'Fit for Registration'

Mentor judgements and decision making regarding student competence in practice.

A mixed methods study.

Sarah Elizabeth Burden

A thesis submitted to the University of Huddersfield in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

November 2014

Copyright Statement

<u>Abstract</u>

Current pre-registration nursing programmes in the United Kingdom (UK) require students to spend 50% of their programme time in practice, with this practice learning and assessment supported through the process of mentoring. Concerns have been expressed both locally and reflected in the wider literature regarding mentoring, with a specific concern that mentors fail, or may be reticent, to judge student performance as unsatisfactory. However to date few empirical studies have examined how mentors reach an assessment decision. Thus this study set out to examine the concerns expressed using judgement and decision making theoretical frameworks, and investigate how mentors form judgements and reach a decision regarding an assessment of student competence in practice.

An embedded mixed methods design was employed for the study. In the first phase student practice assessment documents (PADs) relating to a whole cohort of students (n =41) completing a three year undergraduate pre-registration nursing programme were collected following the final exam board. Documentary analysis of the mentor decisions (n =330) was undertaken to examine mentors' use and conduct of assessment interview processes, with data contributing to a sampling frame used to identify final placement mentors (sign-off mentors) to invite for interview. In phase two, mentor comments in student PADs were thematically analysed using Braun & Clarke's (2006) six phase process. Stimulated recall interviews were conducted with the selected sign-off mentors (n = 17) and data analysed thematically.

Assessment strategies and documentation were shown to have limited effect on mentor judgements and decisions. Instead mentors formed impressions regarding a student and their practice, which led the management of the assessment process, and formed the basis of formative judgements and the summative decision. Key to any judgement was an evaluation of the student's ability to function as a reliable member of the team. Mentor judgements were informed by mentor expectations of a student appropriate to the practice area and stage of the student's programme. Judgements were accumulated over the placement and combined to inform the final decision taken, in a manner that can best be understood and conceptualised with reference to Brunswik's lens model of social judgement (1952).

Recommendations are made for supporting and developing mentor decision making within current assessment systems, and for further work on assessment tools and strategies. Finally recommendations are proposed for research to test the criteria and decision making model developed as well as further understand mentor decision making in the difficult areas identified.

Acknowledgements

In addition to the key authors and inspirational nurses who have influenced my education and practice over the years, I would like to acknowledge the following people for their support and encouragement in the completion of this study:

Contents   Page

Chapter 1.   Introduction: a need to examine mentor decision making.

Chapter 2.   The Literature Review: Current understandings of mentor assessments and decision making in nursing.

Chapter 5. Phase 2 – The Qualitative data sets: Developing an understanding of mentor decision making from student assessment documentation

Chapter 6. Phase 2- The Qualitative data sets: Sign-off mentors talk about their decision making

Chapter 7. Integration: A model of mentor decision making regarding student competence.

Chapter 8. Conclusion: New understandings of mentor decision making and their implications

Tables

<u>Figures</u>

Appendices

Chapter 1. Introduction: a need to examine mentor decision making

1.1   **Introduction**

This thesis and the study that it details, focuses on student practice assessment in nursing pre-registration programmes. The thesis examines how mentors make professional judgements about the clinical competence of their pre-registration nursing students and reach a decision on whether the student has passed or failed the placement.

The study was initiated in response to concerns about the reliability of the decisions taken by mentors regarding student competence. In my role as a nursing lecturer responsible for all aspects of practice learning from allocation to assessment in an undergraduate nursing programme, I had come across numerous comments from students regarding variations in mentor support and assessment. I too had noticed significant differences in mentors' comments and conduct within the student assessment process. As a result I had begun to question whether mentors were making judgements and decisions about student competence that stakeholders i.e. students, lecturers, mentors, patients & relatives, employers & the Nursing and Midwifery Council (NMC), could have confidence in. This is the context that underpins the motivation and need for the study and which will now be outlined in this first chapter.

1.2   **The origins of the study**

Current pre-registration nursing programmes in the United Kingdom (UK) require students to spend 50% of their programme time in practice to support development of professional knowledge, skills and attitudes and to be *'assessed and signed off as capable of safe and effective practice at the end of the programme'* (NMC 2008a, p33). This student practice learning and assessment is provided through the process of mentoring, where student workplace experience is supported, critiqued and assessed

by a registered nurse, the student's mentor (Shakespeare & Webb 2008).[1] However there exists a long history of contentious debate questioning the outcomes of this process with regards to the competence of newly-qualified nurses at the point of registration (Carlisle et al 1999, UKCC 1999, Duffy 2006, NMC 2004, 2010, Holland et al 2010), with low expectations of newly qualified nurses a key concern for employers (Clark & Holmes 2007, Robinson et al 2012). Locally this is the subject of frequent debate in the partnerships that exist between Higher Education Institutions (HEIs) and health care providers, reinforced by national scrutiny of the nursing profession and the quality of pre-registration nursing education programmes (Mid Staffs 2010, Willis 2012).

As a nurse educator I have a professional interest in the assessment of student nurses in practice; I need to be reassured that a student is capable of safe and effective practice at the point of registration and thus eligible to complete the pre-registration nursing programme. I review mentor decisions regarding student achievement for determining progression and completion at examination boards. I contribute to mentor training and updating and quality assure practice assessments in line with professional standards (NMC 2008a, 2010). In this work I encounter a range of mentor practices. There is significant variability in the evidence documented in a student's practice assessment document (PAD) and at times, inconsistencies are noted between the summary evidence of performance and the overall decision reached; a finding also noted by others (Dolan 2003, Duffy 2006, Fitzgerald et al 2010). In addition, advice requested by mentors, can leave me sometimes questioning a mentors' understanding of the assessment process and the nature of the decision they are required to make. Studies by Dolan (2003), Duffy (2006), McCarthy & Murphy (2008) and Butler et al (2011) also note that mentors may not fully comprehend the assessment process, the assessment strategies to be used and the role they play in the assessment of competence. Furthermore students often comment on mentors' variability in assessment. Some mentors clearly review practice evidence and records with students face to face. Other mentors review students' evidence and document the overall

---

[1] There are a number of terms used internationally, such as 'mentor' 'supervisor' and 'preceptor' when defining the role of a qualified nurse supervising a student in practice. In the UK this role is assigned the term 'mentor' (NMC 2008a) and for consistency will be used throughout this study.

decision without the student being present and provide minimal, if any supporting comments; thus not making explicit the basis for the Pass / Fail decision reached and documented. Again, such practices have been commented upon elsewhere (Dolan 2003, Duffy 2006, McCarthy & Murphy 2008, Fitzgerald et al 2010). Thus what I observe and experience in my professional role is more than a local issue.

The overall mentorship literature demonstrates that not only are a range of approaches used to reach a decision on student competence, but also that the 'best decision' perhaps, is not always taken (Duffy 2006, McCarthy & Murphy 2008, Fitzgerald et al 2010, Black 2011). Indeed mentors themselves report that they may pass a student in placement without the student having gained sufficient competence (Watson & Harris 1999, Duffy 2006, Gainsbury 2010, Jervis & Tilki 2011,Mead et al 2011, Brown et al 2012). This is a concern, not least for mentors who often express disquiet about how a student has progressed through a programme when faced with supporting a 'failing student' (Lankshear 1990, Duffy 2006, Rutkowski 2007, Black 2011). Varying practices are also a concern for students, who may not be informed in a timely manner that they are not performing to the required standard, or who are at best provided with minimal feedback on their progress (Neary 1996, Fitzgerald et al 2010, Stevens 2013). Varying practices are also a concern for service users and carers, placement providers, universities, future employers and the professional body (NMC), who need to be reassured that students are adequately supported and supervised whilst providing care during an educational programme, and that at the end of the programme those entering the professional register are capable of safe and effective practice (NMC 2010, Willis 2012). Finally varying practices are a concern given the significant resources that are required to support practice learning and achievement in undergraduate nursing programmes within the UK. It may be that these resources are not delivering the goal of accountable and defensible decision making about student competence in practice (NMC 2008a & 2010, Robinson et al 2012).

To date there has been an emphasis in the empirical literature on examining the phenomenon of mentors failing to fail student nurses in the practice environment (Duffy 2006, Luhanga et al 2008, Black 2011, Jervis & Tilki 2011). Few studies have

focused on assessment across the full range of ability and achievement, and no studies have specifically examined the decision making processes and models used by practitioners to assess their student (Duffy 2006, Black 2011). However if it is accepted that a judgement is 'an assessment or belief about a given situation based on the information available' which leads to a commitment to a course of action (Newell et al 2007), then the process of a mentor working with a student and forming an opinion of them over time before making an overall decision to pass or fail the student, could be usefully examined with reference to judgement and decision making theories. Undertaking an investigation into the decision making patterns used by mentors to make their assessment decisions in practice, particularly in relation to the subjective dimension of assessment, has been recommended elsewhere (Duffy 2006, Black 2011). Mindful of this, I set out to examine the concerns expressed regarding mentor assessment of student competence within judgement and decision making theoretical frameworks.

The ensuing study was conducted during 2009-2013 with data collection occurring in 2012-2013. The student programme for which mentors were contributing practice decisions was an undergraduate nursing degree programme and subject to the Standards of proficiency for pre-registration nursing education (NMC 2004); the mentor role governed by Standards to support learning and assessment in practice (SLAiP) (NMC 2008a). At this time students were required to spend 50% of the programme in practice in a supernumerary capacity, supported by their named mentor for 40% of the practice time. The named mentor was wholly accountable for the practice decisions made regarding their student's competence. Practice decisions were of a pass/fail nature, routinely taken without reference to, or input from, a university lecturer. To understand this context, there now follows an overview of the conduct of practice assessment in UK based pre-registration nursing curricula, followed by a discussion of competence based assessment to support practice development for registration.

1.3 The conduct of practice assessment in UK based pre-registration nursing curricula

Practice assessment in pre-registration nursing programmes contributes to the maintenance of standards of the profession through the regulation of the education, training and conduct of registrants, thus answering to the demands for public accountability (NMC 2004, Rutkowski 2007, Stuart 2007). This is regulated by standards set by the NMC which provide guidance for practice learning within programmes (NMC 2004, 2010) as well as guidance for staff involved in student practice assessment (NMC 2008a). A number of significant changes have occurred regarding the place of practice and practice assessment in pre-registration nursing education either to address reported concerns expressed regarding skills of newly qualified nurses (Carlisle et al 1999, Kenny 2004, Glen 2009, Holland et al 2010, Taylor et al 2010, Barker et al 2011), or driven by both national and international policies directed at achieving a global standard for nurse education, delivered within universities, ideally at degree level (Kenny 2004, Watson 2006, WHO 2009, Gillett 2010, Taylor et al 2010). Though there have been nursing undergraduate programmes offered within the UK since the 1960s, until the introduction of the most recent education standards (NMC 2010), entry to the professional register was set below degree level, with undergraduate programmes accounting for a minority of the pre-registration educational provision offered. Constant across all changes and all programmes considered however is the pivotal place that practice experience holds in the education of pre-registration nurses, with its opportunities for situated learning and competence assessment, considered the key to delivering a competent workforce (Cope et al 2000, Field 2004, Murray & Williamson 2009, O'Driscoll et al 2010, Robinson et al 2012). An outline of the changes and their impact on the conduct of student practice assessment is now provided.

1.3.1 Standards of education for pre-registration nursing programmes

Changes have resulted in a move from the student as an apprentice, an integrated member of the nursing team, spending 80% of the programme in practice delivering

up to 75% of direct patient care (Cope et al 2000, Watson 2006, Glen 2009, O'Driscoll et al 2010), to a supernumerary learner who, within Fitness for Practice (FFP) curricula introduced in 2001, spent 50% of the programme in practice engaged in the learning opportunities arising from direct patient care. The FFP curriculum was the first to be applied to all nursing programmes within the UK irrespective of target academic award and thus formed the structure for diploma and degree level programmes from 2001. These changes have been as a response to criticisms of the apprentice model and the ensuing academic model of nurse education, Project 2000 (Glen 2009, Gillett 2010, Taylor et al 2010). The apprentice model of nurse training, though praised for the degree of engagement with care which enabled students to practice skills, observe role models and become confident (Cope et al 2000, Glen 2009), is predicated on the fact that there is adequate supervision and time for reflection and that staff are competent and motivated to teach and supervise students. Combined with a general view expressed by staff that learning and patient care are two different entities with teaching and learning activities taking place after the 'work' had been completed, inadequacies with the apprenticeship model were raised and changes sought (Cahill 1996, Field 2004, Watson 2006, Glen 2009, Gillett 2010, O'Driscoll et al 2010).

Reforms of nurse education resulting in Project 2000 tried to address this tension between student nurses' educational needs and staffing requirements of wards and departments by uncoupling the delivery of nurse education from within the NHS, removing nursing students from the NHS workforce and altering the balance between practice and theory components (Kenny 2004, Gillett 2010). This time concerns raised focussed on the lack of confidence in clinical skills of students along with general concerns expressed in the level of competence and skills of newly qualified nurses (UKCC 1999, O'Connor et al 2001, Last & Fulbrook 2003). In response, the introduction of FFP curricula altered the balance of components to 50% practice/50% theory across all three years of the programme; a balance that remains in current curricula (Cope et al 2000, NMC 2010). Evaluation of the FFP curriculum in Scotland suggests that FFP curricula can deliver newly qualified nurses who are considered competent to practice at the point of registration, though lack of confidence in some skills areas remains (Holland et al 2010). Across these changes, commentators identify continuing ambiguity and inconsistency in the implementation of this supernumerary

status for students and that the notion of the apprenticeship model of training survives (Elcock et al 2007, Pollard et al 2007, O'Driscoll et al 2010, Allan et al 2011). This may impact upon student learning and how students are perceived and possibly assessed as a member of the team (Midgley 2006, Elcock et al 2007, Pollard et al 2007, Allan et al 2011).

Changes have resulted in the location and management of nursing programmes, away from the National Health Service (NHS) and delivered and managed on NHS sites in Schools of Nursing, to the responsibility of Higher Education Institutions (HEIs), delivered and managed on a university campus in partnership with placement providers (Kenny 2004, Glen 2009, Gillett 2010, O'Driscoll et al 2010, Taylor et al 2010). In parallel, there have been changes to the staff involved and accountable for student practice assessment, moving from the nursing programme team to nurse practitioners, the student's mentor (NMC 2008a). The demise of the Clinical Teacher role in the late 1980s and the removal of nursing lecturers from NHS to HEI settings (mid to late 1990s), has led to limited visibility of teaching staff in clinical areas, with some lecturers expressing a declining confidence in their clinical abilities. In addition there now appears to be a possible ambiguity and misunderstanding of the lecturer role and involvement in student assessment (Elcock et al 2007, Pollard et al 2007, Gillett 2010, O'Driscoll 2010). Relocation has resulted in nursing lecturers being required to respond to pressures to engage with an academic culture which values research and scholarly activity at the expense of clinical practice, as well as a need to contain the costs associated with the practice elements of a lecturer role (Field 2004, Watson 2006, NMC 2008a, Glen 2009, Gillett 2010). Instead practice learning and assessment is provided through the process of mentoring, a process by which a student nurse, during placements, is attached to a registered nurse (mentor) who guides the student's practice, assesses their progress and makes a decision regarding their competence (Gopee 2008, Shakespeare & Webb 2008, Robinson et al 2012). This separation of education and practice limits lecturer involvement and support for mentors and their role in student assessment. This may contribute to gaps in a mentor's knowledge and understanding of student programmes and associated assessment strategies, which combined may affect the quality of mentor judgements regarding student competence (Midgley 2006, O'Driscoll et al 2010). In addition a real

or perceived lack of support from the student's university may leave mentors concerned about possible appeals by the student against an unfavourable assessment decision, a concern which may underpin a mentor passing a failing student (Scholes & Albarren 2005, Duffy 2006, Black 2011, Jervis & Tilki 2011, Brown et al 2012).

1.3.2 Standards to support learning and assessment in practice

New standards to clarify and support the mentor role in practice learning and assessment in nursing were introduced by the NMC in 2008 (NMC 2008a). These were influenced by an NMC study commissioned to examine the factors influencing decisions associated with the assessment of students' competence in practice (Duffy 2003) and a consultation indicating the need for such guidance (NMC 2005). These Standards to support learning and assessment in practice (SLAiP) specify a range of roles and their associated criteria, required for the practice component of both pre-registration and post-registration nursing programmes. Though some have criticized the standards for their limited evidence base (Black 2011), the standards do offer clear definitions and responsibilities of two roles (Mentor and Sign-off Mentor) considered pivotal to support practice learning and assessment in pre-registration nursing programmes (NMC 2008a). In the standards a mentor is taken to be:

> "A NMC registrant who, following successful completion of an NMC approved mentor preparation programme, or comparable preparation that has been accredited by an approved education institute as meeting the NMC mentor requirements, has achieved the knowledge, skills and competence required to meet the defined outcomes." (NMC 2008a, p19)

The purpose of the Sign-off mentor (SOM) role is as follows:

> "Sign-Off mentors who sign off students as being proficient in practice are confirming to the programme provider that the student has met the defined NMC Standards of Proficiency and is capable of safe and effective practice."
> (NMC 2008a, p13)

Finally the status of the decisions taken by both mentors and SOMs is described in the SLAiP standards as follows:

> *"Mentors who sign off all, or part of the practice component of a programme leading to registration are accountable to the NMC for their decisions"* (NMC 2008a, p13)

The mentor role in assessment and evaluation of student competence in practice is pivotal in UK nurse education and arguably the source of potential role confusion and conflict; mentors are required to guide, support and nurture, whilst also evaluating and failing, where necessary (Wilkes 2006, Bray & Nettleton 2007, Rutkowski 2007, Saarikoski et al 2007). A broader review of the mentor role across the European Union (EU) demonstrates some shared understanding with a mentor considered as *a named personal supervisor who is working in clinical practice."* (Saarikoski et al 2007, p408), and similar key tasks to encourage students to learn from and in practice, assist students to acquire specific clinical skills and to facilitate professional socialization, identified (Saarikoski et al 2007, Ousey 2009). However not all countries incorporate assessment and evaluation of students in clinical practice in the mentor role (Fulton et al 2007). It has been suggested that an inability to resolve this conflict out of concern for the consequences for the individual student as well as a personal concern as to how this might reflect on them as mentors and practitioners, may in part contribute to 'failure to fail' decisions (Lankshear 1990, Duffy 2006, Wilkes 2006, Bray & Nettleton 2007, Black 2011, Jervis & Tilki 2011, Brown et al 2012).

Workforce changes have had an impact upon which staff take on these mentor roles, with previous studies identifying the part played by the ward manager with respect to student learning in practice (Andrews et al 2006, Midgley 2006, Pollard et al 2007, Murray & Williamson 2009). However, moves to a more managerial and administrative role have limited a ward manager's presence on the ward, with the responsibility for supporting and assessing individual students increasingly delegated to all registered nurses in the practice setting (Pollard et al 2007, O'Driscoll et al 2010). Supporting learning and more importantly assessing competence is a complex and difficult task (Moseley & Davies 2008, Taylor et al 2010), yet to be a mentor, a nurse need only be registered for at least 1 year, undertake an NMC recognised mentorship programme,

to then be held accountable for this activity (NMC 2008a). This is in marked contrast to the requirements for undertaking a nurse lecturer role, predominantly focussed on supporting and assessing the theoretical component of the course, where individuals will normally have had extensive practice experience, be educated to at least Master's level and hold a post-graduate teaching qualification (NMC 2008a, Holland 2010). These differences may be exacerbated by the fact that where an individual positively selects to engage in a lecturer role, this may not be the case where there is an expectation that all registered nurses will be mentors in order to meet student demand for mentorship (Lauder et al 2008, Robinson et al 2012). Junior staff who may be lacking confidence and experience in managing the emotional and ethical aspects of student assessment, let alone assessment of a failing student, may limit effective assessment and a failure to commit any concerns about a student to paper (Redfern et al 2002, Bray & Nettleton 2007, Clynes & Raftery 2008, Gopee 2008, Moseley & Davies 2008, Jervis & Tilki 2011, Plakht et al 2013, Wells & McLoughlin 2014).

The adequacy of the mentor resource to support student practice learning also affects the conduct and quality of practice assessment (Robinson et al 2012, NNRU 2014). The introduction of the SLAiP standards to support practice learning and assessment (NMC 2008a) limits the number of mentors available until training has been undertaken. Working within the structure of an academic year, dictates when students can enter a programme and practice experiences scheduled, affecting the number of students requiring mentorship at any one time. This creates peaks and troughs in student allocation, putting pressure on the numbers of staff required to support student learning and assessment (Hutchings et al 2005, Andrews et al 2006, Murray & Wilkinson 2009, Robinson et al 2012). Fluctuations in the number of student places commissioned, changes to the number of practice areas and staff shortages also contribute, with the combined effect being to limit the sufficiency and experience of the mentor resource available (Elcock et al 2007, Murray & Williamson 2009, Robinson et al 2012). To plug the gap there is increasing evidence of the role played by unregistered healthcare assistants in the practice learning of student nurses which may have an adverse impact on student achievement as well as the gathering of sufficient evidence by the mentor to support assessment decisions (Pellatt 2006, Myall et al 2008, Robinson et al 2012, Hasson et al 2013). Shift – working patterns of both

mentors and students, combined with length of the student placement may also limit the adequacy and effectiveness of the mentor's role in assessment (Watson 2000, Lloyd Jones et al 2001, Duffy 2003, Hutchings et al 2005, Robinson et al 2012).It has also been recognised that it can take 2-3 weeks to identify the failing student; short placements may not provide adequate time for a mentor to provide sufficient evidence to support judgements on a student's competence (Scanlan et al 2001, Duffy 2006, Stevens 2013). Finally lack of time, contact and overall workload has been identified by mentors as significant barriers which prevent them carrying out their role, including student assessment, effectively (Elcock et al 2007, Pollard et al 2007, Moseley & Davies 2008, Myall et al 2008, Murray & Williamson 2009, O'Driscoll et al 2010).

In summary, a review of the conduct of practice assessment in UK based pre-registration nursing programmes identifies not only the part that practice learning continues to play in the development of professional competence, but also the challenges that exist in supporting and delivering this (Cope et al 2000, Field 2004, Andrews et al 2006, Elcock et al 2007, Pollard et al 2007, O'Driscoll et al 2010, Taylor et al 2010, Allan et al 2011). Overall workforce changes have resulted in a wider range of generally more junior staff being responsible for practice assessment at a time when there has been a reduction in lecturer clinical involvement and an increasing integration of nursing programmes within the broader arena of university undergraduate education leading to a graduate level award (Pollard et al 2007, O'Driscoll et al 2010, Taylor et al 2010). Ongoing concerns raised by a range of stakeholders, contributes to the need to investigate mentor decisions regarding student competence in practice further within a pre-registration nursing programme.

1.4 Competence-based assessment in pre-registration nursing programmes

Through the introduction of the FFP curriculum and beyond, there has been a shift in the educational focus of nursing programmes with increasing emphasis placed on achievement within competency frameworks both at pre-registration as well as a continuing education level (Watson et al 2002, Kenny 2004, NMC 2010, Gallagher et al

2012). The popularity and influence of competence assessment in nursing has extended beyond the UK (Cowin et al 2008, Gallagher et al 2012, Windsor et al 2012, Pijl-Zieber et al 2014). Competence assessments are an important professional issue as they can be viewed as variations of credentialing which support self-regulatory processes to structure the demonstration and maintenance of nursing competence in practice as well as supporting patient care outcomes (Cowan et al 2005, Cowin et al 2008). Associated with these processes and these mentor decisions comes an expectation from the general public that a 'qualified professional will be competent in the discharge of normal professional tasks and duties' (Eraut 1994, p159).

1.4.1 Competence, competency and performance: concept clarification

Application of the term 'competence' is considered by many in nursing to be problematic, with little consensus on a definition demonstrated (While 1994, Bradshaw 2000, Redfern et al 2002, Watson et al 2002, Cowan et al 2005, Cassidy 2009a, Levett-Jones et al 2011, Lejonqvist et al 2012). Wider examination of the literature reveals that the terms 'competence', 'competency' and 'performance' are used inconsistently and interchangeably (While 1994, Bradshaw 2000, Redfern et al 2002, Watson et al 2002, Cowan et al 2005). Eraut (1994) identifies that competency achievements are generally intended to give information of what individuals can do in a specific area, but may not imply competence beyond the area described. Equally competence may be considered an objective concept that can be measured and validated through examinations and a range of assessment tools (Redfern et al 2002, Cowin et al 2008, Gallagher et al 2012). However other authors suggest that competence may not be 'clear, obvious, indisputable and visible in the clinical context' (Lejonqvist et al 2012, p340), and thus may not be as amenable to measurement as earlier suggested. These varying perspectives regarding the nature and scope of an individual's competence add a dimension of difficulty to the decisions that mentors are required to make.

Competence has been described as "*an articulation of what it takes to function as a competent nurse………including the knowledge, skills, behaviours, attitudes and values consistent with competent nursing care.*" (Paliadelis & Cruickshank 2003, p2). More

recent attempts to reach consensus on the concept of competence has resulted in the following definition of competence by the NMC:

> "*The term* **competence** *refers to the overarching set of knowledge, skills and attitudes required to practice safely and effectively without direct supervision. It has been defined as 'the combination of skills, knowledge and attitudes, values and technical abilities that underpin safe and effective nursing practice and interventions' (adapted from Queensland Nursing Council 2009). The NMC specifies competence as a requirement for entry to the NMC register. Both generic competence and field-specific competence are required to practice in a specific field.*" (NMC 2010, Section 4)

Definitions of competence from wider afield also emphasise similar aspects of a nurse's ability to apply knowledge, skills attitudes and values to safe and effective patient care (Yanhua & Watson 2011, Pijl-Zieber et al 2014). Competence is the ability to act in the real world whatever the conditions, through the successful integration of theory and practice (Milligan 1998,Redfern et al 2002), a quality or state of being (Pijl-Zieber et al 2014) which supports independent, safe and effective practice (NMC 2008a, Cassidy 2009a).

Competency on the other hand is considered as a person-related characteristic indicative of effective performance (Cowan et al 2005). Competency may be considered as the actual performance and behaviour underpinning the performance of an aspect of a job (Cowan et al 2005). It describes a nurse's skills and abilities to practice safely and effectively without the need for direct supervision (NMC 2010). Competency may also refer to a particular type of education standard that describes an aspect of practice to be achieved during a programme by a student in order to be eligible for the award (Milligan 1998, NMC 2010). Signing off competencies by a practitioner has become a widely accepted part of any practice assessment in a nursing programme, though debate exists as to the benefits and appropriateness of reducing clinical practice to a checklist of competency standards (Gallagher et al 2012).

A further confusion exists with regard to whether assessment in practice is focused on competence or performance (Milligan 1998, Watson et al 2002, Cowan et al 2005). In a discussion of what nurses considered when making an assessment of practice While (1994) identifies the need to examine this relationship between 'competence' and 'performance' and suggests that competence is what a person knows and can do in ideal circumstances, with performance being the actual behaviour and actions done in the real-life context (While 1994). Such a distinction is supported within vocational qualification frameworks which emphasise the need to collect 'knowledge evidence' where performance evidence alone may be insufficient to demonstrate understanding (Milligan 1998). Work in Australia makes a similar distinction stating that *"Performance is what is directly observable, whereas competence is not directly observable, rather it is inferred from performance."* (Gonzi et al 1993, p6).

In the light of this it appears that developing an understanding of what it is that mentors assess, whether competence, a competency or a performance is an important part of understanding the overall decision making process of mentors regarding their students. If the focus of mentor decisions is on performance this may limit consideration of knowledge-based evidence which may have implications for student learning and development across the programme and for the subsequent demonstration of competence at the point of registration.

1.4.2 Competency based education and assessment

For the programme involved in the study mentors were required to sign off a range of competency standards, labelled as proficiencies (NMC 2004), with a view to assessing competence across the programme and confirming proficiency at the point of registration (2008a). The process of 'signing off' competence standards as a result of breaking down discrete skills into subunits as required by the NMC, is accepted widely in competence assessment (Eraut 1994, Gallagher et al 2012). However discussion exists in health professional education and training regarding the contribution of such competency-based programmes to 'fitness for practice' as well as their role within higher education (Eraut 1994, Watson et al 2002, Kenny 2004, Cowan et al 2005, Taylor et al 2010, Roberts 2011, Gallagher et al 2012). Situated within a behaviourist

tradition, they have evolved in partial response to employability as well as patient safety concerns, with the purpose of producing individuals who have developed the key competencies required to perform the duties and tasks of a role and thus be competent in a particular job and suitable for entry to the professional register (Eraut 1994, Redfern et al 2002, Cowin et al 2008, Windsor et al 2012, Pijl-Zieber et al 2014).

Supported by programme assessment tools, the mentor makes an assessment on a student's level of competence, indicating at the very least that a particular threshold of performance has been achieved (Chambers 1998, Norman et al 2002, Watson et al 2002, Fotheringham 2010). Over time in the UK such assessment has moved from four ward-based assessments in the areas of aseptic technique, administration of medicines, total patient care and ward management, which was conducted by approved and appointed professional body assessors, to a partial process of continuous assessment including the four ward-based assessments and then a full continuous assessment process (Watkins 2000, Norman et al 2002, Redfern et al 2002). Irrespective of the scheme, emphasis has continued to be placed on the demonstration of competence at a point in time, rather than on the practice and repetition of a competence to develop a performance skill. This is in contrast to practice assessment in Midwifery for example, where development of performance skill through repetition underpins requirements for students to undertake at least 100 prenatal and postnatal examinations as well as conduct 40 deliveries (NMC 2009).

There are differing views expressed regarding the merits of increasing use of continuous assessment processes. Whether it formally takes into account repetition or not, continuous assessment has widely been considered fairer as it has the advantage of incorporating the professional judgement of clinically based staff over a period of time into the assessment of competence of a nursing student (Norman et al 2002, Redfern et al 2002). However, others argue that the relationships that may develop between student and mentor over time, may increase the subjective dimension of the assessment process (Watson et al 2002, Cassidy 2009b). This may have an impact upon the reliability of the assessment decision taken and may potentially contribute to 'Failure to fail' decisions and the personal difficulties expressed by mentors when faced

with a failing student (Duffy 2006, Black 2011). Such issues have been identified in other professional groups such as Social Workers, where the intensity of emotion experienced with regards to the process of managing a potentially failing student on placement, may obscure the overall assessment process and decision (Finch 2009).

A further issue to consider in an examination of mentor decisions regarding student competence in practice, is how the focus on the need to achieve, demonstrate and assess technical competency through behaviourally based learning outcomes may detract from an overall assessment of the ability of the student to deliver a holistic package of care to an individual (Brown 2000, Kenny 2004, Cowan et al 2005, Roberts 2011, Lejonqvist et al 2012). Such an approach may be considered more as training rather than education and may not fully assess competence (Milligan 1998, Norman et al 2002, Watson et al 2002, Kenny 2004, NMC 2004, 2008a, 2010). Emphasis placed on key technical skills values the development of a trained, competent workforce, over the development of an educated professional who may deliver excellent and accountable care (Eraut 1994, Kenny 2004, Roberts 2011). This emphasis on workforce requirements is explicit in the new arrangements for commissioning education and training (DH 2012, DH 2013) which states that the purpose of education funding is to *'Ensure the health workforce has the right skills, behaviours and training, available in the right numbers, to support the delivery of excellent healthcare and health improvement'* (DH 2013, p4). To summarise, this focus on competence based assessment can be seen as an approach to evidence the delivery of an educated, flexible workforce, capable of leading and delivering skilled patient care in a range of settings (DH 2006, WHO 2009).

This focus creates tensions in nurse education where the nurturing of critical thinking and research capabilities valued by higher education may be superseded by the importance placed on the development and assessment of psychomotor and technical competence in practice (Redfern et al 2002, Cowan et al 2005, Watson 2006, Taylor et al 2010, Levett-Jones et al 2011). The result is that students are left to learn and be assessed in a 'disintegrated learning context' where opposing values of learning exist; staff expectations that students will work are at odds with academic and professional

body expectations that students will observe and participate in a supernumerary way (NMC 2010, Allan et al 2011). At the same time students are also expected to engage fully in the process of professional socialisation, following professional body guidance for students, which may conflict with more standard aspects of a non -professional university student experience (NMC 2011). The consequence of this tension may be that what students consider important in practice and indeed what mentors develop, support and assess is influenced more by this imperative to deliver a trained workforce rather than to produce an educated professional (Kenny 2004, Allan et al 2011, Gallagher et al 2012).

Finally a fundamental problem expressed regarding mentor assessment of student competence in practice is the lack of established reliability and validity for the wide range of assessment tools and processes in use (Norman et al 2002, Watson et al 2002, Taylor et al 2010, Levett-Jones et al 2011). A particular concern is that the assessment tools mentors are required to engage with may lack sufficient sensitivity to discriminate between competent and incompetent students (Norman et al 2002). Recent reviews and testing of competence assessment tools have indicated movement towards increasing reliability and validity but there is still work to be done (Cowin et al 2008, Levett-Jones et al 2011, Yanhua & Watson 2011). This lack of sensitivity may be made worse by assessment strategies based on direct observation of a student's practice over a period of time, possibly affected by the subjective value judgements and behaviour of the mentor (Redfern et al 2002, Wilkes 2006, Cassidy 2009b, Black 2011). Factors such as liking a student or reluctance by assessors to judge a student negatively may contribute to unreliable mentor assessments (Norman et al 2002, Watson et al 2002, Duffy 2006, Cassidy 2009b, Black 2011).

Reliability in assessment may be further confounded by the level of competence being assessed; this may be with respect to the level of competence accepted (eg 90% competent/10% incompetent), how competence is measured (eg pass/fail, competent/not competent), what is being measured (eg an individual competence or the interaction between competencies), or at what level of practice (eg year of programme or overall target academic award) the competence is determined (Gerrish

et al 1997, Girot 2000, Norman et al 2002, Watson et al 2002). Previous studies have also established that both mentors and faculty staff have difficulty outlining and distinguishing competences for different levels of practice (Ashworth et al 1999, Girot 2000). Currently an understanding of the meaning of incompetence and what this may look like in practice only exists with respect to registered practitioners (NMC 2004). Finally establishing reliability in student practice is generally difficult as, within UK pre-registration nursing programmes, these are not normally subject to external scrutiny and moderation, such as a review by a programme tutor or external examiner (Jinks & Morrison 1997, Redfern et al 2002, Robinson et al 2012). This may result in limited confidence in the tools and processes used, may contribute to the difference rates of achievement noted between theoretical and practical assessments and the overall trust that is placed in the outcome of a competence assessment (Norman et al 2002, Duffy 2006, Cassidy 2009a, Hunt et al 2012).

1.5 Aims and Organisation of the thesis

This outline of the context for the study illustrates a number of threats to the assessment of student competence in practice. This supports the need to develop a better understanding of student practice assessment if confidence in mentor decisions is to be achieved. There exist ongoing challenges to the supernumerary status of students with tensions evident in the values base and purpose of educational programmes and practice settings. Tension also exists between educational needs and staffing needs (Kenny 2004, Gillett 2010, Allan et al 2011) which not only impact upon the resources available to support student practice learning and assessment but also potentially affect what is expected of students by their mentors in practice (Pollard et al 2007, O'Driscoll et al 2010, Taylor et al 2010). These conflicting demands between education and practice are further heightened currently when not only is the responsibility for assessment of student competence in practice falling completely on the shoulders of the mentor (NMC 2008a) but also their contribution to wider nursing practice is under intense scrutiny following the report and recommendations of the Francis Inquiry (Mid Staffs 2013). Mentors are thus left trying to achieve a balance between their student assessment and service delivery responsibilities. Finally differing

perspectives regarding competence and its assessment, combined with concerns regarding reliability of assessment tools and processes may also limit reliability with respect to competence assessments.

The study seeks to explore individual mentor practices and uncover the decision making strategies used. With respect to a consideration of mentor judgements on student competence, no studies to date have specifically examined the decision making processes and models used by practitioners to assess their student (Duffy 2006, Black 2011). That there is a cognitive and intellectual component to mentorship which can be a source of difficulty for mentors has been previously demonstrated (Moseley & Davies 2008). Thus examining mentor assessments of students within decision-making frameworks may help to reveal the cognitive processes used to form a judgement about a student and make an overall decision. If mentors have a better understanding of their decision-making processes, it may be possible to identify when a good decision has been made or where there is room for improvement. In addition more transparent decision making will support quality management and accountability requirements for any decisions taken (Buckingham & Adams 2000a). Understanding how mentors make professional judgements of student competence, particularly when those judgements may also form a mark that contributes to a classified degree award as well, may provide new insights into student assessment tool design and the guidance and support required by mentors to underpin accountable and defensible decision making. Equally insights may have implications for mentor training and partnership working between placement providers and universities to support student assessment (Brown 2000, Neary 2001, Hyatt et al 2008, McCarthy & Murphy 2008, Fitzgerald et al 2010).

In summary the aim of this study is to investigate documented decisions and the practices of mentors forming judgements and reaching decisions concerning students' competence in practice. The thesis will address this aim through the following chapters:

Chapter Two will provide a summary of the literature review strategy together with a review of the current state of knowledge regarding mentor decisions on student competence in practice. Wider consideration of decision making in nursing generally along with judgement and decision making theory will also be presented.

Chapter Three considers the methodological underpinnings to the study which, though primarily situated within a constructionist paradigm (Sarantakos 2005), takes a pragmatic approach to an investigation of a real world problem through the adoption of an embedded mixed methods design (Creswell & Plano Clark 2011). An overview of the study design and methods is provided, together with a detailed outline of the data analysis illustrating how the qualitative and quantitative data collected complement and clarify the analytical understandings obtained.

Chapter Four presents the quantitative data from the first phase of the study. This data provides details of the student cohort and the mentors involved in the study together with the quantitative data arising from the survey of student practice assessment documentation. An initial overview of the student cohort who were the subject of the mentor decisions under consideration is presented to set the context for understanding the full range of student achievement and thus the types of students in the cohort that mentors have made decisions on. The data from the survey of mentor processes against practice assessment standards is then outlined and key findings presented.

Chapter Five presents qualitative data from the second phase of the study, arising initially from a thematic content analysis of the mentor comments contained within the student practice assessment documents interviews. Codes are identified and the development of themes and categories arising from the codes is outlined and the outcomes of this process presented. As part of this examination of what criteria anchor a mentor judgement of a student's practice, the codes and themes identified are also examined quantitatively with respect to frequency and patterns of occurrence against individual students and stage of the programme.

Chapter Six presents the results of the qualitative analysis of the interviews conducted with a sample of sign-off mentors (SOMs) involved in making the final practice assessment decision for students within the cohort. Consideration is given to what mentors notice and evaluate as part of forming a judgement and reaching a decision, as well as the decision making processes involved.

Chapter Seven presents the results of integration of the three data sets involved in the study. Comparative review of the results of the documentary analysis and interview analysis, along with integration of findings from the documentary survey, underpin the development of a model of mentor decision making which is illustrated and discussed with reference to theory and existing assessment literature.

Chapter Eight presents the conclusions of the thesis. Here the research aim and questions are revisited and the original contribution to knowledge outlined. The strengths and limitations of the study are discussed and supported by a personal reflection of my experiences and learning. Implications of the findings for theory, current educational policy and practice as well as recommendations for further work and research are discussed.

Chapter 2. The Literature Review: Current understandings of mentor assessments and decision making in nursing.

2.1 Introduction

This chapter provides a review of the current state of knowledge concerning mentor decisions about student competence in practice. A summary of the literature review strategy is first outlined, and then the literature retrieved is presented and discussed. Due to the limitations in the mentor literature regarding mentor decision making, wider consideration of decision making in nursing generally along with judgement and decision making theory will also be presented. An evaluation of the quality of the literature reviewed, together with a summary of current understandings is also included.

In developing the study I was aware of the need to examine any preconceptions that I may have regarding the practice assessment of students, as this is an area of practice that I have been involved in as a practitioner and also as an educator. This may be both potentially helpful or may limit my ability to develop a robust study capable of examining mentor practices and contributing to a new understanding of student competence assessment. A literature review was therefore undertaken prior to designing the study to challenge and clarify preconceptions and to seek novel ways to examine mentor assessments of students building upon what had gone before. Demonstrating willingness to understand prejudicial perceptions of a subject, combined with a need to be open-minded and engage with a range of theoretical and philosophical traditions is an important part of the research process (Hart 1998). The review was designed to examine literature of relevance to the aim of the study namely, to explore how mentors form judgements and reach a decision regarding an assessment of student competence in practice.

2.1.1 Literature Search strategy

A systematic search was conducted for literature pertinent to the concept 'Mentor decision making of student competence in practice'. The current mentorship system within UK nursing was introduced in 1986 (UKCC 1986) and therefore the majority of relevant literature with respect of mentor assessment of students dates from the 1990s. Due to the specific nature of nursing mentorship in the UK limits to the search included an initial focus solely on UK and Republic of Ireland (ROI) mentorship literature, the latter having adopted a similar system. A wider consideration was given to mentorship and student assessment literature from outside the UK at a later stage in the study to support a developing understanding and discussion of UK mentorship practice.

Databases searched included Medline, Cinahl, Psyinfo and Psyc Articles accessed via Academic Search complete. Relevant theses were accessed via ETHOS (Electronic Theses Online System). Initial search terms of 'nursing mentors' and 'student assessment' yielded a large quantity of material for wider reading but little specific material capturing the focus of the study. Search terms were thus refined in an attempt to access relevant literature. Table 1 identifies the key search terms used, number of articles identified through database searching and then the number of articles considered eligible for use in the study, after consideration against the following inclusion / exclusion criteria:

Inclusion criteria

- The main focus of the research is clinical assessment of pre-registration nursing students by their mentors.
- The study samples used included mentors of pre-registration nursing students.
- Research is related to the assessment strategies and processes used by mentors in practice settings.
- Research is concerned with the assessment practices of nursing mentors.

Exclusion criteria

- Research does not consider the practice assessment of student nurses.
- Retrieved article does not report research, but provides a commentary or opinion regarding mentorship practice.
- Research is related to practice learning, the mentor role, or the mentor-student relationship.
- Sample does not include mentors of pre-registration nursing students.
- Research does not consider overall programme competence assessment.

The first literature search was conducted in 2008. This was regularly updated throughout the study to ensure that current thinking and relevant literature was captured.

Key search terms	Number of records identified	Records included after screening
Mentor assessment of competence **and** student nurses	47 records	9 records
Assessment **and** student nurses	161 records	9 records
Nursing mentors **and** student competence	5 records	1 record
Nursing mentors **and** decision making	9 records	0 records
Mentor decisions **and** student nurses	3 records	2 records
Mentor judgements **and** student nurses	1 record	1 record
Failing students **and** nursing	161 records	7 records

Table 1: Literature search for mentor decision making regarding student competence

Once records had been screened against inclusion / exclusion criteria and duplications removed, this left 16 studies focusing on mentor decision making regarding student nurse competence which were considered to be of relevance to the focus of the study. In addition 3 theses, accessed via ETHOS were considered relevant (Neary 1996, Duffy 2006, Black 2011).

Due to the limited empirical literature retrieved with a focus on mentor decision making and no studies identified which explored this phenomenon with reference to judgement and decision making theory, further literature searches were then conducted to access wider nursing decision making literature. The initial search term of 'decision making **and** nursing **and** research' was too broad to retrieve literature focusing upon decision making processes. Refining the search term 'decision making models **and** nursing **and** research' was found to be a better fit with the aims of the study to consider how mentors make decisions and provide explanations of the processes involved with reference to relevant theory. This search combination pulled up 374 records, which were screened against the following criteria:

Inclusion criteria

- Record identifies nursing decision making processes, either as a result of empirical research or application of decision making theory.
- Record describes and explains decision making processes within nursing.
- Record is set within the context of judgement and decision making theory.

Exclusion criteria

- Record focuses upon experiences and views of decision making.
- Record does not focus on the decision making of nurses.

Application of these criteria facilitated selection of literature capable of providing an understanding of current explanations of nursing decision making, potentially of use for the design and development of the study. After applying these criteria to screen the records retrieved, and after removal of duplicates, 22 theory papers and 30 empirical studies were selected for consideration in this literature review.

The relevance and quality of the research papers included were evaluated using guidelines for critiquing research designs to be found in Polit & Hungler (1995,p580-587) together with appraisal tools from the Critical Appraisal Skills programme (CASP 2013). Given the two stage literature search process described above, the following literature review is presented as two discrete areas: research investigating mentor assessment of student competence, and research investigating decision making in nursing. A discussion of the quality of the empirical research presented is provided at the end of each section.

2.2 Mentor decisions regarding student competence in practice

A range of studies have examined mentor assessment of student competence in practice. Due to the specific nature of nursing mentorship in the UK and the differences that exist between this system and nurse education and mentoring systems adopted in other countries, studies pertaining to the UK and Republic of Ireland where similar structures and processes are in place, provide the main focus. Consideration of the empirical literature is structured around three emerging areas from the studies reviewed:

1. Determining student competence
2. The role of assessment documentation and assessment strategies in the decision making process
3. The failing student

2.2.1 Determining student competence

The first area of relevance to an understanding of mentor decision making concerns what mentors consider important about a student in determining the competence of a student and how this is noticed. Studies by Girot (1993), Brown (2000), Paliadelis & Cruickshank (2003), Shakespeare & Webb (2008) and Jinks et al (2014), contribute to this understanding.

In an early study (Girot 1993), experienced ward sisters were interviewed to determine which attributes characterised the competence and non-competence of students and how these attributes were recognised and measured in practice. Four clusters of attributes were identified; trust, caring, communication skills and knowledge and adaptability. The notion of 'Trust' with respect to the competence of a student meant that the sisters could trust the student to recognise and work within their limitations to ensure patient safety. Lack of trust in a student was identified as an attribute of non-competence, evidenced by students appearing over confident in their practice and lacking insight into their limitations. A student demonstrated competence in caring by using a holistic approach to patient care, whilst non-competent caring might be observed through the lack of patience that a student might demonstrate towards some patients. Communication was considered important by the ward sisters but was difficult to assess. Attributes of competent communication focused on behaviours such as expansive body language, enthusiasm for work and communicating a professional appearance whilst non-competent communication on the part of a student might be observed in the student reducing their verbal contact with patients, especially when under pressure. Finally students who used their knowledge to seek out and use available information and appropriate resources were considered competent whilst non- competent students demonstrated an inability to work out why things were being done as well as an inability to prioritise care. This was especially the case in year 3 of the programme.

In this study ward sisters' explanations identifying the way they reached a professional judgement on a student referred to the notion of 'intuition' and 'gut feeling' about a student which was related in part to their expectations of different stages of a student's programme (Girot 1993). In a further study examining assessment of undergraduate clinical competence in Australia, participants also acknowledged the role of intuition, instinct, gut feeling and 'just knowing' as characteristics of how they made an assessment of the clinical competence of student nurses (Paliadelis & Cruickshank 2003). Study participants identified that they just 'knew' what was required to function as a competent registered nurse, '*I mean you get a feeling about somebody'*, though none attempted to clarify or define this (Paliadelis & Cruickshank 2003, p6). In both these studies determining competence was explained in terms of

the assessor 'knowing' and 'recognising by instinct' what they were seeing, arising from years of experience as registered nurses and assessors of student nurses.

A study by Brown (2000) examined what mentors considered important in assessing student competence by reviewing mentor feedback comments in End of Placement reports for 150 student mental health nurses. Emerging themes from the statements were categorized using a multi-stage approach to content analysis, and frequencies calculated. Four related themes accounting for 71.5% of mentor comments emerged from the data: focus on learning, being themselves, working as a team player, and interpersonal effectiveness. 'Focus on Learning' accounted for 290 coded responses (35.3%) in 135 (90%) mentors' reports and considered areas where students demonstrated application of knowledge and skills to practice. This was particularly evident in Year 3 assessment reports where mentors commented upon a student's engagement with learning, motivation, enthusiasm, use of initiative, skills development and planning care ability. 'Being themselves' accounted for 115 coded responses (77%) with feedback directed towards the personal qualities of the student. Comments in this theme included: 'approachable', 'mature', 'caring and thoughtful person', 'pleasant', 'conscientious' and 'polite'. Reports on the personal attributes of students were made by 82% of all mentors; this in a formal reporting system of student nurse performance, leading Brown to comment;

> *"It is not whether a student meets the pre-determined learning outcomes that is of sole importance when making judgements in relation to student's abilities in clinical practice, or what hinders performance or learning. Having the desired 'human qualities' not only seems to offer a much more positive perspective on the student as a learner, but also on the quality and outcome of their performance as a nurse."* (Brown 2000, p413).

'Working as a team player' accounted for 114 coded responses (76%), illustrating how mentors reviewed a student's ability in this area as a balance between the need for guidance, support and use of initiative on the part of the student. Students were viewed negatively if they constantly sought help from registered nurses or used their initiative inappropriately. Finally 48% of mentors commented in the theme

'Interpersonal effectiveness' with 104 of responses (9%) concerned with a student's ability to form and maintain effective relationships with staff and service users.

Similar themes surrounding judgements focused on the attributes of a student and a student's 'fit' with images of professional identity on the part of the mentor can be found in another study (Shakespeare & Webb 2008, Webb & Shakespeare 2008). Adopting a critical incident approach as described by Benner (1984), interviews with a convenience sample of 9 students and 15 mentors were conducted. Mentors and students were asked to talk about an example of a 'mentoring incident' that was significant for them and was key to the mentoring relationship. Interviews were then thematically analysed within a conversation analytic tradition (Shakespeare & Webb 2008). The incidents outlined suggested that mentors had a strong mental picture of a 'good student' which they applied to their observations. Judgements were grounded in everyday behaviours such as enthusiasm, indifference and confidence in the context of patient care and in the student's communicative competence in initiating and maintaining a relationship with their mentor (Shakespeare & Webb 2008). For example, one mentor said that she assessed a student by;

> *"… her presentation of herself. Some of the examples would be that every time you turned around she was sitting down. No matter what was going on, she would be slouching on the furniture instead of being alert and taking notice of what was going on around here."* (Webb & Shakespeare 2008, p569).

A recent context analysis of student training records from the 1950/1960s (Jinks et al 2014), provides a longer term perspective regarding what is considered in any evaluation of a student and their practice. Analysis of 641 student nurse training records identified both desirable and undesirable characteristics which were then grouped into seven themes: clinical skills, personality, appearance, academic capability, behaviour and attitude, health and stamina, and ethnicity. Again a clear picture of a student is identifiable, with a good student described as:

"An excellent nurse, hard-working, reliable and conscientious, kind and attentive to patients, popular with other staff, confident and used their own initiative. They would have a pleasant personality, be clean, neat and tidy, wear their uniform well, be bright and intelligent, polite and well-mannered, punctual and be amenable to discipline." (Jinks et al 2014, p530).

This study, in line with the other studies considered, again suggests that the personal attributes that a student presents are compared against a mentor's personal construct of a 'good student', contributing to the judgement reached about the competence of a student nurse (Girot 1993, Brown 2000, Paliadelis & Cruickshank 2003, Webb & Shakespeare 2008, Jinks et al 2014). It also indicates a significant degree of similarity and stability over a long period of time in what is noticed and considered desirable in any assessment of student competence. A further observation of the findings from the studies considered, is that pre-determined learning outcomes are not the sole measure used to judge a student in practice. As Brown (2000) states, it is the art of nursing that is being identified and commented upon by mentors rather than behaviourally based learning outcomes which, alongside the personal qualities or attributes that a student possesses, seems to exert a great influence over the judgements that mentors make.

2.2.2 The role of assessment documentation and assessment strategies in the decision making process

The second area of relevance in seeking an understanding of mentor decision making involves an examination of the part that student assessment documentation along with programme assessment strategies and professional body standards (NMC 2008a) play in mentors reaching a decision regarding student competence at the end of an assessed practice experience. A review of research conducted by Neary (1996), Dolan (2003), Scholes et al (2004), McCarthy & Murphy (2008), Fitzgerald et al (2010) and Butler et al (2011) contribute understandings in this area.

Following on from the introduction of continuous assessment of practice in Project 2000 curricula, Neary (1996) examined student and assessors thoughts around continuous assessment of competency at various stages of the 18 month Common Foundation Programme. Continuous assessment was relatively new to nursing at the time and though its value was acknowledged by both students and assessors in interview and questionnaire data, concerns were expressed regarding student stress experienced due to the nature of continuous assessment and need to maintain standards over time. Two difficulties associated with continuous assessment were adequate placement length to support assessment and relevant student preparation for the practice assessment. In particular mentors (73.3%) expressed concern as to how they could continuously assess a student in a placement of only 5 days. Documentation and the process of completion were also considered problematic with mentors and students spending time trying to fit pre-determined learning objectives, considered too theory based, to a student's performance in delivering patient care. As a result some mentors preferred to agree clinically set learning objectives on the spot with students. This then presented difficulties in terms of how to best represent this in the practice assessment documents provided and raised questions concerning the validity and reliability of direct observation of student practice where there is a lack of uniformity in what is assessed. Evaluating the assessment documents, both students (75.3%) and mentors (92.5%) considered them confusing, vague, ambiguous and full of jargon, admitting that they rarely understood the detail of the assessment criteria and thus how they should be assessed. As a consequence, in a later report by the same author, the process was considered as no more than *filling in the forms to keep the college staff happy'* (Neary 2001, p5).

