : type of placement	0	0	0	0	0
45 : community medical placement	0	0	0	6	3
46 : GP placement	0	5	16	16	4
47 : hospital placement	0	4	41	27	10
48 : longitudinal value of SSC	0	0	0	6	0
49 : third sector placement	1	3	9	5	5
50 : learning outcomes specific to placements	0	0	117	92	0
51 : career development	0	0	0	0	0
52 : choice of career	1	11	3	6	6
53 : learning to be a doctor - the final aim	7	37	17	30	22
54 : learning NHS or provider structure	1	7	0	14	42
55 : practising practice	4	20	26	20	21
56 : preparation for future years	5	8	13	12	7
57 : serving the local community	1	7	0	0	0
58 : real people	0	0	0	0	1
59 : concerns about harming patients	1	0	17	7	0
60 : learning to be flexible and react to patients	4	17	1	4	23
61 : patient expectations	1	0	25	15	13
62 : post mortems	1	5	0	23	2
63 : real people	10	46	51	44	46
64 : understanding of why patients volunteer	0	0	5	0	0
65 : what patients tell students	1	4	52	39	6
66 : substitutes	0	0	0	0	0
67 : simulated patients	3	25	29	24	3
68 : substitute placements	0	3	0	1	2
69 : the experience of placements	0	0	0	0	1
70 : narrative of the lack of value	0	1	0	0	1
71 : negative experiences	0	10	24	19	6
72 : old fashioned apprenticeship	2	5	5	0	5

	A : admin faculty	B : faculty teaching	C : module 1 interviews	D : module 2 interviews	E : pp interviews
73 : positive experiences	2	8	24	9	12
74 : limitations on learning in medical school	0	2	11	14	0
75 : placements linking into the curriculum	0	1	50	57	0
76 : basic science	0	0	0	0	0
77 : direct pharmacology question	0	0	18	15	1
78 : facts	0	0	2	9	2
79 : science	0	25	38	31	21
80 : knowledge, skills, and attitude	0	0	0	0	0
81 : content learning	7	47	0	0	93
82 : difference between understanding and knowledge	0	0	0	7	2
83 : direct question KSA	0	8	16	18	22
84 : knowledge integration	9	55	64	79	31
85 : parallel curriculum	0	0	0	0	0
86 : communication	7	27	71	45	21
87 : consent and confidentiality	0	3	27	6	1
88 : other preparation from school	3	2	14	9	2
89 : parallel curriculum	5	31	0	0	5
90 : Setting the agenda for placements	17	43	0	0	36
91 : student factors in determining the experience	0	0	0	0	0
92 : personal attributes of students	0	0	0	0	0
93 : ambivalent attitude	0	0	1	8	7
94 : anticipation anxiety	0	8	9	5	6
95 : interview anxiety	0	0	1	4	0
96 : student attitude	10	16	0	8	65
97 : student non attendance	8	1	0	0	6
98 : student within year variability	0	4	0	0	0
99 : post placement processing of the experience	0	0	0	0	0
100 : comparative experiences	0	2	22	25	3
101 : learning from other student experiences	0	0	7	5	2
102 : post experience	1	7	13	6	1
103 : reflection	1	10	30	15	1
104 : student defining clinical	0	0	0	8	1
105 : pre medical school factors	0	0	0	0	0
106 : English as a second language	0	0	4	0	2
107 : language - medical v nursing	0	0	5	1	0
108 : pre medical school expectations	1	3	2	4	1

	A : admin faculty	B : faculty teaching	C : module 1 interviews	D : module 2 interviews	E : pp interviews
109 : Student personal (individual events outside of medical school) or premedical experiences	0	3	33	30	11
110 : transition from school	1	4	4	5	7
111 : response to challenge of case	0	0	12	11	0
112 : case response - developing doctor role	0	6	21	14	0
113 : case response - drawing on course knowledge	0	10	20	14	0
114 : case response - drawing on experience	0	3	10	17	0
115 : case response - holding onto student status	0	11	3	3	0
116 : case response - mixed doctor-student role	0	10	3	2	0
117 : case response - reading not processing	0	0	1	0	0
118 : faculty case response	0	10	0	0	0
119 : faculty concern students might overstep capabilities	0	20	0	0	0

c) Figure A3.2 Coding by group showing similarities and differences

<p>STUDENTS AND PLACEMENT PROVIDERS</p> <ul style="list-style-type: none">•Problems learning new things on placement•Motivation•Ideal placements•Pharmacology•Facts•Difference between understanding and knowledge*•Ambivalent attitude•Learning from other student experiences•Defining clinical (student perception)•English as a second language	<p>STUDENTS</p> <ul style="list-style-type: none">•Self-assessment•Faculty variations•GENERIC LEARNING OUTCOMES SPECIFIC TO PLACEMENTS•Understanding why patients volunteer•Case response – reading not processing•Interview anxiety•Generic response to challenge of case•Language – medical v nursing	<p>STUDENTS AND FACULTY</p> <ul style="list-style-type: none">•NARRATIVE OF SIGNIFICANT EVENTS•BEING USEFUL V BEING A SPARE PART•Concerns about harming patients•Limitations on learning in medical school•Placements linking into the curriculum•Case response – developing doctor role, drawing on course knowledge, drawing on experience, holding onto student status, mixed doctor-student role•Learning preferences
<p>PLACEMENT PROVIDERS</p> <ul style="list-style-type: none">•Generic experience of placements		
<p>FACULTY AND PLACEMENT PROVIDERS</p> <ul style="list-style-type: none">•SEEKING DIRECT FEEDBACK•ROLE AND RESPONSIBILITY OF PLACEMENT PROVIDERS•STUDENT-PLACEMENT RELATIONSHIPS•Narrative of the lack of value*•CONTENT LEARNING•PARALLEL CURRICULUM•SETTING THE AGENDA FOR PLACEMENTS•Student non-attendance	<p>Some codes vary between groups due to nuances of emphasis rather than a separation of topic area, and in others there were contrasting views between groups with a given theme. Key: Lower case – only, HIGHER CASE – ONLY AND PRIORITISED, *significant minority code</p>	<p>Faculty</p> <ul style="list-style-type: none">•Understanding of placement in practice•CHANGES FROM OLD TO NEW CURRICULUM•FACULTY RESPONSIBILITIES•Placement group chair•FACULTY ADMINISTRATION•UNFAIR ALLOCATION•SERVING THE LOCAL COMMUNITY•Student within year variability*•Faculty case response•FACULTY CONCERN STUDENTS MIGHT OVERSTEP CAPABILITIES
<p>ALL: BARRIERS AND FACILITATORS TO LEARNING ON PLACEMENTS (language and unintended consequences), exams and assessments, challenges for students, lack of initiative, learning beyond expectations of medical school, PLACEMENT PROVIDER EXPECTATIONS, STUDENT EXPECTATIONS FOR STAGE OF COURSE, STUDENT ROLE, UNIVERSITY EXPECTATIONS, ACTIVE PARTICIPATION, Non-uniform experiences, practicalities, serendipity not organisation, TIMETABLE PRIORITIES, timing of medical school teaching in relation to experiences, patient attributes, perceptions of other professions to medics, placement provider attributes, placement provider scaffolding, suggestions for change, CHOICE OF CAREER, LEARNING TO BE A DOCTOR THE FINAL AIM, LEARNING NHS OR PROVIDER STRUCTURE, PRACTISING PRACTICE, PREPARATION FOR FUTURE YEARS, LEARNING TO BE FLEXIBLE AND REACT TO PATIENTS, patient expectations, POST MORTEM, REAL PEOPLE, what patients tell students, SIMULATED PATIENTS, SUBSTITUTE PLACEMENTS, negative experiences, old fashioned apprenticeship, positive experiences, science, knowledge, skills and attitudes, KNOWLEDGE INTEGRATION, COMMUNICATION, CONSENT AND CONFIDENTIALITY, other preparation from school, anticipation anxiety, STUDENT ATTITUDE, comparative experiences, reflection, post experience, pre-medical school expectations*, student personal*, transition from school.</p>		

Appendix 4 School observation report

Introduction

I was commissioned to do this set of 'snap shot' placement observations by the Head of Keele Medical School. While it is obviously not a systematic and comprehensive review of all placements which medical undergraduate students experience during module 1 of their course, it does provide an overview and insight into the types of experiences they are having. As such it is a window to 'what happens on the ground' when students and placement providers meet.