Further examination of continuous assessment processes and documentation to understand how students and their mentors work through the competence elements has revealed similar issues (Scholes et al 2004). Observations and interviews of students and assessors undertaking practice assessments demonstrated that mentors lacked confidence in the use of the documentation and experienced problems translating assessment outcomes into observable practice activities. Mentors only developed their confidence in assessment from experience of working through the portfolio with the student and receiving feedback from the student's programme that

they had 'done the right thing with the portfolio' (Scholes et al 2004, p598). Experience in fitting learning outcomes to student practice through a process of deconstruction and then reconstruction to understand their meaning and application was also necessary, with cross referencing of evidence to outcomes also a further source of difficulty. Time was more often spent on working out how to fit practice to the portfolio and present this in the required format, rather than on confirming that a clinical competence had been demonstrated in practice, begging the question what the portfolio was actually assessing; competence or completion of the portfolio?

Other studies have set out to examine how assessment strategies are used by mentors and thus whether the devised systems are effective measures of clinical competence. Dolan (2003) conducted focus group interviews with students, lecturers and mentors to examine experiences of using a newly devised assessment system. In addition completed competence evidence records were reviewed using content analysis. Findings identified that on average only 14% of the student's written evidence focused on skills achievement in practice. Mentors and students again described how they made the identified assessment competencies fit practice. There were inconsistencies noted in the way that statements were interpreted and the amount of evidence provided by a student, with some students presenting insufficient evidence to support competency in some fundamental nursing skills. Production of evidence records was considered time consuming for both students and mentor review, occasionally resulting in students leaving their booklets to be signed by mentors after completing the placement. Some students stated that mentors did not always read the evidence before signing it. Overall the inconsistencies in what was being assessed and the evidence considered by mentors led Dolan to conclude that the system was not capable of ensuring an effective measure of competence (Dolan 2003).

Introduction of requirements for a mentor role and practice assessment in the Republic of Ireland (ROI) similar to those existing in the UK, underpinned a further survey into the extent that mentors used devised assessment strategies to assess undergraduate nursing students (McCarthy & Murphy 2008). Quantitative questionnaires were administered to staff mentoring students (n=970) at one point in time from one

university and achieved a response rate of 48.5% (n=470). These were then subjected to descriptive statistical analysis using SPSS, with findings demonstrating that mentors reported good knowledge of, and were able to apply, student prescribed competencies to their own practice area. However the educational decision making framework, developed to support professional judgements about a student's level of performance, was used by less than 40% of mentors. Mentors reported that they chose to base their judgement on the student's ability to undertake clinical practical skills rather than on the pre-determined programme competencies, with 30% of mentors furthermore reporting that they did not consider student reflective notes, advised in the framework, as part of the assessment decision. Finally only 66% of mentors reported carrying out an overall assessment of competence at the final interview with some mentors not waiting until the final interview to make an assessment. With the majority of mentors not using the developed framework, McCarthy & Murphy (2008) concluded that it was difficult to determine how mentors judged a student's progression or level of performance and what influenced the overall decision on a student's competence.

Similar findings regarding the use of competence assessment documents and assessment processes are reported in a further Irish study conducted by Butler, Fahy and colleagues (Butler et al 2011, Fahy et al 2011). In a questionnaire survey administered to all mentors in one region (n=837), mentors' perspectives and experience of competence assessment was explored. Achieving a response rate of 30.4% (n=255), key findings indicated that 48.2% of mentors did not agree that the language used in the competency assessment tool was easy to understand or provided a clear description of what was required. Equally mentors experienced difficulty identifying the required knowledge, skills and attitudes within critical elements with only 45.3% agreeing that knowledge could be easily identified. Overall the tool was considered difficult to understand and when asked "to what extent do you agree that this competency assessment framework adequately assesses students' clinical competence in your discipline of nursing", only 35.6% of mentors agreed. Mentors tended to view the competencies as insufficiently defined and suggested that more emphasis be placed on practical skills (Butler et al 2011, Fahy et al 2011).

A further issue regarding accurate and honest completion of student documentation has been raised by Fitzgerald et al (2010). Reviewing continuing assessment documents of students as part of a project to incorporate simulation into pre-registration nursing programmes, discrepancies between documented feedback and the scores students received were noted. Additional analysis revealed that 7 (41%) out of the 17 participating students received formative feedback inconsistent with their practice scores at midway and final interview. Comparison of feedback given by mentors in the post placement study questionnaire for university use only and the feedback documented demonstrated that four mentors had given contradictory feedback between the assessment document and the questionnaire. For example one mentor provided negative comments about professionalism and communication issues at both midway and final interviews yet pass scores were awarded. Another student received brief formative feedback at the mid-point interview stating that they were *'progressing well'* and *'developing well'* and yet received two referral scores. Another mentor remarked in the questionnaire that the *'student had improved her practice enough to pass'* yet provided identical scores for the relevant items at both mid-point and final interviews. Overall the researchers concluded that the confidential feedback in the post placement questionnaire appeared to be more honest, with the student documents containing clear feedback on clinical skills and scores provided congruent with written comments. However accurate feedback on professional values and behaviours was inconsistent or inadequate, perhaps suggesting that these were aspects of practice where mentors struggled to challenge a student or were unwilling or ill prepared to (Fitzgerald et al 2010).

In summary, these studies illustrate how mentors struggle to apply pre-determined student competencies to their clinical area. As a result mentors spend significant effort in making sense of the competencies with students in order to complete the assessment documentation, rather than to assess the competencies themselves (Neary 1996, Dolan 2003, Scholes et al 2004). Inconsistencies between mentors regarding the amount and nature of evidence required to support a judgement of competence, inconsistencies in feedback provided to students and inconsistent use of specified assessment frameworks and criteria were demonstrated across the studies (Dolan 2003, McCarthy & Murphy 2008, Fitzgerald et al 2010, Butler et al 2011). An audit into

assessment by mentors (n=45) conducted by Hyatt et al (2008) revealed similar issues, with less than 50% of mentors using specified assessment criteria when making a judgement, and 22% of mentors acknowledging that they did not examine student's written evidence. Put together these findings place limits to the effectiveness of assessment tools and strategies in establishing the competence of a student and indicate their marginal role in mentor decision making.

2.2.3 The failing student

The final area contributing to the current understanding of mentor decision concerns management and assessment of the failing student. As identified in Chapter One, to date the emphasis in the empirical literature considering mentor assessment of student competence has been on the failing student in practice (Duffy 2006, Luhanga et al 2008, Black 2011, Jervis & Tilki 2011). A review of these studies along with a newer survey of mentor practices (Brown et al 2012) and national survey of practical assessment results in England (Hunt et al 2012), contributes to understandings in this area.

Inconsistencies in mentor assessment and the overall decision taken regarding student competence were the focus of a grounded theory study funded by the NMC initially (Duffy 2003) and completed as a PhD (Duffy 2006) investigating *"Why are some student nurses being allowed to pass clinical assessments without having demonstrated sufficient competence?"* From analysis of interviews with mentors (n=26) and lecturers (n=14) who had experience of failing a student or who had expressed some concerns about a student's performance but who had subsequently been allowed to pass, Duffy suggested that mentors were not putting pen to paper about concerns they may have regarding a student. Instead they raised concerns verbally or alluded to them in written feedback, but were then prepared to give a student a satisfactory clinical assessment, thus perhaps 'failing to fail' a student. Reasons given why mentors may do this included: a failure of the mentor to follow assessment process or raise a concern with the university early in the placement, lack of clear assessment criteria and limited faculty involvement to support a failing student, and the personally difficult nature of failing a student as experienced by a

mentor. Overall Duffy suggested that mentors were weighing up a number of factors in order to make a judgement as to whether a student was just competent or not. Key factors, influential in 'swinging the balance' for mentors were related to a mentor's knowledge, experience, confidence, values and beliefs. Some of these factors:

> "Facilitated *the process of `Managing a Failed Assessment' while others hindered that process, which resulted in some students passing assessments despite concerns regarding their competence."* (Duffy 2006, p 271).

This study has been hugely influential within UK nursing education and is credited as being the driving force behind the development and implementation of standards to support learning and assessment in practice (NMC 2005 & 2008a, Black 2011). Presentation of the findings from the original study report leads Duffy to conclude that "*mentors and lecturers from across the UK readily related to the findings. Feedback from colleagues outside the UK highlighted the applicability of the results on an international scale."* (Duffy 2006, p294). However she acknowledges that though the findings suggest factors influential in mentor decision making, the study is not able to contribute to an understanding of the priority given by mentors to these factors when faced with a decision on the competence of an underperforming student (Duffy 2006).

Black (2011) extends knowledge in this area through an exploration of why mentors fail students in their final placement, how they made this decision and how they felt about failing a student at this stage. Using a hermeneutic phenomenological approach she interviewed 19 mentors who had, at some stage, failed a final placement student. Mentors in this study had clear expectations of a student for this stage of the programme, articulating a generally unanimous expectation that *"I'd like to see them functioning as a staff nurse before they get their registration and that's what I would expect."* (Black 2011, p114). Components such as knowledge, skills, attitudes and behaviours contributed to a mentor's understanding of a student being 'fit for practice' and underpinned any decision taken to fail the student. In taking the latter decision many mentors experienced feelings of guilt in failing a student at such a late stage. A number of them experienced physical unease and discomfort as well as worry and self-doubt about their performance as a mentor, describing "*sleepless nights prior to the*

final assessment and throughout the whole of looking after her" (Black 2011, p143). Mentors also expressed a sense of surprise that they were working with a failing student at this late stage, and wondered how the student had been allowed to progress. A common assertion made by mentors was that there had been a failure on the part of previous mentors *"I think some mentors do not push the students...It was almost as though they had been frozen"* (Black 2011, p135), with the result that the student had failed to develop to the expected level. Tied in with this belief was a perception that students had been allowed to practice at a health care assistant level rather than as a developing registered nurse. A further perception noted was the widely held view that a student should not really progress to the final placement and fail, with a number of mentors stating that *"They shouldn't have been able to get that far because it's not fair to them."* (Black 2011, p138). In common with Duffy's study (2006) mentors expressed the suspicion that earlier mentors were 'failing to fail' students, instead passing on students' shortfalls to the next placement, in the hope that they would improve (Black 2011). Examining how mentors made the decision to fail, Black notes that *'the subjective dimension of failing a student in their final placement radiates fervently'* (Black 2011, p148). Mentors talked about 'knowing that things weren't right' and feeling concerned about a student from early in the placement, even before substantive evidence was gathered.

Another qualitative study (Jervis & Tilki 2011) exploring mentor's reluctance to refer students who did not perform adequately in clinical settings presents findings consistent with both Duffy's (2006) and Black's (2011) studies. Three areas were identified as important in providing an explanation for mentors 'failing to fail'. Firstly the complexity of assessing students, secondly borderline students where achievement of learning outcomes is less clear and thirdly pressure from students and a belief that the university might not uphold the decision taken. Mentors also experienced difficulty with assessing student attitudes, particularly if perceiving the student to be clinically competent. Finally mentors identified a lack of confidence in decision making regarding student competence and expressed concerns about the consequences of failing a student, fearing that it may reflect on them personally as mentors. The process of making a decision to fail a student resulted in *'considerable soul searching and stress'* (Jervis & Tilki 2011, p584).

A more recent questionnaire survey in Scotland (Brown et al 2012) asked mentors to report on their practices regarding student assessment, with a key focus being to examine whether mentors were passing students who should fail and if so why? From 1790 mentors who completed the survey (41% response rate), 18% (n=312) identified that they had passed a failing student, with a major reason given that they did so as they could not prove that their concerns were valid. Other reasons cited for such practice included giving the student the benefit of the doubt, believing that the decision would be overturned by the university, concern regarding conflict with the student and lacking confidence to manage a failing student. Similar questionnaire surveys of mentors elsewhere have also identified that mentors report a lack of confidence in dealing with failing students (Gainsbury 2010, Mead et al 2011).

Alongside the issue of failing a student in practice is the widely held assertion that there is an anomaly between theoretical and practical pass rates, with pass rates in practice higher than would be expected (Duffy 2003, Luhanga et al 2008, Gainsbury 2010). This perhaps may be a result of mentors 'failing to fail' students, but equally may reflect that ongoing formative feedback from mentors during placement allows students to address areas of weakness and develop sufficiently (Hunt et al 2012). In response to this concern and specifically to Duffy's recommendation that *"a national survey be conducted that establish the number of students who fail programmes on clinical grounds as opposed to academic grounds"* (Duffy 2003, p82), Hunt et al (2012) conducted an investigation to see whether quantitative evidence existed to support this view. All 52 universities running pre-registration nursing programmes in England were approached and failure rates for theoretical and practical assessments requested. The survey achieved a response rate of 52% (27 universities). A key finding indicated that both referral and failure rates for theory outstripped practice by a ratio of more than 4:1 (Hunt et al 2012). Also important was that 25% of responding universities did not fail and withdraw any students as a result of practical assessment. There were wide variations between responding universities both in terms of practical assessment results and processes in place to monitor this. Eleven universities were able to provide comments but found that their organisation did not gather data about failure in practice. It was suggested that increased emphasis be placed on the assessment of

practice in nursing programmes along with further development of processes which support assessors to fail underperforming students (Hunt et al 2012).

Summarising studies regarding the failing student reveals three aspects that are significant for mentor decision making. Firstly studies identify that the process of failing a student is experienced as difficult, with mentors reporting a lack of confidence and clear criteria to support such a decision. There is also a belief that a fail decision may not be supported by the student's university (Duffy 2006, Black 2011, Jervis & Tilki 2011, Brown et al 2012). As a result mentors may decide to pass a student who may not have demonstrated sufficient competence. Secondly there are a number of studies where mentors report that they have passed a failing student, suggesting that there is some evidence base to the widespread assertions that a reason why a student may fail in a final placement is as a result of a mentor 'failing to fail' a student at an earlier stage (Duffy 2006, Gainsbury 2010, Black 2011, Jervis & Tilki 2011, Mead et al 2011, Brown et al 2012). Thirdly although there are reporting issues when examining national theory and practice pass and fail rates, there appears to be some evidence to support widely held beliefs that few students are failed in practice (Hunt et al 2012).

2.2.4 Summary of current understandings of mentor decision making.

The empirical literature so far discussed included all studies considered of relevance following screening with reference to the inclusion and exclusion criteria presented. Evaluation of the studies using CASP tools (2013) indicated that they were of sufficient quality to be included in the discussion. From the studies reviewed, there was one quantitative study (McCarthy & Murphy 2008), and four studies adopting a mixed methods approach (Neary 1996, Dolan 2003, Scholes et al 2004, Butler et al 2011). The approaches selected were appropriate for the research aims, with designs generally clear and subject characteristics described. Where studies were incorporating a survey questionnaire, all mentors involved in student assessment were invited to participate with response rates where given, ranging from 30% (Butler et al 2011) to 48.7% (McCarthy & Murphy 2008). Clearly if differences existed between responding and non-responding mentors this may limit the confidence that can be placed in the findings presented. Analytic measures were appropriate to the stated study aims, with

descriptions and rationale for use of scales (e.g. Likert) provided. Survey questionnaires were pre-tested and though there can be limitations to self-reporting surveys, for example how well they capture actual practice, the fact that mentors identified areas of misunderstanding of assessment tools and non-compliance with required processes, suggests that to some extent mentors were honestly representing their practices in the responses they provided.

The remaining studies were qualitative in their approach, consistent with the expressed aims to explore and examine measurement of competence (Girot 1993), areas that mentors make judgements on (Brown 2000), how mentors make judgements (Shakespeare & Webb 2008), or the phenomenon of the failing student (Duffy 2006, Luhanga et al 2008, Black 2011, Jervis & Tilki 2011). Evaluating the studies against the CASP qualitative research checklist (2013), two areas merit further comment in an evaluation of study quality: firstly recruitment and secondly the researcher/participant relationship. Lack of detail for sample selection by Girot (1993), random sampling of student end of placement reports in Brown's study (2000) and convenience sampling by Shakespeare and Webb (2008), may have resulted in the sample used for the study only partly capturing features of the practices that are under investigation. This may well place boundaries on any theoretical explanations developed (Flick 2009). Limited details of the researcher/practitioner relationship for some studies (Girot 1993) or limited critical examination of the researcher influence upon the conduct of the study (Brown 2000, Jervis & Tilki 2011), may also reduce the credibility of the findings presented (CASP 2013, Ritchie et al 2014). Though limitations exist when evaluating individual studies, that similarities of some findings across studies exists, lends weight to the trustworthiness of the findings presented overall.

Reviewing all the three areas discussed so far in section 2.2, the following points summarise the state of current understandings regarding mentor decision making. We know that:

- Mentors have a clear picture of what a good student looks like.
- There are some similar aspects of a student and their practice which are often noticed.
- Mentors describe initial judgements about a student in terms of 'just knowing', 'instinct', 'intuition' and 'gut feeling'.
- There are a range of difficulties experienced with respect to programme assessment tools and that, combined with the belief that they are solely for university purposes, there is evidence to suggest that they play a limited role in mentor decision making.
- There are a range of difficulties identified by mentors regarding failing a student which may contribute to the phenomenon 'failure to fail'.
- Some mentors report that they have passed a student who has not demonstrated sufficient practice competence.
- Mentors do not expect to make a decision to fail a student in the final placement of the programme.

Reviewing existing literature reveals gaps in knowledge in a number of areas. Firstly the literature provides little understanding as to the importance of criteria for discrimination between pass, fail and borderline decisions. Past research has focused on decisions taken, rather than judgement processes supporting a decision and thus there is little known about mentor judgement and decision making processes across an assessed student experience. In addition decision making regarding student competence at different stages in a pre-registration nursing programme has not been examined. Finally the review has so far failed to provide any understanding as to whether there is a model of decision making used by mentors to support decisions taken regarding student competence.

2.3   Decision-making in nursing

The mentor literature reviewed provides clear evidence pointing to the limited effect of assessment documentation and frameworks as well as 'failure to fail' being a real issue in student competence assessment. Numerous proposals exist in the literature for developing more robust methods of assessment. However, even if adopted there is a need to develop a better understanding of how mentors assess students if new

methods developed are to have the desired effect. Duffy recommends that, though her study has identified a number of factors influencing mentor's decisions, there is:

> *"No suggestion from the data as to the priority given by mentors to the factors identified. This needs to be explored further and may benefit from the application of a decision making analysis framework."* (Duffy 2006, p294)

Such a recommendation supports the aim of this thesis and the use of judgement and decision making theories to support such an investigation. Interestingly, since the commencement of this study, a similar recommendation has been made by Black:

> *"… further investigation into the patterns mentors use to make their assessment decision in practice, particularly in relation to the subjective and intuitive dimension of assessment."*
>
> (Black 2011, p251)

In the light of these recommendations and the limitations identified above, the literature review was broadened to examine decision making in nursing at a more general level. Examination of this wider literature helped to provide some understanding of decision making in nursing and how this could be used to examine and explain mentor decisions in the study.

Interest in nursing decision making has developed significantly in recent years. An increasing emphasis on sound governance supported by evidence-based health care decisions in clinical practice has highlighted the need to understand and improve decision making within health care (Buckingham & Adams 2000a, Dowding & Thompson 2003, Cader et al 2005, Banning 2008). A range of terminology is used with clinical decision making the most common term used, but clinical judgement and clinical reasoning are also cited (Thompson 1999, Banning 2008, Standing 2008, Simmons 2010). Definitions for these terms are presented in Table 2. Often these terms are used interchangeably to describe the process of taking a decision in clinical practice (Thompson 1999).

Term	Definitions offered
Judgement	*'an assessment of alternatives'* (Thompson & Dowding 2002) *'an assessment or belief about a given situation based on the information available'* (Newell et al 2007) *'evaluations or estimates'* (Hardman 2009)
Decision	*'choosing between alternatives'* (Thompson & Dowding 2002) *'a commitment to a course of action'* (Newell et al 2007) *'an intention to pursue a course of action informed by judgements made'* (Hardman 2009)
Clinical reasoning	*'a complex cognitive process that uses formal and informal thinking strategies to gather and analyse patient information, evaluate the significance of this information and weigh alternative actions…….The use of formal strategies (decision analysis or information processing) or informal strategies (heuristics) depends on the situation and the experience of the nurse'* (Simmons 2010, p1155).

Table 2: Definitions of terminology used in nursing decision-making

Examination of nursing decision making has occurred with reference to models of judgement and decision making developed in the disciplines of psychology and economics, with the models discussed historically reflecting the two theoretical types of decision making processes identified: analysis and intuition (Cader et al 2005, Banning 2008, Simmons 2010). Decision making as a combination of analytical and intuitive processes together as portrayed in Cognitive Continuum Theory (Hamm 1988, Hammond 1996) has also been applied to nursing, and indeed underpins the only decision making theory developed in nursing itself, Revised Cognitive Continuum Theory (Standing 2008). These models and illustrative nursing research are now reviewed and an evaluation of their transferability to a consideration of mentor decision making is provided.

2.3.1 Decision making as a result of analytical processes

A number of studies have considered nursing decision making to be a consequence of analytical processes, with studies demonstrating use of the information – processing model (Lauri & Salanterä 1998, Offredy 1998, Manias et al 2004) or social judgement theory in nurse's decision making (Thompson et al 2007, Paterson et al 2008, Thompson et al 2008, Yang & Thompson 2011).

The information-processing model takes a hypothetico-deductive approach to examine the ways in which decisions are made (procedural rationality) and the context of those decisions (substantive rationality) (Simon 1982). It assumes that the clinical decision maker follows rational logic and identifies common stages of reasoning used by individuals when making judgments and decisions: cue acquisition, hypothesis generation, cue interpretation and hypothesis evaluation (Tanner et al 1987, Thompson 1999, Norman 2005, Simmons 2010). These basic stages remain a constant even in more complex accounts, where a seven stage process of nursing diagnostic reasoning has been described (Carnevali &Thomas 1993). Central to the model is the assumption that decision making consists of two components: short-term memory containing stimuli information which 'unlocks' factual knowledge used to access pre-existing knowledge contained in long-term memory (Simon 1982, Carnevali & Thomas 1993, Thompson 1999, Hoffman et al 2009). This long term memory has infinite capacity to hold information; however retrieval of data takes longer than accessing information from short term memory (Simmons et al 2003, Kahneman 2011). In nursing this involves inductive reasoning, where data collection (stimuli) results in hypothesis generation (unlocking factual knowledge), which is then used to predict the presence or absence of data (often with reference to previous experience) and confirm or deny hypotheses generated (deductive reasoning) (Carnevali & Thomas 1993, Thompson 1999, Buckingham & Adams 2000a, Hoffman et al 2009). These processes may be represented and analysed through the use of decision trees (Hughes & Young 1990, Buckingham & Adams 2000a).

A range of studies have revealed the use of information-processing strategies in nursing decision making (Lauri & Salanterä 1998 & 2002, Offredy 1998, Manias et al

2004, Parker 2014). In an initial survey of Finnish nurses (n=483) to identify decision making models used, administration of a structured questionnaire developed to reflect common theories of decision making, demonstrated use of information-processing strategies by nurses in all fields of practice, but most notably in public health and critical care. The study was not able to identify variables which may influence use (Lauri & Salanterä 1998). However in a larger international study by the same authors, it was identified that across all countries included in the study and in all fields of practice considered, nurses used information-processing as a strategy to identify patient problems (Lauri & Salanterä 2002). The use of an information processing approach in nursing decision making has also been demonstrated when practitioners were confronted with uncertain or complex problems (Offredy 1998) or commonly used by graduate nurses to manage patients' medications (Manias et al 2004). A recent study examining the decision making of medical-surgical nurses to call critical care response teams for deteriorating patients identified not only the use of information processing as a decision making strategy for patient problem identification, but also the benefits, with an increased rate of call out of critical care outreach teams as a result. Increased use of critical care outreach teams is associated with a decrease in hospital mortality rates (Parker 2014).

Information processing has also been used as a theoretical framework to explore nursing decision making in clinical practice. As a result it has been shown to be capable of explaining the decision making of expert nurses who organized patient assessment information around specific concepts and linked them together to form relationships that made sense; a process that supports the notion that information processing can explain clinical reasoning in experienced nurses (Simmons et al 2003). An examination of how nurses made decisions regarding children's pain management, suggested that all the nurse participants used a hypothetico-deductive model of decision making before planning care (Twycross & Powls 2006). Finally Hoffman et al (2009) examined cue usage and clustering during the decision making of novice and expert nurses while caring for patients post Abdominal Aortic Aneurysm surgery in an intensive care setting. According to information processing the collecting and clustering of cues is an important step in the processing of information during decision making (Thompson 1999, Hoffman et al 2009, Simmons 2010). Findings demonstrated a number of key

features of expert nurses cue collection and clustering: a wider range of cues and an increased number of cues were collected with expert nurses also more proactive in seeking out relevant cues and clustering cues to help identify and manage patient problems (Hoffman et al 2009).

Another theory used to describe and explore nurses' decision making as a product of logical and analytical processes is Social Judgement Theory (SJT) which seeks to identify the kind of information used in judgements and the different weightings that people attach to cues (Thompson & Dowding 2002, Goldstein 2007, Hardman 2009). Arising from the Lens Model of Egon Brunswik (1952), judgement is conceived as the product of the way real world events and objects are perceived in the mind of the person making the judgement as illustrated in Figure 1.
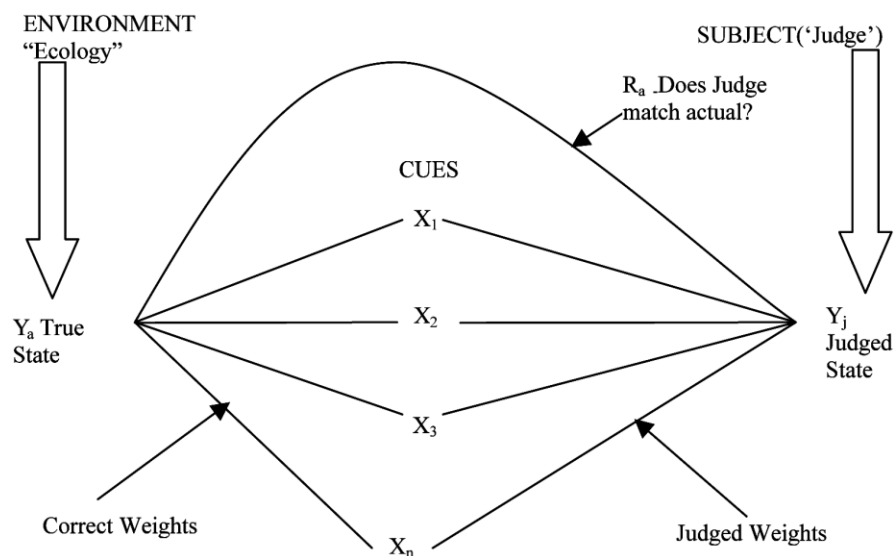
Source: Brunswik (1952)

Figure 1: Brunswick's Lens Model for conceptualising judgement. (Brunswik 1952)

The left hand side of the model represents the 'real world' with the right hand side representing the mind of the judge. In between is the lens of cues through which the judge attempts to 'see' the real world (Hammond & Stewart 2001, Newell et al 2007). Stages of reasoning in the model focus on the processes of cue acquisition and interpretation, particularly in professional contexts, for example diagnoses; these are used to describe the impact of different cues on a judgement (Hammond & Stewart 2001, Dowding & Thompson 2003, Goldstein 2007, Newell et al 2007, Hardman 2009). The resulting model of cue utilisation can explain how two different people reach different judgements using the same information, perhaps relying on an erroneous piece of information or incorrectly weighting the information reviewed (Cooksey 1996, Hammond 1996, Goldstein 2007, Thompson et al 2008, Hardman 2009).

This has been shown to be important when considering judgements and their associated risk in clinical practice (Thompson et al 2007, Paterson et al 2008, Thompson et al 2008, Yang & Thompson 2011). In one international study, SJT provided the theoretical framework for an examination of how acute care nurses (n=245) used readily available clinical information to determine whether a patient was at risk of a critical event (Thompson et al 2007). Previous evidence had demonstrated that half of inpatients who suffer a cardiac arrest have documented signs of deterioration in the previous 24hrs, but these signs are not acted upon. Computer generated scenarios, together with protocol recommendations were presented and nurses asked to judge the likelihood of a critical event. These were then compared against predicted levels of risk established by use of MEWS[2] assessments of 232 UK acute care inpatients. Findings suggested that despite receiving identical information, nurses varied considerably in their risk assessments, which were largely inaccurate. Differences could be partly explained by the variability in weightings nurses gave to seven information cues and the synthesis of information reviewed.

Further SJT studies have also demonstrated how variability in judgements taken is related to cue acquisition and utilization. Paterson et al (2008), explored the factors

---

[2] MEWS: Modified Early Warning Score. An algorithm that uses bedside observations to identify sick patients on general wards (Thompson et al 2007).

influencing judgements regarding suicide risk made by psychiatrists and nurses working in acute psychiatric inpatient care units (PICU). They found that though there was agreement between clinicians on relative risk for the cases reviewed and agreement between practitioners over which were significant cues, inconsistent judgements for absolute degree of suicide risk were taken. This was particularly the case amongst nurses. In another study exploring the decision making by specialist heart failure nurses, judgement analysis was used to review the different decision making characteristics of the nurse specialists when facing a 'hard' (palliative care referral) or 'easy' (drug titration) decision (Thompson et al 2008). Findings demonstrated considerable variation in the importance nurses attached to the information presented, with weighting attached to a few critical cues. As a result, the nurse specialists varied considerably in their judgements, despite being given the same information. A further study by Yang & Thompson (2011) examined the effect of clinical experience on risk assessments made on paper-based and high fidelity simulation scenarios by 60 student nurses (novices) and 30 experienced nurses (experts). Findings demonstrated that experienced nurses did not make any better judgements than the student nurses, but that they were more consistent in their judgement, suggesting that variability is reduced by experience but quality of judgement may not be improved (Yang & Thompson 2011).

Reviewing Information Processing Theory (IPT) and Social Judgement Theory (SJT) reveals a core belief that decisions are taken as a result of an analytical reasoning process which may be linear in fashion (IPT) or directed by the manner in which the problem is 'framed' in the decision makers' mind (SJT). Though differences exist in the conceptualisation of the overall process, both theories place emphasis on the core activities of cue acquisition and interpretation underpinning any decision (Tanner et al 1987, Hammond 1996, Thompson & Dowding 2002, Newell et al 2007, Hardman 2009, Simmons 2010). However the use of either approach is no guarantee that a good decision will be taken. A nurse's hypothesis generation in IPT may be inaccurate due to limitations of existing knowledge, or may fail to take full account of the uncertainty that is a common feature of many clinical decisions (Harbison 2001, Orme & Maggs 1993, Buckingham & Adams 2000b), while differences in cue utilization in both IPT and SJT may result in variations and inaccuracies of judgements. This is useful to note

when considering mentor decision making concerning student competence in practice. It may be the cues identified which are reflected in what mentors notice about students and record in their assessment documents, and cue utilization which contributes to inconsistencies of judgements noted.

2.3.2 Decision making as a result of intuitive processes

A competing perspective regarding nursing decision making, is that clinical decisions are a result of intuitive processes involving unconscious ways of knowing and pattern recognition informed by experience (Benner 1984, Cioffi & Markham 1997, Thompson 1999, Banning 2008). Intuition has often been considered 'automatic', a 'hunch', occurring subconsciously and there has been limited acceptance in some quarters for the contribution that intuition can play in healthcare decision making (Thompson 1999, Banning 2008, Simmons 2010). However wider consideration of the judgement and decision making literature demonstrates that intuitive processes may play an important role in complex decision making (Phillips et al 2007, Newell et al 2007, Kahneman 2011).

In nursing, intuition is a popular term for where *"a pattern of cues seems to generate outcomes without conscious awareness of the process"* (Buckingham & Adams 2000a, p984). It may be considered as *"a judgement without a rationale, a direct apprehension and response without recourse to calculative rationality."* (Benner et al 1996, p8) or *"the deliberate application of knowledge or understanding that is gained immediately as a whole and that is independently distinct from the usual linear and analytical reasoning process."* (Rew 2000, p95). Most descriptions include notions of a rapid grasp of a situation without awareness of the cognitive processes used, combined with an emotional and holistic awareness of the whole situation (Pretz & Folse 2011). Over time this has gained acceptance as an explanation of nursing judgements where patterns of cues support decisions without a conscious awareness of the process (Leners 1992, Benner et al 1996, Fonteyn 1999, Buckingham & Adams 2000a, Rew 2000, Smith et al 2004, Banning 2008).

Such intuitive decision making is considered to underpin the skilled performance of an expert practitioner, developed as a result of experience, education and knowledge. It has been hugely influential in nursing, though some have suggested that the model can only provide a partial explanation for the idea that experts work from intuition (Dreyfus & Dreyfus 1985 & 1996, Benner et al 1996, Thompson 1999, Altman 2007, Lyneham et al 2008, Rischel et al 2008, Pena 2010). Benner (1984) applied this model to an analysis of observations reported by nurses in practice and identified differing judgement and decision processes ranging from the limited rules based behaviour with limited cue recognition and analytic thinking of the novice *'knowing that'*, to the intuitive grasp of a situation, a comprehensive understanding of the expert *'knowing how'*, developed through experience (Benner 1984). Despite some criticisms expressed regarding the definitions of level of practice and development of practitioners through the individual stages (English 1993, Cash 1995, Paley 1996, Altman 2007, Pena 2010), the link between intuitive decision making and expert practice demonstrated in the model is supported by models of intuition and expertise described elsewhere in the decision making literature (Phillips et al 2007).

A number of research studies have explored nurses' use of intuition as a feature of decision making in clinical practice (Watson 1994, King & Macleod Clark 2002, Lyneham et al 2008). In a study to explore the reasons why 'seemingly irrational' decisions were taken in clinical practice, out of 18 decisions observed, 15 were reported by participants as being based on experience which Watson (1994) describes as underpinning the intuitive and automatic processes observed. Though there was limited exploration of how nurses made decisions, rather an acceptance of *"experience as the rationale most used for decision making in this study."* (Watson 1994, p358), the study does hint at notions of experience and its relationship to intuitive decision making consistent with Benner's (1984) earlier work. King & Macleod Clark (2002) explored how intuitive aspects of decision making may be present in nurses at an early point in their career and strengthen or lessen with time depending on experiences and expertise. A key finding of the study was that intuition and analytical elements of decision making were present across all four identified levels of practice (advanced beginner, competent, proficient, expert), with an increasing refinement and more fluent and effective use noted the higher the level of practice. Specifically in expert

practice there was a perceived immediacy of intuitive responses, based in an unconscious recognition of very subtle patient changes which then acted as the impetus for a rapid analytical search. They concluded that the difference between expert and non-expert decision making appeared to lie not in the presence or absence of intuition, but rather in the ability by the expert practitioner to use intuition more skilfully in line with a greater depth of knowledge and experience (King & Macleod Clark 2002). A study of expert nurses in emergency nursing, established that not only was intuition a reality of the nurses' practice, but that it was a developmental aspect of practice occurring as knowledge and experience are integrated into an individual's way of being and practicing (Lyneham et al 2008). Overall the findings confirmed the belief that intuitive decision making forms a part of expert clinical decision making practices.

Developing from the notion that patterns or connections underpin intuitive decision making, heuristic reasoning is considered an important element of intuition and worthy of examination with respect to nursing decision making (Cioffi 1997, Buckingham & Adams 2000a). Heuristics are the 'rules of thumb' or 'short cuts' people use to estimate probabilities in real world decisions, and rely upon the connections made between an event and previous experience (Tversky & Kahneman 1974, Cioffi 1997, Buckingham & Adams 2000a). They provide a reason for choosing one alternative over another (Tversky & Kahneman 1974, Keren & Teigen 2007, Newell et al 2007, Hardman 2009) and may be considered a 'fast and frugal' way of reaching a judgement using little time or information, especially in uncertain conditions (Gigerenzer & Goldstein 1996). Heuristic reasoning may be beneficial in situations where it is not possible to manage the volume and complexity of information available and make an assessment (Tversky & Kahneman 1974, Cioffi 1997, Buckingham & Adams 2000a, Newell et al 2007). Their use can simplify and possibly explain the complexity of clinical judgements made by nurses (Cioffi 1997, Cioffi & Markham 1997, Cioffi 2000), and provide not only efficient ways of processing information but also reasoning mechanisms as effective relative to more formalized rational strategies (Gigerenzer & Goldstein 1996, 1999).

Work by Tversky & Kahneman (1974) including description and use of key heuristics of representativeness, availability, anchoring and adjustment, has influenced a number of studies examining the use of heuristics in nursing decision making (Cioffi 1997, Buckingham & Adams 2000a, 2000b, Ferrario 2004, Simmons 2010). 'Representativeness' is a judgement of similarity of an event to other examples or experiences, 'Availability' a judgement which estimates frequency or probability by the ease with which other instances or experiences are brought to mind, with 'Anchoring and Adjustment' heuristics explaining the processes whereby judgements are influenced by contextual information which may be adapted and adjusted in the light of new information (Tversky & Kahneman 1974, Buckingham & Adams 2000b, Keren & Teigen 2007, Hardman 2009). Several possible biases are identified from the use of heuristics which may lead to an inaccurate assessment of probabilities (Round 2001, Eva & Norman 2005, Keren & Teigen 2007, Newell et al 2007, Hardman 2009). People may overestimate the similarity between people or events and give undue weight to small samples (Round 2001). Too much importance may be given to easily available or easily remembered information (Round 2001, Thompson & Dowding 2002, Keren & Teigen 2007). Finally differences in weighting attached to a few critical cues may lead to considerable variation in judgements (Eva & Norman 2005, Newell et al 2007, Keren & Teigen 2007, Hardman 2009, Thompson et al 2008, Yang & Thompson 2011).

A few studies have identified the influence of heuristics in nursing judgement and decision making. Cioffi & Markham (1997) examined clinical decision making of student and registered midwives and suggested that not only were two major types of heuristics being used in the decisions discussed, 'representativeness' and 'anchoring and adjustment', but that employment of these processes was related to a high degree of accuracy of diagnoses. In addition use of heuristic techniques increased in relation to the complexity of the case (Cioffi & Markham 1997). Further research by Cioffi (1998) into nurses' triage decision making, again demonstrated that in conditions of higher uncertainty more heuristics were used (P=0.03) with 'representativeness' relied on the most. More experienced nurses used more single previously experienced cases from memory, collected less data and made more judgements; further supporting the use of heuristic techniques (Cioffi 1998).Two further studies, whilst not specifically setting out to examine the use of heuristics in decision making, suggest that heuristic

use may provide a partial explanation for the results obtained (Hicks et al 2003, Hancock & Easen 2006).

Over time intuition has gained acceptance as a way of knowing within nursing, a way of making connections, and of 'grasping the wholeness of the presented case' (Andersson et al 2012). An association between experience and the use of intuition has been demonstrated, which may determine how fast a decision is reached (Hamers et al 1997, King & MacCleod Clark 2002, Pretz & Folse 2011, Yang & Thompson 2011, Andersson et al 2012). This is an interesting finding when it is considered that the NMC, presumably with a view to ensuring quality in student assessment, expects a degree of clinical experience before a registered nurse can train to become a mentor, and then expects a degree of experience in student assessment for a mentor to become a sign-off mentor and undertake the final assessment to sign off a student's achievement and competence at the point of registration (NMC 2008a). It may be that experience and its association with intuitive decision making, does not confer the expected degree of consistency desired in student assessment.

There has been no research to date examining the role that intuitive processes play in mentor judgements, yet there is evidence to suggest that intuition may contribute to a mentor's feeling of 'unhappiness' regarding a student (Duffy 2006, Black 2011). This merits further investigation. Studies investigating mentor judgements have identified a number of criteria are important to mentors to notice about a student and their practice (Brown 2000, Shakespeare & Webb 2008, Webb & Shakespeare 2008). It may be fruitful to examine if these are used in a heuristic manner, for example how the student compares with other students for their stage of the programme (representativeness heuristic), or with other students that the mentor has recently supported (availability heuristic).

2.3.3 Decision making as a result of analytical and intuitive processes

So far in this review, explanations of nursing decision making have sought recourse to either analytical or intuitive theories. However, these may provide only partial explanations for 'real world' clinical decision making in situations where a quick decision is required and information limited (Thompson 1999, Banning 2008, Cioffi 2012). Instead explanations which consider both analytical and intuitive processes have the potential to increase understanding of decision making in nursing in practice settings (Cader et al 2005, Standing 2008). Dual-process theories of reasoning have received increased attention in the wider decision making literature in an attempt to better explain how people really make decisions (Stanovich et al 2011, Kahneman 2011). In nursing to date, such theories of dual cognition have been captured with respect to discussion and use of a cognitive continuum (Thompson 1999, Harbison 2001, Standing 2008).

A number of dual-process models of cognition have been developed, and though differences exist in terms of labelling and understanding of the operation of each process, all share a fundamental belief that decision making is a result of two kinds of reasoning; *'one fast and intuitive and the other slow and deliberative'* (Evans 2011, p86). These two processes have commonly been referred to as heuristic and analytic (Evans 2008) or by the more generic terms System 1 and System 2 (Kahneman 2011, Stanovich 2011). More recently the terms Type 1 and Type 2 have been favoured by key authors in the field to better describe the two classes of processes underpinning decision making (Evans 2010, Stanovich 2011). Type 1 processes are considered intuitive, associative, executed rapidly as a consequence of heuristic processing and attribute substitution, and regulated by emotions. Type 2 processes are considered slower and more deliberative, rational, reflective, and influenced by cognitive capacity (Evans 2010 & 2011, Stanovich 2011, Stanovich et al 2011).

In nursing, acknowledgement of this duality of reasoning can be witnessed in discussions generally regarding 'patterns of knowing' used by practitioners which may be scientific and research based or arising from clinical experiences (Carper 1978, Rycroft-Malone et al 2004, Paley et al 2007). Specifically with respect to nursing

decision making, discussions have considered the application of a cognitive continuum to a range of decision making tasks engaged in by nurses (Thompson 1999, Harbison 2001, Cader et al 2005, Standing 2008). Cognitive Continuum Theory (CCT) states that both analysis and intuition is involved in judgements, in an effort to manage uncertainty, reduce errors and reach a fair decision. How the intuitive / analytic modes of cognition are used relates to a system of tasks, a task continuum relating to what is to be judged (Hammond 1996, Standing 2008). Analysis alone may not always be justifiable due to an absence of data, analytical model or consensus-based criterion and equally intuition alone should only be used in time pressured, confusing circumstances (Hammond 1996). Reflecting wider discussion and research into dual-process reasoning (Evans 2010, Stanovich 2011), CCT illustrates how use of analytical and/or intuitive reasoning is dependent upon the decision task faced (Thompson 1999, Harbison 2001, Standing 2008, Dowding et al 2009, Tower et al 2012). Hammond (1996) proposed six modes in the continuum which has been applied to medicine by Hamm (1988) and is presented in Figure 2.
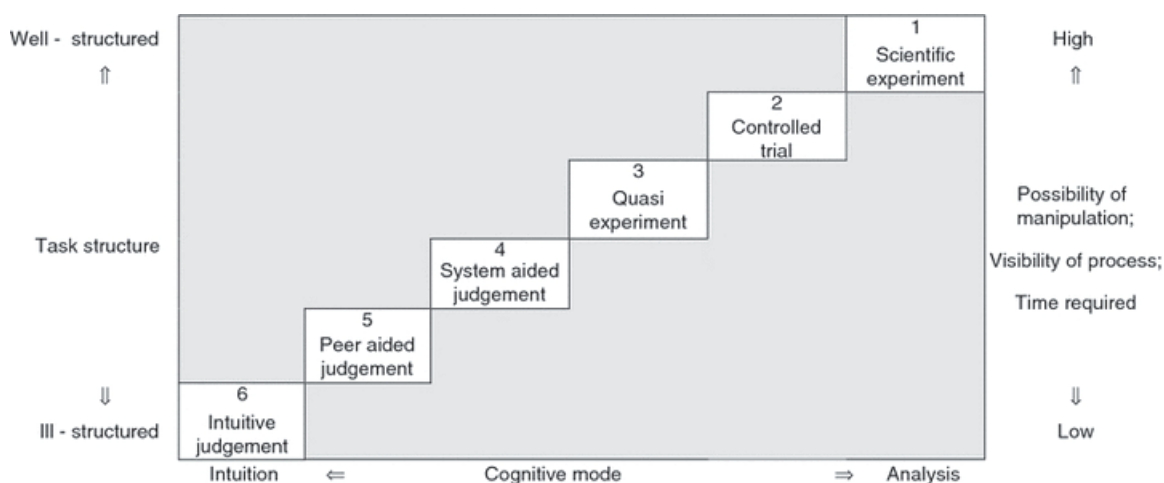
Figure 2 Clinical intuition and clinical analysis: - the six modes of enquiry (Hamm 1988, p. 87, reproduced in Standing 2008, p128).

Development of this continuum into a revised cognitive continuum for nursing has occurred, still supporting the basic premise of *CCT 'regarding the existence of a continuum of task complexity inducing a responsive continuum of intuitive,*

quasirational and analytic judgement' (Standing 2008, p130). Evaluations of CCT suggest that by including the task properties from Social Judgement Theory (SJT), that is the weighing and combining of information to make judgements, but also explaining this with reference to both analytical and intuitive processes, traditional views that decisions are either intuitive or analytical are challenged (Cader et al 2005, Standing 2008).

Applied to practice, a number of studies support the broad categories of intuition, quasi-rationality, analysis and their use in relation to the complexity of a situation as outlined in CCT. An international survey of nurse's decision making identified five models of decision making representing both analytical and intuitive processes in nursing decision making. The authors concluded that the survey provided support for Hammond's cognitive continuum and its relevance to examining and explaining nurses' decisions in practice (Lauri et al 2001). A further study examined critical care nurses' analytical and intuitive clinical decision making processes and consistency across a range of decisions of varying complexity (Hicks et al 2003). Participants were asked to rank interventions for two clinical scenarios using a Decision Analytic Questionnaire (DAQ), and the decision processes identified and matched to the complexity of the task. Analysis revealed that analytical processes were most used in tasks of low complexity, with intuitive processes drawn upon for highly complex cases, thus supporting the link between task complexity and mode of cognition discussed earlier (Hammond 1996, Thompson 1999, Standing 2008). Finally Standing's revised cognitive continuum theory (2008) has been used to review triage decision making research with a view to developing new understandings of triage decision making and develop recommendations for improving practice (Smith 2013). CCT was considered a useful framework for identifying types of triage decision making which occur, with four modes from the continuum identified in the research evidence reviewed, and potentially beneficial for the development of future triage decision making strategies.

2.3.4   Summary of current understandings of nursing decision making

Literature considered in this section has been of two types, theoretical papers and empirical studies. Theoretical papers were selected for their ability to consider and apply judgement and decision making theories from cognitive psychology to nursing decision making and thus demonstrate which decision making models may be relevant for an examination of mentor decision making, the focus of the study. Empirical papers were selected, following screening against the inclusion and exclusion criteria, for their ability to illustrate which models have been applied to nursing decision making and which methods and study designs may be able to contribute to an examination of mentor decision making. Quality of papers was evaluated against recognised guidance (Polit & Hungler 1995, CASP 2013).

Quantitative approaches used included one experimental design (Hamers et al 1997), a number of large scale surveys (Lauri & Salenterä 1998 & 2002, Lauri et al 2001, Hicks et al 2003, Pretz & Folse 2011), as well as studies using judgement analysis (Thompson et al 2007, Thompson et al 2008, Yang & Thompson 2011). The experimental design, identified random allocation of participants to the four experimental groups in order to test three hypotheses. ANOVA was appropriately used in analysis to compare the differences between the means across the experimental groups and thus which hypotheses were upheld. However a key limitation of the study concerns the use of simulated typical cases rather than real world decisions as the focus for decision making (Hamers et al 1997). Strengths of the surveys discussed include the use of validated tools, large samples and factor analysis to determine variables which linked together as concepts, for example experience and intuition, or setting and decision making model (Lauri & Salanterä 1998 & 2002, Pretz & Folse 2011). Again there were limitations with regards how well a survey can best capture actual decision making, with the approach only able to provide general information and not specific information about the conditions that influence the use of different decision making models. Judgement analysis studies were robustly designed with respect to testing of constructed scenarios, descriptions of participants and use of recognised regression analysis techniques to compare findings. Their main limitation lies in the applicability of the technique to an examination of mentor decision making in the context of existing understandings.

Qualitative approaches could be distinguished by their use of simulated cases and analysed using verbal protocol or thematic analysis (Cioffi & Markham 1997, Cioffi 1998, Twycross & Powls 2006, Göransson et al 2008, Andersson et al 2012), or their use of observation of real world decisions and post-observation interviews, again analysed using verbal protocol or thematic analysis (Offredy 1998, Simmons et al 2003, Manias et al 2004, Dowding et al 2009, Hoffman et al 2009, Tower et al 2012). Detailed accounts of sample selection, analytical techniques, and processes for establishing inter-rater reliability and member checking add credence to the findings presented. An area where caution should be exercised concerns the effect of the observer in terms of what was noted, the units of analysis selected for comment and whether practice was changed in some way through the process of being observed (CASP 2013, Ritchie et al 2014). This may limit the advantage that examining actual decisions taken has over decision making with respect to simulated cases.

A review of nursing decision making research indicates that clinical decisions taken may be as a result of analytical, intuitive or dual-processing as represented in a cognitive continuum (Thompson 1999, Banning 2008, Standing 2008, Simmons 2010). Information, whether gathered consciously through cue acquisition and utilization or responded to subconsciously through an intuitive, heuristic grasp of a situation, is a key element in any decision task undertaken. Decision making strategies employed may be influenced by the experience of the practitioner involved, features of the situation a so-called situation awareness, and the complexity of the decision required (Standing 2008, Tower et al 2012). Inconsistency and variability in nursing decision making has been identified and studies have sought explanations for how these differences may occur (Thompson et al 2007, Goransson et al 2008, Thompson et al 2008, Yang & Thompson 2011). Convincing explanations for inconsistency in an individual's decision making or for the variability of decisions across groups have focused upon heuristic use or use of a decision strategy not matched to the decision task (Cioffi & Markham 1997, Cioffi 1998, Hicks et al 2003, Twycross & Powls 2006, Thompson et al 2007, Thompson et al 2008, Dowding et al 2009, Hoffman et al 2009, Yang & Thompson 2011).

Models used to describe and explain nursing decision making are underpinned by theories of reasoning developed in cognitive psychology and applied to nursing decisions in practice settings. Only one theory has been developed in nursing itself, a revised cognitive continuum (Standing 2008). There is always the danger that theories developed in other disciplines may be inappropriately applied when transferred or at least limited in their explanatory power. However a wide body of research, debate and evaluation exists to support their use in nursing decision making that occurs in practice settings (Banning 2008, Standing 2008, Simmons 2010, Cioffi 2012). What does not currently exist is a consideration of their relevance and legitimacy for an examination of mentor decision making regarding student competence. In conducting such an examination using decision making frameworks already applied to nursing practice, this study seeks to make a contribution to the debate.

2.4   Implications for investigating mentor decision making

Current understanding of mentor judgements concerning students suggests that there is no one agreed method for interpreting and evaluating student performance or evidence (Girot 2000, Dolan 2003). Examining mentor assessments has identified a subjective element to the decisions taken and the part that intuition may play in guiding the decision making process (Paliadelis & Cruickshank 2003, Duffy 2006, Webb & Shakespeare 2008, Black 2011). Inconsistencies in the decision making processes of mentors has also been demonstrated (Neary 1996, Dolan 2003, Scholes et al 2004, McCarthy & Murphy 2008, Fitzgerald et al 2010). These findings support the concern of the study that mentors may be making decisions about student competence that stakeholders can have limited confidence in. Research into nursing decision making also reveals inconsistency and variability across a range of clinical decisions and contexts, indicating a wider concern with the quality of decisions that may be taken.

Of particular consideration when examining modes of cognition and the quality and consistency of decisions taken, has been the effect of experience and expertise (Hamers et al 1997, Cioffi 1998, Hicks et al 2003, Simmons et al 2003, Twycross & Powls 2006, Hoffman et al 2009, Yang & Thompson 2011, Andersson et al 2012).

Expertise has been linked to extensive experience of the decision making phenomenon of concern and reduces the amount of time needed to come to a decision (Hoffman et al 1995, Hamers et al 1997, Hoffman et al 2009). Clinical experience has been reported as positively associated with judgement and decision making performance (Watson 1994, Cioffi 1998, Hicks et al 2003). However, though experience has been associated with an increasing use of intuition (Pretz & Folse 2011), a number of studies have indicated that experienced nurses do not always make better, or more consistent decisions than less experienced staff (Twycross & Powls 2006, Thompson et al 2008, Yang & Thompson 2011, Andersson 2012). This is a concern when examining the NMC requirement for a sign-off mentor (NMC 2008a). It may be that these experienced mentors do not make better decisions than other mentors involved at an earlier stage in the programme.

There are a number of implications for the development of this study in light of current understandings of mentor assessments of student competence and nursing decision making in general. In this study mentor assessments of student nurses in practice is considered to be a cognitive process, using both formal and informal strategies to gather and evaluate information about a student and their practice, the mentor judgements. These inform and support the end of placement assessment regarding whether the student has passed or failed the placement, the decision (Thompson & Dowding 2002, Simmons 2010). The literature has shown that both intuition and analysis are valuable cognitive strategies and that their appropriateness depends on a range of factors such as task complexity, expertise and time available (Cader et al 2005, Standing 2008). Equally it has been suggested that it is a delusion to consider that nurses decision making works in more or less the same way across all situations (Lauri & Salanterä 1998). This has been an important consideration when designing the study as the resulting methodology and methods outlined in chapter 3 will demonstrate.