Conduct of the Observations

One placement (and when applicable hub session or on-site equivalent) from each placement category was selected to give a broad overview. Community rather than hospital placements were purposely selected as the focus of this project as this was felt to be the more 'innovative' aspect of the new curriculum. The selection was arbitrary from the list of potential options for each category. Placement providers were contacted in advance by Keele Medical School administrative staff to seek consent for an observer to attend. No one refused and several welcomed the opportunity, noting there was a current lack of face to face contact with the Medical School.

All observations were conducted by me. On arriving at each session I introduced myself and explained to placement providers and students that this was not a formal assessment but an information gathering exercise to give a more in-depth idea of the quality and practicalities of placements. They were made aware that the results of my observations would be returned to the medical school in the form of this report. No students objected to my presence and I think their willingness to discuss in detail their concerns in front of me on occasion provides some evidence they accepted my presence as an observer. Patients were also told my role and additionally that, as a clinical doctor, I would be keeping any information about them confidential and this did not form a part of my observations.

Prior to attending the placement I familiarised myself with both the student and provider notes provided by the medical school. During the course of the observations I took notes at the time when this was not intrusive, and additionally wrote a fuller report of each individual placement as soon as possible after the event.

Methods of analysis and presentation of findings

I have tried to strike a balance between protecting the identity of individuals who willingly participated in this project and maintaining a level of detail to allow meaningful interpretation of the findings. External placement providers will therefore be categorised as either primary (general practice, community services, health centres) or 'third sector' – this latter category includes a mixture of voluntary, charitable, social and allied health providers. In order to get a broader view of this latter category I also sampled some SSC placement providers (module 2 students) with whom I met separately to the students.

I have analysed my individual reports thematically to produce the result presented here and remain in possession of the original data and the analytic processing.

Results

Outline of observation settings

Placement Category	Type of placement attended	Supervisors on site (those with actual student contact)	Number of students allocated
Observing a Health professional / interview a patient about experience of healthcare	Primary Care	General Practitioner and Clinical Assistant	2
Interview a patient about chronic illness	Primary Care	General Practitioner	2
Interviewing an elderly person	Third sector	PCT Health Improvement Co-ordinator	2
Interview a person with a Mental Health problem	Third sector	Centre Manager / Practitioner plus colleagues	2
Lifestyle questionnaire	Third sector	NHS initiative team leader	12
Lifestyle modifying behaviour	Primary Care	Sister / General Practitioner	4
Lifestyle Hub session	Primary Care	Practice Manager / General Practitioner	12
Lifestyle Hub session	In house	General Practitioner	12
Lifestyle substitute	In house session for students without placement	Faculty member (non medic)	7
SSC (M2)	Third sector	Senior staff member	2
SSC (M2)	Third sector	Team Leaders (2)	4
SSC (M2)	Third sector	Project Manager	1

Thematic Results

1. Medical School provisions

The appropriateness and achievement of objectives / learning outcomes was difficult to assess as often these were not acknowledged by the placement providers or students. I appreciate this is not a measure of the effort the Medical School may have put into disseminating this information but it seemed that communication of objectives to learners and placement providers had not been effective, with one or two exceptions.

2. Placement environmental factors

Practicalities

Although generally made welcome on placements there were occasions when students were not orientated to the environment regarding simple (but necessary) information such as where to get a drink, find the toilets, etc. On several placements students were late due to inability to find the location (this happened once to me too!). No one seemed to be using public transport – either they had a car between them or used taxis.

Use of teaching space

This could be summed up as placement providers making the best of environments not designed or necessarily suited to their own work, let alone having additional students. For the students it did sometimes present them with a conflict as they could not put into practice the principles they had covered at the medical school regarding setting up the environment for patient consultations.

Additionally, some of the placements were located in more deprived areas than students appeared to have previously experienced.

Choice of location / Type of placement

The in-house session arranged as a substitute to external placement included non-clinical teachers, and no patients. Student attitude to all the in-house sessions (described as 'boring') was observed to be less constructive / enthusiastic than to the external sessions. The in-house substitute session was treated in a similar fashion to a PBL case.

Changes to plans

There were three instances of the placement supervisor being changed at the last minute. In two, this was due to unexpected illness. In the other, annual leave had been overlooked and the

replacement supervisor had only been informed of the students and related paperwork immediately prior to the start of the placement.

Unexpected experience

On one of my observations, the students discussed openly in front of me an incident from a previous placement. Alongside their perceptions regarding the inappropriateness of this incident, concerns were expressed that it could result in their missing out on 'experience' if the department where it occurred was excluded from future placements. Some students, when on placements designed to observe professional-patient interactions had also been taken to theatre, and so the patients were anaesthetised at the time.

3. Placement provider factors

Whether or not there was a structure to the session, feedback to the students or an attempt to summarise the placement was very variable. Often students were left alone with patients when interviewing them so they could not receive feedback on their interviewing skills except possibly from each other.

Generally the more senior the actual supervisor on the placement (or if they were medically qualified) the more likely the session was to be interactive and include students doing more than simple observation.

With the exception of providers who also have formal faculty roles, only one or two appeared to have read / be aware of the tutor notes / session objectives. Third sector providers seemed to be more conscientious in this respect. Providers rarely expressed personal expectations of the students.

4. Student factors

Absentees

Students were observed to be unsurprised when particular peers did not attend placements commenting, for example, 'he never turns up for anything'. This particular student did not attend twice during my observations. One other student was reported to be unwell by their peers. In neither case had the students contacted the placement providers directly.

The only placement identifying this as a problem was one of the SSC providers – this is probably because it is easier to identify in a longitudinal placement. This provider reported occasions of students not attending, or making excuses and leaving early despite the provider having timetabled activities in the allocated placement time as per the medical school instructions.

Preparation

Almost universally students would deny having received any specific objectives, some even saying they had 'no idea' what they were meant to be doing. Not all came prepared to take notes or meet with patients. Most students seemed to think attending communication skill sessions was the sole preparation needed for placements.

Knowledge

There were several instances on placements and during in-house sessions where the students seemed to experience a conflict in their knowledge of theory from the medical school and practice presented to them now. Sometimes this was because they had interpreted opinions expressed by lecturers as 'facts', at other times they had simply not understood something. Placement providers were variable in their ability to address this. Students were often reluctant to admit to prior knowledge – it was unclear if this was due to a lack of certainty about it or peer pressure.

Occasionally, patients seemed confused that students were focusing on the 'social' aspects of their illnesses rather than biomedical content.

Learning styles and behaviour

Students did not appear to discuss their assignments with placement providers (reflective or SSC). They were also generally slow to interact with external placement providers although the more experienced and persistent providers usually managed to achieve interaction by the end of the placements. Some students seemed focused on finishing tasks not related to real patients as quickly as possible. Many students did not take notes during their placements, even when patients were not present and providers were explaining concepts to them such as in the lifestyle placements. One patient commented on this to the students, asking one if they were going to copy from another.

Professionalism

At one observation, I saw what I consider to be a significant example of unprofessional behaviour. The student concerned was disruptive to the group and rude to the supervisor. He refused to participate appropriately in discussions or listen to peers and took every opportunity to stop activities suggested by the supervisor. On a later placement, I met again two other students present who described to me their embarrassment and shock at his behaviour. The supervisor was very mild in her remonstrations regarding this incident – had I been in their position I would have been much clearer that this was not acceptable.

Students were particularly late for one of the in-house sessions which I attended with only 10/30 present at the start time.

On external placements there were several occasions when I did not feel students were dressed appropriately when compared to the requirements of the medical school dress code. For example: wearing jeans, or trainers, revealing clothing, and flaking nail varnish.

5. Student – Patient Interactions

Which patients were present was often left to chance, although there were instances of patients being specifically invited to come in and meet the students. Some placements also changed the speed of their usual practice to accommodate the students' presence.

Often patients seemed more in control of the conversation than students, although they would repeatedly ask what the students 'needed' from them. As there was rarely much response to this, the patient would (I presume familiar from previous experience) tend to fall back on their medical details rather than their experiences as a person. Some patients also saw this as an opportunity to give students examples of what not to be like as a doctor – in the process making students aware that not all patients agree with their doctors or follow professional advice.

Generally students think real patients are less hard work than simulated patients. Their anxieties of 'difficult patients' were not realised in this set of observations. There was some evidence that students avoided questions that would be considered insensitive in normal social circumstances although standard in medical practice.

6. Placement provider feedback

Generally this was positive. Some providers commented on the maturity of the medical students in comparison to students on work experience. Third sector providers were particularly enthusiastic

about being involved – reasons given for this included showing students a variety of health problems in the context of society and getting them to ‘consider patients as people’.

Some placement providers expressed a desire for more contact time and for it to be more compact (in the case of the SSC). They felt this would allow them to support the students better and structure their activities more appropriately. Some did have the capacity to take more students, especially if timetabling would allow variation in times of attendance.

A common request was for more feedback from the medical school (‘Am I doing the right thing?’) especially as students were generally unforthcoming about how they found the placements (which I observed – students tended to be polite when asked direct questions and agree to whatever was offered). Some providers also felt they would like stronger links and communication from the university about what was expected, and which students would attend, and when.

Some providers had difficulty ensuring patients / clients would attend due to the nature of their services. The placement which was sent 12 students could not provide real patients for them to see but instead provided 9 members of staff who talked about their work and role played with students, with the member of staff playing the role of one of their patients and the students the role of a healthcare professional. This was received very positively by the students.

Some of the placement providers seemed under-confident in their role and expressed the wish for formal training although they were uncertain what form this might take. During the course of the observations I was often asked to give my own feedback. With the exception of the incident described above, I could genuinely say I thought they had done their best in the circumstances.

7. Feedback from students

Meeting patients is highly valued by students. Preferences were expressed to be actively engaged rather than 'just observing'. Experiences of waiting around and failure to outline/structure the afternoon have a negative impact on attitude and expectations. On the primary care placement attended by four students, they were rotated so that at any point in the afternoon two were 'doing nothing'.

Students were uncertain about their reflective assignments and some said they would have liked feedback on the first prior to submitting the second. Once some students had been shown the Calgary-Cambridge framework, they wanted to get on and use it not limit themselves to focusing on the introduction.

Discussion

Reflections

Whilst I appreciate the Medical School objectives are deliberately broad, with the intention of students focusing on general skills, at present my overall impression was that students did not know what they wanted to know. They did not seem to consider they had any responsibility to self-inform before attending placements. Also, when on placement they would tend to agree with whatever the placement provider suggested, which means the objectives may not be met if the actual supervisor on the day has not seen / read the tutor notes.

Students made a clear value differential between 'real life' learning and the in-house sessions. It was interesting to note that hearing from healthcare professionals first-hand about their experiences in the community was accepted as useful, whereas, when clinical tutors led sessions in-house, this was not necessarily the case.

Obviously it is important for students not to be overwhelmed with 'things to remember' and learn on placement, but it might be useful, instead, for them to have a framework of what involvement is acceptable on placement.

Recommendations

If I were running the placement aspects of this course, I would suggest the following:

1. The importance of active engagement of students wherever possible should be emphasised to placement providers alongside a clear outline of what a module 1 or 2 student is expected to be able to do.
2. Attention should be paid to student attendance and professional behaviour, given the documented examples of variance from the Medical School's expectations.
3. Students may need opportunities to discuss conflicting knowledge and perspectives in their learning.
4. Overall, I think this project demonstrates that the potential of placements could be increased if there were to be greater face-to-face interaction between the Medical School and placement providers. I accept however that this presents both resource and logistical problems which would need further consideration.

Dr Sarah Yardley 17/04/09

Appendix 5 Participant documents

a) Invitation letter



K E E L E
UNIVERSITY

SCHOOL OF MEDICINE

The purpose, meaning and added value of placement learning: a qualitative investigation into 'how' and 'why' undergraduate medical students understand and process early experience placements

Dear Student / Faculty Member / Placement Provider,

You are invited to take part in our research project looking at early experience placements.

With this letter I have enclosed a copy of the information leaflet for the research project, a sample consent form, and an addressed envelope.

After you have had time to read these please consider if you would like to participate in the research project. If you would like to take part, then please return the slip below to Dr Sarah Yardley in the enclosed envelope.

If you have further questions then please contact me via the number / email in the enclosed information.

With thanks for your time

Dr S Yardley

.....

I would / would not* like to participate in the research project 'The purpose, meaning and added value of placement learning: a qualitative investigation into 'how' and 'why' undergraduate medical students understand and process early experience placements'.

Name

Date

Please complete details below if you would like to participate:

Postal Address

Contact Telephone Number

Email

Signature

*delete as appropriate



Participant Information Leaflet

You are being invited to take part in a research study. Before you decide to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

- Part 1 tells you the purpose of this study and what will happen to you if you take part.
- Part 2 gives you more detailed information about the conduct of the study.

Ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Project Title

The purpose, meaning and added value of placement learning: a qualitative investigation into 'how' and 'why' undergraduate medical students understand and process early experience placements.

Summary

In 2003 The GMC published new guidance for the delivery of undergraduate medical education. Worldwide medical education has been developing as a discipline in its own right. Both of these changes have had a significant impact on medical school curricula in the UK. However, many changes have evolved without robust evidence or aims. This study is focused on the role of early experience placements in the first two years of an undergraduate medical degree asking 'how do early experience placements work for students and why?' A better understanding of this may contribute to more effective and efficient delivery of medical education – and ultimately the aim of this is to benefit the future patients of students graduating from medical school. The study consists of one to one interviews with medical students in the first two years of medical school, and then with members of the medical school faculty and placement providers in the community in order to gain a rounded picture. By linking the information gained from these perspectives with what is already known and various theories about learning an important research outcome is to move forward the debate about the role of early experience placements to one of how this educational activity is being used and how it can be improved.

Part 1

What does this mean?

The research is about your experiences of placements in modules 1, 2, or both of the Keele Medical School Curriculum. You will be asked to discuss examples of your experiences and if you are a student also your learning at Keele in general. Students will be interviewed first and then the findings of these interviews (summarised and in anonymous form) will be presented to members of the Medical School who are involved in early experience placements for them to discuss in their interviews

Why is this research important?

Lots of medical schools are introducing placements in the first two years of undergraduate degrees but at present it is not clear how and why these work (or don't work). Your experiences can help to understand this and to improve medical education delivery in the future

Who do we want to volunteer?

We would like to hear from a range of students in modules 1 and 2 of the Keele Curriculum (in the 2008/9 intake). Ideally we would like students from a variety of PBL groups to volunteer so we get a mixture of views. If you choose to take part and know of others who can also help us then with their permission we would be pleased to hear from you

Can I be involved?

You can be involved if you are a medical student at Keele University starting either module 1 or 2 in 2008/9 or after. You can also be involved if you have these students come to your workplace on placement or are a member of the medical school faculty involved in teaching module 1 or 2.

Do I have to be involved?

Nobody has to be involved, and you can choose to take part as much or as little as you want. You can withdraw at anytime and also choose not to answer specific questions if you do agree to be interviewed.

What does involvement include?

The first step is a one-to-one interview in a private room at either the medical school or if you are a placement provider your workplace (whichever is your preference). This is unlikely to take more than an hour, but the time will depend on how much you have to say. You will be asked questions about your experiences of placements and about the role of placements for students at medical school, including how they affect your knowledge.