Specifically, it has underpinned the desire to examine the characteristics of a mentor decision and the cognitive processes employed across the full range of possible decisions that a mentor can make: Pass decision, Borderline Pass decision (i.e.

concerns raised during placement but overall pass decision awarded) and Fail decision. It has also led to the use of a whole student cohort as the vehicle for gathering data and exploring how mentors make decisions on student competence in practice. This may support identification of cognitive processes used, information (cues) gathered in support of student assessment and perception of the decision taken (i.e. the task complexity). Further links between Judgement and Decision Making Theory and the design and execution of the study will be provided in the next chapter which outlines the methodological approach and methods used to investigate mentor decisions in practice.

Chapter 3. Methodology and methods to investigate mentor decision making.

3.1 Introduction

The impetus for this research study arose out of the concerns previously articulated, that variability of mentor practices limits confidence in the judgements and decisions about student competence that they take. From an initial question 'How are mentors making decisions on student competence and can we have confidence in these decisions?' sustained engagement with the student assessment and nursing decision making literature, combined with ongoing experiences of student assessment in my professional work role, resulted in reflection and refinement of initial ideas. From the gaps in the literature noted and commented upon by others (Duffy 2006, Black 2011), it was clear that a different kind of question and focus was required; one that moved away from reporting of experience, beliefs and opinions, to an approach that sought to identify and explain judgements and decisions taken. Thus the purpose of enquiry needed to be more explanatory rather than descriptive and exploratory (Robson 1993). As ideas developed, records of my thinking and the impact on the study development were documented in a research diary to support reflection and audit of the research process (Robson 1993, Flick 2009). The result of this evolutionary process led to the development of a primary research question and supplementary research questions to address **the principal aim of the study**, namely to:

> *'Identify individual mentor practices and the cognitive processes used by mentors to form judgements and reach an overall decision on a student's achievement at the end of an assessed practice experience'.*

In conducting the investigation I hoped to better understand mentor practices and assessment processes with a view to identifying ways to support and improve mentor decision making in practice. From this aim the following research questions were developed:

Principal Research Question (PRQ):

What factors underpin mentor judgements of student nurse competence in practice and how do mentors reach a decision to pass or fail a student in practice?

Supplementary Research Questions (SRQ):

1. What evidence do mentors gather and use to inform their judgements about a student nurse's practice?

2. What effect do assessment strategies, including documentation, have on mentor judgements and decisions about a student's practice?

3. How do mentors make judgements and reach a decision to pass or fail a student in practice?

This chapter outlines the development and implementation of the study design. Previous research approaches in this area are discussed to demonstrate how this contributed to my developing understanding and to the selection of an appropriate methodology to investigate mentor decision making. Philosophical and theoretical perspectives appropriate to a decision making investigation are considered. An overview of the study design is presented, followed by a detailed consideration of data collection methods and data analytic procedures. Ethical considerations pertinent to the study are reviewed and issues of credibility and inference discussed.

3.2 Evolution of the research design

In undertaking the study, I was aware that I came to the topic more as a researcher-practitioner, with the potential for prejudice and bias alongside the potential benefit that personal experience can confer. Heeding the advice that a researcher should *'start where you are'* (Robson 1993, p22), I believed that an initial literature review would help me to not only understand the thoughts, aspirations and feelings that I brought to the research process but also help me to understand the state of current knowledge and potential approaches of relevance to my study design. Furthermore I was aware

that it might be considered naïve to view the topic as a *'new field to explore, where nothing has ever been published before'* (Flick 2009, p48). Instead, I was keen to not only acknowledge and build on what had gone before but also develop an empirical piece of work that could provide new insights into mentor decisions; thus adding to the current body of knowledge whilst demonstrating originality (Phillips & Pugh 2005, Hart 1998).

3.2.1 Mentor assessment studies influential in the development of the methodology and methods

The literature review provided information regarding what was known about mentor assessment, enabled me to examine possible methodologies, designs and methods and clarify my beliefs and overall position to the study. Influential studies in planning the study were Brown (2000), Paliadelis & Cruickshank (2003), Duffy (2006) and to a lesser extent McCarthy & Murphy (2008). An overview of these studies in terms of methodology and methods is presented in Table 3. Studies by Brown (2000) and Duffy (2006) demonstrated the usefulness of qualitatively examining student practice assessment documents (PADs) to consider the evidence gathered and used by mentors (SRQ1). What mentors note in their documented comments could provide information on the 'cues' noticed to inform their judgements; acquiring and searching through information and combining information are considered key processes in making a judgement (Newell et al 2007). In addition the use of descriptive statistics (Brown 2000) could determine which information was the most frequently used by mentors.

Study & study aim	Methodology & data analysis approach	Sample	Methods used	Potential use for investigation
Brown (2000) 'What are the areas of student performance that mentors make professional judgements on when providing feedback to students?'	Qualitative Seven-stage approach to qualitative content analysis	From 238 end of placement reports collected from students who has passed placement (3 years of Mental Health programme) random sample of 50 reports per year group selected for analysis	Seven stage approach to content analysis of mentor comments in written reports. Frequency counts of codes and themes identified.	Methods useful for gathering and analysing data for SRQ 1. Criteria used by mentors similar to notion of 'cues' used in decision making processes.
Paliadelis & Cruickshank (2003) 'To gain insight into the experiences of rural RNs who assessed student competence by exploring how they performed the assessment process'	Qualitative Hermeneutic phenomenology	10 rural RNs in Australia. Purposive sampling based on range of years of experience as RNs and student assessors	Semi-structured interviews (approx. 45-60 mins) Thematic analysis of interview transcripts	Interview methods potentially useful for gathering data for SRQs 1, 2 & 3. Purposive sampling ensures RNs have a story to tell as they are acquainted with the phenomenon
Duffy (2006) 'Explore the phenomenon of student nurses who fail to demonstrate sufficient competence in practice, but who still pass clinical assessments, and to provide an explanation for such occurrences.'	Qualitative Grounded theory	Mentors with no direct experience of failing a student (6) Mentors who had experience of failing a student (10) Mentors who had concerns but passed student (10) Lecturers involved in borderline passes (14) Mentor comments in student PADs – convenience sample (58)	Unstructured & semi-structured interviews Grounded theory – constant comparative analysis (Strauss & Corbin 1998)	Interview methods potentially useful for data gathering for SRQs. Potentially useful to combine data gathered from student documents and mentor interviews to answer overall PRQ. Range of mentor experiences may capture nature of mentor practice more fully.
McCarthy & Murphy (2008) 'To explore to what extent nurses use the devised assessment strategies to clinically assess students'	Quantitative Survey - questionnaire	All preceptors working with students in one Republic Of Ireland university (n=970) 470 questionnaires returned (48.5%) *NB 'Preceptor' is the equivalent term for a mentor in the ROI.*	Postal Questionnaire using Likert scales Self -reports by mentors Descriptive statistical analysis using SPSS version 13.0	Quantitative data regarding mentor use of assessment processes useful to set context for exploring mentor decision making (PRQ) On its own will not demonstrate what influences mentor decisions.

Table 3: Overview of influential studies investigating assessment of student competence in practice

The use of a similar sampling process to Brown (2000) was considered, where end of placement reports at a fixed point in time (say after examination board) for all three years of the programme would be accessed. However though capable of collecting information about cues documented, a random sample only from students who had passed the placement would not provide information from the full range of possible mentor decisions (Fail, Borderline Pass[3], Pass). In addition, collecting information at one point in time, though across the three years of the programme would not allow for a review of cues by student and an opportunity to examine if there was consistency in what was commented on about a student across the programme. These gaps led to me considering the option to select a full cohort of students and their practice assessment documents (PADs) in order to examine all mentor decisions made for each student across the full three years of the programme.

McCarthy & Murphy's survey (2008), illustrated the potential benefit of collecting some kind of quantitative data regarding mentor use of assessment processes to set the context for exploring mentor decision making (PRQ) and to explore the influence of these processes upon decisions taken (SRQ 2). This would complement the qualitative analysis of what mentors noted about students (SRQ1). Studies by Paliadelis & Cruickshank (2003) and Duffy (2006) revealed the contribution that interviews could make. Semi-structured interviews were capable of eliciting the kind of knowledge used by mentors to assess students (Paliadelis & Cruickshank 2003) and obtaining details about the processes of passing a student (Duffy 2006). Across research approaches qualitative interviews are considered capable of generating in-depth data about experiences, motives and opinions of participants who have knowledge of the problem of interest (Ritchie et al 2014). However I was uncertain as to the qualitative methodology to be used to support the interview process. Hermeneutic phenomenology, though good at obtaining information regarding mentor experiences and the type of knowledge used (Paliadelis & Cruickshank 2003), was limited when considering the effect of assessment strategies and the process of deciding to pass or fail a student (SRQs 2 and 3). Grounded theory interviews provided a wealth of information regarding experiences and processes of managing a failing student and

---

[3] Borderline Pass is considered to be where a mentor raises concerns regarding a student during the placement but awards a pass decision at the end of the assessed placement period (Duffy 2003).

factors influencing mentor decisions but as highlighted by Duffy (2006) herself, which factors were important could not be identified. Furthermore, wishing to examine mentor practices within judgement and decision making frameworks conflicted with widely held beliefs regarding the inductive - deductive nature of Grounded Theory processes (Sarantakos 2005, Flick 2009). An appropriate interview method would therefore need to be found from within the decision making literature.

Selecting participants who were able to talk about their experiences was a key part of sampling in studies by Paliadelis & Cruickshank (2003) and Duffy (2006). Though different approaches were adopted, key to sampling was the need to select participants who would, in the researcher's opinion be relevant to the project, rather than sampling to reflect and represent particular features of a population (Sarantakos 2005, Flick 2009, Ritchie et al 2014). Duffy (2006) used theoretical sampling to explore a range of both mentor and lecturer perceptions about why there may be a failure to fail. Theoretical sampling within a Grounded Theory study is driven by the process of data collection in order to develop an emerging theory; the sample is not chosen in advance of the research, rather it is an ongoing process of selection throughout a study until theoretical saturation has been reached (Strauss & Corbin 1998, Benini 2000, Sarantakos 2005, Flick 2009). As I wished to examine mentor decisions with respect to existing judgement and decision making theories, this sampling strategy was not applicable. Of more use was the notion of purposive sampling of expert mentors by Paliadelis & Cruickshank (2003) to ensure that those who had a story to tell were accommodated within the study. In purposive sampling, participants are selected *'because they have particular features or characteristics which will enable detailed exploration and understanding of the central themes and questions which the researcher wishes to study'* (Ritchie et al 2014, p113). In addition I was interested in the fact that Paliadelis & Cruickshank (2003) had selected 'expert' registered nurses, determined as such by their years as practicing nurses and as assessors of students. The decision making literature highlights the contribution of experience and expertise to any examination of modes of cognition and the quality and consistency of decisions taken (Hamers et al 1997, Cioffi 1998, Hicks et al 2003, Simmons et al 2003, Twycross & Powls 2006, Hoffman et al 2009, Yang & Thompson 2011, Andersson et al 2012). Given the NMC requirement for a sign-off mentor to confirm that a student is fit for

practice at the point of registration (NMC 2008a), this notion of being an 'expert' gave further support to a consideration of sign- off mentors as the mentor population to be interviewed in the study. This would ensure that data were collected from mentors who had sufficient experience and practice in student assessment (Sarantakos 2005, Flick 2009, Ritchie et al 2014). Equally if all respondents were 'expert' then it might strengthen the possibility of being able to tease out the nature of decision making for a specific group rather than having significant variability in the participant interview group which might limit any inferences drawn from the data (Watson 1994, Cioffi 1998, Hicks et al 2003).

From this review it became clear that to understand mentors thoughts and practices a predominantly qualitative approach would be required for the study (Brown 2000, Paliadelis & Cruickshank 2003, Duffy 2006). In terms of methods, qualitative interviews would be capable of obtaining in-depth information from mentors knowledgeable and experienced in making decisions regarding student competence and thus address SRQs 1, 2 & 3. Combining interviews and the use of student documentation as data collection methods would enable a fuller understanding not only of the factors underpinning mentor judgements but also the processes of decision making that mentors undertake (PRQ). In addition it was clear that there was also a role for the adoption of a quantitative element to the study in terms of data collection (McCarthy & Murphy 2008) and some quantitative handling of qualitative data (Brown 2000). Furthermore analysis of data through a process of content analysis (Brown 2000, Paliadelis & Cruickshank 2003, Duffy 2006) and descriptive statistics (Brown 2000, McCarthy & Murphy 2008) was demonstrated as capable of addressing the research questions that I wished to consider.

3.2.2 Nursing decision making studies influential in the development of the methodology and methods

Having reached this stage, the design of studies investigating nursing decision making were then considered. At the time of selecting the methodology and study design only five studies reviewed made use of a quantitative approach. Four of these were large surveys to investigate decision making models used by nurses and the relationship to

areas of practice (Hughes & Young 1990, Lauri & Salenterä 1998, Lauri et al 2001, Hicks et al 2008). The final study used an experimental design to compare decisions made by novices, intermediates and experts in assessments of post-operative pain in children (Hamers et al 1997). Reviewing these studies reinforced the view that a qualitative approach was the most appropriate to address my research questions. A further small group of quantitative studies used designs based on Judgement Analysis (Cooksey 1996), to explore nurses' judgements. Using multiple case scenarios, variables of information were manipulated and the judgements made subjected to regression analysis to calculate Brunswik lens model equations to understand which cues nurses use and their relative importance (Thompson et al 2007, Thompson et al 2008, Yang & Thompson 2011). The notion of cues considered and weighting attached to them underpinned explanations for the variations noticed in the decisions taken. However, given the state of current knowledge regarding mentor decision making I did not consider it possible to construct multiple scenarios or identify the significant variables to manipulate, in order to examine their effect on a mentor's judgement.

Qualitative studies formed the majority of the decision making literature reviewed with studies falling into two groups: studies which were descriptive or exploratory in nature, and studies which made use of a 'Think Aloud' technique. The latter is often associated with verbal protocol analysis, a method widely used within psychology to explore the 'thinking' processes used when people are engaged in cognitive tasks (Ericsson & Simon 1993, Aitken et al 2011, Fox et al 2011, Ritchie et al 2014). 'Think Aloud' is a qualitative data collection method where participants are instructed to think aloud, verbalise their 'inner speech', normally while completing an activity; the belief being that this process of verbalisation is capable of providing detailed information of the concurrent reasoning processes in use (Ericsson & Simon 1980, Charters 2003, Aitken et al 2011). From the full range of studies reviewed the significant decision making studies influencing the study design are presented in Table 4.

Study	Data collection methods	Nature of cases	Data Analysis approach
Descriptive / exploratory studies			
Manias et al 2004	Participant observation Then Semi-structured interviews	Real world cases in practice	Content Analysis
Burton & Hope 2005	Retrospective semi-structured interviews concerning documented cases	Documented real world cases in practice	Content Analysis
Hedberg & Larsson 2003	Non-participant observation then semi-structured interviews	Real world cases in practice	Inductive content analysis
Cheyne et al 2006	Focus group interviews	Generic cases from focus group members practice	Latent content analysis
Hancock & Easen 2006	Participant observation then semi-structured interviews	Real world cases in practice	Content analysis & category comparison between observation / interview data
Dowding et al 2009	Non-participant observation then semi-structured interviews	Real world cases in practice	Thematic Content analysis
'Think Aloud' studies			
Cioffi & Markham 1997	Think Aloud interviews	Simulated assessment situations based on actual case studies	Verbal protocol analysis
Cioffi 1998	Think Aloud interviews	Simulated cases	Verbal protocol analysis
Offredy 1998	Think Aloud interviews	Simulated cases	Verbal protocol analysis
Simmons et al 2003	Think Aloud interviews	Real world cases in practice	Verbal protocol analysis
Twycross & Powls 2006	Think aloud interviews	Simulated cases	Verbal protocol analysis
Goransson et al 2008	Think Aloud interviews	Simulated cases	Deductive content analysis of verbal protocols
Hoffman et al 2009	Think Aloud interviews	Real world cases in practice	Verbal protocol analysis

Table 4: Overview of qualitative studies investigating nursing decision making

Across the two groups data collection methods fell into three categories:

1. Interviews (usually individual face to face), normally semi-structured or with a series of prompts, informed by the principles of protocol analysis. Think Aloud interviews were either used concurrently, at the point when the decision was being taken, or retrospectively after a decision had been taken.

2. Observation followed up with interviews to probe how and why the nurse had taken the decision they had.

3. Decision cases – an event or activity where a practice decision was required. Both real cases observed in practice and simulated cases (constructed with respect to real cases which may occur in practice – 'authentic cases') were used.

This review confirmed that semi-structured interviews would be an appropriate data collection method. However, limitations with the 'Think aloud' approach were identified. All the 'Think Aloud' studies reviewed had concentrated on judgements and decisions taken at one point in time on clear, bounded practice cases (both simulated and authentic). Mentors engage with a student across a placement period however, develop a relationship and reach a final decision based on multiple observations. This made it difficult to pinpoint when, over the time period, to focus the think aloud technique. Furthermore, continuous concurrent verbalisations can be difficult to undertake at the same time as action; a particular issue in situations where verbal communication is a significant part of the participant's behaviour, as in this case (Lyle 2003, Aitken et al 2011, Fox et al 2011). Instead I considered that it might be more useful to use the principles of 'talking through' a decision as the basis for the prompts to be used in the semi-structured interviews with sign-off mentors, thus using an approach demonstrated as capable of accessing the cognitive processes of research participants (Lyle 2003, Aitken et al 2011, Fox et al 2011).

Four studies used observations to collect details of the case and associated decision prior to conducting interviews with the nurse making the decision (Hedberg & Larsson 2003, Manias et al 2004, Hancock & Easen 2006, Dowding et al 2009). For decisions taken at a fixed point in time and concentrating on an aspect of care, observations pre interview provided a useful way to prompt and question decision making processes in the subsequent interview. However in considering the use of observations in my study, it was not clear what exactly should be observed; would it be sufficient to observe the final mentor interview with the student or would observation of all mentor interviews

with the student together perhaps with a period observing the mentor and the student in practice be required? There were no answers to this provided by the literature review. A further issue considered was the potential effect that I could have observing the assessment process in my position as a nurse educator; an effect that might change normal practice and alter the overall decision taken. This could potentially disadvantage students of the sign-off mentors who were participating in the study. Referral to ethical principles and ethics committee guidance indicated that such a data collection method would not be granted approval due to these potential risks for a student. A further disadvantage to the use of observational methods pre interview concerned the range of decisions that might be observed. Not knowing the decision outcome until the final interview meant running the risk of observing perhaps only pass decisions, rather than the full range of decisions available to a mentor. Overall what was clear was that some information obtained about a practice decision taken (either authentic or simulated) and examined in depth in a subsequent interview could yield useful insights into the cognitive processes employed (Manias et al 2004, Hancock & Easen 2006, Dowding et al 2009). Student assessment documents had already been shown to be useful tools to investigate mentor decisions (Brown 2000, Duffy 2006), as the mentor comments documented at interview (preliminary, midpoint and final) represent the judgements and decisions taken over time. These offered the opportunity to examine real decisions at more than one point in time.

3.2.3 Developing the underpinning methodology

Methodology has been described as *'a broad approach to scientific inquiry specifying how research questions should be asked and answered'* (Teddlie & Tashakkori 2009, p21). It is considered the driving force behind all aspects of a study design and is underpinned by the researcher's beliefs and understanding about the nature of knowledge (epistemology) and the nature of reality (ontology) (Sarantakos 2005, Greene 2006, Ritchie et al 2014). Ontology is concerned with questions about what is the real world and what can be known about it whereas epistemology questions the relationship between the knower and what can be known (Crotty 1998, Denzin & Lincoln 2005). For studies to successfully address research questions they must be located within a clear methodological approach, selected on the basis of the research problem to be investigated (Maggs-Rapport 2001, Flick 2009, Gelling 2014).

The review of the mentor assessment and nursing decision making literature indicated that a qualitative methodology, underpinned as it is by a constructivist ontology and an interpretivist epistemology (Sarantakos 2005), would provide the best fit for this study. Described as a 'broad church' (Ritchie et al 2014), and difficult to define clearly (Denzin & Lincoln 2011), qualitative research is generally considered a *'naturalistic, interpretative approach, concerned with exploring phenomena from the interior and taking the perspectives and accounts of research participants as a starting point'* (Ritchie et al 2014, p3). The term encompasses diverse methods and ways of collecting and analysing data usually involving words or images; distinctive by their richness and depth, rather than ability to be subjected to processes of quantification and statistical analysis (Denzin & Lincoln 2011, Smith et al 2011). Though there are a wide variety of approaches and beliefs espoused, common elements of qualitative research practice include flexible methods of data collection, detailed and rich data elicited, analysis focused on the meaning and uniqueness of each participant and their contribution and open to emerging themes and categories and reflexivity on the part of the researcher (Ritchie et al 2014).

A constructivist ontology places itself in opposition to a positive ontology, the latter based as it is upon a belief that an objective reality about an experience exists (Denzin & Lincoln 2011). Rather, constructionism appreciates the uniqueness of experience and takes reality to be subjective, dynamic and reproduced by people acting on their interpretations and their knowledge of reality (Crotty 1998, Sarantakos 2005, Ritchie et al 2014). As a result there is a belief that multiple realities exist which are actively constructed and reconstructed by individuals through the meanings they ascribe to events. These meanings, are based on culturally defined and historically situated interpretations and experiences (Crotty 1998, Silverman 2004, Sarantakos 2005, Flick 2009, Denzin & Lincoln 2011). Principally concerned with explaining processes by which individuals account for the world, research conducted within a constructivist perspective respects the expertise of participants, and seeks to collaborate and explore the participants' experiences and understandings of the subject under investigation. Interpretivism is considered the key process that facilitates construction and reflective assessment of reconstructed experiences and impressions (Sarantakos 2005). As the

framework within which qualitative research is conducted, interpretivism *'looks for culturally derived and historically situated interpretations of the social world'* (Crotty 1998, p67). Focused on the way that people make sense of experiences, the goal of the research is to achieve 'Verstehen', described by Max Weber as an in-depth understanding of the way that people make sense of their worlds (Sarantakos 2005).

Exploring these theoretical foundations confirmed the approach, as capable of addressing the core research concern of the study; it offered the opportunity to gain an in-depth insight into mentors' practices, experiences and beliefs, a social activity where there was limited knowledge of individual or shared practices. At the same time it provided a framework to work with mentors to understand their judgement and decision making, which acknowledged both the participant and researcher perspective, facilitating a collaborative approach to achieve 'Verstehen'. This was an important consideration. Though I have a range of experience in decision making in student practice assessment, I did not consider the decisions that I might make if I was still a mentor, would necessarily be any different from, or better than the decisions and decision processes under investigation. The review of the judgement and decision making literature had suggested caution in making any claim to good decision making (Newell et al 2007, Kahneman 2011). However, though a qualitative methodology addressed the supplementary research questions for the study, used alone I believed limitations existed in how well the approach could address the links between the **'what'** factors and **'how'** do mentors decide, elements of the principal research question. Instead the methodology needed to be more than just interpretative, suggesting the possible use of a mixed methods approach to the study.

Mixed methods research has been subject to a wide-ranging dialogue regarding definition, typology and practice in recent years (Bryman 2006, Johnson et al 2007, Teddlie & Tashakkori 2009, Feilzer 2010, Creswell & Plano Clark 2011). Considered as the third major research approach alongside quantitative and qualitative research, It has been suggested that mixed methods research (MMR) is:

"research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or programme of inquiry." (Tashakkori & Creswell 2007, p4)

From a content analysis of definitions provided by key leaders in mixed methods research, Johnson et al (2007) proposed the following general definition:

"Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration." (Johnson et al 2007, p123)

What is common across the range of definitions are concepts of 'mixing' of approaches, stages of mixing, breadth of approach, purpose of mixing and orientation of the research (Johnson et al 2007). Thus a study is considered to be a mixed methods study if there is interaction, use and triangulation of methods from different methodological approaches (Johnson et al 2007, Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011, Gelling 2014).

A mixed methods design is considered appropriate where one approach alone is insufficient to answer the research question. It may be that data from one source may be limited or that the overall research problem may best be addressed through a phased study (Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011). Reasons given for supporting the use of a mixed research approach include participant enrichment, instrument fidelity, treatment integrity and significance enhancement (Collins et al 2006). In evaluation research, five justifications for combining quantitative and qualitative research are identified: triangulation, complementarity, development, initiation and expansion (Green et al 1989). Creswell & Plano Clark (2011) suggest six needs which may support the selection of a mixed methods research approach, including insufficient data source, explanation and generalisation of exploratory findings, enhancement of findings with a second method which explores study objectives through multiple research phases.

It has been suggested that growth in the recent use of MMR approaches is as a consequence of a more pragmatic, 'bottom-up' approach to planning and conducting research, where what is important is selecting the most appropriate approach to answering the research question, rather than remaining within methodological or philosophical constraints (Creswell & Plano Clark 2011, Gelling 2014). In other words a 'needs-based' approach to research method and concept selection (Johnson & Onwuegbuzie 2004). Sometimes criticised as a 'what works' approach which ignores the differences between quantitative and qualitative epistemologies, the so-called 'incompatibility thesis' or 'paradigm wars' (Howe 1988, Johnson et al 2007, Teddlie & Tashakkori 2009), more recent debate has considered the ways in which quantitative and qualitative methods are similar, the 'compatibility thesis' and thus how combining methods can be viewed as epistemologically coherent and complementary (Howe 1988, Johnson & Onwuegbuzie 2004, Brannen 2005, Johnson et al 2007, Teddlie & Tashakkori 2009,Feilzer 2010, Creswell & Plano Clark 2011). Some of these commonalities as identified by Johnson & Onwuegbuzie (2004) and Brannen (2005) are summarised in Table 5.

Commonalities among the Traditional Paradigms (Johnson & Onwuegbuzie 2004)
- Both quantitative and qualitative researchers use empirical observations to address research questions   - Both methodologies describe their data, construct explanatory arguments from their data, and speculate about why the outcomes they observed happened as they did   - Both sets of researchers incorporate safeguards into their inquiries to minimize confirmation bias & other sources of invalidity that have the potential to exist in every research study   - Regardless of orientation, research represents an attempt to provide warranted assertions about human beings and the environments in which they live   - Objectives, scope and nature of inquiry are consistent across methods and across paradigms   - Fully objective and value-free research is a myth: subjectivity in both traditions includes deciding what to study, developing instruments, choosing tests and items to observe (and measure), scoring / coding interpretations, drawing conclusions and interpretations based on the collected data, deciding what data to emphasise or publish
Overlaps between qualitative and quantitative research (Brannen 2005)
- Both qualitative and quantitative research may be concerned with people's views and actions   - Both types of research may employ hypothetico-deductive and inductive logic   - Quantitative research is generalizable in a statistical sense; qualitative findings may be generalised in a different sense in that they may be generalised to other settings or contexts or may involve theoretical generalisation

Table 5: Summary of suggested commonalities between qualitative and quantitative paradigms

To support MMR, most writers in the field identify Pragmatism as the most useful and developed philosophical position to support a mixed methods approach, arguing that pragmatism on the lines of classical pragmatism as advocated by John Dewey for example, can provide a way to consider the competing claims of the traditional paradigms (Howe 1988, Cherryholmes 1992, Johnson & Onwuegbuzie 2004, Johnson et al 2007, Teddlie & Tashakkori 2009, Feilzer 2010, Creswell & Plano Clark 2011). According to this view what should be focused upon are the empirical and practical consequences of ideas in order to better understand phenomena and determine future action, rather than choosing methods of investigation made in response to paradigm constraints (Johnson & Onwuegbuzie 2004, Feilzer 2010). As a result pragmatism is considered *'a deconstructive paradigm that debunks concepts such as truth and reality and focuses instead on what works as the truth regarding the research questions under investigation'* (Teddlie & Tashakkori 2009,p8). Pluralistic in approach, instead of truth as objective (quantitative) or the relative truth of multiple realities (qualitative), pragmatists undertake both objective and subjective inquiry in an attempt to find a truth that best represents reality and has a degree of utility (Howe 1988, Feilzer 2010). Pragmatic research, supported by notions of complementarity of paradigms (the compatibility thesis), is driven by the anticipated consequences of choices made about what to research and how (Cherryholmes 1992, Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011); with regard given to the *'reality of and influence of the inner world of human experience in action'* and knowledge *considered 'as being both constructed and based on the reality of the world we experience and live in'* (Johnson & Onwuegbuzie 2004, p18). Suggested weaknesses of pragmatism focus on notions of utility, how this should be defined and for whom, together with how well pragmatic theories of truth can handle cases of *'useful but non-true'* beliefs *or 'non-useful but true'* beliefs (Johnson & Onwuegbuzie 2004, Feilzer 2010).

This was the final piece of the methodological jigsaw that I was searching for to support the study. If I undertook a mixed methods study, guided by the paradigm of Pragmatism espoused by mixed methodologists, where qualitative (QUAL) and quantitative (QUAN) methods are considered compatible (the compatibility thesis), and where QUAL and QUAN methods are combined in a way that may promote 'COMPLEMENTARITY', *'findings from one dominant method are enhanced or elaborated*

through findings from another method' (Teddlie & Tashakkori 2009, p161), this could provide the means and subsequent data sets to explore the link between the **'what'** and **'how'** elements of the PRQ. Indeed, with the way I had examined the research literature with a view to determining my approach for investigating mentor decision making , that is to say a 'what works' stance, and the nature of the PRQ driving the study, I had already unconsciously been working within such a pragmatic focus (Cherryholmes 1992, Brannen 2005). Returning to the research questions and understanding gained from previous studies regarding possible approaches, I remained convinced that the main thrust of the study should be qualitative, with quantitative methods used to complement and enhance insights obtained. This would label my study as a QUALITATIVE DOMINANT piece of mixed methods research, as defined by Johnson et al (2007). Teddlie and Tashakkori (2009) represent the predominant focus of a study as located on a QUAL-MM-QUAN exploratory-confirmatory continuum; as a QUALITATIVE DOMINANT mixed methods study this would place it in Zone B of the continuum as shown in Figure 3.

Source: Teddlie (2005).
Note: Zone A consists of totally qualitative (QUAL) research with purposive sampling, whereas Zone E consists of totally quantitative (QUAN) research with probability sampling. Zone B represents primarily QUAL research, with some QUAN components. Zone D represents primarily QUAN research, with some QUAL components. Zone C represents totally integrated mixed methods (MM) research and sampling. The arrow represents the purposive-mixed-probability sampling continuum. Movement toward the middle of the continuum indicates a greater integration of research methods and sampling. Movement away from the center (and toward either end) indicates that research methods and sampling (QUAN and QUAL) are more separated or distinct.

Figure 3: The QUAL–MM–QUAN Continuum. (taken from Teddlie & Tashakkori 2009, Figure 2.3, p28)

3.3   The Study Design

Choice of methodology and research design should be led by the research question, particularly when designing a MMR study (Gelling 2014, Larkin et al 2014). The research question should be formulated with respect to identified study objectives, which are the result of intuitions based on experience, reactions to practical problems, and results from previous research. Framing of the research question may then involve an overarching mixed research question driving the study, which is broken down into sub-questions addressing the QUAL and QUAN dimensions of the study (Teddlie & Tashakkori 2009). As has been shown, experience, practical concerns, personal interest and gaps in existing knowledge underpinned the development of the study. The emerging aims and questions which the study design then needed to address, along with the contribution and priority of each dimension are summarised in Table 6. The dominant dimension of research for each SRQ is designated with uppercase letters, with the less dominant conveyed in lowercase (Teddlie & Tashakkori 2009).

Study aim
The aim of the study is to investigate documented decisions and the practices of mentors forming judgements and reaching decisions concerning students' competence in practice.
Principal research question (PRQ)
What factors underpin mentor judgements of student nurse competence in practice and how do mentors reach a decision as to whether to pass or fail a student in practice?
Supplementary Research Questions (SRQs)
1. What evidence do mentors gather and use to inform their judgements about a student nurse's practice? (QUAL /quan)
2. What effect do assessment strategies including documentation, have on mentor judgements and decisions about a student's practice? (QUAL / quan)
3. How do mentors make judgements and reach a decision to pass or fail a student in practice? (QUAL / quan)

Table 6: Summary of study aim, principal and supplementary research questions

Work by Bryman (2006) reviewing rationales provided in MMR and methodological writings for combining quantitative and qualitative research, influenced choices made in the study design and are reflected in the overall rationale for selection of a mixed methods approach, with the following reasons pivotal:

- *Completeness:* refers to the notion that the researcher can bring together a more comprehensive account of the area of enquiry in which they are interested if both quantitative & qualitative research are employed.
- *Process:* quantitative research provides an account of structures in social life but qualitative research provides sense of process.
- *Explanation:* one is used to help explain findings generated by the other.
- *Sampling:* refers to situations in which one approach is used to facilitate the sampling of respondents or cases.
- *Credibility:* refers to suggestions that employing both approaches enhances the integrity of findings.   (Bryman 2006, p106)

3.3.1 Choices made in constructing the mixed methods study design

Choices to select a MM design focus on the ways that qualitative and quantitative strands of a study relate to each other (Teddlie & Tashakkori (2009). Choices centre around four key decisions concerning the management of the individual strands as identified by Creswell & Plano Clark (2011) which are presented in Table 7. The resulting design can be considered to be a **Fixed Mixed Methods** design, in that the use of qualitative and quantitative methods were predetermined and planned at the beginning of the research process and implemented as planned in the conduct of the study (Creswell & Plano Clark 2011).

Key decision	Key features of the decision
Determine the level of interaction between the Quantitative & Qualitative strands	Level of interaction is the extent to which the two strands are kept independent or interact with each other. • Independent- the two strands are distinct, with the questions, data collection and analysis kept separate. Strands are mixed only when drawing conclusions in the overall interpretation at the end of the study. • Interactive – direct interaction between strands before the final interpretation. Can occur at different points and in different ways.
Determine the priority of the Quantitative and Qualitative strands	Priority refers to the relative importance or weighting of the Qual / Quant strands for answering the study's questions. • Equal priority both play an equally important role in addressing the research problem • Quantitative priority greater emphasis placed on Quant methods and Qual methods used in a secondary role • Qualitative priority greater emphasis placed on Qual methods and Quant methods used in a secondary role
Determine the timing of the Quantitative and Qualitative strands	Timing refers to the temporal relationship between the study strands, which may relate to data collection but may also describe the order in which results from different strands are used. • Concurrent – both strands implemented during a single phase of the study • Sequential – strands implemented in two distinct phases, one phase after another • Multiphase combination – implementation of multiple phases that include sequential and/or concurrent timing over a study.
Determine where and how to mix the Quantitative and Qualitative strands	Mixing is the process by which the researcher implements the independent or interactive relationship in MMR. This may occur at four possible points: • Mixing during interpretation – occurs during the final stage after collection and analysis of both Qual & Quant sets of data. Inferences reflect learning from combination of both study's strands. • Mixing during data analysis – occurs during analysis of data sets , with each set analysed and the through a process of 'merging' results are brought together in a combined analysis • Mixing during data collection – the results of one data strand build to the collection of the other strand of data • Mixing at the level of design – strands mixed during the larger design stage (e.g. embedded, theoretical framework or study objective mixing)

Table 7: Key decisions in choosing a mixed methods design (adapted from Creswell & Plano Clark 2011, p63-68)

Determine the level of interaction between the Quantitative & Qualitative strands

In wishing to investigate the full range of possible decisions taken (Pass, Borderline Pass, Fail), it was important to use student documents that were representative of students undertaking the undergraduate programme, thus hopefully reflecting not only mentor decisions taken but a range of processes underpinning these decisions.

Choosing a whole student cohort completing at one point in time, irrespective of outcome achieved on the programme, provided the means to do this. Sample selection based on the principle of representativeness is a key aim in quantitative research, in that the sample can reflect the whole population and thus support generalisations (Sarantakos 2005). Selecting by cohort enabled not only all types of decisions to be considered, but also typical patterns of achievement and comments over time to be examined. Surveying the student PADs from the cohort for the decisions recorded and written mentor concordance with programme assessment standards could quantify practices, contextualize decisions being examined and facilitate the selection of mentors for interviews. This quantitative strand of the study could then support mentor sampling for qualitative data collection (Brannen 2005). The study design is thus considered to be **interactive** in that there is a direct connection between the two strands before final interpretation (Creswell & Plano Clark 2011).

Determine the priority of the Quantitative and Qualitative strands

As previously discussed, a **qualitative** priority for the study was considered as best suited to providing the richness of data required to address the SRQs posed.

Determine the timing of the Quantitative and Qualitative strands

Informed by other MMR, collecting initial quantitative data in a survey could provide context to the study and support sample selection for qualitative interviews. This would enable the mentor sample to be linked to the documented decisions reviewed and provide the means to facilitate selection against pre-determined criteria. The study could therefore be considered as **sequential** in that the two strands, the quantitative strand undertaken prior to the qualitative strand, are implemented in two distinct phases (Creswell & Plano Clark 2011).

Determine where and how to mix the Quantitative and Qualitative strands

Finally, the resulting logic from choosing to conduct a study where the quantitative strand supported development of the qualitative strand whilst remaining secondary in emphasis, and where there existed a direct interaction between the two strands,

supported the choice of an **embedded design** to describe the mixing of the strands within the study (Figure 4). In essence there is a qualitative framework for the study with a quantitative strand used to support the development of the qualitative strand and provide context and criteria for sampling and findings; thus a mixing not only at design level but also during data collection.
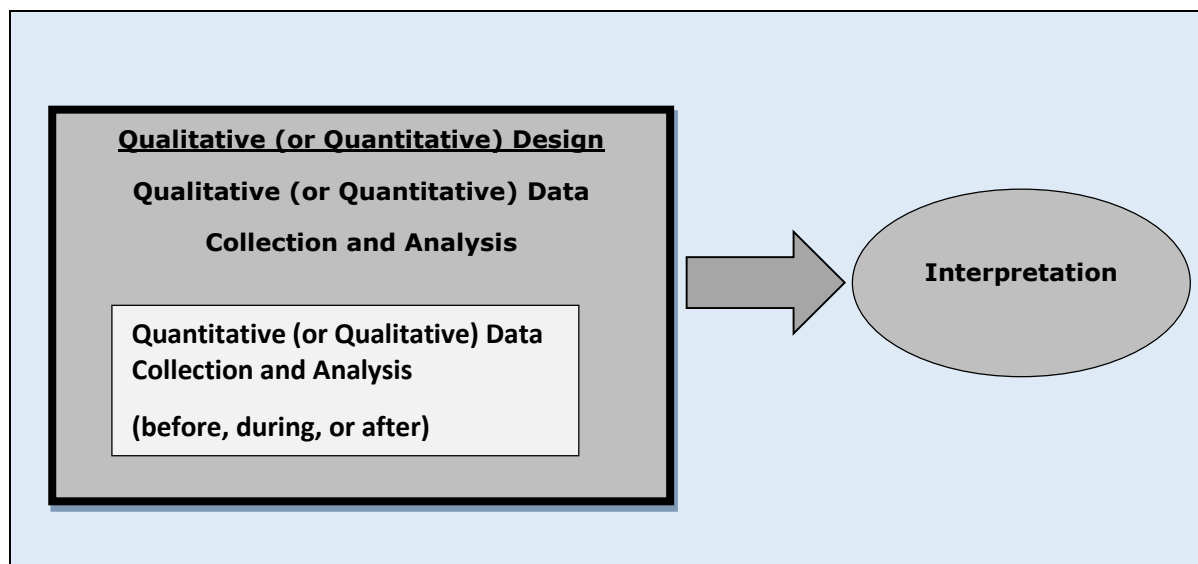
Figure 4: The embedded design (adapted from Creswell & Plano Clark 2011, Figure 3.2, p70)

3.3.2 The study design and implementation

Translating the prototype embedded design shown in Figure 4 into the final design governing the research process for this study is illustrated in Figure 5. In **Phase 1** of the study, student PADs for the three years of a whole cohort of Adult Health undergraduate nurses were collected after the end of programme examination board and surveyed. From the documentation, mentor pass/fail decisions were recorded along with quantitative data regarding timing of the three placement interviews (Preliminary, Midpoint, Final) against scheduled dates. Whether mentors contributed written comments at interview points was also noted. In addition student theoretical achievement for the programme was reviewed. From the survey a sampling frame was constructed, identifying student progression and achievement as well as mentor practice in the final placement, to identify the sign-off mentor sample for interview.

This is presented in section 3.3.3. Descriptive analysis contributed to a contextual understanding of how mentors make decisions (SRQ3), as well as a review of prompts for use in the interview phase of the study.

Overall Mixed Methods Study Design: Sequential Embedded.

Phase 1 Project:

Quantitative survey of student cohort and achievement.

Quantitative survey of mentor actions against assessment processes

Descriptive analysis of survey data

Identify mentors for face to face interviews.

Review prompts for semi-structured interviews

Phase 2 Project:

Qualitative data collection and analysis of mentor comments.

Qualitative data collection and analysis of face to face mentor interviews.

Quantitizing aspects of qualitative data.

Integration

Integrated explanatory analysis of factors and processes used by mentors to reach an assessment decision.

Figure 5: The Study Design

Phase 2 of the study consisted of face to face interviews with individual sign-off mentors, selected from the developed sampling frame in phase 1. Interviews focused on collecting information about mentor actions and decisions to understand what anchors mentors judgements, how they are influenced by programme assessment strategies and as a result how a decision regarding student competence is reached (SRQs 1, 2 & 3). Qualitative analysis of mentor comments in student PADs and sign-off mentor interviews was then undertaken.

At **integration** inferences drawn from each phase of analysis were mixed for the purpose of developing an overall explanation regarding the factors underpinning mentor judgements of student competence and the decision making process (PRQ).

3.3.3 The sampling strategy

Sampling in any study provides the boundaries for collecting data and thus the boundaries for drawing inferences from the data obtained (Miles & Huberman 1994). This study involved two samples: the student PADs from an identified cohort of Adult Health undergraduate nurses containing mentor comments and assessment decisions, and the sign-off mentors (SOMs) who participated in individual face-to-face interviews.

In selecting the student cohort, I compared key features of the selected cohort with the two preceding year's cohorts, also completing against the same programme standards and documentation, to ensure parity. Comparisons led me to believe that the student cohort and associated PADs could be considered **representative** of undergraduate nursing students on the programme with respect to cohort size and academic and practice achievement (Sarantakos 2005). The student cohort contained 41 students at the completion point of the programme, with 330 mentor decisions available for review in the student PADs.

All SOMs for the selected student cohort were considered as potential participants for the interview phase of the study. Forty two mentors had made forty three final placement decisions for the student cohort selected; one mentor assessed one final placement student and then a repeat final placement student from the same cohort immediately after. Sign-off mentors were the target population due to their mentoring experience, the immediacy of decision taken along with the crucial nature of the decision in confirming proficiency for entry to the professional nursing register (NMC 2008a). Immediacy of the decision would be easier to recall in any retrospective interview (Gass & Mackey 2000, Lyle 2003). Qualitative sampling tends to be *purposive*, pre-specified to a degree, often driven by theory and designed to enhance understandings of experiences or develop theory (Miles & Huberman 1994, Devers & Frankel 2000). In this instance, sampling needed to focus on identifying SOMs covering

the full range of placement decisions, as well as variations in student and mentor practice; decision making theories suggest that different types of processes may be enacted for different decisions (Hammond 1996, Standing 2008, Evans 2010, Stanovich et al 2011, Kahneman 2011).

In the tradition of multiple-case sampling (Yin 2003), a sampling frame was constructed, to identify SOMs on the basis of conceptual grounds and dimensions of practice. The resulting sample can be considered as **purposive, dimensional** to address a wide range of mentor practices and decisions (Miles & Huberman 1994). The sampling frame, SOMs selected and interviewed is presented in Table 8. The aim was to interview between 16-20 SOMs for the study. This would be in line with other mentor assessment studies reviewed and thus manageable within the study's time and resource limits (Duffy 2006, Black 2011). The sample size would account for nearly half the population and thus, through size and selection process, should support data collection that was not too narrow or biased in focus and capable of supporting development of an emerging theory (Miles & Huberman 1994, Sarantakos 2005). From twenty mentors identified and approached to participate in the study, seventeen mentors were ultimately interviewed. Of the three mentors who declined, two were on health grounds and one did not feel able to participate.

Student Code	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Year 1 Placement 1					Pcu															
Placement 2																				
Placement 3																				
Year 2 Placement 4																				
Placement 5																				
Placement 6					Pcu															
Year 3 Placement 7														P c						
Placement 8 (Final)														Fcu						
Repeat final placement																				
Final weekly meetings																				
Degree classification	2ii	1st	2ii	2ii	Ord	Ord	2i	2i	1st	2ii	2ii	2i	2i	3rd	3rd	2i	2ii	Ord	2ii	2ii
Registration achieved	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SOM interviewed	Yes				*		Yes		Yes		Yes		Yes	Yes x 2		Yes				

Table 8: The sampling frame for sign-off mentor selection (students A – T)

GLOSSARY   * SOM declined to be interviewed

Pass – no concerns raised		Fail – concerns raised at midpoint & university involved		Final Placement Weekly meetings Full Record (13-16)	
Pass – concerns raised & university involved	P cu	Fail – concerns raised at midpoint & university not involved	F cu	Half record (6-12)	
Pass – concerns raised, university not involved	P c	Fail – concerns not raised at midpoint		Limited record (1-5)	
				No recorded meetings	

99

Student Code	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO
Year 1 Placement 1																					
Placement 2																					
Placement 3			Pc														Pc				
Year 2 Placement 4																					
Placement 5			Pcu																		
Placement 6																	Fcu				
Year 3 Placement 7						Pcu															
Placement 8 (Final)						Fcu	Fcu							Pc			Pcu				
Repeat final placement						Fcu															
Final weekly meetings																					
Degree classification	1st	Ord	2ii	Ord	Ord	Ord	Ord	2ii	2ii	2i	2i	3rd	3rd	2i	2i	2ii	Ord	3rd	3rd	2ii	2ii
Registration achieved	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SOM interviewed	Yes				Yes	* + Yes	Yes				Yes			*	Yes		Yes	Yes			Yes

Table 8: The sampling frame for sign- off mentor selection (students U-AO)

GLOSSARY   *** SOM declined to be interviewed**

Pass – no concerns raised		Fail – concerns raised at midpoint & university involved	F cu	Final Placement Weekly meetings Full Record (13-16)	
Pass – concerns raised & university involved	P cu	Fail – concerns raised at midpoint & university not involved	F c	Half record (6-12)	
Pass – concerns raised, university not involved	P c	Fail – concerns not raised at midpoint		Limited record (1-5)	
				No recorded meetings	

3.4   Data Collection

Influenced by previous research into mentor assessments and nursing decision making, the data collection methods selected included quantitative and qualitative data from student assessment documents, as well as qualitative individual interviews with selected sign-off mentors. How development of these methods occurred and how they were ultimately used in the study is now outlined.

3.4.1 Using documents as data

Student assessment documents are a construction representing the decision taken by a mentor on the competence of an individual student in practice. They pre-exist the research and can be considered features of the practices being explored, *'produced through the practices being researched, rather than in order to answer a research question'* (Gibson & Brown 2009, p66). They identify some of the people involved in forming a judgement and are the professional record where a mentor formally demonstrates their professional accountability for the assessment of student competence (Norman et al 2002, Duffy 2003, NMC 2008a, McCarthy & Murphy 2008, Fitzgerald et al 2010). The structure and design of the documentation influences how students and mentors record and assess practice against programme specified learning outcomes (Neary 2001, Scholes et al 2004). At an early stage of the study design, a pilot study was undertaken to consider what data could be obtained from the student documents and how they could be used in the main study.

Documentation used to support and record student practice learning and assessment consisted of a Skills Workbook, detailing teaching and achievement of specific clinical skills and a Practice Assessment Document (PAD) recording student development in specific practice settings and achievement of identified professional body proficiencies. Documents were specific to stage of programme and area of practice (e.g. Adult, Mental Health) that the student intended to register in. They were completed by the student and their mentor with additional contributions from other registered practitioners who had taught or assessed specific skills. Both the mentor and student record proposed learning outcomes and then subsequent achievement, in the interview schedules contained in the PAD. Skills Workbooks

were of limited use for the study, containing merely signatures against a list of prescribed skills, thus only Practice Assessment Documents were reviewed in the pilot study.

Local level ethical approval was obtained to examine what was contained in student PADs and consider how they might relate to and support other methods of data collection to interrogate mentor assessments within a decision making framework. A notice regarding the study was posted on to the student portal for Adult Health students and a number of students provided consent and their documents for review. In total a convenience sample of 15 students, Year 1 n=1, Year 2 n=7, Year 3 n=7, responded within the time frame. From these it was possible to review documented mentor judgements and decisions for 39 placements. Of these placements there were 2 fail decisions and one placement where no decision was recorded; the remaining decisions were *'Pass Placement and All proficiencies achieved'*. Examination of documents was undertaken in a quantitative manner initially (Dolan 2003, Hyatt et al 2008, Fitzgerald et al 2010). Mentor comments in student interviews were also reviewed from a qualitative perspective (Brown 2000). The range of information that could be extracted from student PADs is summarized in Table 9.

Type of Information	Purpose of extraction
Biographical: Placement area, Placement length, Level of assessment, Outcome of assessment, People identified as contributing to student assessment	Contextualise student assessment data **(SRQ 3)**
Process: Interviews undertaken – preliminary, intermediate and final (Yes/No). Comments provided by mentor at each interview event (Yes/No). Dates of interviews in relation to length of placement (and placement guidance). Development plans and action plans completed by mentor / student / lecturer. Methods of assessment used e.g. observation, questioning	Assess compliance with assessment strategy and guidance. Consider judgement and consistency of judgement on student over time **(SRQ 1 & 2)**
Professional : Mentor qualification, on locally held register and updated	Assess compliance with NMC standards to Support Learning in Practice **(SRQ 2)**
Criteria: Skills and/or learning outcomes identified in interview feedback and student evidence records	Identify criteria recorded to support judgements and overall decision. **(SRQ 1)**

Table 9: Data extraction from student PADs in pilot study

Following on from the pilot study, student PADs were initially used in Phase One of the main study to collect quantitative **process** data as outlined in Table 8. The data extraction sheet to record this data can be found in Appendix A. This data were embedded in the main qualitative thrust of the study to the extent that they provided context to the way that mentors used assessment strategies (SRQs 1 & 2). In addition final placement **process** data contributed to the sampling frame (Table 8). In Phase Two of the study, the mentor comments documented at interview were extracted and transcribed verbatim into a continuous narrative. Allocated mentor and student codes were applied to the transcript rendering the data anonymous. This was important not only for maintaining principles of confidentiality in line with ethical approval granted (DH 2005), for example when sharing transcripts with my supervision team, but also useful for providing some distance from knowledge of the individual student whose documents they were. As a result, when I returned to examine the transcripts for **criteria** data at a later stage, I was more able to consider the comments as 'stand-alone' data, without recourse to identification of the individual student, thus providing me with a fresh perspective on the data obtained. Documents from 41 adult health students containing a total of 330 placement decisions were reviewed in the main study. Adult Health students were selected as this is my own field of practice and I believed that in order for me to 'get close to reality' and think with my own experience and intelligence (Flyvberg 2001) it was important for me to examine a field of practice that I had an understanding of.

3.4.2 Using interviews to examine mentor decision making

Documentary analysis alone could not identify the 'why' and 'how' aspects of factors considered by a mentor regarding student competency, but could perhaps support the SOM interviews proposed. As researchers have tried to better capture how decisions are taken in clinical settings, introspective methods of data collection such as 'Think Aloud' or 'Stimulated Recall' have increasingly been favoured, the belief being that through a process of verbalisation, detailed information of the concurrent reasoning processes in use can be obtained. Widely considered as a legitimate and practicable method for examining decision making processes, use can increase the number of judgements identified, and though concerns have been raised that concurrent verbalisation may alter cognitive processes and task performance, this is generally considered not to be the case (Ericsson & Simon

1980, Charters 2003, Simmons et al 2003, Banning 2008a, Suto & Greatorex 2008, Aitken et al 2011, Fox et al 2011, Cioffi 2012).

Continuous concurrent verbalisations can be difficult to undertake at the same time as action, a particular issue for this study, where mentors are discussing the development and achievement of the student in practice (Lyle 2003, Aitken et al 2011, Fox et al 2011). In addition, student assessment and associated mentor decision making should not occur at one fixed point in time, but be a continuous process (NMC 2008a). However use of interview processes which invite descriptive recall and cognitive probing offered a means to gain a deeper insight into mentor decision making (Lipshitz et al 2001, Cioffi 2012). As data were to be collected retrospectively an approach was required which addressed any limitations in a mentor's ability to remember events and aspects of decision-making. Stimulated Recall (SR) procedures incorporating use of an artefact, the student PADs, could facilitate this retrospective introspection by the mentor, supporting recall of decisions that might be superior to a simple semi-structured interview (Gass & Mackey 2000, Lyle 2003, Skovdahl et al 2004, Bidmead & Cowley 2005, Dempsey 2010).