How long will the research take and where will it be conducted?

If you agree to be interviewed this may take up to an hour. You will also have the option of agreeing to be re-contacted to give feedback on the interview results. This may be by receiving a written summary to comment on or in the case of students you may be asked to participate in a focus group later on in your course.

What kind of questions will I be asked?

The main question themes are: Placement experiences, Placement role in learning, Integration in the course, and Knowledge for being a doctor. If you would like more detail about these please contact Dr Sarah Yardley at s.j.yardley@ipchs.keele.ac.uk

Part 2

If I agree to take part what happens next?

You need to return the slip on your invitation letter, or contact Dr Sarah Yardley via the details at the end of this form. You can then ask her any further questions and she will arrange a time and place to interview you. You will be asked to provide written consent before taking part in an audio-recorded interview.

What if I change my mind?

If you change your mind you can withdraw from the study at any time.

Who is doing the research?

Dr Sarah Yardley is doing the research as part of a PhD in Medical Education. She is a clinically qualified doctor.

What happens after an interview is recorded?

The audio recording will be transcribed. At this point anything on the recording which identifies you will be omitted from the transcript. The transcript will be used for the research and both this and the recording will be stored securely according to research guidelines.

Who will know what I have said?

Only you and Dr Sarah Yardley will know who you are and what you said. Quotes from your interview may be used when the research is presented or published but no one else should be able to identify you from these.

How long will my interview recording be kept?

All research interviews will be kept for 20 years as advised by the Medical Research Council and according to university guidelines

Will I get to know the final results?

If you give Dr Sarah Yardley your contact details and request to know the results she will arrange this.

What if taking part raises concerns for me?

You can contact Dr Sarah Yardley herself, or if you prefer you can contact her supervisors Prof. Richard Hays and Dr Caragh Brosnan via the School of Medicine Office at Keele (01782 734637). Alternatively you can follow the university complaints procedures by contacting the Research Governance Department (01782 733306)

Will taking part cost me anything?

Taking part will not cost you anything other than your time.

If you have any other questions you can contact Dr Sarah Yardley at Keele Medical School to discuss things further (01782 734679 or s.j.yardley@ipchs.keele.ac.uk)

c) Consent form



SCHOOL OF MEDICINE

Participant Identification Number:

CONSENT FORM

Title of Project: The purpose, meaning and added value of placement learning: a qualitative investigation into 'how' and 'why' undergraduate medical students understand and process early experience placements

Name of Researcher: Dr Sarah Yardley

1. I confirm that I have read and understand the information sheet (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

Initials:

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my current student or employment status or legal rights being affected.

Initials:

3. I understand that relevant sections of data collected during the study may be discussed by the researcher and her supervisors (who are involved in the analysis of this research) and I give permission for this.

Initials:

4. I agree to take part in semi-structured interviews / focus groups (as applicable) that will be recorded on audiotape and then transcribed for this research.

Initials:

5. I would like to be sent a copy of the developing results to read and possibly give feedback on.

Initials:

6. I understand that quotes of what I say in the interview or written feedback may be presented or published but only in anonymous form (so it will not be possible for anyone to trace them back to me) and I agree to this.

Initials:

7. I agree to give the details overleaf to Dr Sarah Yardley.

Initials:

Name:
Date of Birth:
Gender:
PBL group (if applicable):
.....
Highest qualification to date:
.....
Postal Address:
.....
.....
.....
Contact Telephone Number:.....
Email:
Date:
Signature:

Researcher's name.....

Signature.....

Appendix 6 Participants

a) Table A6.1 Student demographic data

Participant identity	Module level at commencement of study (2008/09)	Gender	Year of birth	Previous Qualifications	Previous Healthcare Employment**	Interview	Discussion Group
M1/1	1	F	1989	A levels*	No	Yes	Yes
M1/2	1	M	1989	A levels	No	Yes	Yes
M1/3	1	M	1990	A levels	No	Yes	Yes
M1/4	1	F	1987	A levels	No	Yes	No
M1/5	1	F	1987	BSc	No	Yes	Yes
M1/6	1	F	1990	A levels	No	Yes	Yes
M1/7	1	F	1987	BSc	No	Yes	Yes
M1/8	1	F	1986	A levels	No	Yes	Yes
M1/9	1	M	1990	A levels	No	Yes	Yes
M1/10	1	F	1989	A levels	No	Yes	No
M1/11	1	F	1980	A levels	Yes	Yes	No
M1/12	1	M	1989	A levels	No	Yes	No
M2/1	2	F	1989	A levels	No	Yes	No
M2/2	2	M	1988	A levels	No	Yes	No
M2/3	2	F	1980	MSc	No	Yes	Yes
M2/4	2	M	1985	A levels	No	Yes	No
M2/5	2	M	1987	A levels	Yes	Yes	Yes
M2/6	2	F	1988	A levels	No	Yes	Yes
M2/7	2	F	1989	A levels	No	Yes	Yes
M2/8	2	F	1989	A levels	No	Yes	No
M2/9	2	M	1988	A levels	No	Yes	Yes
M2/10	2	F	1987	A levels	No	Yes	No
M2/11	2	M	1984	BSc	Yes	Yes	Yes
M1/13	1	F	1989	A levels	No	No	Yes
M1/14	1	F	1990	A levels	No	No	Yes
M1/15	1	F	1990	A levels	No	No	Yes
M2/12	2	M	1979	A levels	No	No	Yes
M2/13	2	M	1989	A levels	No	No	Yes
M2/14	2	M	1988	A levels	No	No	Yes
M2/15	2	M	1987	A levels	No	No	Yes
M2/16	2	M	1989	A levels	No	No	Yes
M2/17	2	M	1989	A levels	No	No	Yes
M2/18	2	F	1988	A levels	No	No	Yes
M2/19	2	M	1989	A levels	No	No	Yes
M2/20	2	F	1988	A levels	No	No	Yes
TOTALS	15 Module 1 20 Module 2	19 F 16 M	1979- 1990	31 A levels 4 degree level	3 yes, 32 no	23 yes, 11 no	26 yes, 9 no
MODULE COMPARISONS***	136 Module 1 130 Module 2	152 F 114M	****	225 A levels 41 degree level	****	9% of modules sampled	13% of modules sampled

* or equivalent ** beyond standard work experience whilst in school education *** in 2007/8 5

students failed to progress, of whom one restarted module 1 (therefore counted in both sets of

figures) **** data not available

b) Table A6.2 Placement provider demographic data

Participant identity	Gender	Professional group*	Workplace	Placements provided
PP1	M	Non medical	Voluntary Sector	Module 1
PP2	F	Medical	General Practice	Module 1 / 2
PP3	F	Medical Administration	General Practice	Module 1 / 2
PP4	M	Allied Health Professional / Nursing	Hospital	Module 2
PP5	M	Medical	General Practice	Module 1 / 2
PP6	M	Non medical	Voluntary Sector	Module 1
PP7	M	Non medical	Voluntary Sector	Module 1
PP8	F	Medical	General Practice	Module 1 / 2
PP9	M	Allied Health Professional / Nursing	Hospital	Module 2 Procedural
PP10	M	Medical	Hospital	Module 2 Procedural
PP11	F	Allied Health Professional / Nursing	General Practice	Module 1/ 2
PP12	F	Allied Health Professional / Nursing	General Practice	Module 1/ 2
PP13	F	Non medical	Voluntary Sector	Module 1
PP14	F	Medical	Hospital	M2 Procedural
PP15	F	Allied Health Professional / Nursing	Community Healthcare	Module 1 / 2
PP16	M	Medical	Hospital	Module 1
PP17	M	Medical	Hospital	Module 1
PP18	F	Allied Health Professional / Nursing	Community Healthcare	Module 1 / 2
PP19	F	Medical	Hospital	Module 1
PP20	M	Medical	Hospital	Module 1

c) Table A6.3 Faculty demographic data

Faculty participants				
Participant identity	Gender	Primary role	Academic seniority	Background
F1	F	Administration	N/A	Non-clinical
F2	M	Teaching	Senior	Non-clinical
F3	M	Teaching	Senior	Clinical
F4	M	Teaching	Senior	Clinical
F5	F	Teaching	Senior	Non-clinical
F6	M	Teaching	Senior	Clinical
F7	M	Teaching	Junior	Non-clinical
F8	F	Teaching	Senior	Non-clinical
F9	M	Teaching	Senior	Non-clinical
F10	M	Teaching	Junior	Clinical
F11	F	Teaching	Junior	Non-clinical
F12	F	Administration	N/A	Non-clinical
F13	F	Administration	N/A	Non-clinical

Appendix 7 Schedule of semi-structured interview topics

Interviewer notes

This study is asking ‘how do early experience placements work for students and why?’ The question of ‘how’ seeks to move beyond a description of the practical outworking of going on a placement to an understanding of how students conceptualise early experience placements, and placement usefulness. In asking ‘why’ the study seeks to elicit whether a deeper understanding of student processing of their experiences can shed light on areas shown to be difficult within education; the learning of content knowledge, achieving functional knowledge and transfer of knowledge.