Stimulated Recall (SR) offers an introspective procedure where participants are normally played video or audio recordings of their behaviour (an artefact) to stimulate recall of the event and their concurrent thinking occurring during the event (Lyle 2003, Skovdahl et al 2004, Bidmead & Cowley 2005, Dempsey 2010). A methodological approach developed from cognitive psychology by Wagner et al (1977), although first used by Bloom (1953) to examine student recall after a classroom event, it is used in education research as well as healthcare training (Gass & Mackey 2000, Lyle 2003, Bidmead & Cowley 2005, Goulet et al 2007, Salvatori et al 2008, Rowe 2009). Records of an event, the artefact, such as visual or audio recordings, written charts or diaries, are given to a participant after an event to prompt recall of what was in their mind during the event itself. This facilitates immediate connection with the cognitive processes employed, which is greater than free recall and captures the complexity, uncertainty and dynamics of the situation (Lyle 2003, Dempsey 2010). In the SR interview the artefact is examined by the participant, and through researcher-led use of structured recall and probing procedures, participants talk through their thinking, decisions and

actions contained in the artefact (Busse & Borromeo 2003). Similarities with 'think aloud' techniques may be evident in the verbalisations generated and in the shared assumption that it is possible to access internal thoughts and verbalise them. Though the method is a more indirect means of eliciting cognitive activity, it still has advantages over a standard post event interview (Lyle 2003, Bidmead & Cowley 2005, Dempsey 2010). Participants are brought closer to the moment when they made the decision and their resulting accounts may therefore more accurately represent thought at the time the artefact was created. This addresses the problem of accurate reflection arising from retrospective interviews. The artefact acts as a *'sort of memory prosthesis'* (Dempsey 2010, p351), directly engaging the participant with their actions, rather than merely asking them to remember, which facilitates discussion of actual actions and decisions taken, rather than idealised actions that they might or should take.

As a researcher conducting an SR interview, care needs to be taken to ask open-ended questions which do not seek to produce a 'new view' of the event capable of altering the perception of the cognitive processes employed during the event itself (Gass & Mackey 2000, Lyle 2003). Altered perception may also occur if the artefact used is not presented from the participant's perspective. Another concern is the participant interview accounts may not articulate the thinking that occurred concurrent with the event, but rather represent a conscious censoring and reflection on the event by the participant. Nevertheless, with careful design and execution the method can be valuable in eliciting the reasoning of participants in real world settings, and thus was selected as the interview method for the study (Lyle 2003, Skovdahl et al 2004, Bidmead & Cowley 2005, Dempsey 2010).

Seventeen sign-off mentors agreed to be interviewed, with interviews occurring within four to ten weeks of the final placement interview. As part of the consent process mentors were made aware that the student PAD and mentor comments would form the basis of the interview. A previous study examining how mentors made judgements about student's clinical competence had found that mentors had difficulty in reporting specific mentoring incidents when asked to simply recall events from practice (Webb & Shakespeare 2008). It was hoped that using a document completed by the SOM, an artefact, would help to stimulate recall and access their concurrent reasoning concerning the student's competence.

Stimulated recall interviews adopt a semi-structured approach to interviewing with pre-determined prompts and questions used in a flexible manner alongside the artefact to explore the phenomenon under investigation (Lyle 2003). Through an interactive 'stop-start' process of reviewing and discussing the artefact selected, participant and researcher collaborate to develop an understanding of the actions and decisions contained within the artefact (Rowe 2009, Dempsey 2010). This process is guided by the content of the artefact and associated interview proforma to enable issues to be explored in a flexible and spontaneous way, whilst ensuring that similar types of data are collected from all participants (Gass & Mackey 2000, Lyle 2003, Skovdahl et al 2004, Bidmead & Cowley 2005).

Arising from the pilot study review of student PADs and informed by decision making theory (Newell et al 2007), an interview guide for eliciting biographical data and discussion of key topics had been developed and tested. The final topic content for this guide is presented in Figure 6. Prior to each interview, the mentor's comments and use of assessment processes were reviewed and key issues to explore noted on the interview guide. No annotations were made on the artefact itself. During the interview, as the mentor worked their way through the student PAD, the topic guide was used to prompt discussion as required and ensure that all areas had been addressed at some stage in the interview.

Opening prompt: Could you talk me through how you have worked with this final placement student and at the end of the placement reached a decision on their competence in practice.

Any specific prompts /questions to ask identified from document review pre-interview?

Areas to ensure are covered in discussion:

Discovering information   (Newell et al 2007)

- ***Student documents*** how they influence work of mentor and student
- ***Proficiencies –*** discussion of achievement of these with students, use and review of evidence records?
- ***Evidence***- what is gathered about a student's practice and how is this used to form judgements and make a decision?
- ***Learning needs/objectives*** guiding student work during placement and a structure to provide feedback on and form judgements

Acquiring and searching through information

- What ***methods of assessment*** are used (direct observation, questioning, nursing documentation completed by student, student evidence in CAP document, feedback from other staff, feedback from patients)
- ***Specific areas that judgements are made on***: Professional behaviours and values, Communication skills, a clinical skill (eg medicines management)
- ***Student effect*** do you alter what you consider and how you gather and use information depending on whether the student is very good, or you have concerns about the student.
- ***Relationship(s)*** with the student with SOM and with the team as a whole?

Combining information

- How are ***other members of staff*** used to support student, provide feedback and contribute to judgements and overall decision on achievement?
- ***Interviews –*** opportunities to review progress, provide ***feedback (***verbal and/or written) and plan future development – examine time spent meeting, what discussed and documented, where meetings take place, completing documentation at interview or pre-interview?
- ***Final decision*** how is this made? When? What do you consider when making decision? What are the criteria you use to make a decision? Which pieces of information are the most important? Confidence in decision taken?

Killer Question: Would you have given this student a job in your area at the end of the placement? (why / why not?)

Figure 6: Topic Guide to support sign-off mentor SR interview

3.4.3 Research Governance

There is a long history of governance of health research both internationally and nationally (WMA 1964, DH 2005). In addition there exist management procedures for obtaining agreement to conduct research that are separate from any research ethics system (Meenaghan et al 2007). These procedures are outlined in the

Research Governance Framework (DH 2005) and encompass broad principles of good practice, standards for research and the processes that researchers must comply with in order to meet the requirements of the framework. Thus researchers are required to gain both *ethical* approval, through appointed NHS Research Ethics Committees (RECs), and *management* approval, through NHS organisational Research Governance Committees, for each research project (Shaw et al 2009, Tod et al 2009). Furthermore, it is now usual for universities to require research proposals to be submitted for review and approval by an internal, university ethics committee (Gerrish et al 2008, Thompson & France 2010).

The National Research Ethics Service (NRES) offers a common entry point for researchers to submit information for consideration by NHS Ethics and NHS Research Governance Committees (Shaw et al 2009, Tod et al 2009, Watson & Gelling 2012). From 2009, through the development of the associated Integrated Research Application System (IRAS) there is a single on-line system for applying for permissions and approvals for health & social care research in the UK (Thompson & France 2010, IRAS 2011). IRAS provides a streamlined application process for gaining NHS permission for clinical research in England, avoiding duplication of information in separate application forms and ensures that, through the use of filters, the data collected are appropriate to the type of study and permissions and approvals required (IRAS 2011).For this study both ethical and management approval were required. University ethical approval was required for access to student PADs and to access nursing mentors for interviews in NHS settings. Management approval was required for each NHS organisation where mentors were being accessed (McDonach et al 2009, DH 2011).

As a member of staff at the Higher Education Institution (HEI) where the student documents were to be accessed, ethical approval was required from the Faculty Research Ethics Committee (FREC), to ensure that there were no conflicts of interest between my work role and research project which may affect a student's achievement on the programme, either positively or negatively. Ethical approval was also required from the School Research & Ethics Panel (SREP) of the Higher Education Institution where I was registered as a research student to demonstrate that the proposed study conformed to the required standards for health research (DH 2005). An integrated approval process existed between the two HEIs involved,

where it was possible to present written and verbal information for one REC only and, subject to satisfactory approval, receive subsequent approval from the other ethics panel in question. Research governance approval was then obtained from each NHS organisation where mentors were to be recruited for the study.

Risk management is a key principle of any research governance framework, and for this study focused upon risk to Human Subjects (students who were the subjects of the documents), risk to Human Participants (mentors being interviewed), and professional risk. To ensure that student assessment decisions were not influenced or changed as a result of any study intervention, documents could only be examined after ratification by end of programme Examination Board. In addition, where disputed decisions existed, these could not be examined until the dispute had been resolved. Documents were transcribed, names removed and student codes applied so that students were not identifiable during analysis and beyond. Sign-off mentor participation in the study was known only to the researcher, with names removed and study identifiers added to interview tapes and transcripts, prior to sharing with my supervision team, and undertaking analysis or publication activities. Both student documents and mentor consent forms identifying individuals were stored separately and securely from documentary and interview transcripts in line with policies for management of confidentiality, data storage and security (DH 2005, JISC 2007). In addition anonymity of participating organisations was ensured. Finally there was the need to manage the potential risk of encountering a decision or practice that raised professional concerns in line with The Code (NMC 2008b). Delaying access to documents until after ratification by exam board and resolution of disputes, allowed for the normal university processes of scrutiny, moderation and investigation to occur. With respect to poor mentorship, there were already local mechanisms in place outside of the study for concerns to be raised and appropriate action to be taken. However, acknowledging this concern and wishing to be supportive of mentor development and practice, all mentors participating in the study were offered a 'Mentor Update' pack to contribute to the NMC requirement for an annual update (NMC 2008a).

Informed consent is also key to the ethical conduct of any research, with developments and changes in the requirements for consent as part of research approval processes often a response to unethical research practices (Watson &

Gelling 2012). Individual student consent was not required, as practice documents become the property of the university at completion of the programme; consent instead was obtained from the Head of School and approved by the FREC in line with local policy. However, aware that practices elsewhere might require individual student consent, students were made aware that their documents were to be used for the study when they handed in their PADs at the end of the programme and copies of the study information sheet were made available. Though directly approached for the study, mentor participation was voluntary, with potential participants provided with information sheets (Appendix B), and given time to consider this prior to completing a consent form. Participants were provided with copies for their own records and in accordance with an 'informed process consent' approach, were provided with opportunities to reiterate their ongoing participation or the right to withdraw across the study (Munhall 1988, Ensign 2003).

3.5   Data Analysis

In Mixed Methods research, data analysis occurs as independent and integrative analysis of the available data sets using techniques that '*mix the quantitative and qualitative data and results – the mixed methods analysis'* (Creswell & Plano Clark 2011, p203). This is often best represented in an analytic plan or matrix of data and integration to provide an overview of data sets, timings and processes of analysis used to address the research questions posed (Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011, Guest et al 2012). The data analysis plan for this study can be found in Figure 7.
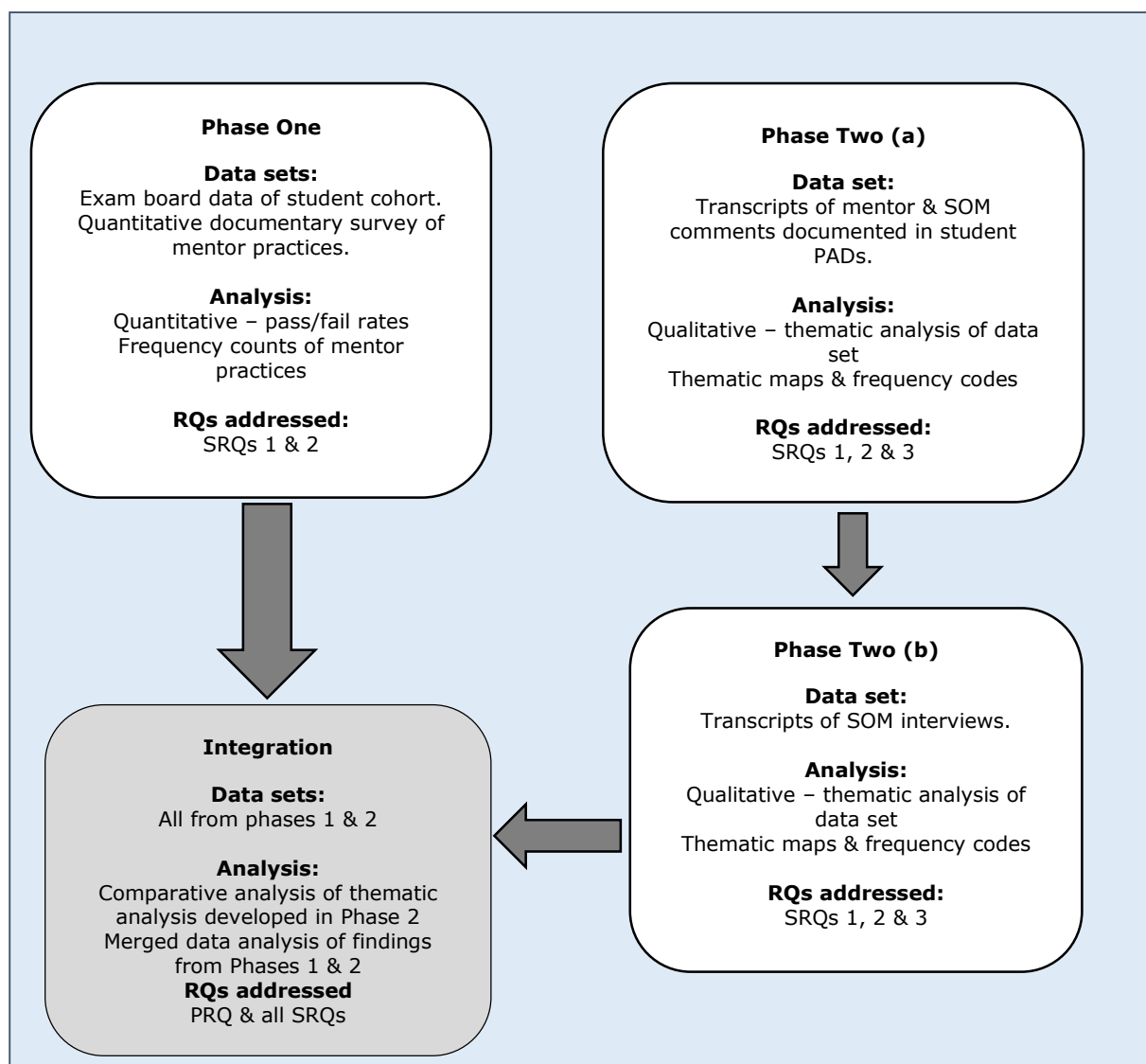
Figure 7: Data Analysis Plan of the study

3.5.1 Phase One: Quantitative Analysis

Quantitative analysis was conducted to provide context for student achievements and mentor practices being considered. Examining the timings of interviews conducted during a practice experience and whether there were documented comments from mentors at interview, also provided information around mentors' use of assessment strategies. Finally findings from the quantitative analysis supported selection of SOMs for interview in Phase Two.

Examination Board spreadsheets for the student cohort were obtained and examined. The pass/fail results of each theory and practical component of the course were recorded by assigning a numeric value along with overall degree and

registration award. Assigning a numeric value rendered actual marks amenable to analysis (Creswell & Plano Clark 2011). Results were entered into a grid by student, and overall theory and practice pass and fail rates calculated and quantified as a percentage. A map of student movement and progress in the cohort was also developed. Documents were then surveyed and quantitative **process** data collected using Appendix A as a guide. Information from these sheets was then entered into a grid by item per placement (1,2 3 etc) of the programme; total frequencies and % frequency were calculated per item by comparing tally count with total number of decisions reviewed for that placement. Results were collated both as a matrix and histogram. Through these processes of analysis (describing & synthesizing data) and representation, core data from exam board sheets and student documents were coded and ordered in a way amenable to interpretation. Known as *descriptive statistics*, these processes organize data so that trends can be discerned. Trends examined in the analysed quantitative data in this study included frequency distribution, central tendency (based on calculation of the mean), and variability (the range) (Polit & Hungler 1995, Creswell & Plano Clark 2011).

3.5.2 Phase Two: Qualitative Analysis

Qualitative analysis focussed on developing an understanding of the evidence that mentors used and the effect of assessment strategies on their decision making. The purpose of any qualitative analysis is to organise and manage textual data in such a way as to reveal meaning whilst staying close to the original account, supporting interpretation and theory development (Miles & Huberman 1994, Gibbs 2007, Flick 2009, Gibson & Brown 2009). In many qualitative approaches, text is considered a proxy for experience, with the perceptions, feelings and behaviour contained in the text the focus of review (Guest et al 2012). The resulting findings and interpretations are then communicated via a textual narrative which reflects the conceptual lens that has been trained on the data (Miles & Huberman 1994, Silverman 2004, Gibbs 2007, Flick 2009, Gibson & Brown 2009). Mentor comments in the students PADs as well as from the Stimulated Recall interviews comprised the data which, transformed in to transcripts (texts), represented the reality of how a mentor forms a judgement and makes a decision regarding a student's competence.

Each data set was analysed independently of each other using Thematic Analysis (Attride-Stirling 2001, Braun & Clarke 2006, Guest et al 2012). Thematic analysis refers to inductive and iterative processes of analysing data according to commonalities, differences and relationships observed. Implicit and explicit ideas in the data are identified, described and aggregated into themes which provide structure and depict the patterns of ideas emerging (Gibson & Brown 2009, Teddlie & Tashakkori 2009). Many consider thematic analysis as a process performed within a number of qualitative analytic traditions (Boyatzis 1998), whilst others argue for consideration of thematic analysis as a method in its own right, suggesting that it *is a method for identifying, analysing and reporting patterns (themes) within data'* (Braun & Clarke 2006, p79), and that *'it can be a constructionist method, which examines the ways in which events, realities, meanings, experiences and so on are the effects of a range of discourses operating within society'* (Braun & Clarke 2006, p81). Through a process of inductive or theoretical coding, where the researcher actively searches through the data, identifying patterns and selecting those of interest to the research questions posed and theoretical and epistemological commitments made, themes are identified which represent some level of *'patterned response'* or meaning in the data set. These patterns may be represented in a thematic network or map (Attride-Stirling 2001, Braun & Clarke 2006).

Acknowledging and using thematic analysis supported my epistemological approach to the study, where I believed that not only were there individual mentor beliefs, practices and realities regarding assessment of student competency, but also perhaps some shared reality as a consequence of professional socialisation processes. Flexibility of the approach allowed me to examine these realities at different levels free from methodological constraints, coding and actively searching for patterns and themes both inductively and in response to my selected lens of 'judgement and decision making' theory. Furthermore, presenting the findings of such analyses in terms of thematic maps to illustrate mentor decision making processes fitted well with other recognised psychological research methods; for example ethnographic decision tree modelling (Gladwin 1989), or repertory grid analysis of personal constructs (Fransella et al 2004, Jankowicz 2004). A six –phase process of thematic analysis proposed by Braun & Clarke (2006) was used to guide the thematic analyses undertaken. Further detail as to the specfic steps undertaken for each data set in each phase is contained in Appendix C.

At phase six *'producing the report'* themes were also quantified through frequency counts of data extracts allocated to codes. Absolute code frequencies, *'the total numer of times a theme appears in the data set'* (Guest et al 2012, p141), were calculated to obtain a sense of the prevalence of codes across either data set. Prevalence, either within a data set (e.g. one SR interview) or across an entire data set (all SR interviews) can quantify how important codes and themes are to the overall research question (Braun & Clarke 2006). I believed that by quantifying themes, they may convey a sense of scale in terms of which factors contribute the most to a mentor's decision making, and thus enhance and complement the thematic analysis already undertaken (Braun & Clarke 2006, Guest et al 2012).

3.5.3 Integration

At the integration stage results of the independent quantitative and qualitative analysis strategies from Phases 1 and 2 were connected and merged. Informed by a Parallel Mixed Data Analysis technique, the two strands of data analysis (descriptive statistics from phase 1 and thematic analysis from phase 2) were brought together for further analysis (Teddlie & Tashakkori 2009). Inferences made in response to the results from each phase were correlated and compared for the purpose of drawing study conclusions (convergent or divergent) and meta-inferences. Meta-inferences are the conclusions *'generated through an integration of the inferences that were obtained from both strands of the study'* (Teddlie & Tashakkori 2009, p266).

Initially this involved comparative analysis of themes developed from each data set in phase 2 and their associated thematic maps. Themes were examined for similarities, differences and relationships and also examined from the perspective of 'fit' to see which themes if integrated were perhaps two sides of the same coin (Teddlie & Tashakkori 2009). From an initial review I began to understand that thematic analysis of mentor comments in the student PADs provided information predominantly about **what** is judged regarding student competency, whilst thematic analysis of the sign-off mentor interviews focussed more on the **how** and **why** aspects of mentor decision making. As themes were integrated into an overall explanation and map of mentor decision making practices, original text segments and transcripts were reviewed to ensure that an accurate representation of

meaning had been captured in all stages of the analytical process (Attride-Stirling 2001, Guest et al 2012). Quantitative data from phase 1 were then considered against the outcomes of the individual thematic analyses conducted in phase 2 and then against the integrated qualitative analysis undertaken. This data provided details of the context of the study and mentor practices as well as the audit of mentor practice against programme standards. As connections between the analyses were identified, explanations were developed to provide a credible account of mentor decision making practices regarding student competence.

3.6   Judging the quality of the research inferences

Judging the quality of any study requires an assessment to be made of data quality, analytic adequacy, interpretive rigour and inference transferability in accordance with acknowledged standards of quality and excellence associated with the methodological approach used (Teddlie & Tashakkori 2009, Guest et al 2012). In addition, where assessment is also tasked with considering how quantitative and qualitative approaches have been integrated within a mixed methods study, it has been argued that specific evaluation criteria for mixed methods studies should be used (Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011). Reflecting on a mixed methods orientation the latter suggest that evaluation should consider whether the researcher

- Collects both quantitative and qualitative data,
- Employs persuasive and rigorous procedures in the methods of data collection and analysis,
- Integrates or 'mixes' (merges, embeds, or connects) the two sources of data so that their combined use provides a better understanding of the research problem than one source or the other,
- Includes the use of a mixed methods research design and integrates all features of the study consistent with the design,
- Frames the study within philsophical assumptions, and
- Conveys the research using terms that are consistent with those being used in the mixed methods field today.

(Creswell & Plano Clark 2011, p267)

Teddlie and Tashakkori (2009) suggest that the overall quality of inferences generated is related to two criteria, design quality and interpretive rigour, and propose an integrative framework for use in evaluating inference quality in mixed methods research. Many of the issues contained within the integrative framework have already been discussed in relation to study design (section 3.3), data collection (section 3.4) and data analysis (section 3.5). However two issues, namely **Design fidelity** and **Interpretive Agreement** merit further review when judgng the quality of the inferences made in this study.

3.6.1 Design fidelity

In designing the study a key concern had been to combine methods of examining student documents with mentor interviews, and integrate them in such a way to provide new insights. One key way to support this I believed was careful development of a sampling strategy within a mixed methods approach. Sampling in any study provides the boundaries for collecting data and thus a means for validating the data and results (Miles & Huberman 1994, Creswell & Plano Clark 2011). Use of the sampling frame (Table 8) provided opportunities to review mentor decision making with regards to what they documented and what they said about their thinking and actions in practice, thus having the potential to better understand the cognitive processes in play when determining student competence in practice.

Combining techniques of probability sampling (student cohort) to generate quantitative data with purposive sampling (SOMs) for qualitative data is a tried and tested approach in MMR. Probability sampling, seeks to generate a sample that will not only address the research question, but contain a large enough selection of cases that can collectively be considered representative of the overall population (Teddlie & Tashakkori 2009). Selecting a whole student cohort from a three year programme ensured that a sufficient number of cases (in this instance 330 mentor decisions) were considered. Reviewing the size of the cohort and theoretical and practical achievements against those of the two previous year's cohorts (who were following the same validated programme) allowed me to check trends of achievement and size and support the claim that the selected cohort could be considered representative of other cohorts who had completed the programme.

Selecting a representative sample enhances the external validity of the study to the extent that inferences from the quantitative survey in particular can be applied to a wider population (Creswell & Plano Clark 2011).

Purposive sampling seeks to select a range of cases which can inform in regard to the research questions, generating data that are characterized by their depth and knowledge of the phenomena under investigation. A range of techniques are available to support purposive sampling which commonly focus on achieving representativeness or comparability in the sample selected; cases may be representative or typical on a dimension of interest which can then be compared across the range of cases considered (Miles & Huberman 1994, Teddlie & Tashakkori 2009). SOMs were selected on the basis of a number of dimensions, which supported purposeful selection, e.g. raising concerns, passing a student & completing all weekly interviews, passing a student & completing less than half weekly interviews, failing a student. Combining these probability and purposive sampling strategies in a mixed methods design ensured that a range of typical cases could be considered in both phases of the study, within the context of the overall distribution and range of cases that existed; an important consideration when examining the generalizability of any inferences drawn (Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011, Guest et al 2012).

A further method employed for integrating student documents with mentor interviews, was the use of student documents as artefacts in Stimulated Recall interviews with selected sign- off mentors. I believed that not only did the document provide a record of the mentor's decision processes but it could also act as a vehicle for prompting the mentor about the decision processes used and documented (Lyle 2003, Bidmead & Cowley 2005). Reviewing the use of Stimulated Recall procedures I identified two areas of challenge which might impact upon the quality of data obtained. The first challenge concerned my skills in probing and prompting in order to stimulate actual recall of the decision. Inappropriate probing can result in conscious censoring of the recall, resulting in a 'sanitised' account, a new view of an event, influenced by the use of hindsight and reflection (Gass & Mackey 2000, Lyle 2003). Mindful of this, when reviewing the interview transcripts, I paid attention to comments where mentors offered an opinion, stating that they had not considered the issue before. These were then examined against the

documented comments for confirmatory support or inconsistencies. A second challenge was concerned with the extent to which retrospective data collection captured the concurrent reasoning of the mentors. An acknowledged threat to the validity of data gathered in SR is the time delay between the event and the process of recall (Gass & Mackey 2000), though this may be mediated to some extent in interviews using Chart Stimulated Recall (Jennett & Affleck 1998, Lyle 2003). Ethical constraints limited immediate data collection after the final interview, and thus could be considered as a potential threat to the quality of mentor recall and thus a limitation of the data collection method.

However the main benefits of the SR interviews conducted included the quality of recall obtained and the effect upon the researcher and participant relationship, which combined I believe strengthen any inferences proposed on the basis of the interview data. Mentors were able to easily recall the specific student and practice assessment decision taken. Conversations were fluent and full of detail, with numerous illustrations from practice provided by the mentor to support their comments and decisions evidenced in the student document. Other researchers have also noted these benefits in terms of increased recall and ability to articulate the rationale behind decisions and choices made (Bidmead & Cowley 2005, Salvatori et al 2008, Dempsey 2010). Using an artefact to which the mentor had contributed, placed the mentor's perspective and actions at the centre of the investigation and limited discussion focused solely on any agenda that I might have. This facilitated an acknowledgment of the experience of both parties in assessing students in practice which supported collaboration between the mentor and myself in developing a shared understanding of the assessment decision taken. I found that examining decisions from the insider's perspective not only gave ownership to the mentor to raise their own issues but also alleviated any bias or 'hubris' that I might experience whilst investigating an issue that I encounter regularly in my work (Lyle 2003, Bidmead & Cowley 2005, Rowe 2009, Cassidy 2013). An example provided from the study (Appendix D) illustrates some of the benefits from adopting a SR approach; in discussing her doubts over the decision taken concerning student 'AK', the mentor articulated not only criteria, but also a process of evaluation of these criteria to inform the final decision. In reviewing comments recorded in the student's PAD, the approach appeared to support a more focused discussion by the mentor of their decision processes than may have been achieved in a more usual post event interview (Bidmead & Cowley 2005).

3.6.2 Interpretive agreement

In evaluating the degree to which the inferences made match participant's constructions and would be reached by other researchers working with the same data, the credibility of the findings needed to be considered within the paradigm in which they were obtained (Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011). Credibility of quantitative data from Phase 1 of the study can be supported through clear identification of procedures (e.g. data sampling, frequency calculations) and presentation of findings in established data display formats (Polit & Hungler 1995, Teddlie & Tashakkori 2009). However credibility of qualitative data, the main thrust of the study, is subject to a wider debate regarding the criteria and strategies to be used; should the terminology and criteria be the same as those in quantitative studies or judged against criteria fitting a qualitative paradigm? (Cutcliffe & McKenna 1999, Flick 2009, Teddlie & Tashakkori 2009, Ritchie et al 2014). Given the constructivist stance taken in the study with regards the existence of different mentor realties that are socially located and constructed, the goal in terms of assessment of interpretations therefore is not replication, but rather the extent to which the reader is persuaded that the findings merit attention and are authentic and 'trustworthy' (Lincoln & Guba 1985, Flick 2009, Ritchie et al 2014). Thus qualitative criteria of credibility, dependability and transferability associated with the notion of 'trustworthiness' as outlined by Lincoln & Guba (1985), are considered more appropriate for focusing on the quality of the interpretations made in the study (Graneheim & Lundman 2004, Flick 2009).

Strategies for increasing the **credibility** of inferences may include triangulation of methods and data, 'peer debriefing' and member checks (Cutcliffe & McKenna 1999, Graneheim & Lundman 2004, Flick 2009). In Mixed Methods Research (MMR), triangulation describes processes of comparing and combining multiple data sources, data collection and analysis procedures as well as referring to the application of both qualitative and quantitative methods within a study (Teddlie & Tashakkori 2009, Guest et al 2012). The use of data from different sources or obtained through the use of different methods is generally considered to increase confidence in the findings presented, though may on occasion only serve to support inaccurate theory development (Cutcliffe & Mckenna 1999, Teddlie & Tashakkori 2009). In the study multiple sources of qualitative data collection centred around documented mentor comments in student PADs as well as sign-off mentors talking

through the process of working with a student and assessing their competency. Presenting sign-off mentors with their comments for discussion at interview provided the opportunity to understand and 'check out' one source of data with participants during the study to support later analysis, in a manner informed by the notion of 'member checking' (Cutcliffe & McKenna 1999, Slevin & Sines 1999, Flick 2009). It also provided a more complete picture of mentor judgements and decision making processes than if one data collection method had been used alone, allowing for convergence of the data to be assessed (Slevin & Sines 1999). Comparing this qualitative data with the quantitative data obtained in phase 1 of the study then provided a further opportunity to clarify the understandings developed (Teddlie & Tashakkori 2009).

Interpretations made by a researcher are inevitably subject to their personal interests and experiences, as well as sensitisation to the research problem through literature review and research design activities (Gibbs 2007, Flick 2009). For this study, this includes my personal experiences as a previous student assessor in practice and current work role. Miles & Huberman (1994) suggest that markers of a good qualitative researcher include some familiarity with the phenomenon and the setting under study. A view also supported by Silverman (2004) who advocates that it is vital that the researcher knows enough about the phenomenon if they are to ask the right questions. To guard against any potential bias arising from these exisiting understandings, a number of commentators have suggested the use of an experienced colleague to verify data categories by independently producing categories from the data and then jointly reviewing the two sets of categories developed (Lincoln & Guba 1985, Burnard 1991, Miles & Huberman 1994, Gibbs 2007). However, difficulties regarding how to determine criteria for appropriate experience combined with epistemological problems concerning existence of multiple realities and researcher engagement with these has led others to suggest that the benefits of colleague verification are questionable (Cutcliffe & McKenna 1999, Graneheim & Lundman 2004). What may be of more benefit is a process of 'peer debriefing', where regular meetings are held with people not involved in the research to disclose 'blind spots' and discuss findings and theory development (Flick 2009). Peer debriefing occurred predominantly throughout the study through meetings with my supervision team, enhanced by opportunities to present parts of my work to internal examiners and fellow research students at progression stages, to work colleagues at a School Away Day, and to a wider audience at the RCN

Annual International Nursing Research Conference (Burden 2014). Not involved in the fine detail of the study, people could question and challenge me on my actions, ideas and interpretations to the point that I became aware of my assumptions, practices and decisions made, and could set out to justify them. As part of this process one supervisor who is not a nurse, reviewed the allocation of text segments to codes and codes to themes, reaching agreement on all but the allocation of 2 text segments to codes (from a total of 2030 text segments coded). Reassuring as this was for the verification of data, what was more beneficial was the ensuing dialogue which, together with the other opportunities outlined, challenged me to question, defend and amend my ideas throughout the process of theory development, enabling me towards a more reasoned interpretation (Cutcliffe & McKenna 1999, Graneheim & Lundman 2004).

Strategies to support **dependability** of qualitative research findings focus upon the consistency with which research processes are undertaken across the study; this may relate to consistency in data collection where questioning on similar areas occurs for all participants, to consistent judgements over a period of time regarding the similarities and differences that exist in data sets (Graneheim & Lundman 2004, Flick 2009). A clear audit trail of the research process which allows for checking and replication by others is recommended (Cutcliffe & McKenna 1999, Slevin & Stiles 1999, Flick 2009). With regards to developing interpretations in the study, mentor comments in students PADs and recorded interviews were transcribed verbatim and indexed line by line with mentor / student codes, placement, stage of interview and line number as applicable. As text segments were extracted and coded these identifying tags were attached to each segment for traceability. Then, as codes were organised into themes and overarching themes, clarification of meaning and context could be achieved by returning to the original location of the segment within the transcripts (Miles & Huberman 1994). Use of a codebook, detailing definitions and boundaries of use for codes and themes developed, also provided the means to review the thinking behind them and ensure consistent application to the data gathered (Miles & Huberman 1994, Gibbs 2007, Guest et al 2012). Processes were supported with a range of technology such as digital recording, voice recognition software, Word and Excel packages to facilitate tracking and sharing of data throughout the study and across the supervision team (Gibson & Brown 2009). However after initial training and a trial run of a computer-assisted qualitative data analysis software package (NVivo 9), I concurred with advice to use

a manual approach at this stage in my research training in order to gain a good understanding of the processes and intuitive aspects of qualitative data analysis (Webb 1999, Gibbs 2007).

In undertaking interviews I was aware that my experiences, my existing understanding of the research problem and my presence, are brought to the interview conversation and frame the communication and sharing of perceptions between researcher and participant (Cutcliffe & McKenna 1999, Silverman 2004, Gibbs 2007). From the seventeen SOMs interviewed I had previously had direct contact with three but not in relation to the decision under consideration at interview. However my role in the university meant that most mentors had a general awareness of my existence, if not a knowledge of me as an individual. To capture the context and framing of the communication during an interview in order to support later data analysis, contact summary sheets as detailed by Miles & Huberman (1994) were developed. Completed on the same day as the interview, and following a listen through (without analysis) of the interview recording, information was noted regarding the conduct of the interview (length, venue, interruptions) as well as key issues that struck me from the contact, key information obtained and anything else considered illuminating. Referring back to these and the interview recordings at later stages of analysis reminded me of the context and manner in which the data were obtained, not least the relationship developed between myself and the sign - off mentor.

It has been noted that empathic processes may be in play between researcher and participant in a qualitative interview which may have a positive bearing on the authenticity of data collected (Cutcliffe & McKenna 1999). Reviewing the interview recordings and contact summary sheets I had a sense that the mentors trusted me and were prepared to be open and honest about their practices. They were also prepared to share doubts regarding their judgements and actual decisions taken. My understanding of student assessment allowed me to engage in a more focussed probing of processes rather than requiring the mentor to spend time explaining (Lyle 2003). One thing that really struck me from arranging and conducting the interviews was the commitment that mentors made to the research. Mentors were purposefully selected from the sampling frame (Table 8) with seventeen readily consenting to participate. Although arrangements took a while to be sorted out

mentors were proactive in communicating their availablity and once scheduled there were no last minute cancellations. This had not been the experience of other researchers (Shakespeare & Webb 2008). Indeed sign- off mentors put themselves out to be interviewed, with a number comng in on their days off so that they could concentrate and give sufficient time to the activity even though no payment or expenses were on offer. This led me to believe that the mentor accounts were authentic in their descriptions of the mentor's judgements and decisions they contained.

3.6.3 Conclusion

Throughout this chapter choices made in the conduct of this study in terms of epistemology, methodology, study design and methods have been outlined and discussed. Utilising a pragmatic QUAL / quan mixed methods design I believe has resulted in a rigorous and systematic investigation into mentor decision making regarding student competency. But this is no neutral perspective; rather the inferences to be made are as a result of my presuppositions, a consequence of both personal interest and experience as well as the theoretical framework trained on the phenomenon under scrutiny. Providing an account of my decisions and showing my hand in this research has been the purpose of the chapter (Cutcliffe & McKenna 1999). Findings and inferences from each phase of the data analysis plan are now presented in the following chapters. The following accounts can be considered credible and trustworthy to the extent that they 'represent accurately those features of the phenomena that it is intended to describe, explain or theorise' (Hammersley 1992, p69).

Chapter 4. Phase 1- The Quantitative Data sets: Initial understandings from exam board and documentary survey data

4.1 Introduction

This chapter presents the findings from Phase 1 quantitative analysis, which contributes to an initial understanding of mentor practices and decision making regarding the competence of a student in practice. Practice experience accounted for fifty percent of the undergraduate programme with a range of experiences offered to allow students to develop the required proficiencies and engage in specified settings in order to be eligible for registration on completion of the programme (NMC 2004). The structure of the eight assessed placements for the programme can be found in Table 10; it is the mentor decisions from these placements that are considered in this study. Students undertook one assessed experience from the range indicated for each placement with one mentor accountable for assessment; the only exception being Primary Care which was equally divided between two experiences with two mentors contributing to one assessment across both components.

Year	Placement	Length of Placement & Area type
One	One	Six Weeks Surgery / Medicine / Elderly Care
	Two	Six Weeks Surgery / Medicine / Elderly Care
	Three	Ten Weeks Surgery / Medicine / Elderly Care
Two	Four	Eight Weeks Continuing Care (e.g. Long term Conditions, End of Life Care)
	Five	Ten weeks Primary care (5 weeks district nursing & 5 weeks practice nurse or community specialist nursing team)
	Six	Eight Weeks Acute / High Dependency / Urgent care
Three	Seven	Twelve Weeks Surgery / Medicine
	Eight (Final)	Sixteen Weeks Student Preference

Table 10: Structure of Assessed Practice Experience for the programme

In this chapter an initial outline of the student cohort and key features of the mentors in relation to their experience and work setting is provided, with the purpose of situating the understandings developed. Findings arising from an analysis of the examination board data set detailing theory and practice decisions and overall degree classification are then presented. This is to support an examination into any relationships that may exist between theory and practice decisions made regarding any individual student. Survey data of mentor practices against programme guidance for practice assessment is then outlined. Finally links from the findings from both datasets are considered and applied to the purposive selection of sign-off mentors (SOMs).

4.2   Contextual Data

Two sets of contextual data are provided: data concerning the student cohort, and data concerning the mentors who contributed to the student PADs and the SOMs who participated in the interview phase of the study.

4.2.1 Key features of the Student Cohort

The completing student cohort selected for the study comprised 41 students, the majority of whom were female and under the age of 21 on commencement of the programme. The overall gender mix together with a breakdown by age is to be found in Figure 8.
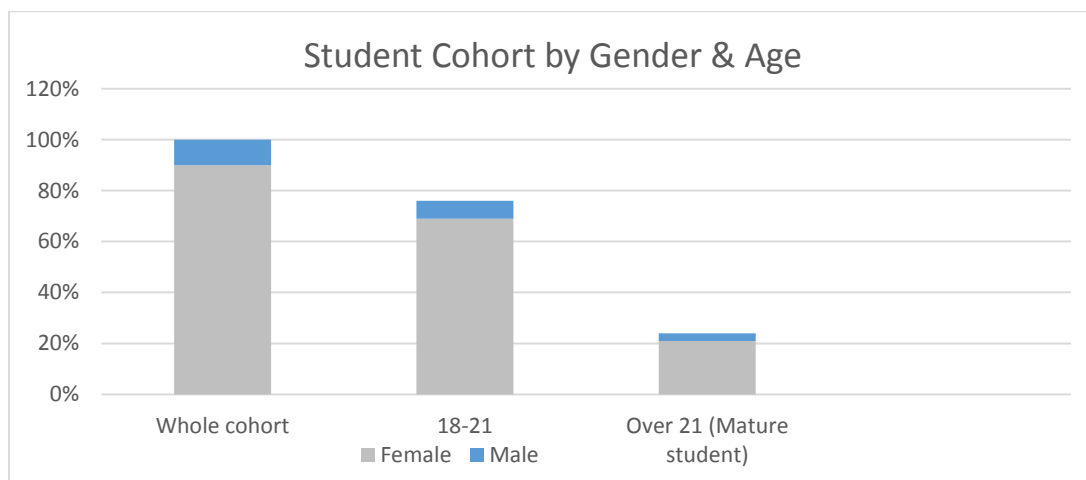
Figure 8: Student Cohort by gender & age

Students completing the programme included students who undertook the programme in three years, as well as students who joined the cohort after either Year 1 or Year 2 exam boards following a period retaking modules in which they had been unsuccessful in the preceding year (a 'repeat year'). An overview of the progression of the students in the selected cohort is provided in Figure 9.

Starting Cohort
- •Starting Cohort of students n = 60

Year One Exam Board
- •Preceeding year students joining cohort after exam board (following repeat year for failed theory modules) n = 6
- •Students withdrawing from programme n = 10
- •Students FAIL WITHDRAW from programme n = 7 *
- •Students repeat year n = 3
- •Students progressing to Year Two n = 46

Year Two Exam Board
- •Preceeding year students joining cohort after exam board (following repeat year for failed theory modules) n = 4
- •Students withdrawing from programme n = 3
- •Students FAIL WITHDRAW from programme n = 1 **
- • Students repeat year n = 4
- •Students progressing to Year Three n = 42

Year Three Exam Board
- • Student temporary withdrawn during year three n = 1
- •Academic Award and progress to registration n = 39
- •Academic Award without nursing registration n = 2

Figure 9: Retrospective overview of cohort progression in programme.

*   Fail Withdraw at Year One Exam Board: 2 students withdrawn for failed practice, 5 students withdrawn for failed theory.

**   Fail Withdraw at Year Two Exam Board: 1 student withdrawn for failed theory.

All data subsequently considered in this study relates to the students completing and not to students who left the cohort at identified points above; this is to facilitate comparison between the data sets collected in the study. Students were normally offered the opportunity to repeat a module in the following year after a failed assessment and reassessment opportunity. However with regards to practice

assessment, if students received two FAIL practice decisions at any point in the programme, then they would be withdrawn. The two students withdrawn for failed practice in Year 1 were repeating a range of practice and theory modules from the previous year. Students were mainly withdrawn from the programme for a failure in academic work rather than for poor clinical practice.

4.2.2 Key features of mentors and sign-off mentors

From the mentors identified as making the decisions recorded in the student PADs, 270 mentors from a range of areas were involved in a total of 330 decisions. Though most mentors assessed only 1 student, this cannot be considered indicative of the overall mentor workload, given the presence of other programmes and years of a programme in a practice area at any one time. As a result, sign-off mentors were specifically asked at interview how many students they had mentored in the past year, to obtain further detail on workload. Both findings are presented in Figure 10.
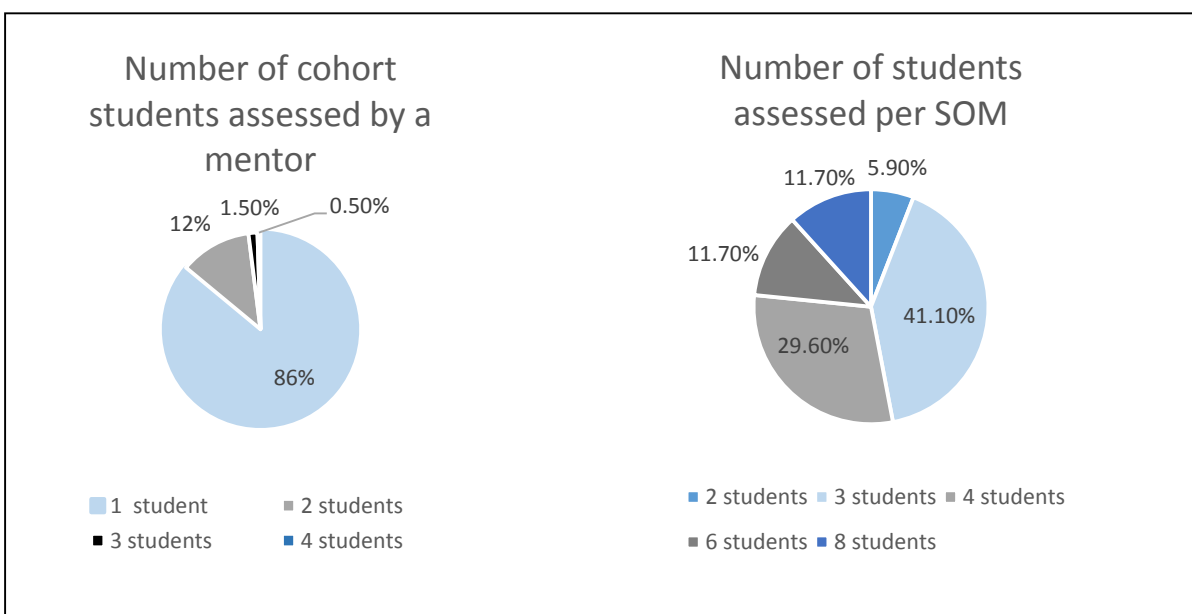
Figure 10: Number of students assessed by a mentor/sign-off mentor

Assessed practice experience in the programme occurred across a range of areas; these are reflected in the distribution of mentors and SOMs contributing to the recorded decisions in the student PADs to be found in Figure 11. Sign-off mentors interviewed were selected from all areas identified with the exception of the Independent Sector.
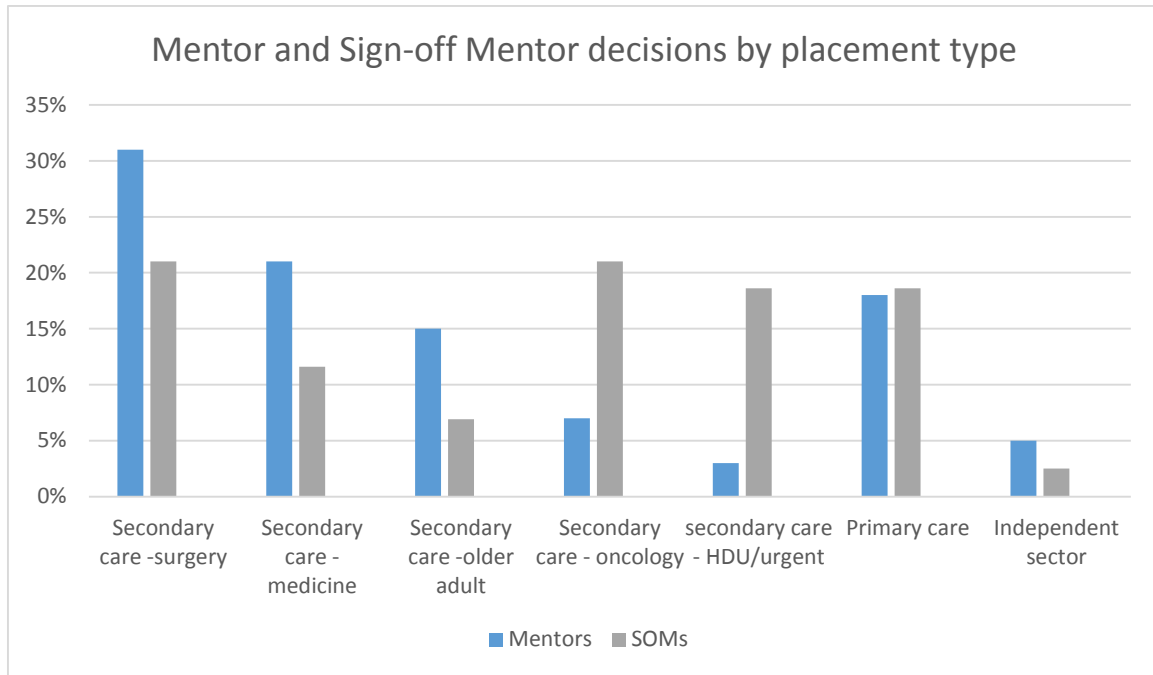
Figure 11: Mentor / Sign-off mentor decisions by practice area

From the sign-off mentors interviewed only one was male. All had completed an NMC approved mentor programme and could provide details of the most recent annual mentor update undertaken: most SOMs attended a group face-to-face update (64.7%), with others undertaking an on-line package (23.5%) or taking the option of an individual face-to face update with a lecturer (11.8%). Sign-off mentors interviewed were also asked about the length of time they had been a mentor; this is presented in Figure 12.
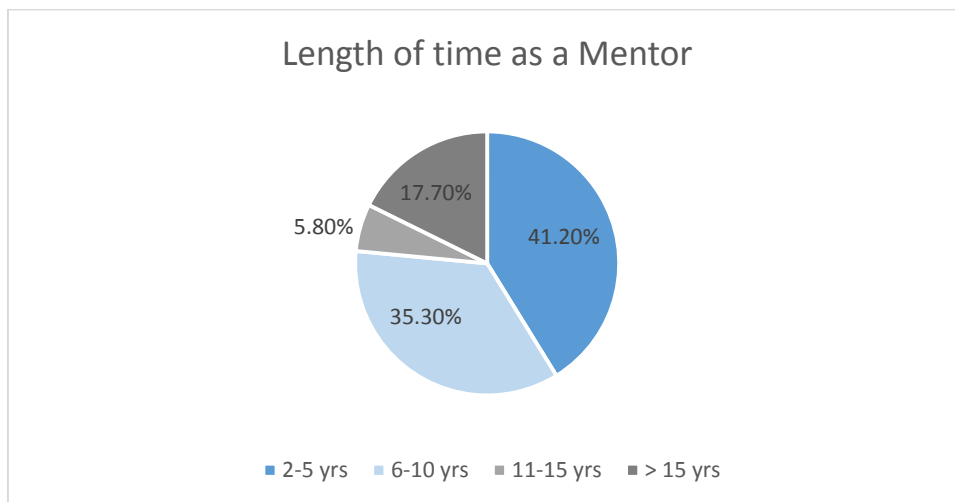
Figure 12: SOM interviewees' length of time as a mentor.

4.3   Examination board data: decisions about students across the programme

Examination board data for the student cohort was then reviewed to obtain a broad feel for the practice and theory decisions taken about students across the programme. With respect to fail decisions in practice, two students repeating year 1 of the programme for theory and one practice fail from the previous year, were failed for the second time in practice and withdrawn from the programme. As they were not in the completing cohort their data is not included in the study. One student who completed the programme received a fail decision in the final placement of year 2 (placement 6). Three students failed their final placement in year 3. Of these one declined to repeat the placement and left the programme without registration, one student successfully repeated the placement obtaining registration, and one student unsuccessfully repeated and thus was not eligible for registration at the end of the programme.

Using a cohort of students after completion of their undergraduate programme, provided the opportunity to review the above theoretical and practical pass / fail decisions in relation to individual student degree classification achieved. This was undertaken in order to identify whether a relationship existed between how well students achieved academically and how they engaged with practice and were judged. Calculating the percentages in terms of the total number of practice fails (n=5), practice concerns (n=14) and theory fails (n=81) across the whole programme, Figure 13 illustrates this relationship, revealing that high academic achieving students (1st and 2i) did not generate any concerns or fails in practice. The lowest academic achieving students (3rd and ordinary degree) generated the greatest number of practice fails and concerns. There appeared thus to be some association between theory and practice decisions made regarding the highest and lowest achieving students.
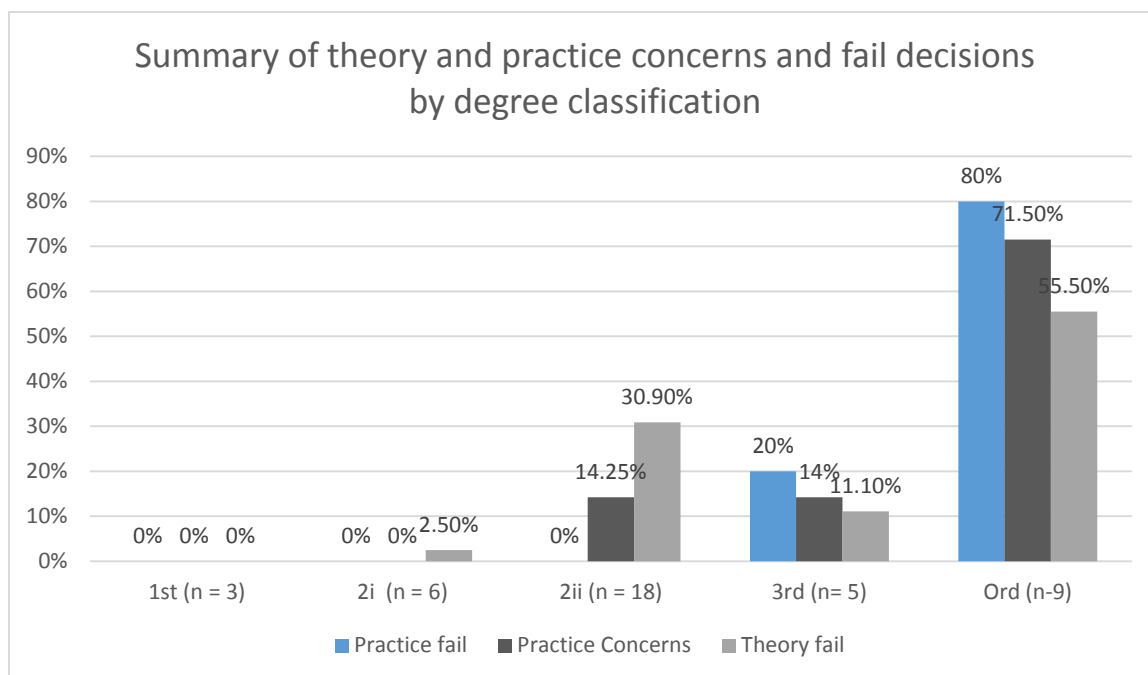
Figure 13: Summary of fail decisions/concerns by degree classification.