Questions to participants to be grounded in their examples – seeking clarity and understanding of placement learning from the learner perspective. General Prompts: How was X achieved? Why do you think Y?

Key

Red: Students

Green: Placement providers

Blue: Faculty (*teaching faculty only)

Interview schedule

Opening question:

‘The idea is to have a conversation about your experiences of placements and what you think you have or haven’t got out of them...’

‘Can you just start by telling me about your job and background please?’

Can you tell me about your role in relation to the first two years of the Keele curriculum?

Topic 1. Narrative of placements – setting the context, continue to link back during the interview

Can you tell me about your placements?

Can you tell me about your experiences of learning in 'real life'?

Depending on answer followed up with:

- Can you talk me through one in detail?
- Are any particularly memorable?
- What do you think about that now?
- What have you taken away from that experience?

Can you tell me 'the story' of your placement experiences?

- What happens? What do you think about this?
- Can you describe in detail the placement you learned the most from?
- What contribution do placements make to your learning? How? Why? Can you give examples?

What is your experience of student placements?

- Keele module 1 and 2 students
- Historical experience with any students?

Can you compare module 1 and 2 medical students with other students you have had on placement? (Other medical years or other disciplines)

What do you see your role and responsibilities as a placement provider as being?

What would you say works well about module 1 and 2 placements?

Do you have any concerns about medical student placements early in their course?

Have you experienced any difficulties in relation to placements?

How would you describe the curriculum as a whole? What do you mean by that?

What do you think the students need to learn in the first two years?

Are there any significant similarities or differences with how you view the first year students compared to the second year ones?

What are your thoughts on the students going on placement in module 1 and 2?

- What do you know about their placements?
- Why do you think this is part of the curriculum?
- How do you see placements in terms of importance in relation to other things students do in the first two years?

What do you think are the determining factors in whether a placement works well or not?

- Medical school factors?
- Placement factors?
- Student factors?

Topic 2. Placement role in learning

People learn in different ways. What helps you to learn something?

- Tell me about how you are motivated?
- Are you influenced by any factors in particular?
- Given what you have told me how do placements fit into your learning?
- In what way? How? Why?

How do you perceive placements in the context of your overall medical education?

- What do you think is expected by others?
- What is happening from your perspective? ... as a student, how is this happening, why do you think this does(nt) happen?

What would you like the function of placements to be?

- 'If you could design an ideal placement what would be the important factors to include? Why?'
 - How would you describe an ideal placement?
 - Why are these things important?
 - How do these suggestions relate to the placements you have been on?

- Have you experienced any difficulties in your placements?

Do you compare your experiences with those of other students? Why?

What do you think students learn from coming to your placement?

What are your expectations of students in module 1 and module 2 on placement?

Do you have a clear idea of the medical school expectations for them?

What about the students' expectations?

Ideally what would you like the function of placements to be?

- What do you think students should learn?

- Why are these things important?

Who do you think should set the agenda for placements?

Do you think placements from the start of medical school are a good idea or not? Why?

What do you think the aim of placements is?

Have you seen any evidence of this?

Do you think learning in 'real life' is important at this stage or not? Why?

Can you give me any examples of the types of things you think students can or should learn from placements?

Is there anything you think cannot be taught in this way?

Is there anything you would expect the students to find challenging on placements in the first two years?

What do you imagine the placement providers doing with the students on placements?

- What activities do you think the students might be involved with?
- What is your understanding of what they are able to do in the first two years of the course? Why?
- Who do you expect to be supervising them and how would you describe their role?
- Would you expect the student to be observed?

- Would you expect some kind of debriefing at the end of the session?

Who do you think should be setting the agenda for placements?

What do you consider to be the role and responsibilities of the students / placement providers / faculty?

Topic 3. Integration

When the medical school talks about integration what do you understand by that?

Can you give any examples of how learning in one part of the curriculum links to learning in others?

Do you see any links between placements and other parts of the curriculum?

Do you have any ideas about how the students and placement providers might view placements?

Do you think the students link what they learn on placement with the learning they do on site in the medical school? How? Can you give me any examples?

What do you think should be the aim of the sessions the students do with simulated patients? How should this relate to their placements?

How can the medical school know what the students are learning on placement?

How do you think placements should be assessed?

Do you think administrative staff should have any role in assessing placements?

Topic 4. Content knowledge

The General Medical Council talks about students gaining the right knowledge, skills and attitudes in their undergraduate education

Look at these definitions of knowledge, skills and attitudes [www.askoxford.com – shown to interviewees on separate card]:

‘Knowledge: 1 information and skills acquired through experience or education; 2 the sum of what is known; 3 awareness or familiarity gained by experience of a fact or situation.

Attitude: a settled way of thinking or feeling;

Skill: the ability to do something well; expertise or dexterity.'

'Do you think these are true distinctions in what you learn here?

Which, if any, of these areas do you cover on placement?'

Can you describe your placements in terms of these different types of learning?

Have you experienced situations where you felt your knowledge was inadequate - not in the sense of your fault, just unexpected challenges?

- How did you deal with this?

Is there potential for the placements to work differently?

How do you think placements contribute to these GMC expectations?

What is your impression of module 1 and 2 students regarding their medical knowledge?

And regarding their scientific knowledge?

How do you think placements contribute to GMC expectations?*

What is your impression of module 1 and 2 students regarding their medical knowledge?*

And regarding their scientific knowledge?*

Scientific Basis of Medicine

- Are you aware of the scientific basis of medicine theme in the curriculum?
- Can you give any examples where it links with your placement experiences?
- Taking pharmacology as an example can you describe everything in the course which has contributed to your learning of this? Has there been a role of placements in this learning?

Topic 5. Functional knowledge and transferable learning

How does this link with what you learn overall in medical school?

Can you give any examples of general learning points (principles) you gained from your placements?

- How will you use these in the future?
- Students asked to summarise here
- How easy is it to transfer what you learn in the medical school to real life situations?

In the first year that module 1 was run the following comments (presented in sequence to interviewees) were made regarding placements; do you identify with these and can you describe your own experience of these points? 'What do you think? Would you agree or disagree?'

- Issues around guidance on the depth of learning for students
- Tutors felt the students knowledge was strongly bound into each week as a structure with little evidence of transfer of learning from week to week
- Lectures and time in the dissection room were considered the most relevant learning resources - more relevant than placements

Previous research has also found that real patient learning remained strongly bound by specialist interest of the area in which it was learnt (Dornan 2003)

- Do you find this a problem?
- If so have you any ideas for reducing it?

Do you think learning in 'real life' is important at this stage or not? Why?

What do you expect a module 1 student to know or be able to do?

What do you expect a module 2 student to know or be able to do?

Have you been particularly impressed or disappointed with any students?

- in general
- regarding their knowledge
- regarding their attitudes

Topic 6. Case Study 'This is not a test...' [– actual case presented to interviewees on separate card]

Can you talk me through your thoughts about this case?