This association is interesting as student academic achievements for the programme were recorded separately from the student PAD, thus mentors would not normally be aware of them. However this does not account for all decisions made about all students. This is particularly the case when examining students who achieved an ordinary degree but who did not generate practice concerns or fail decisions. Six students had similar fail rates in theory assessment (3-7 submissions, either first or second attempt) as those students who failed a placement, but they did not generate any concerns from practice or a fail practice decision.

Overall examining student achievement from examination board data revealed that mentors were gathering and using evidence in some way that enabled them to consistently identify good students (1st & 2i) and mostly identify weaker students (3rd & ordinary degree). This suggested that there was something about what evidence mentors gathered about students (SRQ1) and how they used this to inform judgements and reach a decision (SRQ3) that was related to the academic quality of the student the mentor was making an assessment of. Variability in mentor decisions appeared to be related to the lower academic achieving students. Examining the qualitative data (documents and interviews) for this would hopefully further this understanding.

4.4 The Documents survey: mentor practices across the programme

For all assessed placements on the programme, students required a named mentor who met the standards set out by the NMC (2008a). The named mentor was then expected to undertake three interviews: a preliminary interview to identify and agree a student's learning needs and outcomes for the placement, a midpoint interview to provide feedback and review student achievement of specified programme proficiencies (NMC 2004) and construct a development plan for the remainder of the placement, and a final interview to review agreed student learning outcomes, student achievement of programme proficiencies and make a final decision as to whether a student had passed or failed the placement. Mentors were made aware of these responsibilities through their mentor training, annual updating, an on-line mentor handbook and guidance included in the student PAD.

Examining signatures for the 330 mentor decisions documented in the student PADs revealed that for 30.3% of assessed placements, more than one nurse had been involved in conducting student interviews, with a general trend noted of one nurse conducting the preliminary interview and the second nurse (the named mentor) conducting the midpoint and final interview. In addition a further 10.9% of assessments were undertaken by a trainee mentor and countersigned by a mentor, though it is not clear whether the supervising mentor was present at each interview or countersigned interview documentation at a later stage. Some documents contained dates which indicated that countersigning might have occurred separately from the interview itself, however it was not possible to establish this for all assessments in this category due to missing data. Combined, these figures suggest that some student assessments had not been conducted by one named mentor as required in programme and professional body guidance.

Information from the student PADs regarding the timing of interviews demonstrated a range of practice outside recommended programme guidance. Preliminary interviews were supposed to occur during the first week of the placement to support clear goal setting in relation to the stage of programme as well as a

student's past achievements, and ensure sufficient time for the student to develop and be assessed. As shown in Figure 14, many preliminary interviews occurred in week 2 or later in a placement and there were a number of interviews (range 5% - 23% across the programme), where mentors did not contribute written comments in the student's document. It may be that mentors discussed goals with students and then students completed the interview template that had been agreed, however the instruction to mentors in the student PAD stated *'Development plan, to include the learning objectives and expectations on this placement (mentor to complete with the student), to include the plan for supervision and support'*.
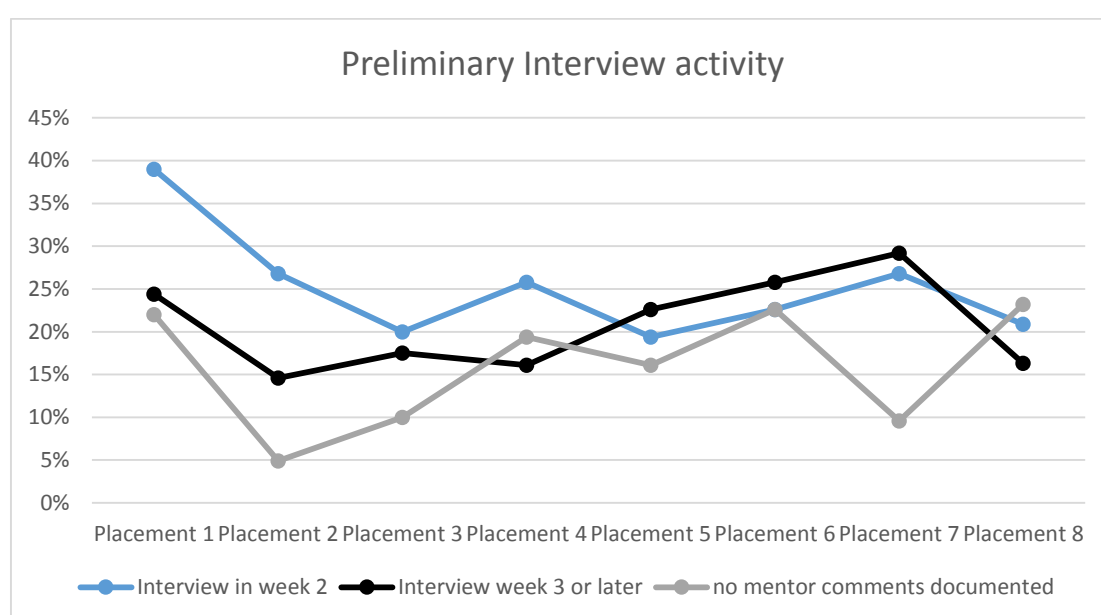
Figure 14: Preliminary interview activity across the programme.

Examining the combined data and rank ordering the results by percentage of late interviews (Figure 15), reveals that 63.4% of first placement students did not receive their preliminary interviews in the first week; a particular concern when students are new to practice and the placement is only 6 weeks in length. Equally, 56% of students in placement 7 which is the first placement of year 3, did not receive preliminary interviews in the first week with nearly 30% of these being in week 3 or later. Though this is a longer placement (12 weeks), given the nature of the learning outcomes for this stage of the programme and the exam board data indicating a higher level of placement concern and fail for this stage, it may be that delays have an effect upon student development.
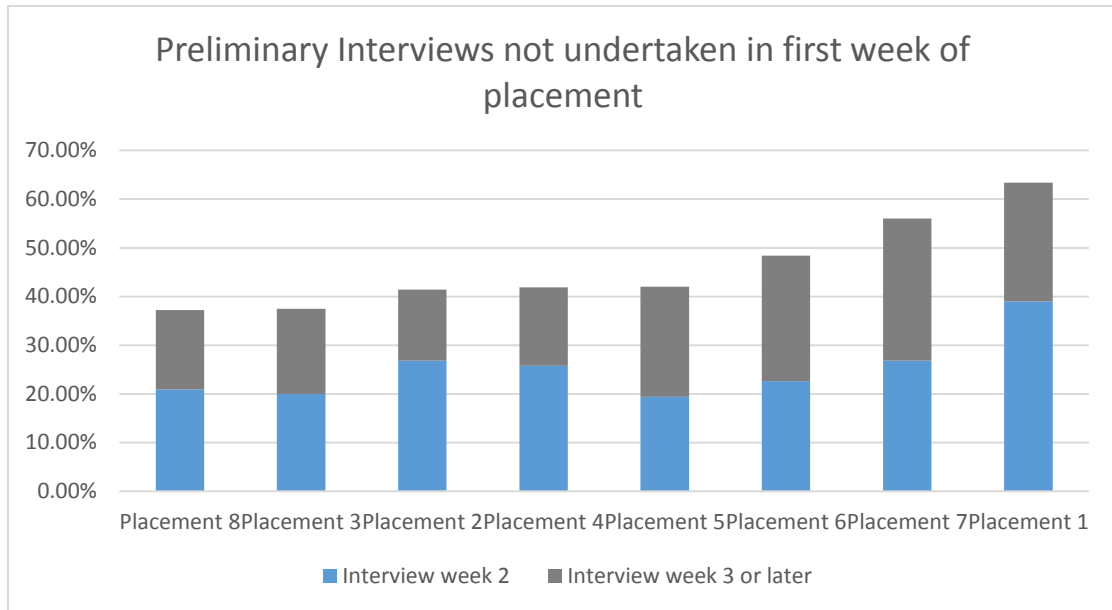
Figure 15: Preliminary interviews, ranked by % of late interviews

Examining the timing of midpoint interviews a further pattern of activity outside recommended programme guidance was found. Midpoint interviews were expected to occur at the midpoint on the placement so, for example, in a 6 week placement an interview occurring week 3-4 was considered acceptable, an 8 week placement week 4-5 etc. However interviews were recorded as being conducted either within a week of the placement completing, within a few days of the final interview, or signed off at the same time as the final interview. In addition, 5% - 23% of assessments did not record the number of proficiencies achieved by the student at the midpoint (Figure 16), a further requirement stipulated in the student PAD.
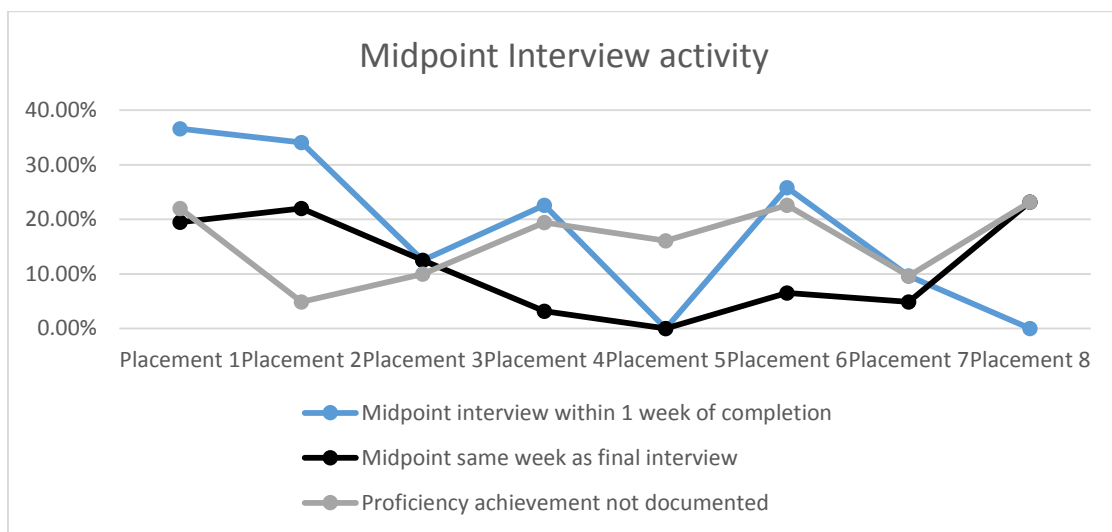
Figure 16: Midpoint interview activity across the programme

Examining the combined data and rank ordering the results by percentage of late interviews (Figure 17), demonstrated that the first two placements of the programme, placements 1 & 2, had the highest rate at 56.1% of late midpoint interviews. Placement 5 recorded all midpoint interviews as conducted on time. Due to the split nature of this placement with two primary care practitioners facilitating one student assessment, the scheduling of interviews occurred in accordance with programme guidance.
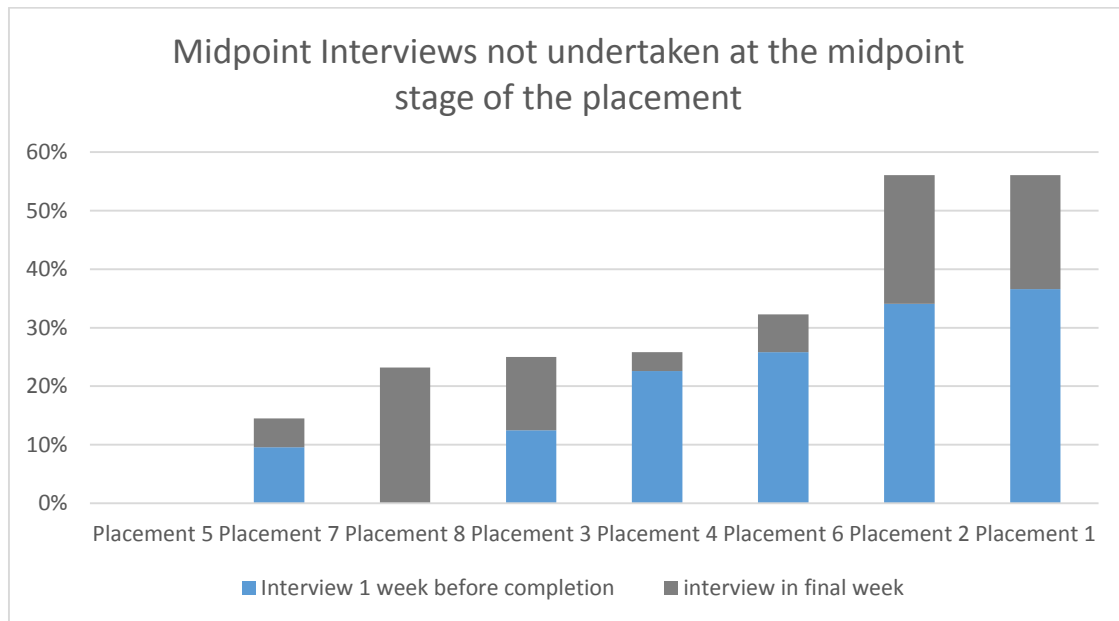
Figure 17: Midpoint interviews ranked by % of late interviews

Findings clearly illustrate a range of practices which do not support the three phase assessment process required by the student's programme. The lateness of interviews may be a recording error, where dates of interviews were added after the interview had been conducted. However, anecdotal comments and evidence from my work role regarding the practice component of the programme where students regularly contact lecturers to say that they are having difficulties getting their interviews done on time, if at all, leaves me to believe that the general trends indicated from the documents and summarised in Figure 18 are credible.

Summary of mentor practices outside programme guidance
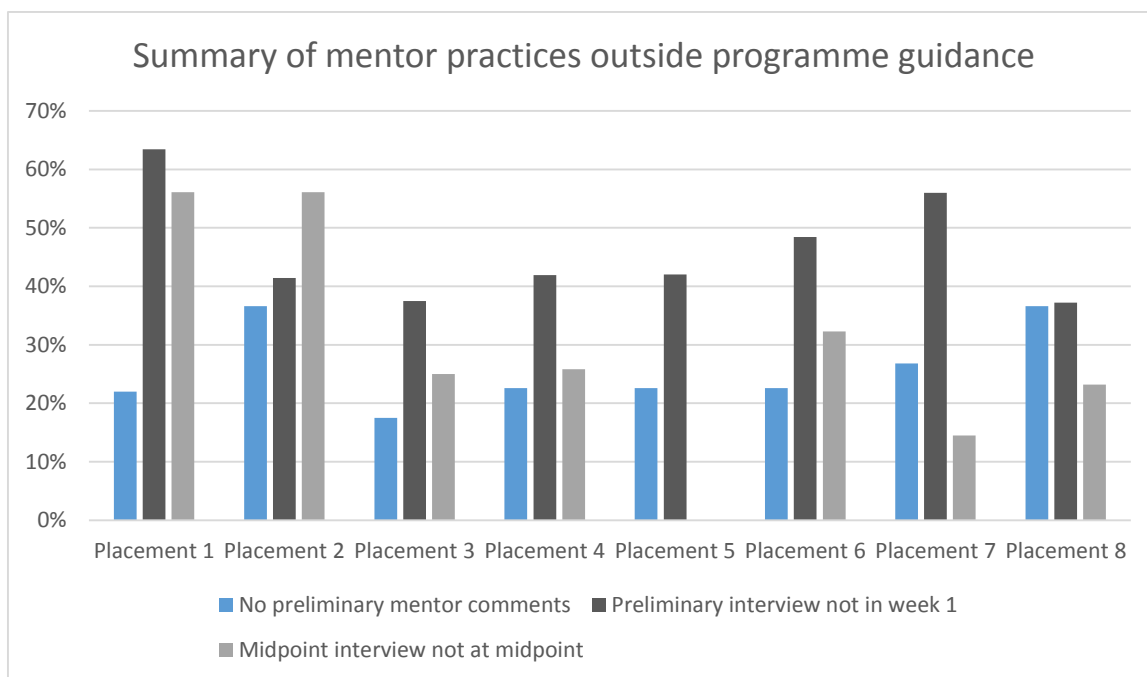
Figure 18: Summary of mentor practices across the programme

Further evidence to support this view regarding the discrepancies demonstrated in student documents regarding the use of assessment strategies can be seen in examining the final placement. The introduction of the sign-off mentor standard (NMC 2008a) required the following actions:

'Mentors must keep sufficient records to support and justify their decisions on whether a student is, or is not competent/proficient.' and

'Sign-off mentors must have time allocated to reflect, give feedback and keep records of student achievements in their final period of practice learning. This will be the equivalent of an hour per student per week. This time is in addition to the 40% of the student's time to be supervised by a mentor.'

(NMC 2008a, p34)

At a programme level this had been translated into the need for SOMs and their student to document a weekly meeting in the student PAD; for the final placement, depending on whether a meeting was recorded in the same week as a scheduled interview (practices varied across SOMs), full compliance with the standard would require 12-14 meetings to be recorded in the student PAD. Reviewing these records

indicated that less than half the student cohort (41.9%) had a full set of weekly meetings documented. Most worryingly 22% of students had no recorded meetings (n=9) with a further 9.5% of students (n=4) only having 5 or less weekly meetings recorded across the placement (Table 8).

4.5 Summary

There are a number of key findings regarding mentor practices noted from the survey of student documentation which indicate that student assessment is not conducted in line with programme or professional body guidance. Firstly there are a number of student assessments where more than one nurse is involved in the conduct of placement interviews. Secondly preliminary and midpoint interviews may be late occurring. Thirdly the conduct of the assessment process, for example documenting mentor comments at interview, noting proficiency achievement at midpoint or scheduling weekly meetings in final placement may be outside programme and/ or professional body guidance. Review of the examination board data reveals that mentor decisions appear to reflect student academic achievement. Of significant concern are the first 2 placements in year one (Figure 18), where delays in agreeing development plans at preliminary interview and providing feedback to students at midpoint interview must at the very least, have left students new to practice feeling unsupported and mentor assessment decisions open to question with regards adequate time to gather evidence on student development and achievement.

Closer examination of placements where a concern was raised or a 'Fail' decision made regarding student competence revealed differing patterns of practice to patterns noted across all documents. Comparisons demonstrated that 25.2% of preliminary interviews in placements where a concern or fail was recorded, were conducted after the initial placement week, against a mean for late preliminary interviews of 50.3% for all placement decisions reviewed. In placements where a concern or fail was recorded 22.3% of midpoint interviews were conducted late, though none in the final week of placement; in comparison 35.3% midpoint interviews were conducted late for placements overall. Finally in placements where a concern or fail was recorded, 25.2% of these placements did not have proficiencies recorded at midpoint, in comparison with 14% of placements overall. Summarising this, in placements where practice concern or fail was recorded, fewer

preliminary and midpoint interviews were conducted late, but there were more placements where proficiency achievement was not recorded at midpoint interview.

This chapter has provided the results of the quantitative phase of the study and detailed key areas to review both in the thematic analysis of mentor comments in the student PADs and in the stimulated recall interviews with the selected SOMs. Findings from Phase 1 of the study informed the planning and conduct of the interview stage of Phase 2 of the study. Firstly, in the light of the findings discussed in this chapter, criteria were drawn up to select the Sign Off Mentors who should be approached to participate in the interview stage of Phase 2 of the study, in the hope that a fuller understanding of the issues identified could be developed. Specific criteria that the overall sample of SOMs needed to address were:

- SOMs who had failed a student in the final placement
- SOMs who had raised a concern in the final placement
- SOMs who had completed weekly meetings with their student (as evidenced in the student PAD) and conducted interviews at the scheduled time
- SOMs who had only partially completed weekly meetings and conducted interviews, perhaps not always in line with programme guidance
- SOMs from a range of settings where students allocated
- SOMs of high academic achieving students (1st & 2i)
- SOMs of low achieving students (3rd & ordinary)
- SOMs of mid achieving students (2ii)

These criteria informed the use of the sampling frame presented in Table 8, providing structure and focus to the selection of SOMs, who as a sample met the criteria identified above. Secondly, the findings guided key areas to be covered by the interview topic guide. It is to the qualitative data that I now turn in the following chapter to build upon the initial understandings presented here.

Chapter 5. Phase 2 – The Qualitative data sets: Developing an understanding of mentor decision making from student assessment documentation

5.1 Introduction

This chapter presents the findings arising from the analysis of the mentor comments documented at each interview phase in the student practice assessment documents (PADs). Data obtained from interviews with sign-off mentors are presented in Chapter Six. Inferences from all the data sets for the study (Figure 7), will be linked and integrated to form meta-inferences in Chapter Seven (Teddlie & Tashakkori 2009). For each qualitative data set presentation is structured in the following manner:

- Outline of codes, revised codes, themes and organising themes developed using Braun & Clarke (2006) Phases of Thematic Analysis.
- Description of Organising Theme and presentation of information around themes to organise material collected. Meanings and boundaries to themes are provided and supported with 'illustrative quotations' from student PADs, to ground observations in the data and render them comprehensible to the reader (Flick 2009). All quotations are labelled by student (A), placement number (7) and line numbers (369-372) from document transcript e.g. A7: 369-372. In addition all mentors and students will be referred to in the feminine form to reduce the chance of identification of the few male students or mentors encountered in the study.
- Description of themes supported by presentation of thematic maps to illustrate relationships between themes and organising themes developed (Braun & Clarke 2006).
- Overview of final themes and organising themes with respect to the frequency counts of text segments incorporated into their development and a summing up of theme occurrence 'theme intensity', across data set, to provide a sense of how much the theme and organising theme accounts for and to facilitate systematic comparison across groups (Guest et al 2012).
- A thematic map summarising the data set (Attride-Stirling 2001, Braun & Clarke 2006).

5.2 Codes, Themes and Organising Themes developed

Mentor comments documented in the midpoint and final interviews in the student PADs were read through and transcribed verbatim with index tags (line number, placement number, midpoint or final interview) added to aid retrieval and review of text segments against the transcripts throughout analysis (Braun & Clarke 2006, Guest et al 2012). Text segments consisting of a meaningful phrase, were extracted for their content on the basis of the theoretical issues underpinning the study research questions. Extracted segments were then coded for meaning and code cards developed which included code definition, boundaries for use and examples of use (Guest et al 2012). The initial codes developed (n = 45) can be found in Appendix E.

Initial codes were examined for similarities and differences between codes and sorted into four emerging potential organising themes (Appendix F). Examination of these revealed overlapping codes; codes were combined where this occurred, and text segments reallocated against revised codes and their definitions. Updated code cards recording revised code definition, name for new code, and boundaries for use, text segments and their location were then completed (Guest et al 2012). The final list of codes (n =25) and their links to the original codes developed are presented in Appendix G. Text segments were reviewed against these final codes to identify salient or common themes and their underlying patterns. Codes were allocated to themes to encapsulate a discrete set of ideas, represent the boundaries to the idea, as well as the relationship to other developed themes. These were then organised into groups on the basis of content to represent the similarity of themes within a group and differences between groups (Attride-Stirling 2001, Braun & Clarke 2006). Three organising themes providing a conceptual framework capable of demonstrating theme meanings and boundaries and contributing to an overall picture of factors underpinning mentors' judgement and decision making processes regarding student competency is presented in Table 11.

Organising Theme	Themes	Codes
Student as a 'learner'	Learning & development	'Student overall development & progress' 'Development of knowledge & understanding' 'General development needs still required'
	Engagement in learning	'Student participation in learning opportunities' 'Limitations to learning opportunities or student participation'
	Attitude to learning	'Student as an active learner' 'Student enjoyment in practice'
Student as a 'deliverer of care'	Competent practitioner	'Knowledge base for competent practice' 'Demonstrating competent skills'
	Confidence & initiative	'Student confidence in practice' 'Student initiative in practice'
	Skills development	'Communication skills' 'Medicines management skills' 'Wound care skills' 'Assessment skills' 'Care management skills'
	Evaluation of achievement	'Completed NMC proficiencies & skills' 'Achieved identified learning objectives'
Student as a 'nurse'	Student attributes	'Professional behaviours & attitudes' 'Appropriate personal qualities'
	Team member	'Fitted in and worked well within the team' 'A hard working, reliable & valued team member' 'Student a pleasure to work with and mentor'
	Student potential	'Will make a good nurse' 'All the best for the future'

Table 11: Final Structure of Organising Themes (n = 3), Themes (n = 10) and Codes (n = 25) from student documents (Phase 4 & 5 - Braun & Clarke 2006)

The three organising themes developed from the documentary data illustrate what mentors notice, value and believe about a student and their practice and thus what anchors a mentor's judgement regarding the competence of a student. They arise from the mentor comments documented in student PADs used to *'support & justify a decision on whether a student is or is not competent'* (NMC 2008a, p34). Emerging from the codes identified and subsequent themes developed, three discrete areas are noticed and valued by mentors: the student as a 'learner', the student as a 'deliverer of care' and the student as a 'nurse'. Description of each organising theme and associated themes now follows.

5.3   Organising Theme: The Student as a 'learner'

This gathers together codes and themes which contain information about what mentors comment on regarding a student's learning and development during an assessed practice experience. Three themes and seven codes make up the organising theme as illustrated in Table 12.

Organising Theme: The Student as a 'learner'		
Theme	**Codes**	**Key words**
Learning and development	'Student overall development & progress' 'Development of knowledge & understanding' 'General development needs still required'	Progress, improved skills, developed well, developed knowledge, learnt about, increased awareness, insight, gained a good understanding of, needs to develop, needs more experience.
Engagement in learning	'Student participation in learning opportunities' 'Limitations to learning opportunities or student participation'	Participated in, had the opportunity to…, willing to get involved, not had the opportunity to, student sickness, no mentors available, not worked with student as much
Attitude to learning	'Student as an active learner' 'Student enjoyment in practice'	Seeks out information, keen to learn, interested, asks questions, enjoyed placement, gained a lot from experience

Table 12: Overview of Organising Theme – The Student as a 'learner'

The themes outline what mentors consider important to comment on in terms of how the student comes across as a student in a practice setting and what is noticed and considered important about the student's process of learning. Comments focus on a student's attitude to learning, their engagement with the practice learning environment and the experiences available and provided, and their development as a student as a result. Taken together the organising theme provides an overall picture of student development and growth through practice and their engagement in this process.

5.3.1 Learning and Development

Mentors comment on learning that has occurred, progress made and development still required. Predominantly skills focussed, mentors are keen to emphasise the notion of a student's journey through the placement, which has resulted in improvement and progress. This learning and development contributes positively to a mentor's overall assessment of a student as these comments from the first placement of Student 'A' illustrate:

> 'She made progress in various areas considering that it is her first placement. She has been involved and has learnt skills in how to care for patients, post-surgical procedures and has had the opportunity to be involved in discharge planning.' (A1: 34-37)

As student 'A' continues through the programme, similar comments regarding her development are made:

> 'It has been good to see her develop and grow in confidence and to develop the ability to go out and see patients by herself with reassurances and support as needed.' (A8: 364-367)

These examples illustrate how mentors note student development in terms of what a student is then able to contribute to practice as an outcome of the learning and development that has occurred. Student 'U' also illustrates this link between evaluating learning and development with respect to what a student is then able to do in practice, with clear practice outcomes for patient care identified:

> 'She has developed her skills and gained confidence on the ward especially when working with acutely ill patients, carrying out medications rounds. 'U' has developed her time management skills and prioritised patient care, starting with a few patients and eventually looking after a team competently. She has developed her knowledge base about orthopaedic nursing and researched into the traction and different types of fractures.' (U6: 175-180)

As can be seen from the following mentor comments, student learning and development is still conveyed as a positive attribute of the student, supporting decisions to 'Pass' a student at the end of a placement even when significant difficulties have been encountered and may still remain. For example comments made for student 'E' in her final interview during her first placement, when practice concerns were raised at midpoint and an action plan instigated following a lecturer visit to practice, state:

> *'She is aware she needs to build her communication skills and continue to develop her written and spoken English and to ask questions to inform her practice and gauge her understanding of situations.'* (E1: 35-38)

In this final interview the mentor appears to be suggesting that a developing awareness and improvement in communication skills supports the decision to award a Pass grade for the placement. This notion of improvement appears again in the subsequent placement where the mentor states:

> *'E' has worked really hard to achieve all her learning outcomes. She has steadily improved while on placement on the ward. She has gained confidence with clinical skills, communication, observations and recording information.'* (E2: 84-87)

Both illustrations reveal that mentors expect students to develop as a result of a placement, and as long as development has occurred mentors are mindful to pass the student at the end of the placement. Equally for student 'AK' in her final placement, where again significant concerns are raised prior to the midpoint, triggering a lecturer placement visit and action plan, final interview comments reinforce this notion of development as a key justification for awarding a Pass decision, even when some concerns appear to remain:

> *'This placement has been extremely challenging for her but I feel she has grown and developed well from these challenges. At intermediate interview concerns were raised by other members of the MDT and myself with 'AK's attitude to other members of staff, communication skills and the way she approached patients. A discussion was had between 'AK', her tutor and myself and an action plan was implemented. Following this 'AK's performance improved, her attitude to staff was less abrasive and challenging and her communication within the team improved. When working with the patients she became more aware of her own self and how she came across to them and changed her communication and caring for them for the better. 'AK' needs to take the lessons she learnt in this area and implement them in her future places of work.'* (AK8: 164-180)

Overall these comments suggest that mentor judgements are to some degree based on the processes of development and improvement of skills, knowledge and understanding of a student during an assessed placement rather than an actual level of development or improvement achieved.

5.3.2 Engagement in learning

Mentors document a range of activities, be they meetings, visits or skills that a student has participated in or been willing to get involved in which has contributed to a student's overall learning and achievement. For example:

> *'AF' has partaken in a variety of nursing interventions. She has assisted in the continuous assessment of post -operative patients. This has involved taking vital signs, monitoring output via a catheter as well as dressing wounds and drains under supervision. 'AF' has become involved in the nursing team continuously communicating changes she has noted in vital signs she has recorded.'*(AF1: 17-22)

Student engagement is considered by mentors to be a positive trait in a student nurse. By getting involved students are not only developing skills, but also demonstrating through their understanding of the nursing role, that they want to be a nurse. Mentor comments of student 'J' illustrate this well:

> *'She has taken the opportunities presented to observe the MDT and their role in patient's rehabilitation.'* (J2: 52-53)

> *'J' has taken the opportunity of being able to work as part of the team. She has volunteered herself to go and observe clinical procedures and then practice these under supervision. She has learnt new skills and gained more confidence.'* (J6: 171-174)

However this willingness to participate by a student may not only be indicative of a desire to learn but also a survival strategy to mitigate the effects of limitations to the learning opportunities available as indicated by 'J's mentor in placement four:

> *'I have not been a mentor for 'J' but due to unforeseen circumstances unfortunately no mentors are available for her final interview. I have worked directly with 'J' 6 times and indirectly several times. I found 'J' to be willing to have a go and to learn on the job. When asked to do anything 'J' would carry out tasks in a polite and professional manner. However, once 'J' had settled into her placement I felt that she lacked some self- confidence to use her initiative at times………..I recognise that 'J' has worked with several different members of staff and this may have impeded on her confidence.'* (J4: 101-116)

Reading this final interview record as a whole, it would appear that 'J's willingness to get involved and 'learn on the job' may not only have increased learning opportunities for her but also provided the opportunity to present herself in the best possible light to available staff, supporting a favourable judgement on her contribution at the end of the placement. Commenting on a student's involvement may not solely be focussed on student development and learning, but also reflect how the student has contributed to practice and demonstrated that they want to be a nurse. Both considerations may be at play when mentors comment on this aspect of a student.

5.3.3 Attitude to learning

As part of a mentor's positive evaluation of a student, comments are focused on whether a student is keen to learn, enthusiastic, asks questions, is motivated or enjoyed the placement, as illustrated by the following remarks made about student 'B':

> *'She is quick to learn practical skills, routine duties and nursing theory and is very reliable. She does not hesitate to ask for advice or clarification if she is not sure about things.'* (B3: 74-76)

> *'I have no doubt that she will become a top standard nurse due to her willingness to learn and never going outside her competencies without supervision.'* (B6: 173-175)

> *'Keen and interested and actively participated in patient assessment and undertaking dressings.'* (B7: 213-214)

Enthusiasm demonstrated by student 'I' for practice is also commented on favourably:

> *'I' is very enthusiastic to learn and develop to enhance her practice.'* (I6: 158)

> *'I' has shown great enthusiasm to learn during this placement.'* (I7: 170)

However, getting the balance right in terms of questioning and enthusiasm is not always easy for students, with student 'AK' too eager, 'E' not asking enough questions and 'W' not demonstrating enthusiasm for the placement as revealed in the following illustrations:

'She has been a pleasure to mentor and my only criticism is that she is too eager, she wants to do everything today and should slow down a little as she has three years to complete her course and proficiencies.' (AK1: 42-44)

'E' is very task focussed in her work, and very active in engaging with the physical aspects of care. However she does not ask questions and put herself forward for the learning opportunities available.' (E1: 26-29)

'W' has been spoken to by senior sister as it had been noted by MDT members that 'W' may not be enjoying her placement. She can appear unenthusiastic at times. She ensures me this is not the case and is just her personal life'. 'W' has agreed to aim to be more positive throughout rest of placement and to take opportunities as they arise.' (W3: 70-75)

The illustrations reveal mentor judgements underpinned by a belief that a student demonstrating the right kind of enthusiasm and enjoyment for nursing, will support appropriate skill development, and that attitudinal deficits in these areas may not support the right kind of development. Student 'W's response to this judgement made upon her is interesting:

'I feel that my progression throughout this placement hasn't really been commented on in my interviews. As a student it is nice to hear how you have progressed professionally rather than how much you have smiled.' (W3: 82-84)

Angry at being judged on the basis of her enthusiasm, 'W' appears to challenge whether the criteria of 'enthusiasm' is a valid measure of student development.

The organising theme of **'The Student as a learner'** collects together mentors' judgements about a student's development, their progress, outstanding development needs, participation and approach to learning. An initial thematic map of this organising theme, and associated themes is presented in Figure 19. Overall, this organising theme accounts for 24.6% of text segments extracted.
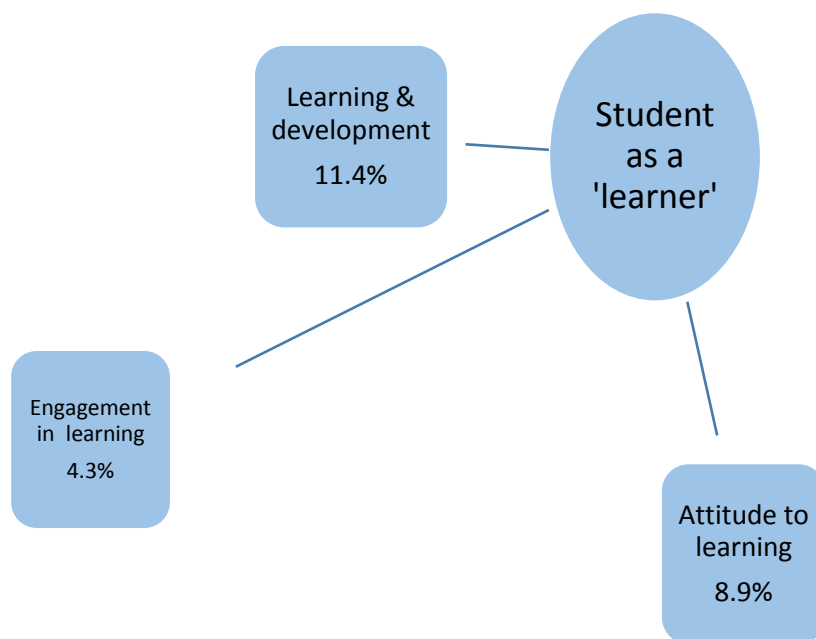
Figure 19: Thematic Map for 'The Student as a Learner'

5.4   Organising Theme: The Student as a 'Deliverer of Care'

This organising theme encompasses what mentors value and notice with regards to the care that students contribute to and deliver whilst undertaking a period of practice learning. What seems important to mentors is that a student demonstrates a degree of competence and confidence in their practice, can deliver a range of core skills and achieve identified goals for the placement; thus mentor judgements are centred on whether a student is competent, confident, skilled and has achieved. Four themes and eleven codes contribute to this organising theme as illustrated in Table 13.

Organising Theme: The Student as a 'Deliverer of care'		
Theme	**Codes**	**Key words**
Competent practitioner	'Knowledge base for competent practice' 'Demonstrating competent skills'	Aware of limitations, asks questions if unsure, seeks guidance, competent skills, competent student, skilled care, quality care
Confidence & initiative	'Student confidence in practice' 'Student initiative in practice'	Grown in confidence, gained confidence, needs more confidence, uses initiative, independent, sees when things need doing, show more initiative
Skills development	'Communication skills' 'Medicines management skills' 'Wound care skills' 'Assessment skills' 'Care management skills'	Communicates well, excellent skills, has done…, more competent in…, developing knowledge of…, time management, prioritisation, leadership
Evaluation of achievement	'Completed NMC proficiencies & skills' 'Achieved identified learning objectives'	Proficiencies, professional standards, NMC outcomes, outcomes, objectives, development plan

Table 13: Overview of Organising Theme – The Student as a 'Deliverer of Care'

5.4.1 Competent practitioner

This first theme includes mentor comments which evaluate not just specific or generic skills demonstrated by a student, but also practice undertaken within the boundaries of an individual student's competence. Mentors view the student as competent if the student knows and works within their own limitations as illustrated by the following comments recorded for student 'L':

> *'Good initiative and knows limits and seeks help when out of scope of knowledge or practice.'* (L7: 170-171)

> *'L' is flexible, works within team, she seeks help and support as needed. She knows her limits and weaknesses, has identified areas for improvements.'* (L8: 197-198)

Comments extracted from student 'P's documents provide further illustrations of the value given to a student working within their boundaries of competence:

> *'She has taken patients of her own under the supervision of her mentors/qualified nurses and has always alerted them when unsure or when she is aware of abnormalities.'* (P3: 71-72)

Mentors appear to evaluate a student working within their limitations as a positive aspect of the student and their practice, perhaps as such an approach minimises any potential harm that the student may cause a patient in their care. This point is reinforced in the following quotes:

> *'AL' is developing well both her written and verbal communication skills are excelling. She is aware of her limitations and understands the importance of asking her mentors for assistance.'* (AL3: 43-45)

> *'I have felt reassured knowing that she has been caring for my patients whilst on the unit, knowing that she has the ability to assess patient's needs and the knowledge to question anything that she is not sure of.'* (F8: 257-259)

How mentors judge a student and their limitations when considered as not competent can be seen in the mixed messages documented for student 'Z', where in placement 7 concerns are raised with university and placement 8, where the student is failed in practice:

> *'Clinical care is competent. 'Z' has developed in her skills since starting her placement. She is very enthusiastic to learn and takes advantage of all opportunities but she needs to become more analytical of that knowledge and how it applies to different situations. 'Z' is able to plan care in a more structured range of situations but doesn't manage to stay focused in a faster paced ever changing situation.'* (Z7: 161-166)

> *'Good at tasks with a solid structure but finds it very difficult to think on her feet.'* (Z8:209-210)

These examples begin to reveal the dimensions of competence that mentors are using in their judgements, particularly at the point when identifying boundaries to any competence. They indicate that the judgements that mentors are making regarding competence are based on more than just the performance of a skill or activity. Certainly as indicated in these extracts taken from the third year of a student's programme, at this final stage knowledge to support decision making and practice is an important component of any competence evaluation.

5.4.2 Confidence and initiative

Linked in with judgements of the student delivering competent care within their limitations, are mentor observations of a student's confidence and use of initiative to support their practice. Often appearing together as co-existing criteria in a mentor's judgement, student confidence is noted as an attribute underpinning a

student's ability to perform an activity as illustrated in the following extracts for student 'R':

> *'She has been looking after a group of patients under supervision. 'R' is a very quiet but conscientious in all aspects of patient care. She needs to become more confident with ward discussions and become more involved.'* (R2: 48-51)
>
> *'R's confidence in handing over increased throughout her placement. She has demonstrated the ability to prioritise the changing demands of the ward.'* (R3: 90-92)
>
> *'Her confidence still needs to improve and with this her management and prioritising skills will improve.'* (R6: 117-118)
>
> *'She has worked very well as part of the ward team and during the last few weeks of the placement has gained experience of coordinating patient care and organising beds for admissions and discharges. Her confidence has grown throughout the placement and I feel she is preparing well for working as a qualified staff nurse.'* (R7: 151-155)

Mentors are suggesting that the student needs to display a sufficient level of confidence in order to perform, whether this be in communicating with others or acting independently in delivering care. With confidence the student is able to make a beneficial contribution to patient care, not just in delivering care, but also in making decisions about care, such as prioritisation of needs. However there is a problem if the student is overconfident on the other hand as, although this may enable a student to act this may not perhaps be in a manner judged by the mentor as beneficial:

> *'Very strong personality who is very good at applying nursing theory to nursing skills. Very keen learner and pursues good nursing practice. However! Her overconfidence and 'go get attitude' can threaten members of staff in how work is being prioritised. This is not so much a criticism but for 'AK' to be aware of.'* (AK3: 74-78)

What this shows is that although mentors believe that students need confidence to support their ability to engage in nursing practice and function as a member of the nursing team, there are boundaries to confidence if a student's contribution is to be valued and valuable.

A further aspect for a mentor when judging a student, is the expectation that both confidence and initiative will develop as the student progresses through the placement as shown in the following excerpts:

> *'Q' has done very well during her placement. This is a very busy acute setting and she has coped very well indeed. There has been a clear improvement in her confidence and initiative over the last few weeks, which has reflected positively in the care she gives. She has been able to dress a variety of wounds, using aseptic technique and has informed the nurse of any concerns regarding changes to the wound. 'Q' has prioritised care well, and has become confident in doing full observations and MEWS scores.'* (Q2: 60-67)

> *'I feel that 'Q' has been a very skilled nurse – she has been hard working and fitted into the team with no problems. Since starting the placement she has gained in confidence and has been able to visit patients independently with no concerns.'* (Q8: 269-272)

Students developing confidence and initiative is expected by a mentor and is evidenced in a student's contribution to the delivery of patient care. However there is the suggestion in the excerpts that this is noted not only in the performance of an activity but perhaps more as a proxy measure for the knowledge and understanding base of a student's practice. This may be either increased knowledge and understanding in relation to care delivery and the client group involved or an increased understanding of the practice setting and associated routines as the placement progresses.

5.4.3 Skills development

This theme highlights the skills that mentors routinely notice and comment upon; thus they are the areas of practice that mentors refer to when recording evidence to support and justify the practice decision made (NMC 2008a). By far the most significant skill in terms of number of text segments extracted from the student PADs is communication; this may be in relation to verbal communication with staff and other members of the multi-disciplinary team, with patients and relatives, or the broader interpersonal skills of a student. For example:

> *'She communicates well with staff and patients.'* (C2:44)

> *'She demonstrates excellent interpersonal skills with the patients and treats all patients with great care and dignity.'* (C8: 205-206)

And for student 'AB' the following comments:

> *'She has attended MDTs for patients in community care beds. In the past week she has taken a lead in assessing new clients. Showing she has good communication skills. She will be an efficient, thoughtful all be it a quiet member of the nursing team.'* (AB5: 137-140)

> *'Since moving she has taken a more active role in assessing patients on admission and discharging /transferring patients to other wards. She has become more confident in her communication with members of the team.'* (AB7: 199-201)

Consistent in terms of what is noticed by mentors regarding communication across all stages of the programme, is the ability of a student to communicate and demonstrate good interpersonal skills with patients. As the student moves through the programme, of increasing importance is the student's ability to communicate with all members of the multidisciplinary team. Demonstrating skills in both areas makes a vital contribution to a mentor's positive judgement of the student. What plays less of a role, certainly in the final decision taken by a mentor, is the student's skill in contributing to written documentation. Though developing skills in contributing to written documentation is commented upon in many student development plans, this area is rarely commented upon in final interviews unless difficulties are encountered:

> *'She suffers with dyslexia and this shows in presentation of her written work which can be variable. Her writing is sometimes hard to decipher and sentence construction haphazard*.' (AK1: 40-41)

And:

> *'At times 'E's written work has been difficult to understand. She is aware for future placements of the importance of clear, concise, fact base evidence that reflects what actually happens in clinical situations.'* (E1: 48-50)

For both students concerned however, written documentation is not commented on again in other placements at final interview as they progress through the programme and yet the nature of the problems identified in the above excerpts suggests that difficulties are more than transient in nature. It would appear that a student's ability to communicate in a written form is not integral to an overall assessment of a student and their practice.

Other skills that mentors specifically identify in their recorded comments in student PADs include wound care, medicines management, assessment skills and care management skills. In the earlier stages of the programme comments are mainly focused on a student's engagement in practice, experience gained and further development needs. For example:

> *'We have not been able to do as much wound care as expected however to compensate for this, 'X' watched the asepsis demonstration from the internet and through role play she completed an asepsis dressing on me.'* (X4: 116-119)

> *'She can now complete small wound dressings unobserved. She has also been involved in more complex wound dressing and assessments.'* (AE2: 63-65)

Whilst in the latter stages of the programme mentors are more concerned with demonstration of skills particularly in the core areas of medicines management and care management:

> *'S' has developed a wide knowledge base in drug administration. She is confident in administrating drugs and drawing up IV medication under supervision.'* (S8: 123-125)

> *'AG' needs to be aware of her limitations and always look up medications if she does not know what they are before giving them. She seems to be doing this more towards the end of placement and using the IV drugs monograph on the intranet.'* (AG8: 270-272)

> *'She is able to manage a team of patients with support and little real intervention.'* (AJ7: 167)

> *'She was able to carry out care for a bay of patients, prioritising times of hygiene needs, in accordance with their physio, OT, SLT therapies. She was able to undertake activities independently with the patients consistently with their care pans within the limits of her abilities.'* (Y7: 240-243)

These findings illustrate that mentors look for different skill sets across the programme. In years 1 and 2 mentors are concerned to see that students are developing core nursing skills such as wound dressings. By year 3 mentors consider more advanced skills such as medicines administration and management of packages of care and caseloads, and thus more akin to the skill set that is required of a qualified nurse on a daily basis. Across all three years of the programme there is a gap in mentor comments regarding the assessment skills of a student, with half of the cohort having no comments documented at final interview, despite assessment being the first stage of the nursing process and essential to any clinical reasoning regarding safe patient care and management (Armstrong & Mitchell 2008, Forsberg et al 2011, Douglas et al 2014).

Mentor comments regarding a student's skills and development provided information that discriminated between a student who passed a placement and a student who failed a placement. For the three students who failed final placements ('N', 'Z' & 'AA'), a lack of skills in areas of communication, medicines, assessment skills and care management contributed to the final decision taken by their SOM. For student 'N', her SOM identified the following two areas to support the decision taken to fail the student:

> '1.Communication within the team, on at least two occasions the team felt 'N' could have communicated in a more appropriate professional and timely way.
> 2. Medicine administration. Whilst it is acknowledged that 'N' has developed since intermediate interview, she is still not consistent in her approach.' (N8: 274-279)

At the end of her repeat final placement in a new area, the following comments were made:

> 'N' has displayed a maturity in accepting the challenge of repeating her sign off placement. She continues to provide patient care to a high standard. She has worked well with all members of the MDT. Communication has been good throughout this placement, both written and oral and 'N' has contributed during handovers. She is aware of the Trust infection control policies and has adhered to them in clinical practice. I have had positive feedback from other qualified nurses with regards to administering medication and other aspects of 'N's work. She has gained in confidence during this placement and I would like to wish her all the best for the future in her new job. Well done 'N'. (N8: 345-355)

The excerpts illustrate the role, previously discussed, that team communication and medicines administration play in evaluating a third year student. The student, in failing to meet the expectations of the mentor in these areas results in a fail decision awarded for the placement. Comments documented for the repeat final placement clearly indicate how these criteria have been specifically noticed and evaluated by the sign-off mentor and achievement contributes to the success of the student in the placement.

For student 'Z', comments regarding her communication skills both at a team and interpersonal level contributed to concerns raised during her final placements but it is unclear whether they contributed to the overall fail decisions recorded. Midpoint comments documented in the first final placement stated the following development need:

> '*Communication skills: particularly considering the context/environment in which 'Z' is discussing/questioning issues related to patient care.*' (Z8: 183-185)

In the final interview, no further comments regarding communication skills are documented. However in her repeat final placement in a new practice setting, concerns regarding 'Z's communication skills are again raised at midpoint interview:

> '*Needs to be less abrupt in communicating with junior staff. Need to look at negotiation / planning aspects of team work further.*' (Z8: 246-247)

This was in addition to an earlier incident in the placement, documented partially at a weekly meeting and reported to university, where the student had been spoken to by her mentor and ward sister following a relative complaint. In this the student had 'high fived' the relative's elderly mother who had suffered a stroke, believing that this would be taken as form of encouragement by the patient. But again at final interview these issues are not referred to and the relevant proficiency (2.1) in the student PAD is signed off as achieved. This might perhaps indicate development in this aspect of practice. What does discriminate the fail for 'Z' in her repeat final placement are care management skills and the underpinning decision making to enact them as the following comments show:

> '*It is to my regret that 'Z' has unfortunately failed this placement at this final stage. She was unable to show competency in the proficiencies and standards set by the NMC and therefore cannot register as a qualified nurse. Key issues to support the fail decision: Not able to demonstrate the ability to work autonomously with limited supervision expected for this stage of the programme. Ability to make a holistic assessment of needs and prioritise care. Ability to evaluate actions and therapy. Ability to use relevant evidence to support and justify actions in practice.*' (Z8: 294-301)

Finally areas of skills development which contribute to the practice fail of student 'AA' in her final placement include:

> '*Sadly she didn't meet the benchmarked criterion to pass this placement. Proficiencies which require further development include:*
>
> *1. Essential skills, BP monitoring, communication.*
> *2. Professional issues: punctuality and dress code.*
> *Concerns were raised with regard to basic care planning, basic nursing procedures and infection control.*' (AA8:182-187)

Communication and care management skills again are commented on by the sign-off mentor indicating a degree of consistency in what is considered vital for this stage in the programme. However some essential skills and attitudes are also evaluated as inadequate, appearing to suggest a broader and more long standing base to the problems identified.

5.4.4 Evaluation of achievement

Students 'Z' and 'AA' include some of the few examples of final interviews when mentors document consideration of NMC proficiencies as part of their evaluation. Overall only 23 text segments (total text segments n=2030) were extracted that specifically related to proficiencies or skills specified in the student PADs. Comments were brief and generally stated that the student had 'achieved all necessary skills and proficiencies' (e.g. D7, G8, R6), or 'completed all NMC outcomes' (e.g. H4, I6, O3, AD7). What was more common was for mentors to record student achievement against learning outcomes agreed between mentor and student at preliminary interview. For example:

> *'Having discussed the importance of a nursing students' final placement 'AH' and I have developed the following plan: we aim to address, discuss and practice theory and technique in the following areas.*
> *1. Professional conduct and development: clinical supervision, communication within a team, career development.*
> *2. Confidence – speaking with peers, patients and relatives. Being assertive.*
> *3. Clinical objectives – unplanned emergencies and medicine management.'* (AH8: 140-148)

At midpoint the SOM identifies some further development needs:

> *'I feel that 'AH' needs to develop her skills in coordinating and taking charge of a group of patients. The nature of the unit dictates that this is difficult for a trained nurse let alone a student, however 'AH' needs to boost her confidence. Answering the telephone and acting independently is a skill that also needs developing.'* (AH8: 159-163)

In the final interview the SOM records the following:

> *'Following the interview I had with 'AH' half way through this placement I have been delighted with her progress. We identified and set objectives to help 'AH' prepare for life as a new RN. She embraced the clinical and personal challenges set and met the objectives with confidence and passion. I am proud to have been her mentor and wish her luck for the future.'* (AH8: 180-185)

What these findings reveal is the limited role that programme proficiencies appear to play in judgements made about a student. Instead what appears to be happening is that mentors are measuring student achievement against a framework of objectives agreed between mentor and student at the start of the placement.

'Student as a Deliverer of care', collects together information on what mentors value and notice with regards to the care that students contribute to and deliver whilst undertaking a period of practice learning. What is important to mentors is that a student demonstrates a degree of competence and confidence in their practice, can deliver a range of skills and achieve negotiated goals for the placement. The skills that mentors notice are dependent upon the stage of the student's programme. The organising theme accounts for 38.9% of the text segments extracted. A thematic map is presented in Figure 20.
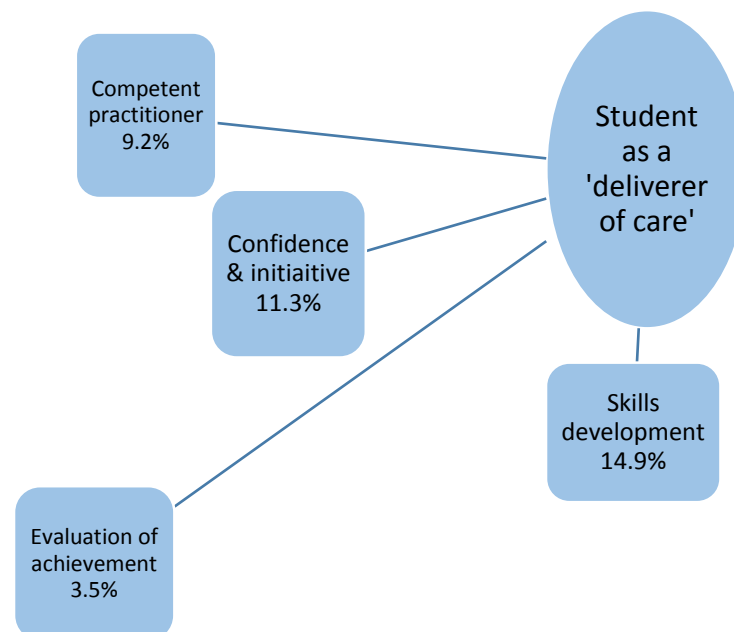
Figure 20: Thematic map for 'The Student as a Deliverer of Care'

5.5 Organising Theme: The student as a 'nurse'

This final organising theme is concerned with mentor comments regarding the student's ability to fit into the team, demonstrate appropriate professional and personal qualities and their potential as a nurse. Comments included reflect mentor evaluations of the student as a person, the relationships they form in practice and their overall suitability for the nursing profession. Three themes and seven codes are incorporated into the organising theme as shown in Table 14.

Organising Theme: The Student as a 'Nurse'		
Theme	**Codes**	**Key words**
Student attributes	'Professional behaviours & attitudes' 'Appropriate personal qualities'	Professional manner, attendance, timekeeping, punctual, polite, presentable, dedicated, well mannered, kind, good rapport, friendly, empathy, pleasant, caring, dignity, respect
Team member	'Fitted in and worked well within the team' 'A hard working, reliable & valued team member' 'Student a pleasure to work with and mentor'	Fitted in, works well with, teamwork, settled in, valued, hardworking, reliable Pleasure to work with, enjoyed working with, pleasure to mentor, delight to have
Student potential	'Will make a good nurse' 'All the best for the future'	Make a good staff nurse, good luck, success

Table 14: Overview of Organising Theme: The Student as a 'Nurse'

5.5.1 Student attributes

This theme encompasses a range of professional behaviours demonstrated by a student, often noted in terms of enthusiasm, attendance and punctuality:

> *'A' has been a pleasure to work with, she has had 100% attendance and been enthusiastic. She has always conducted herself in a professional manner.'* (A7: 297-298)

> *'Very committed, conscientious, always doing something – research etc. Punctual, polite, professional.'* (D5: 116-117)

> *'D' is a very committed nurse, when asked to perform a task will do so in a competent fashion but will ask for assistance when required. She is a very punctual person.'* (D6: 146-147)

Examining the excerpts it would appear that in demonstrating these behaviours, students are evidencing their understanding of and commitment to the nursing role and thus considered to have the required attributes to be a nurse. Mentors appear to be fairly clear and consistent in their ideas regarding these attributes and are quick to point out when a student does not meet them, for example for student 'X':

> *'X' has improved significantly during her placement. She has developed many skills and her knowledge has also improved as well. She was punctual and always dressing according to her code of conduct. A good start! Keep up the good work!'* (X2: 57-60)

> 'A problem with p*unctuality and informing the correct staff if you're going to be late to work or absent from work.' (X5: 137-138)*.

> *'X' is, when on the ward, a brilliant student, she is hard working, uses her initiative and will always go and talk to patients if there is little to do on the ward. She does however need to work on punctuality and attendance, to be able to continue in her career.'* (X6: 163-166)

And for student 'AC':

> *'She was also at the time late for several shifts. 'AC' was talked to about being on time and since then has been prompt at the start of each shift.'* (AC1: 27-28)

In particular, punctuality and attendance appear to act as consistent measures for mentor evaluation of a student's professionalism and for determining whether they have the appropriate attributes for nursing. In addition, the personal qualities of a student also contribute to any judgement. Comments for student 'I' and 'Y' illustrate this well. Student 'I' *'has a lovely manner with both patients and staff, she is caring and sympathetic'* (I1: 24-25), and *'Her approachable, caring manner to her patients is very noticeable'* (I3: 62). *'She is always patient with the service users even when they exhibit some very challenging behaviours and has a mature attitude to care delivery'* (I4: 103-105).

Whilst student 'Y' is described as *'always caring and takes the time to listen'* (Y1: 24), and *'has a friendly manner with the patients who even request her care after her shift'* (Y2: 46). In addition *'She has good communication skills and is popular with both staff and patients'* (Y4; 105), and *'has been very punctual, professional and friendly with both patients and staff'* (Y5: 160). Finally *'she has been very professional, punctual and highly motivated'* (Y6: 201).

In terms of personal qualities mentors note whether a student is kind, caring, pleasant, polite and liked by patients and staff. There are no examples of negative personal comments recorded within student PADs. It appears that these personal qualities indicate and support what is valued in care delivery. Combined, evaluation of a student's behaviours and personal qualities enables a mentor to determine whether a student has the appropriate attributes to be a nurse.

5.5.2 Team member

Tied in with mentor judgements on a students' professional and personal attitudes and behaviours are assessments of the student as a member of the team. This may be in terms of how well the student has fitted into and worked with a team:

> *'Initially 'F' was quite nervous and shy, however she gradually settled on the ward and its routines she worked very well as a member of the team.'* (F4: 107-109)
>
> *'A fantastic student extremely enthusiastic and professional at all times. She was a breath of fresh air and a real team player. She was willing to learn but also confident enough to ask questions and work within her limits. Patients and the whole MDT enjoyed having her as part of the team and wish her well in the future. She will make a great nurse.'* (K2: 55-60)
>
> *'She has worked well as part of the ward team but has also shown initiative. She has shown very good interpersonal skills with both staff and patients, has been punctual and pleasant and has worked hard to achieve her required standards.'* (E3: 123-125)

In addition these judgements may reflect considerations of how hardworking, reliable and valued the student had been as a team member:

> *'I feel 'U' has successfully achieved her outcomes on this placement and was a pleasure to work with. She has worked very well within our MDT and has made very good judgements at times when needed.'* (U2: 59-62)

Reviewing these illustrations, it appears that a student is considered a good team member if they are able to take on and contribute to the nursing role within the multidisciplinary team. In addition comments also indicate an evaluation of the student as being nice to work with and mentor. Such evaluations seem to be particularly important when contrasting comments documented for students who pass and those students who recorded a FAIL practice decision at some stage in the

programme (students 'N', 'Z', 'AA', 'AK'). Here there were few comments documented across the programme describing them as a good team player, hardworking, reliable and a pleasure to work with and mentor. In particular neither 'N' nor 'Z' received any comments stating that they were a pleasure to work with or to mentor, and students 'AA' and 'AK' only received one comment each in their first placement of the programme. This would suggest that being considered a well-integrated and pleasant team player may be important criteria for judging whether a student is good enough to pass a placement.

5.5.3 Student potential

Finally mentors pass comment on the student's future. This may either be in terms of a view that the student will make a good nurse, or in terms of wishing the student 'all the best' whether this is in nursing, or for students 'Z' and 'AA' in whatever the future holds for them outside nursing. Perhaps wishing a student 'good luck' and 'all the best' is no more than a social nicety, a platitude to soften other unpalatable comments, rather than contributing to any judgement formed on the mentor's part. However some examples indicate that such comments may be used to pull together the overall evaluation of a student's competence as illustrated in the following excerpt:

> *'B' has been well liked by staff and patients alike and has become a valued member of the team. In particular she has grown in confidence and is clearly competent in many areas. She is also aware of her limitations and questions practice when needed. She was successful in her recent job application and this is testimony to her professionalism and hard work. I feel she has the attributes of an excellent staff nurse and will be an asset to the team wherever she works.'* (B8: 276-281)

This use of such comments to bring together an overall positive assessment of a student by a mentor is reinforced when examining students who have a practice fail decision recorded at some stage in the programme. Only one student 'AK', receives one comment in her first placement stating that the mentor *'has no doubt that she will make an excellent qualified nurse and I wish her well'.* (AK1:44). Students 'N', 'Z' and 'AA' never receive this kind of documented feedback.

What is important to mentors in this final organising theme of the **'Student as a 'nurse'**, is that the student is professional, caring, kind, liked by patients and staff, hardworking, reliable and a good team player. The organising theme accounts for 36.5% of the text segments extracted from the student PADs. The thematic map is presented in Figure 21.
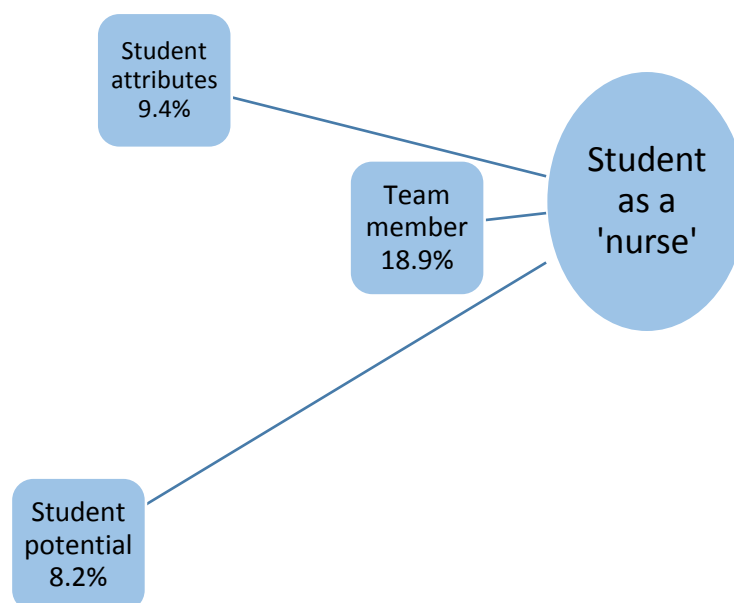
Figure 21: Thematic Map for 'Student as a nurse'

5.6   Summary: What anchors a mentor's judgement?

Mentor comments in the student PADs provides information regarding the evidence that mentors gather and use to inform their judgements about a student's practice (SRQ1). Mentors notice the student as a **'Learner'** and how they develop their practice through participation, keenness and asking questions. In addition mentors evaluate the student as a **'Deliverer of care'**, noting a range of key skills and whether the student performs them in a competent, confident and skilled manner. Although students are expected to show initiative in their practice, it is important for students to know and work within their limitations. Finally, mentors form judgements about the student as a **'Nurse'**; their ability to fit into and work within a team and demonstrate appropriate professional attitudes and behaviours. Reflecting the relationships that students build in practice, mentors also consider the personal qualities of the student and how these support care delivery.

The few comments noted regarding evaluation of student achievement against programme specified skills and proficiencies provides some limited information regarding the effect of assessment strategies on mentor judgements and decisions (SRQ2). Of more use is the examination of how mentors use the identified criteria which provides some indication regarding the judgements made and the final decision reached (SRQ3). Comparisons drawn between students who pass a placement and students who receive a fail decision suggest that the following themes are significant for discriminating between students:

- *Learning & development* (Student AK)
- *Competent practitioner* (Students N, Z, AA & AK)
- *Student attributes* (Student AA)
- *Team member* (Students N, Z, AA & AK)
- *Student potential* (Students N, Z, AA)

In terms of the overall contribution of themes to an understanding of mentor judgement and decision making, the full thematic map in Figure 22 illustrates relationships and theme intensity in terms of frequency of occurrence from the text segments extracted from the student PADs.
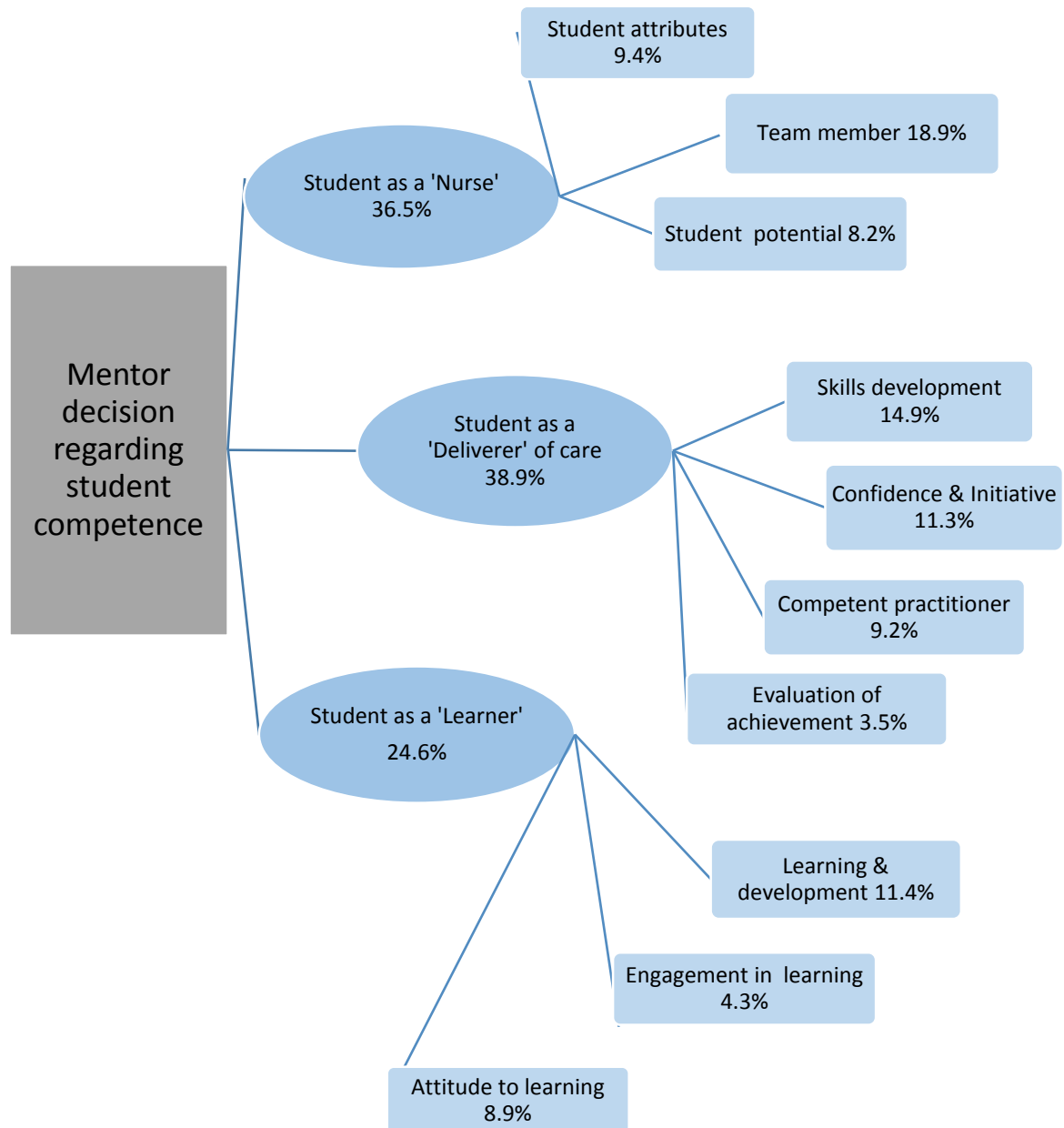
Figure 22: Final Thematic map showing Organising Themes, Themes & Frequencies for mentor comments extracted from student PADs.

Consideration of the importance of themes by placement provides further detail as to how themes are used across the programme. The emerging patterns are revealed in Figure 23. Organising Theme frequencies were determined by calculating percentage occurrence from total number of mentor comments extracted per placement.
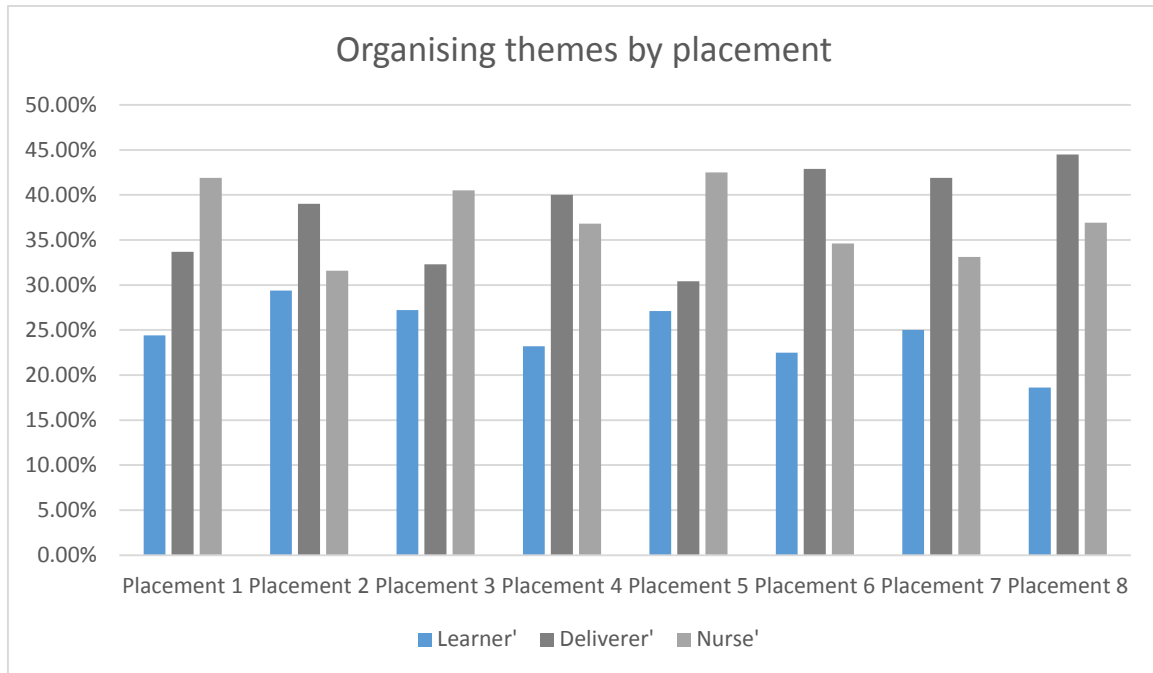
Figure 23: Organising Themes by placement

At no stage in the programme is the organising theme 'Student as a Learner' the main focus of mentor evaluation, instead a key focus is either on the student as a 'Deliverer of Care' (5 placements) or as a 'Nurse' (3 placements). For the final eighteen months of the programme, importance is consistently given to students as deliverer's of care, nurses and then learners. Examination of importance by students is illustrated in Table 15. Frequency occurrence was calculated for each student as a percentage of the overall number of comments generated for the student. Organising themes were then rank ordered (highest to lowest percentage) for each student to determine each student's overall assessment profile for the programme. Overall, student profiles reflect the previously established importance of the organising themes. Students who have failed a placement are identified in bold.

Organising Theme Order	Students who fit profile
1. 'Deliverer' 2. 'Nurse' 3. 'Learner'	'B' 'C' 'E' 'F' 'I' **'N'** 'P' 'Q' 'S' 'U' 'X' 'AB' 'AC' 'AG' 'AH' 'AL' 'AM' 'AO' n=18
1. 'Deliverer' 2. 'Learner' 3. 'Nurse'	'H' 'J' 'T' 'Y' **'Z' 'AA'** n= 6
1. 'Nurse' 2. 'Deliverer' 3. 'Learner'	'D' 'G' 'K' 'L' 'M' 'O' 'V' 'AE' 'AF' 'AI' 'AJ' n =11
1. 'Nurse' 2. 'Learner' 3. 'Deliverer'	'AD' 'AN' n = 2
1. 'Learner' 2. 'Deliverer' 3. 'Nurse'	'A' 'R' n = 2
1. 'Learner' 2. 'Nurse' 3. 'Deliverer'	'W' **'AK'** n = 2

Table 15: Student assessment profiles by Organising Theme

Finally when examining the number of text segments extracted from student PADs by student to compile the above profiles it was interesting to note significant differences in the number of segments extracted for students who failed a placement at some stage in the programme ('N' 'Z', 'AA' & 'AK'), when compared with high performing students who passed all placements and achieved a First class degree ('B', 'I' & 'U'). Across the cohort the range of the number of segments/mentor comments extracted by student was 22-81 with a mean of 51.6. Failed students generated 28-48 segments (mean 37.25) whilst highest performing students generated 67-78 segments (mean 71.6). These findings appear to suggest that mentors overall make fewer comments regarding students who at some stage receive a fail decision in practice.

This chapter has presented findings arising from an analysis of mentor comments extracted from student assessment documentation. An overall thematic map illustrating the key organising themes, themes and their significance can be found in Figure 22. Developing this understanding with regards sign-off mentors talking about their decision making is now the subject of the next chapter.

Chapter 6. Phase 2- The Qualitative data sets: Sign-off mentors talk about their decision making

6.1   Introduction

To support analysis and presentation of findings, sign-off mentor interviews were transcribed verbatim from digital recordings using speech recognition software (Dragon 11.5) to familiarise myself thoroughly with the data (Braun & Clarke 2006, Gibbs 2007). Index tags identifying student letter (e.g. 'N') and mentor number (e.g. '14') and line number of transcript were added to aid retrieval and review throughout the process. From seventeen interviews conducted, one mentor '41' assessed two final placement students and student 'M' was assessed by two mentors (13 a&b) on a 'job share' who were interviewed together. Due to technical difficulties the quality of recording for student 'A' was limited and could not be used reliably; any comments made with respect to this student's mentor '1' derive from the detailed contact sheet completed immediately after interview. Text segments extracted were generally longer in length than those from documentary analysis, with meanings in relation to the key questions (SRQs 1, 2 & 3) interwoven throughout. As a result, identifying key words, completed for documentary analysis, was not undertaken. Text segments were coded independently from document codes already developed and code cards compiled (Guest et al 2012). The initial codes developed (n = 43) are presented in Appendix H.

Initial examination of the codes against the SRQs resulted in codes being identified and sorted as 'Process' codes (SRQ2) or 'Judgement Content' codes (SRQs 1 & 3) to reveal their similarities and differences (Appendix I). Codes were then reviewed for overlap or redundancy and associated text segments reallocated against developing codes (Appendix J). These were then clustered together into two groups of themes: themes concerning the assessment process and themes regarding a mentor's decision making (Appendix K). Review of the developing themes, associated codes and text segments resulted in further clarification of definitions and synthesis of related ideas, with final codes and themes determined and relabelled as necessary to promote clarity of the content contained. The final structure of the developed codes, themes and organising themes is presented in Table 16.

The two organising themes tell us about mentor management of the assessment process and how a decision regarding student competence is made. Key to mentor decision making are their expectations of students, their impressions of students and the criteria they use to decide if a student should pass or fail a placement.

Organising Theme	Themes	Codes
Mentor as a 'manager' of practice learning and assessment	Managing supervision and assessment	'Practice orientation' 'Mentor supervision arrangements' 'Conducting interviews' 'Assessing proficiencies'
	Managing learning & development	'Planning student development' 'Overseeing student development'
	Managing feedback on practice	'Feedback for students' 'Who contributes feedback' 'Experiences of providing feedback'
Mentor as a judge of student practice and achievement	Mentor expectations of students	'Expectations by stage of programme' 'Expectations by practice area'
	Mentor impressions of students	'First impressions' 'Reassuring impressions' 'Worrying impressions' 'Impressions of ongoing achievement' 'Impressions of personal attributes'
	Mentor decision making criteria	'A professional practitioner' 'Ready for registration' 'Need to raise concerns' 'A safe / unsafe student' 'The pass / fail criteria' 'Reasons to fail a student'

Table 16: Final Structure of Organising Themes (n = 2), Themes (n = 6) and Codes (n = 22) from sign-off mentor interviews (Phase 4 & 5 - Braun & Clarke 2006)

6.2   Organising Theme: Mentor as a 'Manager' of practice learning and assessment.

The mentor role in UK pre-registration nursing programmes incorporates many management facets, not least establishing relationships and creating a climate for learning to support student development and competence assessment (NMC 2008a). Standards for mentorship outline clear expectations which are further enhanced by specific programme guidance. How a mentor views and undertakes their role in line with these contributes not only to the process of student learning and assessment, but also directs the judgements that are formed and decisions taken. Analysis of the sign-off mentor (SOM) interviews reveals three key areas of mentor management as important to an understanding of mentor decision making: supervision and assessment, learning and development, and feedback.

6.2.1 Managing supervision and assessment

Mentors manage student supervision and assessment through processes of orientation, supervision arrangements, and conducting interviews at three points in the experience (Preliminary, Midpoint and Final). Orientation of students fulfils a number of purposes as illustrated in the following excerpts:

> *'On a one-to-one basis we give them a guided tour and then we also make sure that we reassure them and just go through our day-to-day routine and the obs charts, the monitors and the doctors rounds.'* (Student G, Mentor7: 53-55)

> *'Usually what we tend to do, dependent on the length of time that the student is with us, the first week or two we get them settled in. We get them used to our routine of doing things, where things are, and we also get a feel for their knowledge base at that time.'* (Student AA, Mentor 27: 14-17)

> *'We talk about the nature of patients we get on the Ward, and then I also do give them the opportunity to ask questions. And I also emphasise that, the fact that when you write your competencies it's not like storytelling. We need to....... we only need to include what you have done with your Mentor and include the references for your competencies.'* (Student AE, Mentor 31: 44-48)

Orientation provides an opportunity for the mentor to outline the nursing role and routine for the area or team, so that a student is not only safe, but is able to function and deliver care. Orientation also facilitates relationship building and communication of expectations between the mentor and student, providing a baseline for practice learning and competence judgements. In addition orientation identifies staff supervision arrangements and thus who will contribute to any judgements that are made:

> 'We've gone back into a system of primary and associate mentor and we send letters out to say that the primary mentor is mainly responsible for students paperwork and is who the students are to go to as some students were getting missed.' (Student M, Mentors 13a & b: 11-14)

> 'I mainly do nights and students mainly do days and maybe my co-assessor is on leave, I usually get a staff nurse who is there who is not as busy with other students, and say to her can you just assess and see how she goes and support her as much as you can and then we can have a discussion when I come back. And then when I come on to night's we can discuss these and see how she's got on.' (Student AE, Mentor 31: 209-214)

As can be seen in the excerpts, for many, working patterns mean that students may be supported by more than one nurse, with the second nurse not necessarily a qualified mentor. Both nurses then contribute to student development and any judgements that are made. This may still be the case in the sign-off mentor placement, although some mentors do feel the need to be more closely involved:

> 'It's difficult because I work part-time, and we tried to get her to roster herself with myself or associate mentor. We work with students together or we allocate someone to work with them. It's very difficult for me because I coordinate most of the shifts that I am on and that's not the skill that they need to be developing. But you can put them with a very sensible member of the senior nursing team and they will work with them and sit with them and say to them how they are doing, and if there any problems they will come to you straight away.' (Student AK, Mentor 37: 87-94)

> 'I want them to work all of their shifts or more of their shifts with me if I am going to sign them off. And I make that plain to them.' (Student AL, Mentor 38: 75-76)

This variation in supervision arrangements across the programme, but especially in the final placement is interesting when considering the potential implications for a mentor's accountability. Mentors appear to be prepared to be accountable for the assessment decision taken, even when supervision arrangements may limit their observation of a student's practice, resulting in a reliance on feedback from others to inform their overall decision.

How mentors manage placement interviews and assessment records provides some insight into when judgements about student competence may occur. With regards the formal midpoint review of student development, mentors normally *'try to do it midpoint, but with the volume of students, shift patterns and sometimes if you are on annual leave…'* (Student M, Mentors 13a &b: 217-218), delays may occur. However, where students cause concerns for mentors these are picked up at an early stage, triggering earlier midpoint interviews. For student 'Z' her SOM comments:

> *'Looking at the document, she started in the September and then I got in touch about four weeks later before the intermediate interview was due.'* (Student Z, Mentor 41: 483-485)

A midpoint interview was then conducted in week six, from a sixteen week placement, with a number of follow up visits until final interview. A similar pattern of early concerns triggering early midpoint interviews for the other final placement students who failed the 16 week placement exists. For student 'N' concerns were first raised with the university in week seven, with the midpoint interview occurring in week nine. With student 'AA' concerns were first raised in week three, followed up with midpoint interviews in weeks four and twelve of placement. For student 'AK' concerns were first raised in week six, with midpoint interviews occurring in week seven and reviewed in week twelve. 'AK' passed the placement in week 16. Taken as a whole, this would seem to indicate that mentors are making judgements about a student's practice from very early on in the placement.

To successfully pass any assessed experience on the programme, students had to complete specified NMC proficiencies in practice (Appendix L), and produce written evidence records. These records then had to be reviewed and signed off by the student's mentor to confirm achievement. In the main this appeared to occur as a continuous process across the placement with one mentor commenting that *'they are not allowed to leave them until the end '.* (Student K, Mentor 11: 259). Instead:

> *'They write them up and then come to me. Because I am very clear I am not going to chase you and I will forget. Now I know that they will sit with their associate mentor and do a lot of the work together and that is fine but I think sometimes it's a struggle for them to write up what's there.'* (Student Y, Mentor 26: 368-372)

This does mean, that by the final interview, consideration of proficiencies has already occurred and they may already have been signed off, as illustrated in the following comments:

> *'I would've expected by then that we had all the proficiencies signed before the final interview. I want to make sure that everything is in its place, that it has been done and discussed and that it is right.'* (Student K, Mentor 11: 358-360)

> '*We've generally done most of it before we get into the final week. At the final interview we tend to sign off all of the proficiencies and stuff.'* (Student AI, Mentor 35: 315-316)

The final interview then becomes a discussion of the placement with both mentor and student aware of the outcome:

> *'And then the final interview is their feelings, and how they feel having worked here. What they like, what they don't like and my place to say what was good, if there was anything that wasn't quite as good that they need to work on in future..... .'* (Student K, Mentor 11: 361-363)

> '*They may have a feel because, because of, where we started. Because it's like a journey. We are working together. And they would think but if there were any problems I would've raised them with them already. So when we come to sit in this room she already knows and they are happy about themselves and their achievement.'* (Student AE, Mentor 31: 446-450)

These comments appear to suggest that consideration of proficiency achievement occurs as a continuous process, outside of the overall decision taken by the mentor regarding student competence. Thus proficiencies do not appear integral to the assessment decision taken by the mentor. This point is reinforced when examining proficiency achievement of students 'N', 'AA' and 'Z' where little completion of proficiency records was evident during the placement. Student 'Z' did not complete any proficiencies by the midpoint interview and was still in the process of writing up proficiencies at the final interview. Student 'N' completed three which were described by her SOM as having *'very little reflection and there was no analysis and no references'* (Student N, Mentor 14: 351). As for student 'AA':

> *'We had a problem with the book in itself, it wasn't brought regularly, so signing off at times had to be done retrospectively. So the book itself was a little bit like the Grail, we saw it very rarely. And when we did see it there was so much to cover within that time, there was a lot of 'oh I've done that', flicking of pages so there was very little structure.....'*(Student AA, Mentor 27: 354-358)

Non-completion or completion not to standard were indicated as significant issues for these failing students, yet they did not contribute to the concerns raised by the mentor with the university, nor appear to play a part in the final decision taken. One mentor's comments clearly illustrates this separate and limited role commenting that, *'I mean her book was never completed and we gave her some leniency on that'.* (Student N, Mentor 14: 405).

6.2.2 Managing learning and development

Mentors plan and oversee student development through a process whereby learning objectives are agreed and learning opportunities identified; mentors set targets and then judge student development against these. Agreeing learning objectives may be directed by student needs arising from the stage of their programme, a development plan set by university, as well as influenced by previous experiences. For example:

> *'At the sign off placement we always focus a lot on drug administration. We try to do a lot of drug rounds with them because obviously there is a lot to do. And we try to start this after the first week after we have identified that, well after they have got their PIN they are doing it by themselves....... Some might want to spend more time working in bay looking after their patients, doing the washing particularly if they are coming into the second year where they might not have had a great deal of ward experience.'* (Student M, Mentors 13a & b: 93-99)

> *'Well you sit down and you find out exactly what her objectives are, what she needs to achieve, while she's here. And also working in the different areas of the Department, what she is needing. It's getting the feel for what her needs are. And obviously we need to make sure as well that she is capable of looking after patients, assessing patients and it's obviously making sure that she understands the processes as well.'* (Student I, Mentor 9: 49-54)

> *'I like to set them together. I've seen a university where they set all the objectives with a guide for the students, but I think it's equally important for the student to set their own objectives as they might have got to that final stage and not done something and like IM injections.... So they might have specific objectives that they want to meet, but you should also set some objectives together, that are tailor-made to your practice area.'* (Student AO, Mentor 41: 33-39)

However some learning objectives that students come with may not be readily achievable in the area:

'The classic one is I need to look after a dying patient....... (laughs).....we will do our best!! Can't promise.......... quite a few of the patients survive (laughs) or we send them to ICU..... But the students still seem to….., and I can understand it, with their workbooks and things, have it in their head I need to, I need to give an IM injection, I need to do this and……if they're last placement they come to us with a lot of it being filled in and there's just these odd ones. And as I say they can be very, the ones that are left to the end...... and I think how we going to get through that?' (Student G, Mentor 7: 137-144)

This process of agreeing learning objectives is important for mentor decision making as it not only sets outcomes which fit the practice area, but it also contributes to initial judgements that the mentor may form about their student as illustrated below:

'I think, this student was really good and she identified exactly what she felt she needed to do to equip her with the skills to be a qualified nurse.' (Student P, Mentor 17: 155-156)

'She did show me her book with her development plan from the university….. briefly she did, but she didn't comment on the things she needed to do.' (Student Z, Mentor 41: 415-417)

'I think generally we look a lot at the skills book, to see where they are at with their skills, because you would get a lot..... Especially for the final placement you would expect them to be more or less completed. She was quite vague about why they weren't done....' I thought I'd get round to it' or..... It was always she hadn't got round to it or she seemed a little bit disorganised in her approach to everything... We were concerned from the start that the skills book was so empty.' (Student N, Mentor 14: 87-93)

Students who are organised and clear in what they need to achieve in practice provide the mentor with a positive image of themselves, with the converse also holding true. In particular noting a lack of organisation and past achievement of clinical skills when agreeing learning objectives, contributes to any initial concerns that a mentor may have about the student.

It would appear then, that a mentor's management of learning and their initial judgements are inextricably linked. This remains the case as the placement progresses, with judgements formed and student's moved on as a result of regular reviews as indicated:

'And then I'll say if they are a final placement student, at the end of two or three weeks, we'll see how you are and then you'll be able to look after one patient with support. And then as we go, as we progress, and see if they're doing that, or go back a step, and if they're not, go back another step. And if they are, we will progress on to 2 patients.' (Student G, Mentor 7: 109-112)

'You set the target more at your interviews and say that maybe you will go out with this nurse specialist, and learn about this or whatever or we are going to start working towards your managing a bay of patients. I suppose on a daily basis, as time goes on, if they get more competent and you say right you take these four patients and tell me what you are going to do today and get them to start learning how to plan their day and deliver the care. We do that daily and then see if things are going all right.' (Student AI, Mentor 35: 101-108)

For final placement students, these reviews may occur formally or informally as part of the NMC requirement for weekly meetings (3.2.6, NMC 2008a).

'It may be a five-minute chat for one of the weekly meetings, the next one might be 20 min you know, depending. It is me really asking 'how are you getting on? What have you learnt? What are your objectives going forward? Are you on track? You know do you feel you are on track? And then giving any feedback that I have had.' (Student Y, Mentor 26: 106-110)

'I think the weekly meetings are good, although from experience I don't think you can do a weekly meeting, it's just not (laughs)... You just can't do it, but you set objectives each week and you can say this week what are you going to concentrate on, what you think most important? Looking at the ward, so-and-so is going for a PEG, what do you think is most important about that, so let's concentrate on that this week. See what you can learn from it. Look at how endoscopy works... You know and just try and set objectives week by week.' (Student AO, Mentor 41: 74-87)

Overall mentor comments suggest a continuous process of managing a student's development, informed by initial impressions of a student and based upon a review and identification of learning needs. Judgements are then made in relation to student achievement against agreed learning objectives and new targets set. As a placement continues the pace of target setting may slow down from midpoint interview, particularly in the final placement, with targets more focussed upon *'Consolidating everything so that actually they are ready to just be let loose'.* (Student G, Mentor 7: 330) so that the student *'Feels comfortable that they can do it'.* (Student AO, Mentor 41:290). Talking with the mentor of student 'AK' illustrates clearly this continuous process of target setting and the impact upon judgements and the final decision taken:

'But I found it very difficult because if I said to her, right you need to concentrate, and you need to do this, go away and do it and I knew that she would go away and do it and that's why at the end of the day I passed her because she did everything that I asked her to do. But I don't think that she will have continued that in practice. Particularly when you have asked someone to do something and they do, how do you fail them on…….. I don't know, it was hard. She was a very hard person I mean...... .' (Student AK, Mentor 37: 208-214)

This shows clearly how mentors accumulate impressions of a student against learning objectives agreed, form judgements, which when taken as a whole at the end of a placement contribute to the final decision taken. The process of target setting is not solely a strategy for performance management but also provides a measure to evaluate student practice against. However, this may limit confidence in the overall decision taken, if the targets chosen lack reliability, validity and specificity, as appears to be suggested in the final quote.

6.2.3 Managing feedback on practice

Examining a mentor's management of feedback contributes to a developing understanding of what mentors value, when judgements and decisions occur and the role that feedback from the team and service users may have in the judgements formed and decisions made. In the main mentors appear to provide feedback in a frequent and informal manner:

> *'From my point of view the feedback was almost constant on a shift basis. And we had the weekly meetings, and some weeks it got onto like two weekly meetings, but we could easily catch up. I think if you're working together a lot of the time, we go over things that the student wasn't sure about something, but I always say at the end of a shift, thanks for your help today, and you're doing well.'* (Student G, Mentor 7: 177-181)

> *'When you are working with them as to start off with you assess the patient together and then once they've got that, they show confidence then they would go and assess the patient and then I would then ask them about the patient and then, say this time you need to go and ask them about this, this and this.'* (Student I, Mentor 9: 200-204)

As can be seen, feedback is mainly undertaken as part of a discussion and review of practice immediately after an event. This may be of benefit to the student due to its immediacy, however it does lead to a lack of traceability of mentor comments regarding both development needs and concerns, which may contribute to the assessment decision taken at the end of the experience.

In general patients play a limited role in student feedback with mentors *'Observing how students communicate with patients more than actually asking the patient'* (Student M, Mentors 13a & b: 362). What is more important is feedback from other staff, which may reflect how the student has worked with members of the team, or

be an important strategy used to check out a decision:

> *'When I worked with 'I', because obviously I couldn't work with her all the time, I would get together with staff nurse and say what have you been doing with 'I' this week and how'd you think she is progressing.'* (Student I, Mentor 9: 302-304)

> *'I always think the healthcare assistants are quite good judges of students with regards to how they have behaved with them…….. Just whether they think someone is good or not and they are usually pretty accurate.'* (Student AI, Mentor 35: 248-250)

> *'Certainly with a student who has failed placement or a student who I don't feel is performing very well, I think, 'am I making the wrong decision?' I don't want to make the wrong decision so I do ask other members of the team. Well I do anyway, even students who are very good. You know 'what do you think of the student?' And they say 'oh yes, she is really good.' And I think 'that's good, I have made the right decision.' But somebody like this student who has failed placement, it is really important.... And I got really good feedback about her.'* (Student N, Mentor 15: 414-425)

Obtaining feedback from other members of the team appeared to offer mentors a chance to confirm and feel comfortable about the decision they wished to make about a student, enabling them to exercise their accountability. This however was not the case for two mentors who were faced with failing students:

> *'Well it was difficult because quite a few of the team obviously knew her and liked her. The ones who were mentors all had the same issues with her. So there was myself, and two other mentors and we all had the same issues. It was the ones who weren't mentors who felt that she should have been passed.'* (Student N, Mentor 14: 160-164)

> *'One of the other team members she is quite 'fluffy',......' ooooh don't worry, it will be fine', and I know at the end of this young lady's placement, when I said 'no, I'm not happy to sign your book off, I'm really sorry but I'm going to have to fail you'. The student said 'that's fine, I'm finishing'. When the student had gone home to her parents, they said 'no you must finish', she came back and made sure that she came back on the week that I was on holiday, so that she could work with my 'fluffy' counterpart. Who was very supportive in the 'don't worry, we will get you through this, we will pass you'. So I had to say, 'well you can't pass her' so that caused a little bit of discussion within the team, a little bit of conflict.'* (Student AA, Mentor 27: 432-440)

In sticking to their original decision to fail the student, comments from both mentors illustrate their clear understanding of their personal accountability in the decision taken and the difficulties that may arise within the team. Difficulties which require certain personal qualities to follow things through as identified in the following quote:

177

'It's only that I am older now that I feel that I can raise concerns and fail someone. Whether it's that I don't know, but not everyone feels that they've got the experience or confidence to do it. I probably feel that I wouldn't have done it in the past.' (Student AK, Mentor 37: 30-35)

Feedback then from others, may help a mentor to reach a decision regarding a student, or may add a degree of complexity or difficulty to the decision to be taken. Either way this contributes to the judgements that underpin the final assessment decision taken by the mentor.

Overall in reviewing these findings it would appear that mentors form judgements from as early on as the orientation of a student to practice, with student documentation and expectations informing initial views of a student as 'good' or 'not so good'. From this, targets are set and regularly reviewed, either moving a student on when achieved, or taking a step back and allowing more development time or raising concerns. Concerns may be raised as early as week 3 of a 16 week placement, triggering earlier scheduling of midpoint interviews. Processes of target setting and regular feedback suggest that mentor decision making is continuous, with the latter stages of a placement used for consolidation of practice and confirmation of decision. Final decisions are shown to be made ahead of the final interview with both mentor and student aware of the outcome. Feedback from other staff members may play a part in the ongoing judgements of mentors, though in instances where mentors decide to fail a student, this may not universally support the decision taken. This creates difficulty for a mentor and requires them to have confidence to stick with the decision made. A thematic map representing the themes and codes identified is to be found in Figure 24.
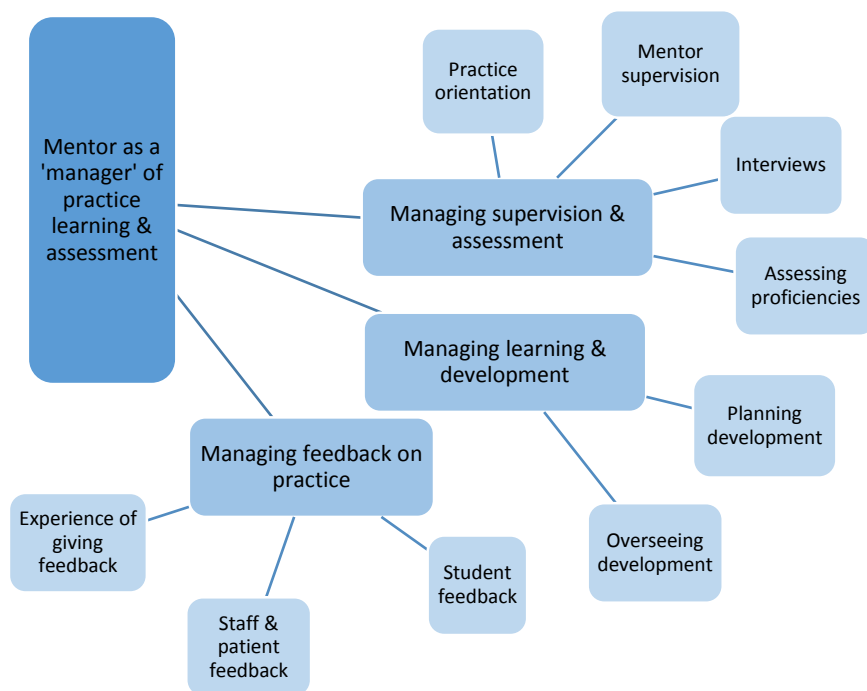
Figure 24: Thematic map for the mentor as a 'manager' of practice learning and assessment.

6.3   Organising Theme: Mentor as a 'Judge' of student practice and achievement.

Mentors of students on NMC approved pre-registration nursing programmes are required to not only support but also assess student practice learning. They are expected to be '*accountable for their decisions to pass, refer or fail a student'* and '*all assessment decisions must be evidence-based'* (NMC 2008a, p32). Thus it is perhaps not surprising that the second organising theme arising from the mentor interview data captures this aspect of the role. Three areas of particular significance in these interviews were mentor expectations and impressions of students, as well as criteria used to discriminate between students who should pass or fail a placement. Operational definitions, underpinning the labelling of the three areas of expectations, impressions and criteria are as follows:

- **Expectation:** a belief that someone will or should achieve something.
- **Impression:** an idea, feeling or opinion about something or someone, an effect produced in the mind by a stimulus or sensation
- **Criteria:** principles or standards by which something may be judged or decided

6.3.1 Mentor expectations of students

Mentors have expectations of students with regards to stage of programme, practice area and generally what students should be able to do in their student role. This may be in terms of *'the basics, the basic skills are important'* (Student P, Mentor 17: 206) with some core skills identified such as *'simple dressings, bandaging, catheter care'* (Student K, Mentor 11: 119). Or mentor expectations may be focused more generally on standards of practice:

> *'That they are safe, so we look at their clinical safety skills. The very basic sorts, so can they recognise the abnormal from the normal. Do they know what to do if something is abnormal?'* (Student AA, Mentor 27: 41-43)

> *'You've got to make sure that they are performing safely and that they are aware of themselves and other people and of the code of conduct and everything.'* (Student AO, Mentor 41: 124-126)

> *'I think by the time they're coming up to……, when they are on the final placement they should be at a stage where they can….. I don't mean the complicated things but take the basic team say of 4 - 8 patients. They should be able to know the basics of the nursing and be able to organise their patients and to plan their care, and implement their care using the other people around them.'* (Student AK, Mentor 37: 317-321)

Mentor expectations detail what a student can do, as well as the manner in which this should be undertaken. Students should not only be able to perform a specific skill and contribute to care activity but should demonstrate relevant knowledge and appropriate attitudes to support their practice. It is these expectations that provide the criteria to structure a mentor's decision.

Expectations are also modified by placement area; this may be in terms of whether it is an area which the student has to do, but would not select to work in at a later stage, for example in year 2 the community nursing placement:

> *'Young people they don't always like community because it is very lone working and you do need quite a lot of confidence in this area, and I've had a couple who didn't want to be here and perhaps ring in sick, on their last week, things like that. I enjoy my job and I want them to enjoy what we do. I do try to be enthusiastic with them as I want them to get something out of what we are doing.'* (Student K, Mentor 11: 328-332)

As can be seen in this excerpt, the main expectation that the mentor has in such circumstances is that the student enjoys the work and that some learning or at

least appreciation of community nursing occurs, rather than any specific development in terms of what a student can do. Expectations may also be modified by nature of area and length of placement period. The effect of this upon decision making can be clearly seen in the following comments from a mentor in a highly specialised service talking about year 2 students allocated to the area:

> '*I don't think I can assess someone fully, particularly final placement students until mid-interview, to see how their confidence levels are doing, because if you look at our new starters they take 12 weeks to gain even an ounce of confidence in looking after patients. And I do think sometimes you know in the four-week placement you don't get to know the student fully. You can sometimes make a snap judgement on someone and say 'yes they are going to do okay'. And I don't see how you can fail them almost. You have got to give them those four weeks almost to build up their confidence, and then they are off. So you can't say that this person is failing, because it might just be the fact that they are completely overwhelmed by the environment. You can't say 'this student is rubbish and shouldn't be a nurse', it's not fair at all. So you end up passing someone when you don't know that person fully.*' (Student U, Mentor 22: 123-134)

In this instance the mentor illustrates how expectations for qualified staff in the area influence what can be reasonably expected from a student, especially given the length of placement. The consequence is that to be fair to the student, a pass decision is made, when in fact there is insufficient evidence to support a decision either way.

Finally expectations are informed by the stage of the student's programme, as illustrated in the following two excerpts:

> '*As a first-year student say you are doing a dressing with them or something, is their aseptic technique good? That's fine and they've done the dressing. But have they looked at the patient, have they assessed, have they planned, have they evaluated and you are looking at the whole picture. So I think if I was working with a first-year student, then you give them feedback and say that they did that really well, their aseptic technique was spot on but what else do we need to be thinking about? As a third-year student I think I would expect more out of them than a first-year student. Well I'd expect them telling me about what they are looking for, so they're assessing the wound before, rather than just going on what the other nurse put on, or just reading the care plan. So you are evaluating the past care plan, your assessing the wound at this instance and then selecting dressings and planning what you are going to do. But I'd be expecting them to kind of verbalise what they are doing, just to make sure. And then afterwards I would be talking about what some of the contraindications are, for instance if they were diabetic, so they are looking at the whole person.*' (Student AE, Mentor 31: 527-541)

'I wouldn't expect them to identify if there was a problem what to do about it in the same way. I think I would expect a final placement student to be able to look forward and be able to plan things a bit more than earlier on in the programme. I know it's important but I do feel that, on a final placement I would be expecting them to be thinking about how the shift runs, in terms of getting jobs done and prioritising care. I wouldn't be too fixated on that with students earlier on in the programme, certainly not first year students.'
(Student P, Mentor 17: 482-488)

Both excerpts illustrate clear and different expectations for years 1 and 3 of the programme; identifying expectations against a continuum of practice from skills performance in year 1 to a more global, knowledge-based performance in year 3. As for year 2 where students in the main undertake a range of specialist placements such as the community nursing and highly specialised service discussed already, decisions appear to be based in this instance on what is reasonable to expect, given the nature of the placement or the desire of the student to work in the area at a later stage.

How these different expectations play out has an effect on the priority accorded to the student and the decision that a mentor may be prepared to take. One mentor states that they *'wouldn't really expect too much from first years to be honest'* (Student AI, Mentor 35: 282) with another mentor explaining the purpose of first year practice as:

'.... I think we are looking in first year at general learning and getting them to..... Because I don't know what is happening in college, you know how far they have got in college, but it is about that experience of being on a ward, ward routines, what a nurse does, what a physio does and about the patient's environment. This is what it is like for a patient as they come through the system ….. You know, just experiencing lots of things.'(Student Y, Mentor 26: 232-237)

Here mentor expectations are concerned with student engagement and development rather than achievement of a particular standard of practice. As a result when decisions are taken upon year one students, the following views can be important:

'The first year you might give them the benefit of the doubt. Whereas with third years, it is their third year and sometimes if people haven't told them what is expected of them, they get to their third year and all of a sudden it is 'this person is going to be qualified soon and they are just not up to scratch'. But yet in their first year you think all right then, we'll give them the benefit of the doubt and see how they develop you know, in their next placement.' (Student N, Mentor 15: 193-198)

'You are very aware that they are here for however long, and then they are moving on and you may never see them again. So you know you don't, you possibly don't put in as much as you would with the last..., And it's not, and it's not as important as the last one with signing them off to be a qualified nurse.' (Student Y, Mentor 26: 560-563)

Examining these comments adds further detail regarding expectations that mentors have regarding year 1 students. Not only are these expectations about engagement and developing an understanding of practice, but also encompass ideas about allowing time for development as well as the potential consequences of the decision taken. These are perceived as different when considering a first and third year student as the following comments illustrate:

'*What shall I say to you...... The first-year student... Give her the benefit of the doubt she is still the first-year, so you don't want to be harsh. I think it's too early to know if she's good or bad. You know, she is still trying to familiarise herself. The way that I'm looking at a first-year student is so different from the way that I look at third-year student. Because the third-year student has passed through all those... So you are looking at somebody who is like almost qualified but the first-year student, I always look at them as somebody who is still laying the foundation for work. And mostly what the mentors are doing is to support them and to encourage them. Because you know, it's not an easy job. Certain things I can imagine prevent learning taking place. You can scare them away. It's a bit difficult for first years. Again you are looking at are they keen to listen? Can they communicate well? Can they do their best? That's what we're looking at. And we are also looking at the way they present themselves. Small things like that. Things that are so different from the third-year. Because the third-year, you are looking at things, you were looking at them as qualified, and so you're looking at them a bit harder. This is the final year and you want a good product at the end of the day. You don't want to be looking at them and there were some loopholes and you don't want to be saying to yourself, 'Oh my god what did we do here?' We are looking at things in a more strict way.'*
(Student AE, Mentor 31: 527-540)

Changing mentor expectations mean that there is a clear imperative to get the decision right in year 3, where time to develop is now limited and the consequences of the decision in terms of the 'end product' is clearly understood. As a result the nature of the decision that a mentor is prepared to take is altered. Decisions at this stage are focused upon the student as a soon to be 'qualified practitioner', whilst earlier decisions appear to focus on the developing student, perhaps reflective of changing perceptions of mentors and their role in supporting and assessing students across the programme.