Start as if it was a PBL case

'Imagine you are visiting Mrs Smith at home with one of the District Nurses:

Mrs Smith is an 80 year old lady who lives alone. She has diabetes and glaucoma and was recently discharged from hospital following a heart attack. The district nurse visits her regularly to monitor her conditions and is seeing her for the first time today since her discharge. As Mrs Smith starts to tell you both about her time in hospital and just how many tablets she has been given to take the nurse's phone rings. Whilst she is on the phone Mrs Smith shows you her medications which include Metformin, Atenolol, Atorvastatin, Aspirin and Furosemide. She tells you she is sure the tablets are making her feel unwell. '

'Now can you answer the questions as if you were there on placement?'

Describe what you would do until the nurse finishes her phone call?

Can you think of any placement experiences you have had which might help you in this situation?

How could anything you have learnt in the course so far help you?

Can you tell me how you think a first / second year student might respond to this case:

- a) in PBL*
- b) in this situation on placement*

Appendix 8 Discussion group schedule

Focus Group Placement experience in modules 1 and 2
How do you view your early placement experiences now? Where you prepared for your initial placements? How important were they in terms of your learning? Are there any examples of how your early placements linked to learning in other areas?
Student role 'The first year officially can't do anything – even under supervision – a first year should be an observer' (F8) 'I wouldn't say we <i>teach</i> them – they observe... We just run the full clinical and they sit and listen' (PP11 and 12) 'You... get ignored really and ... sometimes you feel, a bit of a spare part because, you don't really fit in...' (M1I7)
Gaining knowledge 'all the medicine that gets taught is an aside... because that's not really what they're there to learn' (PP17) 'the practice nurse wanted us to take people's blood pressure but... it's too difficult to kind of learn that way' (M2I3) 'you don't know if they know the anatomy... it's that balance between knowledge and confidence to say you either know it or not... that's down to the individual' (PP(9))
Debriefing 'some of the consultants... they don't necessarily have the time to carry out the debriefing... so, it's expected that that's going to happen here' (F5) 'when you come to ... history taking... I think that needs to be observed far, far, more often than it is' (F3) 'they're not necessarily going to learn very much... If they're not getting immediate feedback... From the provider' (F9)
Importance in the curriculum 'things you pick up on placements... at the minute... you do think well "am I actually gonna need that for my exam?" Just because of how much stuff you do physically need to know – you don't want to be storing... things that are not 100% necessary to you' (M1I10)
Student feedback 'we're aware there is a student narrative of... bad practices and good practices – which we <i>don't</i> see. And we don't get candid feedback... about practices... if our concerns are... or seen to be contradicted by the feedback we get, we're left in a situation where there's not a great deal we can do' (F3)
Expectations 'Placement providers often have their own preconceived notions... and don't see the bigger picture of the curriculum' (F2) 'They clearly said to us – about placements – your aim is your communications skills, you might not experience anything that's related to the course' (M1I1)
Challenges 'when they have to speak to a real person for the first time... that's partly their own identity... they've not developed that suite of professional skills to be able to cope' (F2) 'if they're a bit too shy... I think that sometimes prevents them actually getting more out of the placement' (F1)
Interactions with placement providers 'I think sometimes it is good to be on your own... even just to have an idea of what it is to like be on your own with the professional rather than always having a bit of backup' (M1I6) 'would one get more benefit – I know we'd have to have them more often but two, sometimes... they ring up for each other and whatever but sometimes they tend to go in a little ... huddle' (PP9)
Are patient stories important? 'What captivates students... when they come out early on are patients' stories and I'm not sure they always take the learning they could from them' (F3) 'I think it's totally valueless... they're too early to come on the ward, there's little to gain, I think it's important to... understand basic sciences... before coming into contact with the patient' (PP20)
Previous interview participants Did taking part in this research affect how you thought about your placements at all?

(N.B. 'Focus Group' used as familiar shorthand in the medical school)

Appendix 9 Logistics

Table A9.1 Specific logistical issues raised by participants

ISSUE	INTERVIEW REFERENCES
Resources needed: time to set up, number of placements, space in curriculum	F12A, F5T, F6T, F7T, F8T, F9T, F10T, F12T, M1I2, PP17
Issues about co-ordination of placements within and across curriculum themes, units and years	F10T
Effort versus return	F10T, F3T
Student organisation to get to placements	F10T, F11T, F4T, M1I12
Quality control versus lack of numbers	F10T, F11T
Cost of travel and availability of public transport	F11T, F12A, F1A, M1I3, M1I5, M1I8, M2I3, M2I5
Effective information and communication – amount, timing, reminders	F12A, F3T, M2I11, M2I7, PP4, PP8, PP19
Identifying the actual placement provider / secretaries in workplaces	F12A, F1A, F5T
Legal requirements (e.g. CRB, Indemnity, vaccinations)	F12A
Dealing with last minute changes by providers	F12A
Competing with other vocational schools or later years of medicine for placements and challenges of two curricular requirements	F12A, M1I5, M2I5, PP4, PP16, F5T, F8T, F9T
Matching student timetables to placement working hours; balancing education priorities with service delivery priorities of workplaces	F1A, F9T, M2I6, PP15, PP17, PP1, PP4, PP5
Dealing with student disappointment	F1A, M2I3
Placement providers not expecting students	F2T, M1I12, M1I9, M2I11, M2I1, M2I3, M2I8, M2I9, PP11/12
Matching to curriculum, including skills	F5T, F9T, M1I1, M1I5, F6T, PP10, PP14, PP4
Placement providers not preparing for students / not available on the day	M1I12, M1I8, M2I5, M2I7, M2I8, PP19, PP16
Lack of opportunity to fulfil objectives	M1I12, M1I3, M2I3
Placement providers expecting students to be able to fully self-direct	M1I3, M1I8
Patients not being asked or refusing to see students, or not available at drop-in clinics	M1I3, M1I9, M2I4, M2I6, M2I7, M2I8, PP1, PP3, PP5
Orientation in large workplaces	M1I9, M2I3, PP13, PP17
Lack of flexibility to rearrange	M2I5, M2I7

Appendix 10 Glossary

Academic: related to education and scholarship, particularly within an institution in which this is the primary goal.

Adult Learning Theories: educational pedagogy or theory related to how adults gain knowledge or learn new information.

Agency: 'Agency refers to the capacity for freedom of action in the light of, or despite, social structures' (Schryer, Lingard et al. 2003).

Agent: an individual capable of making choices and acting within their context / social setting.

Analysis: scholarly application of theory and interpretation to data, detailed examination of data to identify constituent parts or aspects.

Andragogy: a theory of specifically adult learning, particularly used to refer to Kolb's work (Kolb 1984).

Apprenticeship: 'a model of community activity that mediates socio-cultural patterns to children or adult novices. Guided participation covers the interpersonal aspect of joint activity.

Appropriation related to changes occurring in the individuals because of their involvement in mediated activities' (Kozulin, Chaiklin et al. 2003, p. 20).

Authentic: 'the real thing', genuine, as in practice with respect to medicine.

Basic science: scientific disciplines related to medicine including, for example, medical humanities, sociology, psychology, anatomy, physiology, biochemistry, pathology.

Behavioural: focused on observable behaviour as a meaning of interpreting the intention of the agents involved.

Black box: term used to describe a complex entity which contains a detailed process which is not immediately obvious; metaphor drawn from the 'black box recorders' of aircraft which record events and are relatively indestructible, allowing for reconstruction after disasters.

Capital: something of value which can be used to bring about advantage to the possessor: often subdivided into social capital (social connections), symbolic capital (reputation), economic capital (ownership of valuable material goods), cultural capital (education and other non material assets).

Case challenge: presenting interview participants (students and faculty) with a fictional standardised case and asking for them to respond with their expectations of students if presented with this case on placement versus within a medical school teaching session.

Clinical: related to the observation and treatment of patients.