6.3.2 Mentor impressions of students

Mentors develop feelings and impressions about students; good, reassuring or worrying feelings based on conversations and observations of the student and their practice. These impressions are the basis of what is observed and the judgements made. From early on in a placement impressions are formed:

> *'You do judge your student because some of them would want to get straight in there while others would may be, use that first week to just observe because it is totally different. And a lot of it is on communication and I suppose I always look to see if they can use their own initiative, and common sense. And it's basically observation of how the student reacts, communication with patients.'* (Student M, Mentors 13a & b: 69-74)

> *'I think one thing that I look for is how keen they are to participate in things. How keen they are to get involved and ask them about their previous placements……….and say follow me and watch what I am doing and see what is expected of you. But I certainly know the students who sit round the nurse's station or the ones who are going and answering the buzzers you can kind of suss out from that really.'* (Student P, Mentor 17: 176-181)

> *'So I use the first week to suss their communication, suss their competencies, sort of suss out their confidence level. That's a big thing for me.'* (Student U, Mentor 22: 64-66)

Key areas that appear to play a part in the development of mentor first impressions of a student are student participation, skills, confidence and communication. As well as observing the student, reviewing the student's skills workbook also contributes to the initial impressions formed:

> *'I think you do sometimes have warning signs, just from their communication and maybe from reports of how they have got on, in their last ward. You know when the student says I didn't get a lot signed off on my last ward, and you think well why not?'* (Student M, Mentors 13a & b: 122-125)

The importance of these first impressions is clearly illustrated in the following comments, for student 'AA' who failed, and for student 'N's repeat final placement:

> *'When this particular student came to us, the first impression wasn't fabulous. She turned up on the first day late. She turned up with false eyelashes on and a very big dress ring on. There was quite a large amount of make-up on, more suited maybe to an evening out than a day at work. Tunic wasn't fabulous. And the first impression that she gave, there was lots of little things, but the first impression that she gave wasn't fabulous. Throughout the morning, I tend to have them with me on the first day, she made no interaction with myself or the patient really unless she was really pressed on it.'* (Student AA, Mentor 27: 61-68)

'She was really positive, because she had got to arrange somewhere else to live, and she had done all that. And as I say she was really well prepared. I was quite impressed at how prepared she was and she said ' right and we have got to have these weekly meetings so I'll document the days we can do it and I'll write it all down, if you can just go through it with me just to make sure that I am doing all the right things……. And even from the beginning, I said, from what I have seen so far barring an absolute disaster, you will get through this placement.' (Student N, Mentor 15: 32-39)

From these initial impressions mentors develop views of student practice as reassuring or worrying. The impact of these upon decision making is significant. Comments from Mentor 15 indicate that the initial positive impressions experienced regarding student N in her repeat final placement, enabled the mentor to not only feel confident that she will be able to award a 'pass decision' to the student at the end of the placement, but also to communicate this at an early stage to the student concerned. Another mentor also demonstrates the contribution that initial impressions make to the final decision that is taken, and how this is picked up:

'That they will pass......... confidence. The enthusiasm and the willingness to partake in everything that we do. Not shying away. If somebody is shying away from various areas which is a large area of nursing then I would have great concerns.' (Student K, Mentor 11: 150-153)

Initial impressions are then used to structure observation of student practice. These observations may reassure and confirm initial favourable impressions or may result in, or reinforce initial concerns expressed about a student. Reassuring aspects of practice include a student demonstrating confidence, knowledge and an understanding of the nursing role as revealed in the following comments:

'If they've got that basic kind of instinct of talking to one of the patients who is feeling unwell or looking worried, it's that, you know, basic nursing instinct of caring for someone. Then you always get a good feeling about the student.' (Student G, Mentor 7: 83-85)

'For me, it's whether..... I think it links in with the communication...... can they talk to me about what is going on? Are they picking up on what is happening around them? And when you have got those level 2 patients have they got that confidence to go up to them and ask them if they are okay, and offer them a drink.... There is just little signs, body language, the way they stand...... as white as sheet.... And you need to sit them down. It's difficult to explain isn't it? You can kind of tell from an individual in the first few days, their confidence level. I've always been quite a good judge of character generally.' (Student U, Mentor 22: 74-84)

A student's commitment to and suitability for nursing also contributes to this reassuring picture:

> *'What I am looking for is that pro-activeness. I like them to, you know... Oh I'll go and do that, I'll do this, can I do that? Rather than just standing back and not doing anything...I must admit that the students coming through now I'm finding really, really proactive and they've got a lot of motivation and are such eager students. And I look back at how I was as a student, as a student nurse and I can just remember feeling so enthused every time when I went to a placement. Obviously you can feel a bit daunted as they can be completely different, but still feeling really enthused when I got to a placement. And I just think that, if that's your vocation, that's what you want to do, then that's how you should portray yourself when you go to a placement.'* (Student I, Mentor 9: 108-117)

In contrast, mentors were worried by students who did not participate or who demonstrated a lack of knowledge and understanding of the nursing role. For example:

> *'That would ring alarm bells for me if they were just seeming to stand back and not wanting to participate or not wanting... and not asking any questions. And if they were standing back and waiting for someone else to come over when someone is starting to vomit, and asking them, I would kind of start worrying.'* (Student G, Mentor 7: 88-91)

> *'Somebody who is abrupt. Somebody who has no time for the patient. Someone who is not willing to listen to the patient. You need to....... you want to talk to them for a few minutes, you get worried.'* (Student AE, Mentor 31: 126-128)

And for some mentors *'the students who worry me more are the ones that have that overconfidence'* (Student U, Mentor 22: 116). This was a particular problem for mentors of students 'Z' and 'AK':

> *'Well she definitely had the confidence but in a different way from the other student. To be fair to her she always asked if she could do stuff, which is fair enough but she didn't look the whole person when she was doing things and she would quite happily go off and do something. But I don't think she thought about exactly what it is she should be doing and how to do it and why she was doing it and what impact it had on the patient..... .'* (Student Z, Mentor 41: 431-437)

> *'Concerns were very early, very early. Because she was very vocal about what she was going to do in the future, where she wanted to work, where else she had worked and where she was doing extra work and was very friendly with the medical staff, and was always bleeping the doctors and just wanted to take things a little bit further than was in her remit really. She was overly, overly confident from our point of view.'* (Student AK, Mentor 37: 141-146)

These impressions not only affect the final decision taken, but as they accumulate enable mentors to check out the final decision that they are minded to make. As a result mentors would have *'an idea definitely before the intermediate interview'.* (Student AO, Mentor 41: 193), with time still available to confirm and feel confident about the final decision taken as illustrated in the following comments:

> *'There was a general consensus that she was failing and that she was not very good, so it wasn't just me thinking well she can't do that, she can't do that. We're all thinking the same thing which was confirmed ....'* (Student Z, Mentor 41: 613-615)

> *'Yes. I can actually tell. I can tell because of the way they document their things, the way they do their work, the way they ask you questions. It's the way they challenge you sometimes. I've been challenged quite a number of times (laughs)........ Why are we giving this antiemetic orally if she's feeling nauseated? Don't you think she will bring it up? She's got IV access.... And you think, Wow! You can actually tell. You correctly tell who's going to pass and who is going to struggle…….. I couldn't give a time limit, but the first few weeks will give you a clue. And by midpoint you are confident.'* (Student AE, Mentor 31: 359-365)

Mentor ideas, feelings and opinions about a student, the impressions formed as a result of interaction with and observation of the student in practice, are significant in terms of what is considered important to form an opinion about, and for the evidence gathered to underpin and inform the final assessment decision taken. Reviewing the above mentor comments reveals that a student demonstrating commitment to nursing and an understanding of the nursing role, actively engaging in care, and having an appropriate level of confidence to perform in practice, are key measures of a good practice for a mentor. It is these measures which underpin the impressions that a mentor develops about a student, informing the ongoing judgements made and contributing to the final decision to pass a student at the end of an assessed placement. Equally the comments reveal that the converse also holds true.

6.3.3 Mentor decision making criteria

Mentor expectations of a student guide the impressions that mentors have about a student and their practice, which together place mentors in a position to make a decision about the student they are assessing. Discussing this in the sign-off

mentor interviews, key to any decision taken are notions of confident practice, communication, safety and student development. In addition for final placement students, concepts of fitness for registration and employability contribute to any decision taken. For the mentors interviewed, deciding whether a student is good enough to pass a placement, particularly in the final placement of the programme, is very much about the confidence that a student has:

> *'It's an air, it's an air that they give. I think confidence is one of those things.... It makes you a little bit surer of yourself and the way you portray yourself and also, to have the confidence you've also got to have that knowledge, you need to know what you are doing. I think it's just something, it's if I said to a student how would you do this? And they could answer me and say I would do this and this and why. It's not just a matter of doing that but also why would you do it? That would then be looking at they feel confident in what they do because they know why they're doing it.'* (Student I, Mentor 9: 246-252)

> *'The 'X' factor........ It's about confidence, it's about.... They understand what needs to be done, and why it needs to be done, and they can prioritise their shift and their time within the shift, and their jobs to do, and their communication skills. I think they are a few things and it is glaringly obvious when one of those is missing.'* (Student Y, Mentor 26: 147-151)

Examining these quotes, it would appear that confidence matters, as it reflects an underpinning rationale for practice, a knowledge base that enables a student to act and contribute to care. As well as the student displaying a confident approach to their practice, the ability to communicate effectively is also considered essential. In first year this may be about *'how you communicate with the patient',* (Student M, Mentors 13a &b: 266), but by third year the remit for what is expected becomes much wider:

> *'Reporting things to doctors and to senior nurses if they are unsure and becoming more involved in things such as ward rounds. I would be concerned if there was a kind of lack of verbal or non-verbal communication skills and especially concerned if their documentation and communication with other members of the team was not good….. so handing over information and making sure that there is continuity of care...... .'* (Student M, Mentors 13a & b: 271-279)

> *'But I would expect her to be able to communicate you know, with all members of the multidisciplinary team and take phone calls and actually pass on information to everybody. That's important the communication. So yes, if her communication skills weren't up to scratch I think that would probably be a fail. Certainly if they can't communicate with doctors or anybody, because that is very important that we pass on that information.'* (Student N, Mentor 15: 303-308)

These examples indicate that communication as a decision making criteria is important for assessing a student's ability to engage effectively with the multi-disciplinary team, a necessity for ensuring continuity and safety in patient care. Other aspects of patient safety are also considered by mentors when taking a decision to pass or fail a student at the end of placement. In particular the student being trusted to work within their own limitations is a key criteria as the following excerpts illustrate:

> '*That they know how to manage situations, they know how to communicate with the team and that they are not just going to go off and do something without you know, that they shouldn't be doing.*' (Student AO, Mentor 41: 297-299)

> '*But this student, she was safe you know, she was....' I don't know', she wouldn't go off. And that is REALLY important because I've been burned before……. because even though I've told them nil by mouth, the patient is for theatre, another student gave a Weetabix and then denied that she had. Whereas I felt with this student, if she didn't know she would come and find me. She would check and if I gave instructions she would follow them. But she would also challenge if she didn't think it was right or if she felt uncomfortable. I think students can question and I think they should question, there are times when we should be questioned.*' (Student AL, Mentor 38: 272-280)

Knowledge to support the boundaries to a student's practice is also an important dimension:

> '*Whether they do know the correct readings for blood pressure, pulse etc. and what you would do if somebody had a low blood pressure. A third-year student who has just finished, she actually did a teaching for the first years on how to do a blood pressure which is quite nice.*' (Student M, Mentors 13a & b: 438-441)

> '*The way they do their work. If you allocate them, because as final year students you should be giving them some of their own work like say a bay of four patients. So if I go back and look at what they've done or what they're doing especially the documentation, you can look at the way, the decisions regarding those surgical patients in that bay and you're looking at the way they critically analyse things. And you can have a rough idea of whether they are going to pass or not.*' (Student AE, Mentor 31: 379-385)

Specific care activities such as medications and infection control also contribute to a mentor assessment of safe practice:

> '*Basically you would look at your infection control..... So taking cannulas out, having the sharp bin with you, using an apron and gloves. Hand washing as well.*' (Student M, Mentors 13a & b: 398-399)

'Basically their medications because I think that was the problem in the last placement for her. We did do a lot of practice with medication rounds and I also had other nurses do medication rounds with her because I think I made her nervous by saying that I could see that she was nervous. And I think if other people did this with her as well then that would be good feedback for her.' (Student N, Mentor 15: 124-128)

Across these quotes it becomes evident that in forming judgements about a student and their practice, mentors consider not only skilled performance in such aspects as multi-disciplinary team working, medicines administration and infection control, but also the student's attitude to maintaining patient safety. Mentors determine that a student has the appropriate attitude to support practice, when they feel that a student can be trusted to work within the limitations of their competence. Where mentors are unable to trust a student to work within their boundary of competence and be safe, they are left with no choice but to fail the student, as clearly demonstrated in the following comments for failed final placement students:

'I think if she had been safe she would have been signed off irrespective of, well maybe not being the best staff nurse in the world, but at least being safe. But we had a few near misses. Insulin was one of them. She went into a palliative patients' house and...... I think that was the thing, she wanted to seem confident and capable. But then she made the mistake of not really taking a step back and thinking or reading. So she would read stuff out loud that she was going to give and it would be incorrect because she had not taken time just to read and focus on what was going on. So she didn't read the notes in their entirety.' (Student N, Mentor 14: 269-277)

'My underlying need is for the student to be clinically safe to patients. That's what I look at. If the student..... If we have taught a skill, go back to ECGs, if they don't get that skill that's fine, that's not clinically unsafe. They are not paid to interpret an ECG. Providing they know what to do with the ECG when they have taken it. So my underlying principle is 'are you going to be clinically safe?' Some people take longer to pick up on things than others. Not everyone can be a whiz kid. But do you know if you are taking the pulse if it is wrong? And what do I do? And we didn't feel, any of the team didn't feel that she was clinically safe.' (Student AA, Mentor 27: 406-413)

'I think on a really basic level it was that she wasn't meeting the NMC criteria. The accountability, the knowledge of evidence-based practice. Because of this I didn't think that she was providing a good service to the patients and I couldn't have that on my conscience knowing that.....well she's not safe that's the most important thing. I don't think she dealt with the patients very professionally in the way that she spoke to them or the way that she dealt with relatives………. I think going back to your question why I failed her was that there was just no acknowledgement if she did something wrong, or the fact that she could have done something wrong. No awareness of her professional responsibilities.' (Student Z, Mentor 41: 631-670)

Across all the accounts mentors are quite clear that patient safety is paramount, in any decision that they make regarding a student and their competence. In those circumstances where students practice in a manner that may compromise patient safety, both in terms of actual skill set but more importantly in terms of attitude to patient safety, then mentors felt that the only decision that could be taken was to fail the student as they could not be trusted to practice safely.

Finally an important criteria influencing mentors across the programme, but particularly in evaluating a borderline student, is consideration of student development across the placement and whether sufficient development has occurred to merit a pass decision. As outlined earlier when examining mentor management of learning and development, target setting and achievement of targets for student 'AK' resulted in the sign-off mentor deciding to pass the student because:

> '*Like I said everything that I asked her to do she did and the other members of the staff on the ward said she had improved.*' (Student AK, Mentor 37: 297-298)

Student development and improvement was pivotal to the final evaluation of the student; a point not lost on the sign-off mentor when identifying this and considering whether the correct decision had been taken:

> '*Yes she had improved but I don't know whether she had improved enough. And I don't know whether we passed her on the right conditions or not.*' (Student AK, Mentor 37: 309-311)

What this does show is that though consideration of student development and improvement across a placement is desirable and valued when it comes to evaluating a student's overall competence, as a specific measure of achievement of a certain standard of practice it may be limited.

At the end of the programme evaluating a student against additional mentor expectations of being 'fit to register' and 'employable' at the end of the programme, enables the sign-off mentor to feel confident in the decision taken:

'Some of them really function like staff nurses. Theatre preps.....they'll be there and they'll do it. And they come to you and say can you just double check and it's all perfect. She knows what she is doing there. Shall I just start the care Plans? And I'll say that I will come and have a look. And you look at the care plans and it's as though they have been written by qualified staff. Some of them are so good. And then when you do medications though come and stand there with you and then you'll say do you want to do them? And then you'll be checking with her as she goes and you'll be seeing that confidence in doing things. And then she'll even be suggesting things like.... Do you think we should be giving out these things because of that? Because they realise that some medications are in certain groups..... They're making the links. They already making decisions as they go along. You can see that they are already looking at their theory and trying to apply it on their placement.' (Student AE, Mentor 31: 493-505)

'I'd expect to feel that they would be competent to qualify and be a staff nurse I suppose. Like with 'AI' she was ready to be qualified.... It's about being able to take your own team of patients, which is generally what we aim towards. And whether you think they are ready; if you saw them as a qualified nurse on a ward would that scare you? Or would that be all right. Because I think a lot of stuff you don't learn until you qualify anyway, you can't do.' (Student AI, Mentor 35: 275-381)

Confident in the decision taken they are then prepared to offer a job:

'Yes, straightaway. Because.... It's really difficult to point to.......... I think because she had the whole package. To be a good nurse you need to be aware of your limitations and your abilities. Like she could acknowledge that and alongside be a nice person, genuine, kind. She had the personality of a nurse, you know caring and gentle, she was professional, she knew how to deal with situations. But at the same time if she was unsure about something she'd ask and she wasn't scared to ask either. You know like reflecting on practice which is what we want.' (Student AO, Mentor 41: 341-348)

However when asked if she would give the student a job, Mentor 37 replied:

'No......Difficult to work with as a student (laughs). That's really bad isn't? The thing is she was a difficult one because she was very, very confident and came across as very knowledgeable, and her tutor questioned her knowledge a bit sometimes, when she came to see her, but when she was with her, she wasn't that confident and she stuttered and she stammered a lot. And I just think, you know, if I was given a choice of her and somebody that I hadn't met I wouldn't touch her.' (Student AK, Mentor 37: 416-422)

This is an interesting comment from the mentor, who had passed the student on the basis of improvement, but was not sure whether there had been sufficient improvement, and certainly was not prepared to give the student a job. It suggests that the mentor herself is aware that improvement as a deciding criteria for passing the student is not enough, but lacking any other clear evidence to support her

uncomfortable feelings about the student and in the absence of a clear patient safety issue, felt obliged to pass them. It also suggests that employability as a criteria for evaluating a student at the point of registration may be capable of contributing to a decision regarding whether a student is 'good enough' or 'not good enough' to enter the professional register.

Reviewing this organising theme provides a number of crucial insights into mentor decision making. Mentors have expectations of students which are shaped by the stage of programme, length of placement, practice area and general expectations of the student role. These expectations frame mentor decisions in terms of establishing a baseline for judgements and identifying a reasonable decision to take with respect to the student. Mentors may expect little from students in year 1 and may consider giving them the benefit of the doubt, as students are still laying the foundations for their practice. At year 2, with students undertaking a range of specialised experiences, mentors may feel constrained in terms of what is reasonable to expect and assess. However by year 3 there are higher expectations and less latitude in the potential decisions available. Mentors expect students to be safe and working within their own limitations to be competent to pass. At the point of registration mentors also expect students to be looking and working like a qualified nurse, and if confident in their decision, prepared to give the student a job.

Mentor judgements are also affected by the impressions that they get regarding students and their practice. Confidence, communication and participation are core elements of the impressions that mentors form about students which may be reassuring or worrying. As a result of these impressions mentors have a good idea before midpoint interview as to whether a student will pass or fail the placement. Reviewing the overall discussions with sign-off mentors in the Stimulated Recall interviews, criteria which have the most effect upon passing or failing a student include confidence, communication, patient safety and student development. For students who fail a placement, the core reason provided by mentors to explain the fail decision is that of patient safety. A thematic map representing the themes and codes which incorporate this evidence is to be found in Figure 25.
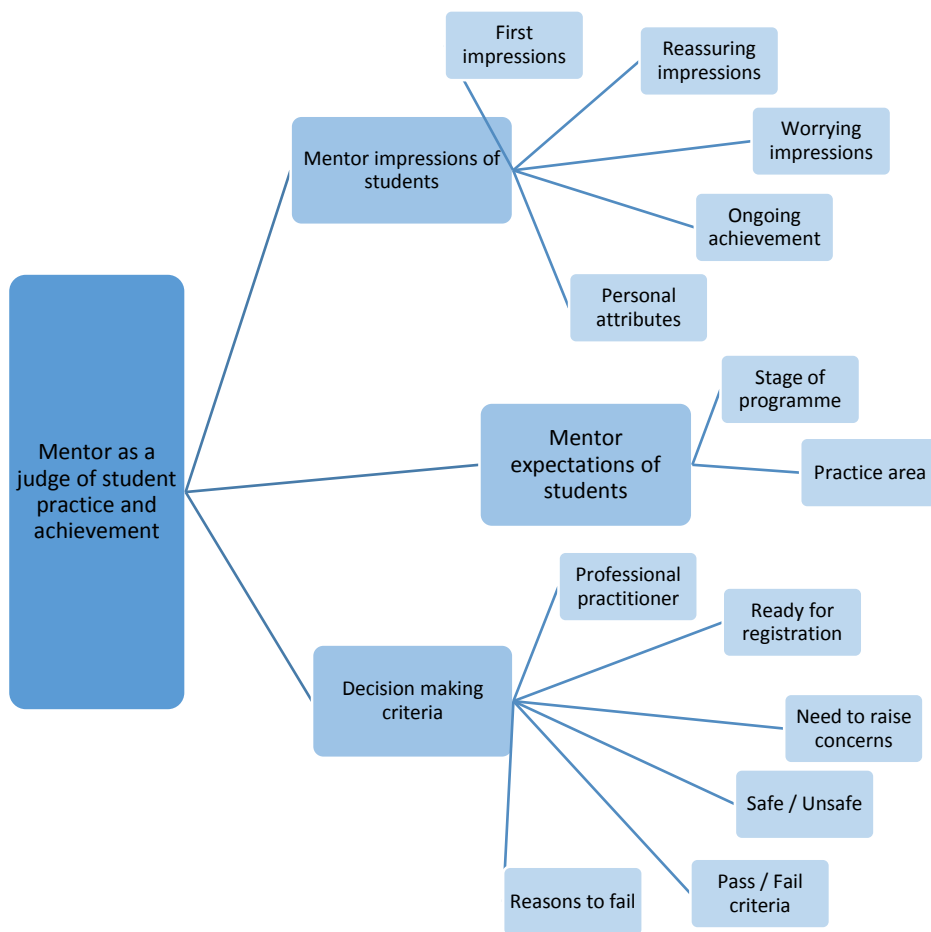
Figure 25: Thematic map for the mentor as a 'judge' of student practice and achievement.

6.4   Summary: Mentors and their decision making

Findings presented from the sign-off mentor interviews indicate that key to mentor practices and decision making are the two roles of the mentor as a manager of the practice learning experience as well as a judge of student development and achievement.

Insights revealed regarding mentor management of practice learning suggest that mentors form judgements from an early stage of a period of practice learning. Mentor impressions discussed in a consideration of the mentor as a judge also

indicate this to be the case. It would seem that the impressions that mentors obtain about students early on in the placement direct the processes of supervision and assessment that might be put into place. For example, when mentors have a worrying impression about a student, there is a tendency for midpoint interviews to be scheduled ahead of the midpoint of the placement. Impressions formed about a student are reinforced through processes of target setting and review by a mentor across a placement. As a consequence, by the time a mentor comes to conduct the midpoint review they are fairly confident as to the outcome of the student's placement. Certainly findings presented from both a consideration of the mentor as a 'manager' and as a 'judge' suggest that a final decision regarding student competency is made ahead of the final interview with both mentor and student aware of the outcome.

Reinforcing and framing the impressions developed by mentor are the expectations that mentors hold with respect to a student, their stage of programme and the placement area they are in. These expectations may direct mentor management of resources allocated to a student as well as the feedback provided and possible decision to be taken. Findings presented from both a consideration of the mentor management and judgement roles suggest that, with limited expectations of year 1 students, mentors direct their resources to year 3 students, increasing their personal supervision of students with a view to making a sound decision regarding student competency at the end of the programme. In terms of the overall contribution of themes to an understanding of mentor judgement and decision making arising from the sign-off mentor interviews, a full thematic map for this data set is presented in Figure 26.
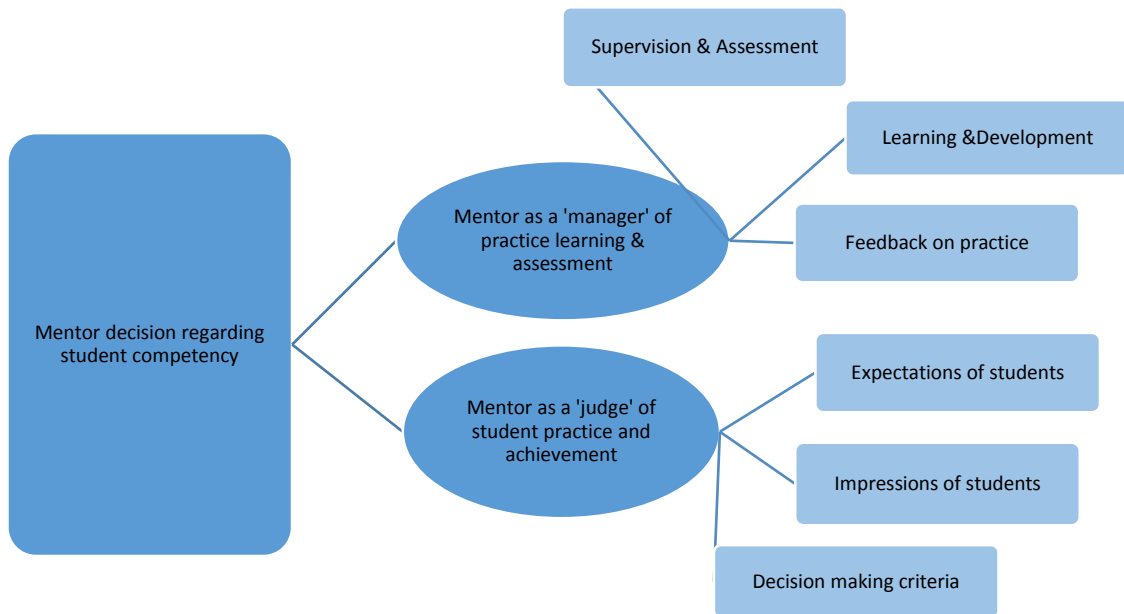
Figure 26: Final Thematic map showing Organising Themes and Themes for sign-off mentor interviews.

Insights presented in this chapter regarding mentor decision making processes and criteria add a further layer of understanding to that developed in chapter 5 from the student PAD data set, as well as the understandings gleaned from quantitative analysis of exam board data and a survey of student documents presented in chapter 4. The next chapter brings all these findings together and presents the overall picture, the meta-inferences (Teddlie & Tashakkori 2009), with regards developing an understanding of the factors underpinning mentor judgements of student nurse competence in practice and how a decision to pass or fail a student in practice is taken.

Chapter 7. Integration: A model of mentor decision making regarding student competence.

7.1 Introduction

Study findings so far have been presented by data set and the related analysis conducted. Chapter 4 presented quantitative findings from the Examination Board data as well as a survey of mentor practices obtained from the student practice assessment documents (PADs). This provided information about the range of mentor practices in student assessment across the three years of the programme. Chapter 5 outlined the findings of a qualitative analysis of mentor comments documented in the student PADs. This revealed what mentors selected as important about student practice across the programme to document as evidence to justify and support the decision made. Finally Chapter 6 presented understandings regarding mentor decision making as a result of thematic analysis of Stimulated Recall interviews conducted with a sample of sign-off mentors. This provided an understanding of what mentors observed and reported about a student and their practice, especially relating to a student's final placement, as well as how criteria were considered and then used to formulate a decision.

The purpose of this chapter is to draw all these strands together, comparing and contrasting the evidence that has emerged and gaps associated with each set of inferences, in order to develop a model of mentor decision making; inferences being the '*conclusions and interpretations made on the basis of collected data in a study*' (Teddlie & Tashakkori 2009, p287). Integration of inferences is a key reason for adopting a mixed methods approach to any study in that it offers the possibility to better understand and answer a research question than relying simply on data from one source or another (Teddlie & Tashakkori 2009, Creswell & Plano Clark 2011). Applied to this study, integration provides the means to explore the link between the **'what'** criteria underpin mentor judgements and **'how'** do mentors make decisions, elements of the principal research question. Through the processes of integration outlined in section 3.5.3, findings from the qualitative and quantitative strands can be compared. Firstly an outline of the integration processes undertaken is provided, to demonstrate how the understanding of

mentor decision making has been developed. The products of integration are then presented in tabular form and supported with a descriptive and explanatory narrative. The overall emerging understanding is then incorporated into a model that addresses the principal research question (PRQ) driving the study:

PRQ   What criteria underpin mentor judgements of student nurse competence in practice and how do mentors reach a decision as to whether to pass or fail a student in practice?

This model, derived from the thematic maps in chapters 5 and 6 and the product of integration processes, is then discussed. A summary of the model with reference to an associated theoretical explanation of mentor decision making is then provided. The chapter concludes with a consideration of the model against existing knowledge regarding student assessment in practice in order to evaluate the model for its explanatory power about mentor decision making.

7.2   Integration

At the integration stage, findings from the independent quantitative (Phase 1) and qualitative analyses (Phase 2) were connected and merged in ways that complemented and expanded initial understandings of the study research questions. Initially this involved comparative analysis of themes developed from thematic analysis of mentor comments documented in student PADs and thematic analysis of Stimulated Recall interviews with sign-off mentors. As themes were compared, original text segments and transcripts were reviewed to check meaning and ensure authenticity of any inferences reached. Mentor comments in the student PADs provided information about the criteria which mentors notice and judge regarding student competence, with sign-off mentor interviews clarifying criteria and their use in the process of a mentor forming a judgement and reaching a practice decision about a student. Combined, similarities, differences and relationships between the themes developed from the student PADs and Stimulated Recall interviews were identified. This understanding was then merged with quantitative analysis from phase 1 to develop an overall model, capable of explaining mentor decision making.

Three data sets underpin the context and boundaries of the overall model developed: the student cohort, the student PADs and the sign-off mentor

interviews. The student cohort (n=41) provided the boundaries to the theory and practice decisions under scrutiny in the study and included all students considered at the final programme examination board for a three year undergraduate adult health nursing programme. Data were collected from all students who undertook all three years of their study within this cohort as well as students who joined the cohort after repeating a year following failure of theory modules. Students who left the cohort, either through a personal decision to withdraw from the programme, or a "fail withdraw" decision made at an end of year examination board, were not included in the data sets analysed (Figure 9). Comparison of the completing cohort with the preceding and following year student cohorts demonstrated similar patterns of student achievement across the three cohorts, suggesting the cohort under study was typical of nursing student cohorts undertaking the programme. However, what is missing from this study are data from students withdrawn from the programme after failing two practice assessments, if the failures occurred prior to the final year; in this instance two repeating year students in year one were withdrawn at the end of the repeated year following a second practice fail. Their data could not be included in the study as they were not in the completing cohort who were considered at the final programme examination board and for whom ethical approval was granted (section 3.3.1). This means that data from two failed practice decisions occurring in the first year are not considered in the analysis.

The student PADs from the cohort contain the documented comments of 270 mentors from practice areas across a range of healthcare organisations, who were involved in a total of 330 decisions (Figure 11), with seventeen sign-off mentors interviewed from the sign-off mentors (n=42) involved in the cohort. The emerging understanding and model of mentor decision making developed as a result of this integration thus reflects adult health students who completed three years of an undergraduate nursing programme, documented mentor decisions from the full range of adult health placement settings, and the practices of a smaller group of experienced sign-off mentors from final placement settings, excluding the independent sector (Table 8, Figure 11).

7.2.1 Thematic Analysis Integration: telling the same story?

Comparative analysis of the findings from thematic analysis in Phase 2 of the study consolidated and developed understanding of similarities, differences and relationships in the following areas:

- **Similarities:** the consistency of criteria underpinning mentor judgements.
- **Differences:** increasing importance of the theme 'Student as a deliverer of care' in the final three placements of the programme.
- **Relationships:** student as a competent practitioner but with limitations, student practice and consideration of the student as a member of the team, and the link between NMC proficiencies and a mentor decision.

Comparative analysis of the criteria revealed key similarities across mentor decisions in both data sets. This was interpreted as the criteria that sign-off mentors (n=17) considered important regarding student competence, were also documented in the 330 mentor decisions contained in the student PADs. Mentors consistently judged students on similar criteria irrespective of the student. From the Organising Themes (OT) identified in the student PADs, the overall key OT to explain what mentors observe and value about student practice is a student's ability to deliver care. This accounted for 38.9% of the overall number of comments extracted (Figure 20). When considering a student as a 'deliverer' of care, mentors commented on a student's skills development in communication, medicines management and care management, as well as a student's confidence level and ability to act as a competent practitioner. For mentors, the latter is defined as the student demonstrating competent skills and working within their personal limitations to practice (Table 13). Sign-off mentor interviews also identify these key criteria (confidence, communication, medicines management and care management) in their expectations of students (Section 6.3.1) and how they contribute to an overall evaluation of a student, as illustrated by this extract originally presented in section 6.3.3:

'The 'X' factor........ It's about confidence, it's about.... They understand what needs to be done, and why it needs to be done, and they can prioritise their shift and their time within the shift, and their jobs to do, and their communication skills. I think they are a few things and it is glaringly obvious when one of those is missing.'
(Student Y, Mentor 26: 147-151)

Secondly comparative analysis of organising themes from student PADs and the decision making criteria outlined by sign-off mentors in the Stimulated Recall interviews, revealed differences in the importance placed on criteria as illustrated in Figure 27.
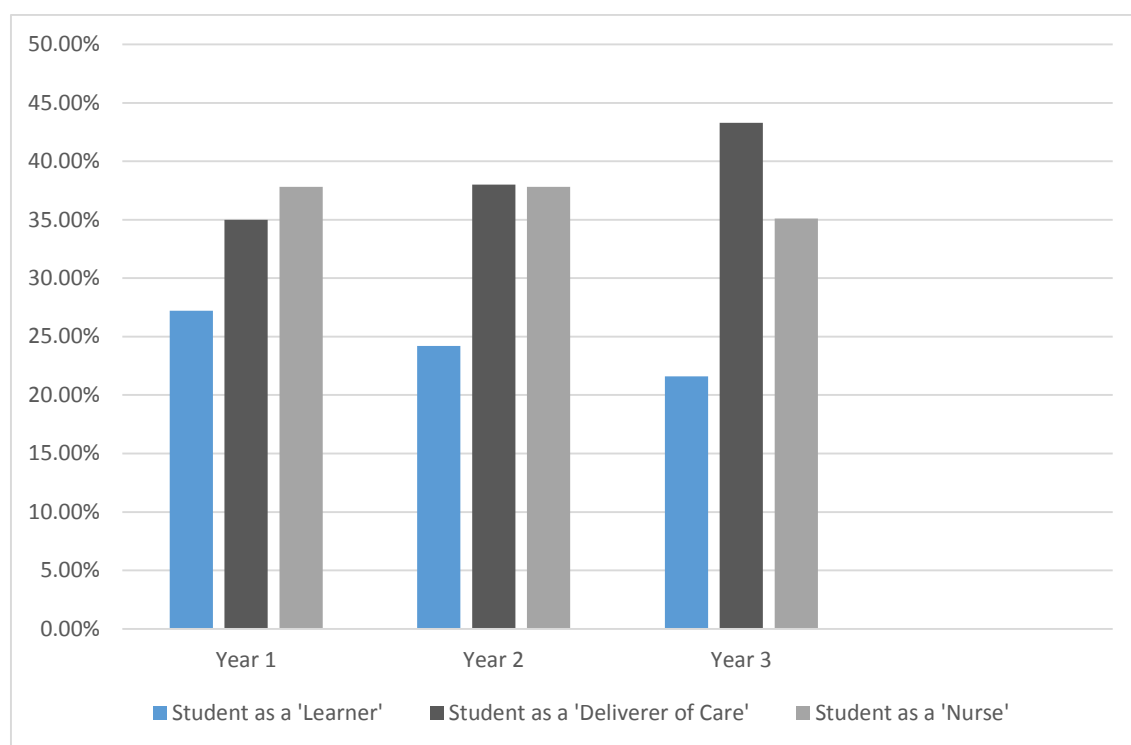
Figure 27: Significance of organising themes by programme year

The organising theme 'Student as a deliverer of care' is important across the whole programme, but takes on increasing significance in the latter stage of the programme and especially in the final placement. By this stage sign-off mentors are quite clear about the need to evaluate the student in terms of their ability to deliver care; that '*they are right to look after a group of patients and can run a ward*' (Student I, Mentor 9: 432). Equally at this stage mentors are clear that to support care delivery students should be able to '*think about how the shift runs, in terms of getting jobs done and prioritising care*' (Student P, Mentor 17: 486). By contrast, although delivering care is important in year one (placements 1-3), of greater significance is an evaluation of the student as a 'Nurse' (Figure 21 & Figure 27), with a focus on the student gaining '*experience of being on a ward, ward routines, what a nurse does …. And what it is like for a patient as they come through the system*' (Student Y, Mentor 26: 235-236).

Finally comparative analysis of the document and interview themes clarified developed understandings in three areas: how an assessment of the student recognising and working within their own personal limitations contributes to an overall evaluation of competence, how an assessment of a student's practice contributes to an assessment of them as a member of the team, and finally the limited role NMC proficiencies appear to play in a mentor's decision. Evaluating student competence and their working within personal limitations as well as considering the student as a member of the team anchors a mentor's decision regarding student competence; more so than any consideration of the NMC proficiencies that students are required to achieve.

From the documents, mentors consider the student competent when they are aware of their limitations, ask if unsure, seek guidance and perform their skills within these boundaries (Table 13). A student having limitations to their practice is not considered a problem, but rather seen positively by a mentor as 'S*he has always alerted staff when unsure or when she is aware of abnormalities'* (P3: 72) and will therefore be safe. Sign-off mentor comments confirmed and clarified this notion of a student working within their limitations as an indicator of a competent practitioner (6.3.3). An illustration is Mentor 41 who passed student 'AO' as she was confident that the student '*would not just be going off and doing something without, you know, that they shouldn't be doing'* (Student AO, Mentor 41: 298-300). In contrast a contributing criteria to failing student 'Z' was *'that she would quite happily go off and do something. But I don't think she thought about exactly what it is she should be doing and how to do it and why she was doing it and what impact it had on the patient'* (Student Z, Mentor 41: 435-437).

The theme with the highest frequency derived from mentor comments in the student PADs across all three years of the programme was 'evaluating students as a member of the team' (Figure 22); that they fitted well in to the team, perhaps reflecting how much a mentor liked a student and thus an evaluation centred on the personal qualities of the student. However, comparing these documented comments with insights revealed in the sign-off mentor interviews failed to support this notion. Instead, the significance of evaluating how students fitted in to the team became clear. Such an evaluation indicated *'what they had to offer the team*

and the patients' (Student AE, Mentor 31: 517-520). A point supported in the following excerpt:

> *'I think part of liking them comes from knowing that they are reliable and you can call upon them for things and they are confident and they are talking to you and wanting to be involved with things. Then you do get to like them as part of the team. Students who are not performing as well, they wouldn't be as much a part of the team, as we know we can't rely on them as much..'* (Student G, Mentor 7: 384-388)

Comparative analysis also illuminated a surprising absence noted in the student PADs; that is limited information documented regarding NMC proficiencies and their assessment (Figure 20). Overall only 23 text segments were identified and extracted from student PADs specifically relating to NMC proficiencies (Appendix L), and only marginally more comments (n=50) were extracted identifying achievement against student and mentor agreed learning outcomes. This absence was notable as students were required to complete evidence records for each proficiency which were then to be reviewed by the mentor and signed off. However mentors documented few comments about this process in either the midpoint, or final interviews. Comparison with data from the sign-off mentor interviews identified that *'students write them up and then come to me'* (Student Y, Mentor 26: 368), and that *'they are not allowed to leave them until the end'* (Student K, Mentor 11: 259). It appears proficiencies were considered as a task to be completed and separate from the formal interviews (initial, mid-point and final) that constitute the record of decision making and thus did not form part of the mentor interview with the student. The proficiencies and completing them was seen as relating more to university requirements rather than mentor decision making, as they *'don't particularly affect student assessment, they are just something you have to do'* (Student K, Mentor 11: 413). As another sign-off mentor put it *'they are slightly obsessed with their proficiencies and completing them. I don't know if the university really drums it into them that you have got to get your book signed'* (Student P, Mentor 17: 284-285).

This view that consideration and signing off student proficiency records was a separate activity from the process of mentor decision making was also demonstrated in the data that emerged from the interviews with sign off mentors about failing students. For students 'N' (Mentor 14), 'Z' (Mentor 41) and 'AA' (Mentor 27) the absence of completion of the proficiency records in the student's

PAD, was a warning signal about them not meeting the required level of performance, with comments made in the sign-off mentor interviews such as *'the book itself was a little bit like the Grail, we saw it very rarely'* (Student AA, Mentor 27: 354-356), and at final interview another mentor was still *'asking her to write them up'* (Student N, Mentor 14: 422). Yet the documented mentor comments for these students contained no mention of this lack of completed evidence records nor did their absence form part of the concerns identified about the student or trigger action on the part of the mentor regarding contact with university.

Overall a similar story emerged from integration of thematic analysis of student PAD data and sign-off mentor interview data. The criteria documented in student PADs were the key criteria that sign-off mentors identified when they talked about what they looked for when assessing a student. Integration revealed the meaning of these criteria and how they were combined to build an overall picture and evaluation of the student and their practice.

7.2.2 Phase 1 and 2 integration: building a model of mentor decision making

At this second stage of integration findings from across both phases of the study were merged using the three supplementary research questions (SRQs) to structure consideration of their contribution to the overall study. Integration tables were then developed for each SRQ to demonstrate the sources of evidence supporting the inferences outlined. Criteria considered important by mentors to gather evidence about and use to inform their judgements about a student nurse's practice (SRQ1) are presented in Table 17.The effect of assessment strategies, including student documentation, on mentor judgements and decisions (SRQ2) is outlined in Table 18. Finally, details about how mentors make judgements and reach a decision to pass or fail a student in practice (SRQ3) are provided in Table 19. Taken together these tables form the basis of the three elements of a model of mentor decision making regarding student competence: formative judgements, managing assessment and the summative decision, which will now be explained.

Finding:	Source of findings	
Criteria influencing evidence gathering & theme location	**Student PADs Phase 2**	**SOM interviews Phase 2**
Communication skills *Theme: Skills Development*	*Table 13:* **Student as 'Deliverer'.** Communicates well, interpersonal skills, effective communication	***6.3.2: Impressions of students.*** Patient rapport & interaction, handover, written documentation, communication with the team.
Basic skills *Theme: Skills Development*	*Table 13:* **Student as a 'Deliverer'.** Assessment skills, wound care, care delivery & management, medicines administration.	***6.3.1: Expectations of students.*** Dressings, bandaging, catheter care, aseptic technique, observations
Confidence and initiative *Theme: Confidence & Initiative*	*Table 13:* **Student as a 'Deliverer'.** Grown in confidence, needs more confidence, uses initiative, independent, awareness of nursing responsibilities.	***6.3.2: Impressions of students.*** Confidence level, confidence to communicate, initiating care, not overconfident. 6.3.3: Decision making criteria - confidence
Patient safety *Theme: Competent Practitioner*	*Table 13:* **Student as a 'Deliverer'.** Aware of limitations, asks questions if unsure, seeks guidance. Drug calculations, care prioritisation.	***6.3.1: Expectations of students.*** Medicines administration, patient prioritisation, infection control, knowledge of normal / abnormal, not just going off & doing things.
Participation & involvement *Theme:* Team Member	*Table 14:* **Student as a 'Nurse'** Hardworking, reliable, fitted in & works well with team.	***6.3.2: Impressions of students.*** Not shying away from care, not sitting at nurse's desk.
Professional *Theme: Student Attributes*	*Table 14:* **Student as a 'Nurse'.** Professional manner, attendance, time keeping, punctual, commitment, a good nurse.	***6.3.2: Impressions of students.*** Confident, looking the part, dealing with situations, bare below elbow, communicating professionally.
A good nurse *Theme: Student potential*	*Table 14:* **Student as a 'Nurse'.** Pleasure to work with, kind friendly, pleasant, well liked	***6.3.2: Impressions of students.*** Basic nursing instinct of caring, confidence, enthusiasm, willing to care, interactions with patients
Learning & development *Theme: Learning & Development*	*Table 12:* **Student as a 'Learner'.** Progress, improved skills, learnt about, developed	***6.3.3 Decision making criteria.*** Improving & developing across a placement and meeting targets.
Inquisitive learner *Themes: Attitude to learning, Engagement in Learning*	*Table 12:* **Student as a 'Learner'.** Interested, enthusiastic, asks questions, seeks out information, keen to learn.	***6.3.2: Impressions of students.*** Motivated & eager students, enthused, asking questions, questioning rationale for care

Table 17: Integration table of evidence presented in thesis that is gathered and used in mentor judgements (SRQ1)

'Formative judgements'

The first element of a model of mentor decision making is developed from the integration findings outlined in Table 17. This reveals the criteria that guide mentor evidence gathering about a student and their practice and the influence they have on mentor expectations and impressions about a student. The criteria provide the boundaries to the mentor's formative judgements as well as the final assessment decision. The criteria noticed and the theme they contribute to is identified in the first column of the table; the themes are those developed from the mentor comments extracted from student PADs (Figure 22). Where the evidence is located in the thesis, together with a key word summary of the evidence to support the finding identified is outlined in the second and third columns. Examining Table 17 there is one theme, *Evaluation of achievement'* that is not included. This is because, as previously discussed, it appears to play little part in the process of forming a judgement about a student.

The criteria involved in the formative judgements by mentors about students from the first day of a placement are a shared set of criteria that both mentors and sign-off mentors pay attention to. What sign-off mentors identified as important to notice and consider about a student was replicated by mentors in the student PADs. This reflects a degree of stability and agreement in what matters when assessing a student in practice. Consistently used by mentors irrespective of practice area or the student's stage in the programme, the criteria are integrated in a mentor's mind into an opinion of the student as a nurse, learner and deliverer of care. Key criteria identified as important for the initial judgements by mentors are communication skills, participation and involvement, confidence and basic skills. What does change, and has implications for evaluating the quality of mentor decision making, is the relative meaning and weighting accorded to the different criteria as a result of mentor beliefs about the purpose of practice learning and assessment across the three years of the programme.

Integration of criteria across the three dimensions of judging a student as a nurse, learner and deliverer of care precedes any observation of the student by the mentor, instead providing the mentor with a mental map with which to begin their examination of a student and their practice. This mental map describes the

expectations that a mentor has about students which are then used to structure observation of the student on placement to gain both an initial impression and ongoing sense of them as a future nurse. These mentor impressions, resulting from multiple encounters involving the student, determine the nature and amount of information gathered about a student and continue until enough impressions exist to support a decision. The mental map guiding this process is flexible enough to accommodate a variety of practice settings and is adjusted by a mentor according to the stage of the student's programme. It is not used in a reductionist way where individual competencies are observed and ticked off, but is instead used holistically to capture both individual criteria and the relationships that exist between them, in order to build up a picture of a student's overall competence. It can be considered as a human measure on the part of a mentor to cope with the complexity of practice based assessment.

Integration of criteria into a mental map represents a sophisticated, synthesised model of the student in the multiple roles as nurse, learner and deliverer of care which is instrumental in guiding the mentor's management of assessment and informing the final summative decision. A diagrammatic representation of this mental map and relationships between criteria and mentor expectations and impressions is provided in Figure 28.
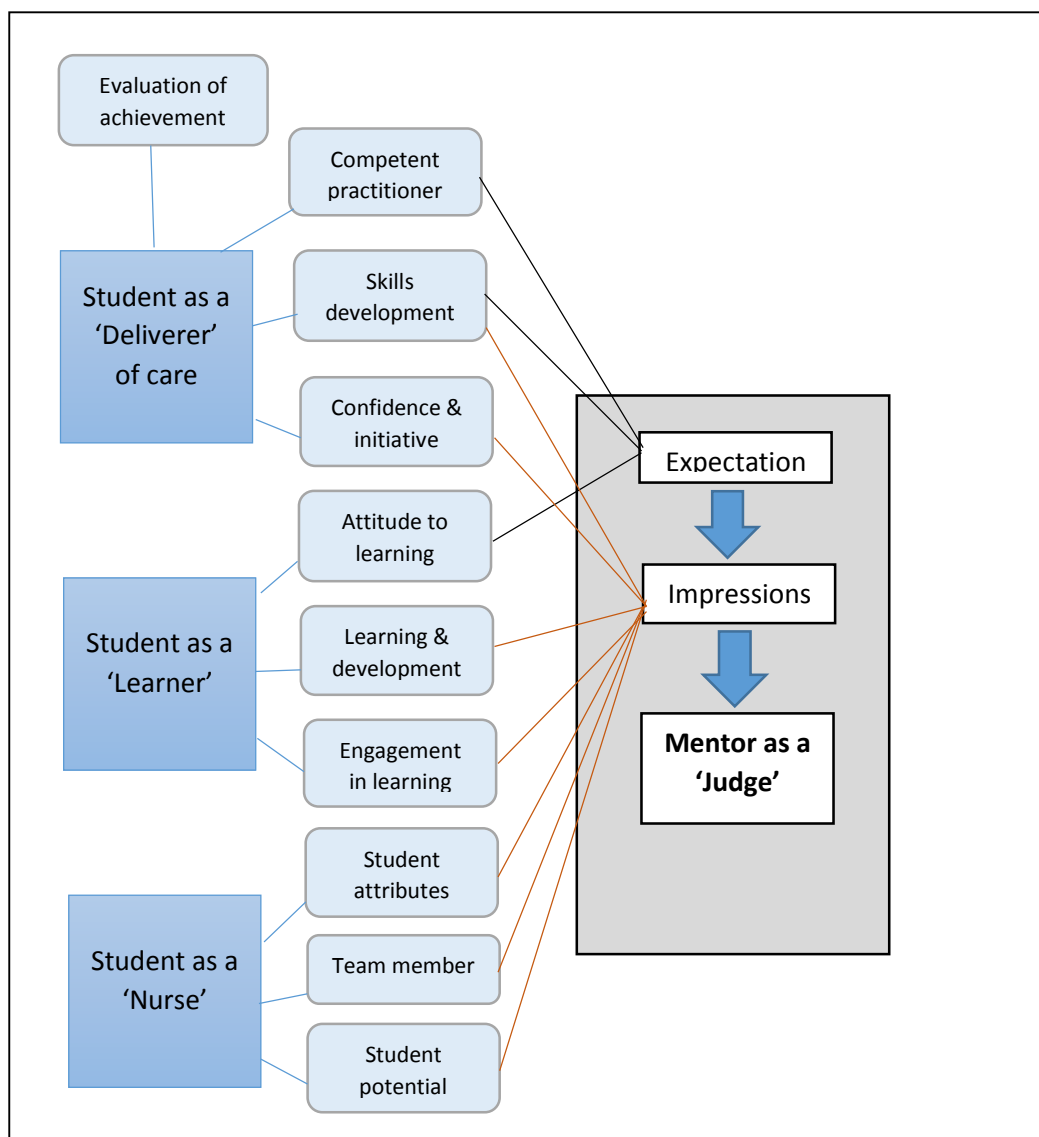
Figure 28: A model of mentor decision making – formative judgements.

'Managing Assessment'

The second element in the model of mentor decision making is developed from the integration of findings presented in Table 18, which reveal the effect that assessment strategies and proficiencies in the student PADs have upon mentor judgements and decisions.

Finding:	Source of findings		
Assessment strategy & documentation effect	**Documentary survey Phase 1**	**Student PADs Phase 2**	**SOM interviews Phase 2**
Mentor conduct of assessment process may not comply with programme guidance	*Fig 14 & 15:* late preliminary interviews (PI) especially in 1st placement (63.4% not in week 1) *Fig 17 & 18:* late midpoint interviews *4.4:* insufficient SOM weekly meetings *4.4* 30.3% of interviews more than one mentor *4.5.1* No written mentor feedback at midpoint in year 1 (36.6-50%)	*5.3.2* Mentor comments on limitations to learning opportunities due to lack of mentors & general staff shortages. Disruption of mentorship due to ward moves.	*6.2.1* Reasons for midpoint interview delay. Concerns trigger earlier interview. *6.3.1* first years low expectations & not a priority *6.2.1* Students being supported by more than 1 mentor.
Limited apparent use of NMC proficiencies in the decision making process.	*Fig 16:* 5-23% of assessments not recording proficiency achievement at midpoint interview.	*5.4.4* Outcomes agreed by student & mentor guide evaluation Only 23 (n =2030) text segments extracted	*6.2.2 & 6.2.3* informal chats, not everything documented *6.2.1* Proficiencies reviewed outside interviews *6.2.1* Failing students not writing up
Non-achievement of skills / proficiencies or documented concerns, are not managed in a consistent manner.		*5.4.3* Comments (for AK & E) not followed up by other mentors *5.4.3* Comments in Z final interview not reflecting midpoint concerns *5.5.1* concern re X picked up between placements	*6.3.2* gaps in skills workbook or proficiency review may or may not be a cause for concern

Table 18: Integration table showing the effect of assessment strategies and student documentation (SRQ 2)

There are two key messages arising from the findings outlined: firstly the limited effect that NMC proficiencies appear to have on the mentor decision making process and secondly the incidences of mentor assessment practice that fall outside programme guidance and Supporting Learning and Assessment in Practice (SLAiP) standards (NMC 2008a). As discussed, assessment of proficiencies is viewed by mentors as a task performed to satisfy the student's university. How the proficiencies may contribute to the impressions that mentors form about a student seems to relate more to non-compliance; the extent to which students fail to

complete proficiency records or fail to have the document available is taken to be an indication of a poorly performing student as they do not meet mentor expectations; expectations primarily in relation to student attitudes to learning. This was the case for failing students 'N', 'Z' and 'AA' where absence of proficiency records contributed to the overall negative evaluation of the student, but in itself was not considered enough to trigger the mentor to contact the student's university or decide to fail the student at the end of the placement.

What is a part of the mentor's mental model however, is consideration of a student's skills set, particularly for its contribution to any initial judgement formed about a student. The importance attached to this can be seen in mentor comments about their use of the student's clinical skills log, identifying a range of practical skills that a student is required to achieve. Absence of achievement when mentors review the log at the beginning of the placement leaves mentors concerned about the student's ability to perform a set of skills, and is also considered indicative of the student participation and involvement in practice. As a result of this and the overall initial impressions formed, mentors then manage the process of assessment.