Clinical clerkships: blocks of time in which students are based within a clinical workplace; usually refers to later years of medical studies. Clerkship stems from the activity of students 'clerking' patients – that is undertaking or replicating initial consultations.

Code(s): individual elements identified within interview transcripts and other data.

Cognitive: focused on the processes of the mind as a means of interpreting the intention of the agents involved.

Collective social: used to describe views widely held within UK society by others than healthcare professionals.

Communities of practice: 'participation in an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities' (Lave, Wenger 1991, p. 98), used also to mean the collective workforce with a common purpose.

Competency: the ability to carry out a task successfully.

Complexity: a situation consisting of many different and interconnecting parts, not easy to simplify or understand.

Content knowledge: knowledge related to medicine which is contained within either basic or clinical sciences, and as such is generally accepted content within the discipline.

Concept: 'Concepts are the building blocks of human thought; they reduce the complexity of the environment and enable us to respond to it efficiently. The learning of concepts consists essentially

of a process of abstraction, because a concept refers to the essential common features of a class of objects. At first sight it may be a class of rather arbitrary objects (e. g. castles may look quite different). However, when carefully compared, they have features in common. Because of these common features of objects, a concept is helpful in identifying regularities in the environment. In order to expand this notion of a concept into the direction of the teaching and learning of concepts and to improve the quality of instruction for concept learning, we distinguish five elements of any concept:

1. A name is given to a category or class of experiences, objects, events, or processes...
2. Examples (positive or negative) refer to the instances in which the concept may or may not be used....
3. Attributes are the common and essential features leading us to the decision to subsume examples within the same category...
4. The value range of attributes: the examples of a concept are not standardized...
5. A rule specifies the essential attributes and the connection between them...' (Kozulin, Chaiklin et al. 2003, pp. 255-6).

Consequences: a result of effect, note the term explicitly does not imply lack of value (consequences can be both positive and negative).

Construction of meaning: see meaning-making.

Constructivist: a view of the world which considers understanding, knowledge and meaning to be co-created between agents and structures.

Context(ual): within a specific setting.

Curriculum: the overarching design of medical studies at a given institution.

Discourse analysis: analysis of structure and content of language (of any form) at a variety of levels.

Dyad: two variables which are paired; in this thesis the variables form the opposite, extreme ends of spectra.

Dynamic interaction: describes interactions between agents where each is reacting to a variety of influences as well as each other.

Early experience: 'Authentic human contact in a social or clinical context that enhances learning of health, illness or disease, and the role of the health professional' (Dornan, Littlewood, et al. 2006).
Student contact outside the medical school with patients or other members of the public or healthcare professionals during module (year) 1 and 2 at Keele.

Education: the theory and practice of teaching and learning.

Empirical: (data) based on observation, experience, primary research such as interviews.

Environment: the whole setting in which the placement takes place, including both physical and cultural / social aspects.

Epistemology: the theory of knowledge, or of how people come to acquire knowledge about the world.

Experimental: inclusion of an intervention which the results of are sought.

Experiential Learning: learning through experience.

Faculty: persons with a substantive role and contract of employment with the medical school, including both administrative and academic teaching staff.

Field: an area, setting, institution or otherwise collective structure which has its own logic, rules and principles, also used to define the area under study.

Functional knowledge: knowledge which the possessor can put to practical use.

Habitus: the disposition of individual agents, related to the field and their own actions.

Hidden curriculum: a set of values, attitudes, or principles conveyed implicitly through institutional practices, or the attitudes and behaviours of teachers.

Hierarchy: a ranking system ordered according to status or authority, arrangement of relative importance or inclusiveness.

Informal curriculum: interpersonal transmission and receipt of the curriculum between individual teachers and learners.

In-house: learning provided within the confines of the medical school building.

Institution: an organisation or body providing structure to activities.

Integrated curriculum: medicine as taught by body system or in relation to patient cases rather than by primary discipline such as biochemistry, anatomy etc.

Integration: a successful combining of different knowledge content and types to understand a complex situation or intervention.

Intended learning outcomes: preset aims and objectives of a curriculum.

Interaction: action between individuals; the capability of mutual action that is emergent. For human beings, interaction is symbolic, involving the use of language – hence the term symbolic interaction (Denzin 2001, p. 32).

Interpretative: to discern the meaning, explain the meaning, understand a meaning as having a particular significance.

Interpretive interactionism: ‘The point of view that confers meaning on problematic symbolic interaction’ (Denzin 2001, p. 32).

Interpretative Phenomenological Analysis: research method for eliciting meaning for participants from data (Smith, Osborn 2008).

Learning: the development of awareness or acquisition of knowledge (of any sort, through any means).

Learning activity (Vygotsky): ‘The notion learning activity in its broad meaning comprises the educational practices that treat the student as not only a performer of a teacher’s instructions but, more important, as the agent of cognitive actions that are distributed between the teacher and the student. With the emphasis on activity of the learner, the term learning activity refers to a diverse set of educational practices that are consistent with constructivist theories’ (Kozulin, Chaiklin et al. 2003, p. 177). ‘*Activity* is understood as the fundamental interaction between humans and the world – humans behave actively toward the world (fragments of it), change it (them), and change themselves in this process. Humans as active subjects make fragments of the world objects of their

activity and the same time are affected by the world (fragments of it). The cultural – historical process of societal development is the main basis of individual psychological development, which depends mainly on the concrete conditions, opportunities, and qualities of activity. *Learning activity* is a special kind of human activity developed in the course of societal development as an important aspect of human culture that has to be appropriated by individuals in order to be used, then, for concrete learning goals that depend on learning motives, objects, and conditions. Learning processes and outcomes are essentially determined by prior knowledge and interest, on the one hand, and by already acquired learning means (actions, strategies, but also material means, such as models, schemata, books, computers, as essential artefacts of cultural-historical development) available to be applied to new learning tasks, on the other hand. The crucial point here is that learning activity cannot be reduced to the acquisition (or “construction”) of domain-specific knowledge. It is a process of acquiring the domain-specific activity itself in all its complexity as a product of cultural – historical development – according to the level of the learner’ psychological prerequisites (the zones of actual performance as well as of proximal development) (Vygotsky 1986). A major task for the teacher, therefore, consists of creating conditions under which the learning activity makes sense for the students and may be formed according to the learning object (e.g., science) of organizing the students’ learning activity as interaction and cooperation, of giving the necessary learning means or leading the process of finding and further developing them. This is much more than the position of an observer, mentor, coach, attendant, or the like – the teacher has to guide learners in such a way that they experience learning as a meaningful, necessary activity that makes them increasingly competent and independent’ (Kozulin, Chaiklin et al. 2003, pp. 269-70).

Legitimate peripheral participation: ‘engagement in social practice that entails learning as an integral constituent’ (Lave, Wenger 1991, p. 35).

Knowledge: what a person ‘knows’ or can be ‘known’, usually refers to information or awareness gained through interaction.

Meaning: interpretations and use of learning and knowledge.

Meaning- making: the creation of meaning by an agent.

Medical School: both the physical entity and the institutional identity of Keele Medical School as an educational institution.

Metaphor: understanding one conceptual domain in terms of another.

Mētis: practical knowledge people use when interacting in circumstances defined by an institutional agency (Scott 1998).

Module: term used at Keele to denote each year of the undergraduate curriculum; each module is made up of several study units, which in turn are made up of a series of problem based learning case-based weeks.

Narrative: the construction of a story about experience or events.

Novel learning: a new type of knowledge or new content.

Observership: time spent observing in a situation which might be changed into an apprenticeship through permitting participation.

Outcome: the 'end result', a looked for consequence.

Parallel curriculum: a part of the curriculum which is perceived as running alongside the main focus of learning.

Participants: those taking part within a study.

Patients: although not accurate, this term was used by interviewees to refer to medical patients, service clients and users, and the general public who were meeting students on placements in a variety of health, social and voluntary (third sector) settings.

Pedagogy: theory of teaching.

Performance: emphasis on acting rather than content learning.

Personal and professional development: a term which has become commonplace despite the difficulty of providing a definition, this usually refers to developing a role, career management, and / or appropriate behaviour according to profession.

Personal lay: used to describe individual students personal views prior to entrance to medical school.

Phenomenological: focus on experience or phenomena description and / or interpretation.

Placements: locations for timetabled time in the medical school curriculum which take place outside of the school as a physical entity in health, social, voluntary sector workplaces.

Placement providers: persons directly responsible for accepting students into their workplaces and supervising their activities there.

Power: the ability to exercise choice, agency and intention over others.

Practice: the practising of a profession, in practice – in the professional setting.

Pragmatism: combining theory with practical approach.

Preceptor: another term for placement provider, used widely in literature from the United States and internationally. Not common in practice in the United Kingdom.

Problematiser: to consider variables and factors at play.

Process: a series of actions leading to a consequence, not necessarily achieving a particular end but producing change or alteration.

Psychological: relating to the mind.

Purposive sampling: sampling to get participants who are likely to have useful information for the research question.

Qualitative: research methodology concerned with understanding phenomena, quality of experiences and meaning which can be derived from these, often aims at asking 'how' and 'why' questions.

Realism: '...steers a path between empiricist and constructivist accounts of scientific explanation. It perceives social change to be neither linear nor haphazard but transformational' (Pawson, Bellamy 2006).

Reality: the perceived or actual state of existence, the quality of having meaning within a context.

Real patients: patients within genuine medical settings.

Reflexive: problematising one's own role and interactions.

Reinforcement: to emphasise meaning or support already acquired theoretical knowledge.

Scaffolding: the provision of support through interaction to learners.

Scientific concepts (Vygotsky): also described as academic or theoretical concepts, 'scholarly conceptualisation that corresponds to systematic reasoning characteristic of sciences and humanities. Within this realm there is no opposition between cognitive mechanisms and content knowledge for the simple reason that concept appears here in a conceptual form that denies not on the content but also the type of reasoning involved... scientific concepts represent the generalization of the experience of humankind that is fixed in science. These concepts are acquired by students consciously and according to a certain system. Once scientific concepts have been acquired and internalized, they mediate children's thinking and problem solving... As a result, students' thinking becomes much more independent of the personal experience. They become "theorists" rather than "practitioners" and develop the ability to operate at the level of formal-logical thought' (Kozulin, Chaiklin et al. 2003, p. 32-3, 148).

Significant events: identified episodes which impacted on the student participants.

Simulated experience: role play or other simulations within the medical school with peers, tutors, actors or patients recruited specifically for simulations.

Situated learning: learning as an integral part of social practice, situated within a specific context (Lave, Wenger 1991, p. 35).

Small discussion groups: the four groups of students which were convened to discuss emergent findings from the interview part of the study and elaborate interpretations of early experiences. These were structured through a mixture of open questions and 'provocative quotations' selected from the interviews.

Socio-cultural: the interaction of agents within a social setting and organisational culture, theories related to the dynamics thereof.

Sociological: concerned with the functioning of society.

Spectra (pl. of spectrum): describes a 'sliding scale' of dyads of variables.

Spontaneous concepts (Vygotsky): also described as 'every day, empirical, or practical, empirically rich but unsystematic and often contradictory spontaneous concepts, pure procedural knowledge (which) tends to remain meaningless and non-transferable... Spontaneous concepts are the result of generalization and internalization of everyday personal experience. Therefore, they are unsystematic, empirical, not conscious, and often wrong' (Kozulin, Chaiklin et al. 2003, pp. 68, 148)

Standardised: another term used for simulated, particularly in North American or assessment focused literature.

Structure: 'structure refers to the social forces and constraints that affect so much of our lives' (Schryer, Lingard et al. 2003).

Students: those enrolled to undertake a degree in medicine.

Students' world: the totality of the students' interactions with agents and structures which constitute their medical education.

Systematic: organised reviewing of the literature following methods of searching for all available evidence on a topic.

Thematic Analysis: content analysis to identify themes in data.

Theoretical framework: epistemology, ontology, and explanatory theories which allow the interpretation of human interactions.

Theoretical sampling: sampling to gain comparative data for further development of ideas.

Transferability: the applicability of knowledge, learning or meaning in more than one setting.

Unit of analysis: level at which data analysis is focused, often either micro/macro, agent/structure.

Virtual patients: computer based patient case interactions using a variety of technologies.

Vocational: aimed towards a specific vocation / professional role.

Workplace-based learning: learning which is situated within a working environment rather than the medical school.

Zone of Proximal Development: the potential metaphorical space of increased learning which a student might achieve given appropriate support.

Note: Although not direct quotations (unless stated), this glossary was constructed with the aid of reading from referenced texts and both the Oxford English Dictionary (Oxford Dictionary Online 2009), and the Penguin Reference Dictionary of Sociology (Abercrombie, Hill et al. 2006).

Appendix 11 List of publications, prizes, presentations and grants related to doctoral work

Publications

Yardley, S., Dornan, T. **Kirkpatrick's levels and education 'evidence' in review**

Yardley, S., Littlewood, S., Margolis, S.A., Scherpbier, A., Spencer, J., Ypinazar, V., Dornan, T.

What has changed in the evidence for early experience? Update of a BEME systematic review

Medical Teacher 2010; 32: 740-746

Yardley, S., Brosnan, C., J., Hays, R., B. **The purpose, meaning, and added value of placement**

learning: a qualitative study *Medical Education* 2009; 43: 601-7 (Abstract)

Yardley, S. **The consequences of participant conceptualisations of early experience: a qualitative**

exploration of faculty, student and placement provider interactions *Medical Education* 2010; 44

s3: 71(Abtract)

Yardley, S. **Dead Real: the expectations, meanings and outcomes of 'early experience'**

post mortem placements *Medical Education* 2010; 44s3:124 (Abstract)

Yardley, S. **Expectations, challenges, and potential of learning from early clinical experience:**

a multi-perspective qualitative study *Medical Education* 2010; 44s3: 125 (Abstract)

Prizes

Association for the Study of Medical Education, New Researcher Award 2010

Leeds Institute of Medical Education, Presentation 1st Prize 2010

Keele Graduate Symposium Presentation Prize 2009

Presentations (regional and national)

Yardley, S. **From theory to data analysis: using mixed qualitative methods to explore a complex**

educational intervention ASME Research Conference, London, Nov 2010

Yardley, S. Understanding authentic early experiences in undergraduate medical education

Academic Unit of Primary Care and Leeds Institute of Health Sciences, Nov 2010

Yardley, S. Contrasting simulated and authentic early experience: a qualitative exploration of how medical undergraduates learn through difference AMEE Glasgow, July 2010

Yardley, S. Expectations, challenges and potential learning from early clinical experience

ASME Cambridge, July 2010

Yardley, S. Dead Real: the expectations, meanings and outcomes of 'early experience'

post mortem placements ASME Cambridge, July 2010

Yardley, S. Conceptualisations of early experience, dynamic interactions and consequences

ASME Cambridge, Plenary Presentation, July 2010

Yardley, S. Use of student discussion groups to interpret meaning-making from early clinical experience Leeds Institute of Medical Education, June 2010

Yardley, S. Early Experience Placements Presentation at CHRISM Medical Education Group,

UHSM, Manchester, April 2010

Yardley, S., Littlewood, S., Margolis, S.A., Scherpbier, A., Spencer, J., Ypinazar, V., Dornan, T.

What has changed in the evidence for early experience? Update of a BEME systematic review

Presentation at AMEE Malaga September 2009

Yardley, S., Brosnan, C., J., Hays, R., B. The purpose, meaning, and added value of placement

learning: a qualitative study Presentation at ASME Edinburgh July 2009

Grants

Keele University Medical School, Doctoral funding (registration fees and stipend) 2008 - 2011

Research Institute of Primary Care and Health Sciences, Keele University 2008-2011

Association of Medical Educators Small Research Grant 2009

North Staffordshire Medical Institute Travel Grant 2011