The reciprocal nature of the 'judge' and 'manager' role of the mentor presented in Figure 26, can be seen in a consideration of the relationship existing between two of the themes identified in the thematic map, *'Impressions of students'* and *'Supervision and Assessment.'* There is some evidence to show that where initial impressions formed about a student are worrying, the mentor takes early action to address these; this may be in terms of raising a verbal concern with the student first, with limited improvement resulting in early contact with the student's university, and triggering an early midpoint interview. However there is inconsistency of practice in this area, with some mentors documenting concerns but taking no further action in terms of involving university or scheduling a midpoint interview. Equally evidence exists to show that where initial impressions are favourable, mentors may accord less priority to completion of documentation and scheduling of interviews. There are numerous incidences in the data (PADs and sign-off mentor interviews) where mentors are quite open about not following the prescribed assessment processes, for example not completing assessment interviews or weekly meetings in the case of the final placement, but are still

prepared to acknowledge their accountability for the final decision taken regarding the student. From the interviews with the sign-off mentors comes a sense that underpinning this are the initial impressions of the student as 'reassuring' and 'worrying'. This pivotal relationship between the mentor's mental model for assessing students and their management of the process of assessment is illustrated in Figure 29 below.
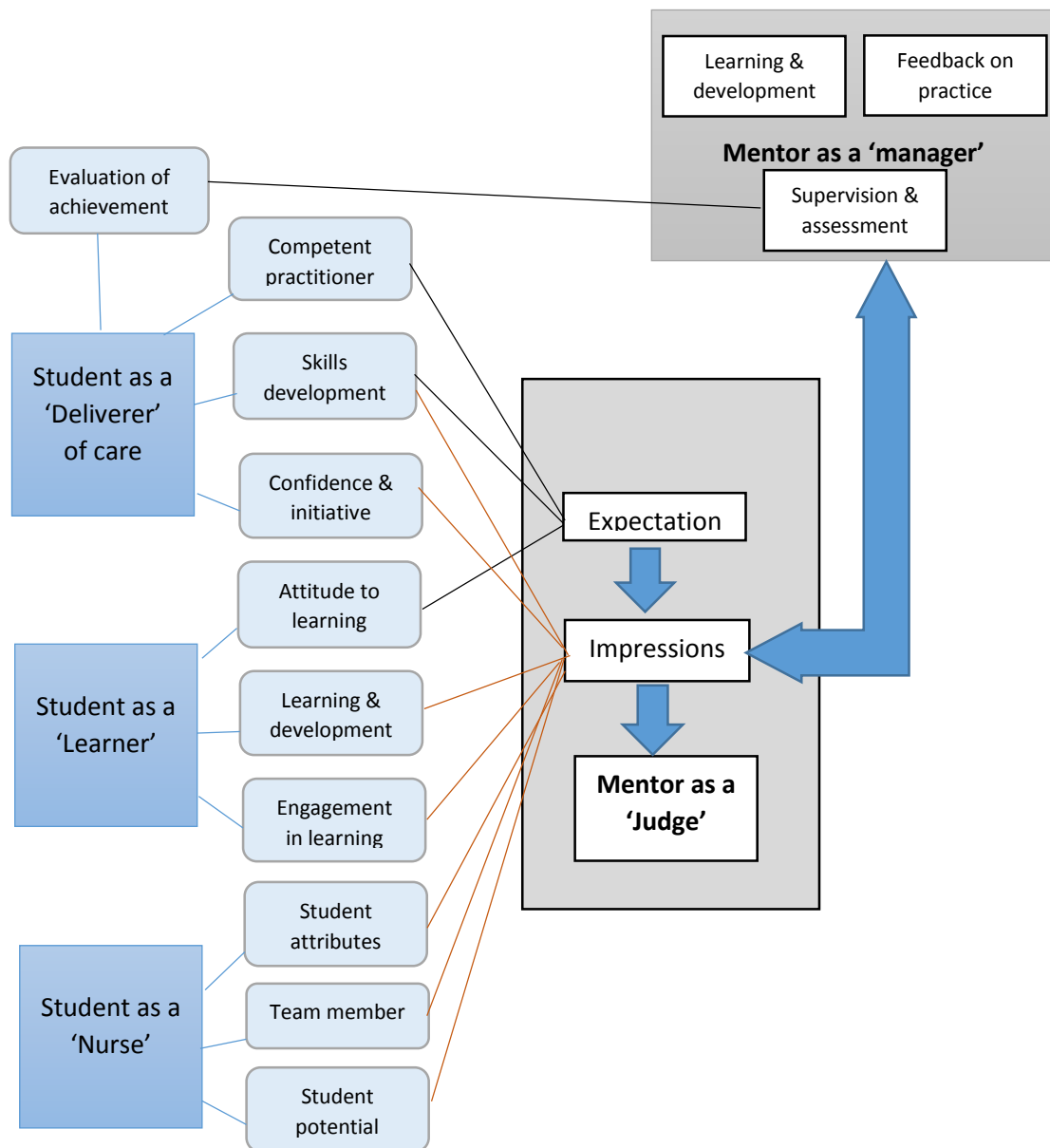
Figure 29: A model of mentor decision making – managing assessment

'The summative decision'

The final element in the model details the basis on which a mentor's summative decision about a student and their practice is taken, as outlined in Table 19 below.

Finding:	Source of findings		
Mentor judgement and decision making processes	**Documentary survey Phase 1**	**Student PADs Phase 2**	**SOM interviews Phase 2**
Judgements & decisions are based on mentor expectations, which are influenced by stage of programme and type of placement.	*Fig 13:* comparison of pass / fail decisions across programme. *Fig 18:* Summary of mentor practices	*Fig 23:* similar expectations of mentors consistent across programme *Fig 22:* important expectations & their overall contribution *Table 15:* organising themes by student profile.	*6.3.1* comparisons between 1st & 3rd years *6.3.3* expectations of being ready to qualify Expectations & skills workbook reflecting mentor's own experience of being a student
Judgements detailed & consistent for good academic students & less detailed & more variable for weaker academic students where practice concerns & fails may occur.	*Fig 13:* summary against degree classification	*5.6* more comments recorded for high achieving students *Table 15:* best students theoretically all sharing same practice profile *5.5.2 & 5.5.3* absent comments for failed students	*6.2.3* mentors failing a student may not always be supported by the wider team
Based on expectations, mentors gather information on student practice, form judgements which support overall decision to pass or fail a student.	*Fig 16:* proficiency achievement not recorded at midpoint interview	*Fig 22*: & *5.4.1* information gathered & combined to support a pass / borderline / fail decision	*6.3.3* mentor expectations are the key decision making criteria.

Table 19: Integration table showing how mentors make judgements and reach a decision (SRQ3).

This reveals that mentors have a sophisticated way of negotiating the decision making process by using their mental model of what they expect in a student and their practice, and the impressions formed as a result of observing practice. The model is used as a structured framework by the mentor to consider not only key aspects of a student's practice, but also to situate this in the context of the stage of the student's programme. The latter is reflected in a continuum of assessment across the programme, with year 1 focused on the potential of the student for nursing, and year 2 considering the ongoing development of the student as a nurse

as well as the development of their practice. Finally year 3 is concerned with evaluating the student in terms of being 'Fit for Registration'; with sign-off mentors clear that by confirming proficiency they are accountable for enabling the student to join the nursing register. This notion of being 'Fit for Registration' for a mentor encompasses concepts of the student being fit for award, in this case professional registration, fit for purpose in that the student is able to function as a staff nurse, and finally that a student is fit for practice in that they demonstrate ability to work safely, within their own limitations.

In reaching a pass decision for a student a mentor is communicating that a student is good enough to move on, whether it be simply to the next placement, the next stage of the programme or to join the nursing register and practice as a qualified nurse. This appears to work well overall with a degree of consistent understanding of the relative importance of the different themes in the three years of the programme in evidence. This also appears to work well for high achieving academic students, who across the three years of the programme are clearly identifiable and valued in practice. Where this model is less effective is in year 2 of the programme. Due to the nature and length of some placements, for instance a short placement in an acute care setting such as Intensive Care, a mentor may be left focussing on whether a student has developed or even simply engaged with the experience, rather than any more objective measure of what a student has achieved as a result of the practice learning experience. Decisions involving weaker academic students also appear to be less consistent as evidenced by less detailed comments and a greater range of decisions (pass, borderline pass and fail) taken. Finally, what appears to be the key discriminating criterion when deciding to pass a student where a practice concern has been raised, is that of '*learning and development'*, identified from documented mentor comments (5.3.1) as well as sign-off mentor interviews (6.3.3). A student demonstrating that they have improved in response to a concern, achieved the learning objectives discussed, or met the targets set, pushes the mentor to evaluate the student positively in the summative decision. The relationships between the themes extracted from documented mentor comments (figure 22), considered by frequency of use, year of programme and a summative PASS decision taken, are illustrated in the complete mentor decision making model to be found in Figure 30.

Figure 30: A model of mentor decision making – process & criteria to support a summative decision to pass a student
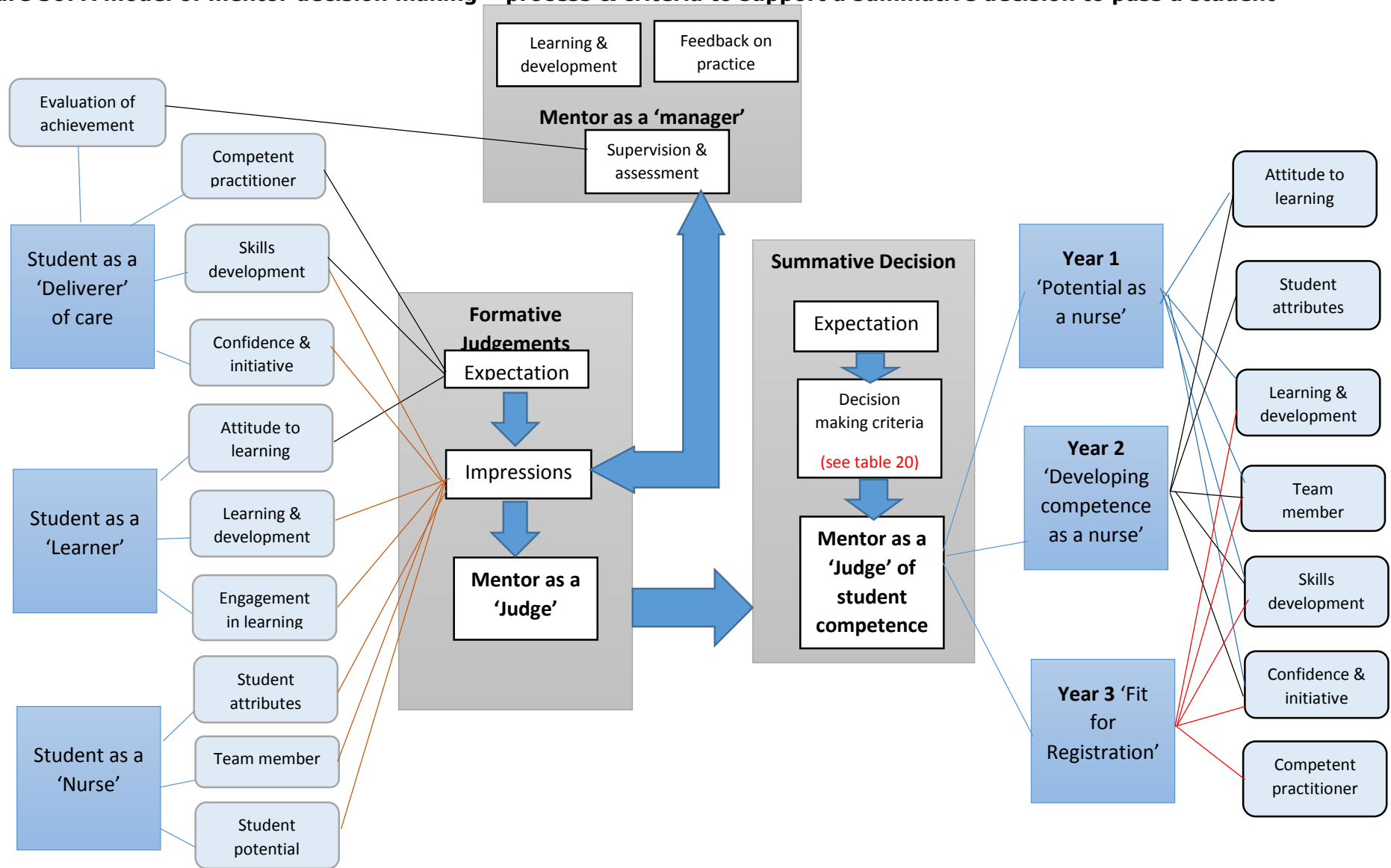
Figure 30 provides the overview of the model of mentor decision making detailing the processes, criteria for formative judgements, and the key criteria by year of programme supporting a summative decision to pass a student at the end of an assessed period of practice. Further detail regarding the ranking of key criteria by year of programme, together with the criteria important for supporting a borderline pass or fail decision, obtained from analysis of the PADs and sign-off mentor comments for the students and placements involved, is presented in Table 20.

Year 1 mentor decision making criteria	Year 2 mentor decision making criteria	Year 3 mentor decision making criteria
Pass: (ranked by theme frequency) Team Member Learning & Development Confidence & Initiative Skills Development Attitude to learning	**Pass: (ranked by theme frequency)** Team Member Confidence & Initiative Skills Development Student Attributes Attitude to learning	**Pass: (ranked by theme frequency)** Team Member Skills Development Competent Practitioner Learning & Development Confidence & Initiative
Borderline Pass: Team Member Learning & Development Attitude to Learning Student Attributes	**Borderline Pass:** Team Member Student Attributes Attitude to Learning Learning & Development	**Borderline Pass:** Team Member Skills Development Learning & Development Attitude to learning
Fail: Team Member Student Attributes Learning & Development	**Fail:** Team Member Student Attributes Attitude to Learning	**Fail:** Team Member Skills Development Competent Practitioner

Table 20: The summative decision – key criteria

Missing from the cohort data set were the details regarding the two students withdrawn at the end of year one for two practice fails. At this stage in the analysis however, it seemed pertinent to seek out the student PADs for these failed placements only to complete an understanding of the criteria underpinning a fail decision in year one. Further permissions were sought and granted to access the documents associated with these specific placement decisions. Thematic analysis of the mentor comments in the final interviews for these student placements was then undertaken and is represented in Table 20, in the 'fail' box for year 1 mentor decision making criteria. This is the only point that data from these two students is included in the study.

7.2.3 Summary of the model of mentor decision making

The model of mentor decision making illustrates the process of how a mentor accumulates impressions regarding a student and their practice, influenced by the pre-existing expectations that a mentor holds. The resulting formative judgements integrate a conceptualisation of a student against three dimensions of the student as a 'Learner' a 'Nurse' and a 'Deliverer of Care'. Expectations are consistent across the mentor group and the associated criteria have enough flexibility to accommodate all three years of the programme, as well as a diverse range of healthcare settings. Expectations reflect a holistic conceptualisation of a student and their practice, with the whole picture greater than the sum of the parts.

Mentor impressions influence a mentor's management and supervision of the assessment process. Reassuring impressions may underpin a more laissez-faire approach to compliance with assessment processes on the part of the mentor. Worrying impressions, normally arising early on in the placement, provide the stimulus for early action. This involves raising verbal concerns, contacting university and undertaking the midpoint interview ahead of schedule. However this may not always happen. What is consistent is the limited role that the NMC proficiencies have on mentor impressions and their overall management of the assessment process. The NMC proficiencies are perceived as a university framework requiring effort to fit to practice. Instead mentors use the model revealed by this research as a pragmatic means of accommodating the complexity of practice based assessment and support this with consideration of the student's skills log. Limited completion of a student's skills log, particularly towards the end of the programme, reinforces an initial worrying impression about a student.

Summative decisions are taken on the basis of the criteria arising from the mentor's conceptualisation of the student as a 'Nurse', 'Learner' and 'Deliverer of Care'. These are bounded by the expectations held regarding each year of a student's programme with a continuum of practice from student potential as a nurse, developing competence as a nurse, through to fit for registration evident. Though criteria do vary from year to year, consistent across the programme is the importance to any favourable or unfavourable mentor decision regarding student competence, of the student contributing as a hard-working and reliable member of

the team. This is particularly the case in the final placement, where mentor concerns around student reliability with respect to medicines management and working within personal boundaries of competence, contributes to the fail decisions recorded. What is also consistent is the part that an evaluation of a student's learning and development can play in managing and reaching a summative decision where a concern has been raised. That there is a significant degree of consistency in what mentors consider is important regarding student competence indicates a degree of validity in the criteria used by mentors to support their judgement and decision making processes. What is less clear is how sensitive the criteria are in what they measure and how reliably they are used. Mentors are able to identify strong academic students in a consistent manner, and interestingly in this study and contrary to media posturing viewed 'clever' as a valuable commodity, suggesting that criteria are sensitive enough to identify those attributes that contribute to good performance in practice. Equally there is some evidence that mentors are able to identify the reverse, a weak academic student, though not as consistently. What is less clear is how sensitive and specific criteria are for judging the competence of a mid-range student.

7.3   Conceptualising mentor judgements and decision making.

Decision making is the intention or commitment to pursue a course of action, in this instance the mentor's intention to raise a concern, contact the university about a student, schedule a student's interview or reach an overall view on whether a student should pass or fail a placement. This mentor decision making is as a result of the judgements made by mentors; the evaluations and beliefs that mentors have about students based on available information (Newell et al 2007, Hardman 2009).

In my initial engagement with the study data, I had wondered if mentor decision making was as a result of a dual-processing, a cognitive continuum type approach, where decisions taken are as a result of both fast and intuitive (Type 1) as well as slower and more deliberative and analytical (Type 2) processes (Kahneman 2011, Stanovich 2011). However I quickly began to realise that this was not the case.

Though mentors were constrained by time pressures in supporting students, observing a student over the period of a placement provided sufficient time for a mentor to deliberate and reflect upon a decision. This is perhaps best evidenced in the general feedback provided by mentors indicating student learning and development throughout a placement, which was of particular significance for those students who passed placements after concerns had been raised (E1, N7, & AK8). Equally, though mentors talked about a having a *'gut instinct'* (Mentor 7) about a student, based on an *'air that they give'* (Mentor 9), this was not presented in a way that fitted with accepted views of intuitive judgements, where judgements are as a result of a rapid understanding of a situation, without recourse and awareness of the cognitive processes used (Benner et al 1996, Banning 2008, Pretz & Folse 2011). Instead, as demonstrated in section 6.3.3, mentors were quick to provide the rationale for the sense that they had of the student, and the effect upon any decision to be taken, citing student confidence, communication and knowledge and understanding of patient care as elements of the decision making rationale. Finally, there was no evidence in the data suggesting that mentors used different cognitive processes for passing, failing or considering a borderline student as outlined in the dual process cognitive continuum model (Figure 2). Rather, in the stimulated recall interviews, it became evident that similar thought processes for the same task (passing or failing a student), were being used. Irrespective of the decision taken, sign-off mentors consistently talked through their decision making with reference to key factors noted about a student and the impressions formed of the student as a result (section 6.3.3).

I then considered whether mentors were taking a heuristic approach to their decision making. Heuristics have been described as the 'rules of thumb' or 'short cuts' that people use to evaluate options and make a decision, and rely upon connections between an event and previous experience (Newell et al 2007, Kahnemann 2011). In this instance I wondered if mentors compared students with their experiences of working with and assessing other students, as part of their decision making process. In particular I had believed that comparing a student with other students at the same stage of the programme (representative heuristic) or with other students either currently or recently in the area (availability heuristic) would provide some degree of explanation for mentor decision making processes. However though mentors were aware *'that can be easily done, but it shouldn't be done'* (Student P, Mentor 17: 541) and admitted that *'you don't like to compare but*

you naturally do' (Student N, Mentor 14: 192), mentors were clear that *'we don't really compare them like that I don't think, in such an obvious way'* (Student G, Mentor 7: 397). Instead mentors were making any heuristic comparisons that they did use with regards their expectations of the student's stage of the programme, for example:

> *'Because I know she is a third year and she's on her final placement there is a level you expect them to be at.'* (Student AL, Mentor 38: 554)

What did become clear from engagement and analysis of the data was a sense of mentors taking a systematic approach to their judgement and decision making of a student. Information documented in the student PADs revealed a number of key themes which mentors routinely commented on to support and justify the decision taken (Figure 22). From the stimulated recall interviews, sign-off mentors also talked about similar aspects of a student's practice which were routinely evaluated through initial working with a student and observing their practice, to noting the student's development and engagement in practice across the placement period and finally reaching a decision. It has been suggested that processes involved in making judgements include:

- *Discovering information*: knowing where to look
- *Acquiring and searching through information:* considering how much information is required and in what order
- *Combining information*: putting the information together in such a way as to be able to make an overall decision

<div align="right">(Newell et al 2007, p25).</div>

Analysis of data obtained from the sign-off mentor interviews in particular provided evidence that these processes were being used by mentors to form judgements about student competency. Mentors discovered information about a student early in a placement in line with the expectations that they held, for example *'Sussing their communication, their competencies and sort of sussing out their confidence level'* (Student U, Mentor 22: 64-65), collecting impressions. In addition to observing a student, mentors reviewed the student's skills workbook to discover what a student could do and had already achieved (Mentors 13a &b, Mentor 14). From the initial information obtained mentors then looked for information around key aspects of practice, such as communication skills, participation in practice, confidence and

working within limitations; communication and participation in practice were routinely considered first. Once mentors had observed practice in line with their expectations and were reassured that the student could acknowledge and work within their limitations the mentor was in a position to make a decision regarding the student's competence (Section 6.3.2). Patient safety, in particular medicines management and prioritisation of care in the final placement of the programme, was shown to be the key performance tests to a mentor. After combining all the information the mentor had gained about a student they were able to reach an overall decision (section 6.3.3).

This outline of mentor decision making can best be understood and conceptualised with reference to Brunswik's lens model as presented earlier in Figure 1 (1952). The left hand side of the model represents the real world and what is to be judged, in this instance the student's performance in a practice setting. The right hand side represents the mind of the judge and the decision to be taken; whether a student is safe enough to pass the placement. In between are the cues, the important factors about a student's practice, which mentors collect information about and weigh up, in order to reach, justify and support their final decision (Figure 31).
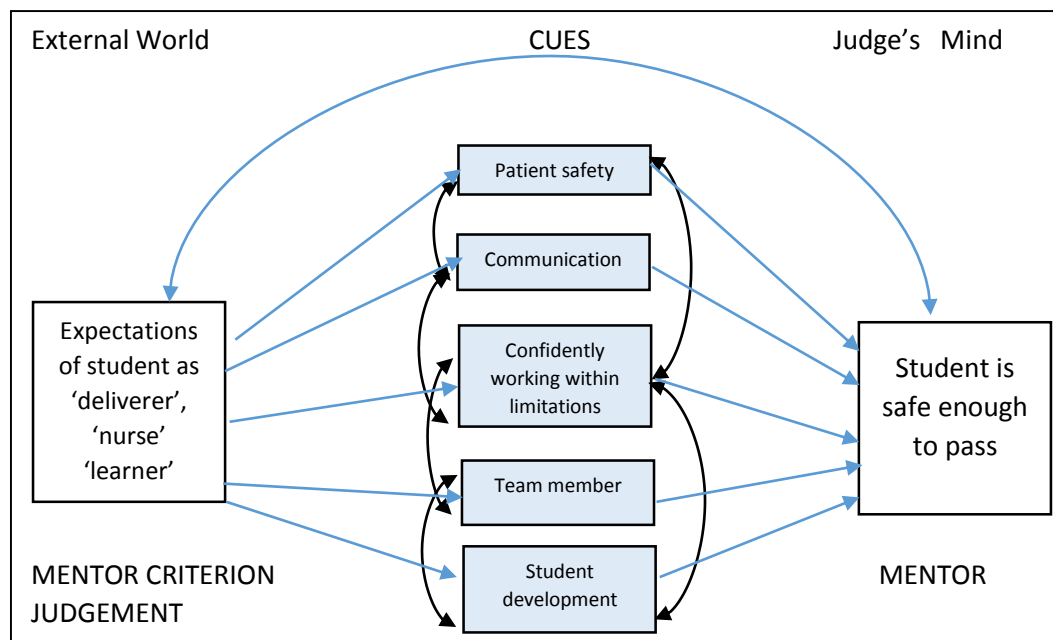
Figure 31: Schematic diagram conceptualising mentor judgements based on Brunswik's lens model (1952)

The mentor decision is thus the product of the way the student and their practice is perceived in the mind of the mentor. It is a social judgement to the extent that, based on individual and shared mentor expectations of student practice, mentors use cues to inform their judgement, with use (combination and weighting) varying depending upon individual perceptions and contextual factors such as stage of programme and type of placement.

7.4   Evaluating the model of mentor decision making .

Consideration of the model developed with respect to existing knowledge on student assessment in practice, assists in evaluating where the model is supported by existing research, develops new knowledge about mentor decision making or challenges current understandings. The three elements of the model, formative judgements, managing assessment and the summative decision provide the structure to facilitate such an evaluation.

'Formative judgements'

The formative judgements of mentors have been revealed to be based on pre-existing expectations of a student and their practice, reflecting consistency amongst mentors in terms of what is important to notice across the student's programme. The part that mentor expectations play in student assessment and the consistency of these expectations has also been identified by others. Black (2011) in an examination of mentor experiences of failing a student in their final placement, outlines the mentor expectations of a student in the final placement as being 'fit for practice', with *an understanding of this 'being' appearing generally unanimous'* (Black 2011, p113). In providing an answer to why mentors fail students at this stage of the programme she concludes that this happens *because of a failure to meet expectations and their inability to perform to the expected levels in a range of deficits in knowledge, attitudes, behaviours, skills'* (Black 2011, p128). Mentors are clear what they expect and it is these expectations which provide the criteria for judging students in the final placement. A further investigation into the personal constructs used to assess student nurses' professional achievements also reveals the use of a structured, coherent framework of expectations guiding the

assessment process, with consistent and similar constructs used by assessors (Mazhindu 1995). That mentors have expectations of student nurses and their practice is perhaps not surprising. All mentors have had experience of being a student in clinical practice and have been subjected to the socialisation processes by which a student learns the culture of the profession (Ousey 2009). It is perhaps the product of these socialisation processes that underpins and explains the expectations of mentors and the role they have in student assessment.

The criteria identified in this study as significant for informing mentor formative judgements and summative decisions are to be found in a range of other research examining student assessment. Jinks et al (2014) conducted a content analysis of student training records from as far back as the 1950/1960s to determine the desirable and undesirable characteristics of student nurses who were either successful or unsuccessful in completing their training programme. Mazhindu (1995) identified the most commonly used constructs in assessing student nurses' professional achievements. In a further study, analysis of written comments of mentors at final interview regarding student mental health nurses' competence identified criteria used by mentors to inform their judgements (Brown 2000). Two further studies also revealed a number of areas of practice that mentors considered important in the practice assessment of student nurses (Duffy 2006, Webb & Shakespeare 2008). Finally a study in Australia examining nursing clinical assessments over a 17 year period (1992-2009) identified competence criteria arising from mentor comments documented (Windsor et al 2012). A matrix illustrating the fit between criteria identified elsewhere and the criteria revealed in this study is presented in Table 21.

Organising Theme	Study Themes and key words	Criteria identified in other research studies
Student as a 'Learner'	**Learning & development** Progress, developed, knowledge, learnt about	*Mazhindu (1995)* knowledge base. *Brown (2000)* progress & development *Jinks et al (2014)* ability, quick to understand
	Engagement in practice learning Participation, willing	*Webb & Shakespeare (2008)* presentation of self – sitting down or taking part
	Attitude to learning Keen to learn, interested	*Mazhindu (1995)* interested, motivated *Brown (2000)* motivation, enthusiasm *Duffy (2006)* eagerness to learn *Webb & Shakespeare (2008)* enthusiasm *Windsor et al (2012)* enthusiastic & motivated *Jinks et al (2014)* motivation
Student as a 'Deliverer of Care'	**Competent practitioner** Aware of limitations, asks questions, competent	*Webb & Shakespeare (2008)* knowing when to ask for help *Windsor et al (2012)* skills - competent
	Confidence & Initiative Confident, over confident, initiative, independent, sees when things need doing	*Mazhindu (1995)* confident/initiative, supervision/autonomous *Brown (2000)* initiative, appropriate boundaries to practice *Webb & Shakespeare (2008)* confident *Windsor et al (2012)* confident *Jinks et al (2014)* confidence & initiative
	Specific skills Communication, medicines, assessment, care management	*Mazhindu (1995)* practical skills, communication, work organisation *Brown (2000)* rapport, interactions *Duffy (2006)* communication *Webb & Shakespeare (2008)* approach to people *Black (2011)* communication, medicines, caseload management *Windsor et al (2012)* compassionate *Jinks et al (2014)* nursing abilities
	Evaluation of achievement Proficiencies, outcomes, objectives	*Black (2011)* performing like a registered nurse *Windsor et al (2012)* achieved clinical objectives and skills
Student as a 'Nurse'	**Student attributes** professional, attendance, presentable, well mannered, kind, caring	*Mazhindu (1995)* professional, caring *Brown (2000)* personal qualities – caring *Duffy (2006)* timekeeping *Windsor et al (2012)* kind, caring, gentle, professional *Jinks et al (2014)* tidiness & neatness, uniform, hygiene, polite & good manners, punctuality, attendance
	Team member Fitted in, reliable, teamwork, hard-working	*Mazhindu (1995)* hardworking / lazy *Brown (2000)* guidance & instruction *Jinks et al (2014)* efficiency & hard work, reliability & conscientiousness
	Student potential Pleasure to work with & to mentor, make a good staff nurse	

Table 21: Matrix of criteria informing mentor judgements & decisions

Examining the table it is interesting to note the similarities and consistency of use of the various criteria, which supports comments made elsewhere that what is considered important by a mentor reflects a long and widely-held view regarding the essence of nursing practice (Jinks et al 2014). The one area where change is noted concerns an evaluation of the future potential of a student. In my study comments made have reflected more an evaluation of the individual student's effectiveness in their nursing role, rather than an evaluation of the student as an individual. By contrast, others have identified a range of comments about a student's personality (Jinks et al 2014) or character aspects (Windsor et al 2012), which contribute to the overall assessment of the student. It may be that a heightened awareness on the part of mentors regarding the need for accountability in student assessment as demonstrated in this study and elsewhere (Hutchison & Cochrane 2014, Rooke 2014) underpins this change in emphasis.

'Managing assessment'

The key to the management of assessment of student competence has been demonstrated to be the impressions of a student, worrying or reassuring, formed by a mentor based upon the expectations of student practice that they hold. These impressions acted as the meaningful stimulus to mentor action and decision making, rather than any programme assessment proficiencies or processes. As a result limited use was made of programme proficiencies in student assessment in the study, and a range of assessment practices outside professional and programme guidance (NMC 2008a) were identified.

Wider research into student practice assessment reveals the limited role that proficiency standards may play in any assessment decision taken. Standards of competence or proficiency may not be the sole standard against which a student's practice is assessed, with mentors elsewhere reporting the need to assess clinical skills rather than university provided competencies (McCarthy & Murphy 2008). This emphasis on the assessment of fundamental nursing skills is deemed necessary to counterbalance the assessment of competencies, considered as a theoretical exercise where the student *'doesn't demonstrate, they just tell you what they would do'* (Butler et al 2011, p301). Sign-off mentors in my study also indicated

that examining a student's clinical skills log was the more important part of impression formation about a student, both in terms of actual clinical skills achieved, and what completion revealed about student engagement with the practice learning opportunities that had been provided. In addition relying on skills as a significant part of the impressions formed about a student mitigated some of the difficulties experienced by mentors and students with regards the meaning and language used in the proficiency statements. This may be as a result of the level of abstraction used to construct a proficiency statement, which may either be too specific or so abstract as to accommodate such a diverse range of situations that mentors and students struggle to fit the proficiency to a specific practice situation (Scholes et al 2004, McCarthy & Murphy 2008, Butler et al 2011). Sign – off mentors in this study hinted at these difficulties in using proficiency statements to assess student practice and the resulting need to *'think outside the box for writing up these proficiencies'* (Student AL, Mentor 38: 322).

Assessment practices not in accordance with professional and programme guidance were openly documented in student PADs and discussed in the sign-off mentor interviews, with mentors and sign-off mentors indicating an awareness of the processes required, and providing strong evidence that processes did not act as the key stimuli to structure a placement decision. That mentors knew and understood the agreed processes in the management of student assessment, but that these were not adhered to, has been established in other studies (Dolan 2003, Duffy 2006, McCarthy & Murphy 2008, Butler et al 2011). In terms of the potential impact on the assessment of student competence, a consequence of a mentor not following process may be a 'failure to fail' a student, with mentors believing that their decision would be overturned by the university (Duffy 2006, Luhanga et al 2008, Jervis & Tilki 2011, Brown et al 2012). This has generated much discussion over time, with some recent surveys indicating the prevalence of the belief; Gainsbury (2010) found that 37% of respondents admitted passing underachieving students, with 31% reporting that this was because they knew the fail decision would be overturned by the university, whilst Mead et al (2011) in a survey conducted at a mentorship conference found 12% of respondents feeling that universities would overturn a fail.

Such a belief may account for the possible inconsistencies in mentor decisions noted for weaker academic students in this study, and for example may have played a part in a mentor deciding to pass student 'N' in placement 7, despite a number of significant concerns being raised. However, there were other instances where processes were not followed, for example insufficient weekly meetings recorded for the final placements of students 'Z' and 'AA', and yet the sign-off mentors concerned felt able to reach a fail decision; suggesting a more limited influence of processes on the overall decision taken. Mentor impressions of a student arising from an unambiguous patient safety issue along with a heightened sense of accountability in confirming proficiency at the point of registration, as expressed by sign-off mentors in this study and also noted elsewhere (Hutchison & Cochrane 2014, Rooke 2014), supported the sign-off mentors to fail their student, even when assessment processes had not been followed.

'The summative decision'

The developed model of mentor decision making (Figure 30), illustrates both the criteria and processes which underpin the summative decision taken. Impressions regarding a student and their practice are accumulated from the start of an assessed experience, with the final evaluation of the student bounded by the stage of the student's programme. Examining the nature of decisions taken regarding a competent or incompetent student reveals how the model extends current understandings of mentor decision making.

Previous research concerning student practice assessment decisions has either identified criteria triggering concerns regarding a student, for example lack of interest (Duffy 2006) or requiring more support than expected (Black 2011), or criteria that contribute to a student passing, for example keenness to learn and awareness of own learning needs (Brown 2000). However, how the different criteria contribute to a pass, fail or borderline decision at different stages of a student's programme as outlined in Table 20 has not been established before. In addition, where previous research has identified that it is easier to measure clear incompetence (Duffy 2006), the consistent decisions identified in this model were with respect to high achieving academic students, suggesting that the opposite measurement of excellent competence may well also be true. This is more in line

with what would be expected in a competence-led assessment process where decisions consider the student's application of knowledge, skills and attitudes during care activities, rather than focusing solely on the performance of a technical skill (Norman et al 2002, Cassidy 2009). Finally, much has been made in previous research of the subjective nature of mentor assessment as a consequence of any relationship that develops between mentor and student, and how this may result in a mentor reaching a more favourable decision regarding a student, because they like them (Duffy 2006, Webb & Shakespeare 2008, Black 2011). Whilst mentors in this study identified the benefits of a positive relationship between student and mentor, there is evidence that students who were 'liked' could be failed in practice (students 'N', 'Z' and 'AA'), and that equally students who were considered 'difficult' and the mentor would not want to work with them when qualified, could still be passed on the basis of meeting agreed targets (student 'AK'). This would suggest that the relationship between mentor and student, though beneficial for supporting student development, has a limited role to play in the overall assessment decision taken.

A strength of conducting a cohort study has been to examine decisions taken by a number of mentors on each individual student over the full three years of a pre-registration programme. As a consequence it has been possible to develop an understanding of how a student may get to the final placement of a nursing programme and fail the placement. Previous studies, most notably Duffy (2006) and Black (2011) have included conjecture on the part of both mentors and lecturers, that students in this position are there because previous mentors have 'failed to fail' the student. This situation and conjecture is not unique to nursing, as is demonstrated in a study of social work students (Finch 2009). Though mentors do admit to passing a failing student in other studies (Duffy 2006, Gainsbury 2010, Jervis & Tilki 2011, Mead et al 2011, Brown et al 2012), and indeed some sign-off mentors in interviews in this study identified that they may give students the 'benefit of the doubt' particularly in year 1 of the programme, there was little evidence of this when examining the student PADs. At best, from the 330 documented mentor decisions reviewed, there were comments recorded for students 'N' and 'Z' in placement 7 which were suggestive of sufficiently poor practice to fail the student, but instead a pass decision was made.

What is perhaps a stronger explanation for why a student can get to the end of the programme and then fail the final placement is that this results from increasing expectations of student practice on the part of the mentor; the continuum of expectations identified in the mentor decision making model, culminating in a final decision that a student is 'fit for registration'. As noted by Black (2011) higher expectations of practice overall in the final placement, as well as in specific areas of medicines and care management not evaluated earlier on in a programme, can contribute to the possibility that a student may fail this last hurdle. Equally increased awareness of the accountability of a sign-off mentor as the 'gatekeeper' for entry to the profession may contribute to the heightened expectations that a sign-off mentor holds (Hutchison & Cochrane 2014, Rooke 2014). Certainly sign-off mentors in the study were fully aware of their professional role in 'policing' entry to the nursing profession and clearly articulated the need to concentrate resources and support for third year, especially final placement students. Combined, these higher expectations and understanding of the sign-off mentor role, may have strengthened the robustness of the final decision taken regarding a student and their practice, perhaps to the detriment of earlier mentor decisions where, for example little is expected in year 1, and there is the opportunity to pass on the assessment of the student to the next mentor. As a result it perhaps is more likely that a student is unsuccessful in a placement later on in the programme.

7.5   Summary

From the study findings presented, data obtained in the documentary survey provided information about mentor practices and judgements by student type (Chapter 4). Qualitative analysis of mentor comments in student PADs revealed what mentors noticed as important about a student's practice across the programme and documented as evidence to justify and support the placement decision made (Chapter 5). Thematic analysis of sign-off mentor interviews provided an understanding of what mentors noticed about a student and their practice, as well as how factors were noticed and then used (Chapter 6). Integration of these findings from the various data sets in this chapter have confirmed the key factors and their importance in mentor decision making (SRQ1). In addition integration has suggested that programme assessment strategies and documentation have little effect on mentor decisions making processes (SRQ2). Instead what guides mentor judgements regarding student competency are the

expectations that mentors have about a student. These expectations are dependent upon the student's stage of the programme, the type of placement undertaken and mentors' personal constructs of the nursing and student role (SRQ3). Aspects of a student and their practice which mentors have expectations of, are shared across many mentors as evidenced in student PADs and sign-off mentor interviews.

Understanding mentor judgement and decision making processes can best be conceptualised through the use of Brunswik's lens model (Figure 31). This represents mentor decision making as being the product of social judgements made about students, which are based upon an evaluation of information noted about a range of important cues, themselves reflective of mentors' expectations of what a student should be able to do now, and will need to do in the future. These judgements are subjective, to the extent that mentors may note different things about a student in relation to the cues identified and combine and weigh them up in different ways. As a result different decisions are possible as identified by sign-off mentors who failed a student but their decision was not supported by the team.

What these findings and the developed understanding of mentor decision making mean for student assessment and mentorship training, practice and support will be considered in the concluding chapter.

Chapter 8. Conclusion: New understandings of mentor decision making and their implications

8.1 Introduction

This chapter summarises the study conducted and presents a reflection on the findings to illuminate achievement of the original purpose. The chapter highlights the contribution of the study to current understandings regarding mentor decision making concerning student competence. The main findings and their implications, which may be of interest to mentors, employers of mentors and graduates, higher education providers, students and the regulatory body for nursing in the UK, the NMC are presented. The model of mentor decision making (Figure 30) that emerged and the implications of the findings for current assessment practice are discussed. Recommendations for further research and work regarding mentor decision making are provided. The chapter concludes with a personal reflection of my journey and learning through this endeavour.

8.2   Addressing a concern: mentor decision making regarding student competence.

8.2.1 The concern

The study was initiated in response to concerns noted in my role as a nursing lecturer about the reliability of decisions taken by mentors regarding student competence; decisions that stakeholders, including the public, could have confidence in. Reviewing the wider mentorship literature had demonstrated that this was more than a local issue. It revealed a range of approaches had been identified that were used by mentors to reach a decision, and of more concern indicated that mentors may pass a student in the absence of sufficient competence being demonstrated (Watson & Harris 1999, Duffy 2006, McCarthy & Murphy 2008, Fitzgerald et al 2010, Gainsbury 2010, Jervis & Tilki 2011, Mead et al 2011, Brown et al 2012). This phenomena euphemistically described as 'failure to fail', was a concern for mentors supporting a 'failing student' late in the programme; - for students and their universities who may not be informed in a timely manner that

the student is not performing to the required standard; -and for the professional body (NMC), who need to be reassured that students are capable of safe and effective practice when entering the professional register.

A wish to build on existing knowledge regarding mentor practices, address concerns and respond to previous research recommendations provided the motivation and theoretical underpinnings for the study. A review of the existing literature revealed gaps in understanding in regard to mentor decision making in the following areas:

- Limited understanding as to which criteria underpinned pass, fail and borderline decisions.
- Little was known about mentor judgement and decision making processes across an assessed student experience.
- No previous examination of mentor decision making regarding student competence at different stages in a pre-registration nursing programme.
- No existing model of mentor decision making regarding student competence.

As a result, the aim of the study was to '*Identify individual mentor practices and the cognitive processes used by mentors to form judgements and reach an overall decision on a student's achievement at the end of an assessed practice experience',* with a view to identifying ways to support and improve mentor decision making in practice. Thus from this aim the following research questions were developed:

Principal Research Question (PRQ):

What factors underpin mentor judgements of student nurse competence in practice and how do mentors reach a decision to pass or fail a student in practice?

Supplementary Research Questions (SRQ):

1. What evidence do mentors gather and use to inform their judgements about a student nurse's practice?

2. What effect do assessment strategies including documentation, have on mentor judgements and decisions about a student's practice?

3. How do mentors make judgements and reach a decision to pass or fail a student in practice?

A QUALITATIVE DOMINANT mixed methods study (Teddlie & Tashakkori 2009) was undertaken which combined qualitative and quantitative methods to promote 'COMPLEMENTARITY'. Such an approach provided the means and subsequent data sets to explore the link between the **'what'** and **'how'** elements of the principal research question.

8.2.2 Empirical findings

The main empirical findings have been presented in chapters 4-6 by data set and summarised and clarified through the use of an integrative process presented in chapter 7. Findings from the study provided new understandings about mentor use and engagement with student assessment processes, as well as understandings concerning mentor judgement processes and decision making criteria which contributed to the development of a model of mentor decision making (Figure 30).

'Assessment Processes' (SRQ2)

There was strong evidence of mentor practice at variance with the programme and regulatory body guidance (NMC 2008a) for managing student assessment in practice. There were instances where the student's named mentor did not conduct all placement interviews. Preliminary and midpoint interviews were often conducted later than required and proficiency achievement by a student was not always considered formally as required, at midpoint interview. Worrying early impressions of a student who later failed a placement however triggered earlier midpoint interviews. A wider comparison across all placements and placements recording a fail or practice concern of the cohort of students that form the unit of investigation for this study is shown in Table 22.

Item of Assessment Practice at variance	All Placements	Placements recording a fail / practice concern
Late conduct of preliminary interview (after 1st week)	50.3% conducted late	25.2% conducted late
Late conduct of midpoint interview	35.3% conducted late	22.3% conducted late
No recording of proficiencies at midpoint interview	14% no recording	25.2% no recording

Table 22: Comparison of variance in assessment processes

This quantitative data seem to reflect what sign-off mentors reported earlier (6.2.1); identifying a problem prompted a mentor to take action in terms of interview processes. The comparisons also contribute to earlier discussions indicating that proficiencies, their achievement and documentation, are not integral to the concerns that mentors have regarding students (Table 18). Synthesis of these findings provides an answer to the following supplementary research question:

SRQ 2   What effect do assessment strategies, including documentation, have on mentor judgements and decisions about a student's practice?

Answer   Assessment strategies and documentation are shown to have limited effect on mentor judgements and decisions. What appears to be more salient are the impressions that mentors form of a student and their practice, beginning early in a placement. These impressions guide mentors in the management of the assessment process, and form the basis of ongoing judgements that build toward the summative decision made.

'Mentor decisions'   (SRQs 1 & 3)

Mentor decisions were shown to be the product of mentor judgements; social judgements about students as a result of an evaluation of information noticed and gathered around a framework of criteria, a mental map that incorporates the expectations of the mentor. These expectations reflected beliefs about the current and future potential of the student and were flexible enough to accommodate a variety of practice settings and the stage of the student's programme. Finally mentor expectations captured holistically discrete criteria and the relationships that existed between them, in order to build up a picture of a student's overall competence to support the final decision. In deciding to pass a student the mentor had to be reassured that the student was 'safe enough to pass' (Figure 31), and at the end of the programme was 'fit for registration' (Figure 30).

Key criteria to support mentor decisions included consideration of the student as a team member, a communicator, a contributor to patient safety through the demonstration of core skills such as medicines management and infection control measures as well as the ability to work confidently within personal boundaries of competence. In addition consideration of the student's development across an

assessed placement experience was revealed as important (Figure 31). Different weightings and combination of some, or all, of these key criteria underpinned the final summative decision to pass, fail or award a borderline pass (Table 20). Using these criteria mentors were able to discriminate poles of practice, i.e from excellence – incompetence, with evidence showing that mentors were most consistent when making decisions in relation to high achieving academic students (Table 19).

Finally changes in mentor interpretation of criteria across the three years of the programme revealed that students failing at the end of the programme may not necessarily be as a result of a 'failure to fail' on the part of previous mentors. Instead this may be as a consequence of more demanding mentor expectations as the student comes closer to the point of joining the professional register. This may also reflect an increased understanding of accountability, informed perhaps by the introduction of the Sign-off mentor standard (NMC 2008a) as well as a wider increased awareness of individual accountability following the publication of the Francis Report (Mid Staffs 2013). Synthesis of these findings provides an answer to supplementary research questions 1 and 3.

SRQ1 What evidence do mentors gather and use to inform their judgements about a student nurse's practice?

Answer Mentors gather evidence about a student and their practice in a range of areas, including working as a team member, skills development, competent practice, learning and development and displaying an appropriate level of confidence and initiative. Key to any judgement of a student is an evaluation of their ability to function as a reliable member of the team.

SRQ3 How do mentors make judgements and reach a decision to pass or fail a student in practice?

Answer Mentors form judgements as a result of observations of a student and their practice, which are based upon the expectations that they hold for a student appropriate to the area and stage in the student's programme. Judgements are accumulated over the placement and combined to inform the final decision taken, in a manner that can best be understood and conceptualised with reference to Brunswik's lens model (1952).

8.3 Understanding mentor decision making: implications for,

8.3.1 Theory

The model of mentor decision making developed here contributes to an understanding of the degree of confidence that can be placed in the mentor decisions taken and informs suggestions for improving mentor decisions, or at least an individual mentor's confidence in making a decision.

Reviewing the judgements and decisions that have been the focus of this study suggests that in the main reasonable decisions were taken by the mentors concerned. Data revealed a degree of shared agreement across mentors in terms of the cues used to inform judgements and the importance of selected key criteria to support the summative decision. From the 330 mentor decisions examined, there was only evidence to suggest that two students 'N' and 'Z' should possibly have failed one placement earlier than they did, and for students 'N' and 'AA' there was evidence of disagreement amongst the nursing team involved regarding the decision taken indicating that different mentors could make different decisions.

Such a conclusion is supported in the wider decision making literature, suggesting that outside the arena of statistical judgements, human judgements are generally accurate or good enough, though subject to variation (Hammond 1996, Standing 2008, Kahneman 2011). Though the decisions may lack precision or at times consistency, having a mental map to support the goal of determining whether a student should pass a placement, mentors are demonstrating a degree of reasoning which supports action, in this case to pass or fail a student (Over 2007, Hardman 2009). Conceptualising the mentor decision making model that emerged from the data with reference to Brunswik's lens model (1952) also supports such a conclusion, where use and integration of observable environmental cues, such as student behaviours and actions in this case, underpins decisions which are relatively accurate and context specific (Hammond 1996, Standing 2008).

However this conclusion may not be supported where, for some decisions and some students, documented evidence was sparse in nature. Perhaps indicative of a failure to put 'pen to paper' as noted by Duffy (2006), or the expectations of mentors

influenced by the stage of programme or placement area, this lack of evidence, the 'facts' regarding a student and their practice, limits a full evaluation of some of the decisions contained within this study. This lack of evidence may include occasions where the mentor was uncertain or experienced difficulties forming judgements regarding a student, or perhaps simply did not form strong impressions either way about the student under consideration, the low to middle range of students who are not 'bad enough to fail', but perhaps only just 'safe enough to pass'. Exploring mentor decisions concerning these students in more depth, could further an understanding of the boundaries to the quality of mentor decision making, and thus the degree of confidence to be placed in the decisions taken.

Key processes involved in making judgements are said to involve discovering information, acquiring and searching through information, combining information and finally receiving feedback on the decision made. This feedback contributes to the experience of the decision maker which may inform future decision making (Newell et al 2007, Standing 2008, Yang & Thompson 2011). As a placement is in progress mentors do confirm and adjust their judgements in response to observational feedback on a student, though there is some evidence to suggest that the initial judgement of the mentor generally holds true. However summative mentor decision making occurs in a vacuum. Students are transitory; they move on to a new placement and may never be seen by the mentor again. Equally student academic achievement may not be made available to the mentor. Mentors take a decision regarding student competence but, without knowledge of the student's ongoing progress, are not in a position to evaluate the decision they have taken. Perhaps finding a way of providing feedback to a mentor on the assessment processes used and decision taken, would go some way to building the experience of a mentor in student assessment and support consistent mentor decision making. In addition feedback may facilitate the development of mentor confidence so that when faced with a borderline or failing student, they are more confident to manage the process and to justify and support their decision.

8.3.2 Educational Practice and Policy

The research has implications for three areas of education practice and policy: the role of assessment tools and strategies in mentor decision making; the aspects of a student and their practice (characteristics, behaviours and performance) considered in mentor judgements; and finally measurement of a student's practice. Discussion of these implications at this stage concerns how to improve current assessment systems, however some proposals for future work regarding mentor assessment of student competence are also offered.

Findings from across all three data sets in this study revealed the limited impact that prescribed and official assessment tools and strategies had on mentor management of, and decision making in, student assessment, suggesting that the current system may not be fit for purpose. These findings were summarised in Table 18. Of significance for mentor decision making is the conduct and documentation of placement interviews. Late interviews, more than one mentor or nurse conducting interviews and a tendency to provide verbal feedback challenge the integrity of the assessment process in terms of continuity and accountability, student development time and evidence to support judgements and the summative decision.

This is a problem for the higher education provider in terms of their ability to demonstrate adherence to mentorship and programme management standards required by the regulator (NMC 2008a, 2010). Though practice learning and assessment is delivered through a partnership between placement providers and universities, it is the university that is held to account for the quality assurance of this delivery. Non-adherence to standards in relation to the practice placement aspects of an approved nursing course can result in the ultimate sanction of withdrawal of programme approval (NMC n.d.). Non-adherence to mentorship and practice learning standards also becomes a practical issue when a student wishes to appeal against a fail decision in practice. This was the case for student 'Z' who appealed against the repeated final placement decision on the basis of mentorship practice contrary to regulatory standards. This was not upheld by an independent appeals panel following an investigation which included a documentary examination against standards (NMC 2008a) that established full compliance. Finally a tendency

to provide verbal rather than written feedback, not only fails to provide adequate documented justification for a placement decision, but with limited comments made in the student Ongoing Achievement Record requirement of the student PAD (NMC 2008a), means that future mentors may not be alerted to an individual student's development needs or any previous areas of concern. At best this wastes valuable development time for the student, and at worst may leave patients exposed to sub-optimal or even incompetent care.

Given that mentor compliance with current assessment documentation and processes is low, the immediate challenge is to improve mentor engagement with existing requirements. Good practice associated with assessment documentation is clearly to be recommended in the first instance. Documentation that is not only timely in its completion, but adequate in the amount of information provided, to illustrate transparent judgements and identify student development needs. These can then be communicated between all mentors involved in the development and assessment of a student across their programme. An increased emphasis on the importance of written feedback overall, along with specific skills development in providing written feedback on students for mentors, both through mentor training and updating activities, would strengthen this important aspect of mentor decision making.

The second area of educational practice where implications arise concerns the aspects of a student and their practice considered in mentor judgements. Integration of findings revealed that mentor expectations underpin the formative judgements and summative decisions of mentors as summarised in Table 19 and Figure 30. The model is used as a sophisticated framework by the mentor to consider key aspects of a student's practice within a continuum of assessment across the programme, culminating in an assessment of the student as being 'Fit for Registration'. There are some important implications resulting from this. Firstly, low expectations of mentors either in year 1 of the programme, or in relation to the nature of the placement area, may mean that mentors either fail to challenge a student sufficiently, or accord a degree of leniency to the summative decision taken. Secondly, as highlighted in some sign-off mentor comments, the available mentor resource may be pragmatically targeted at students who are in the later stages of their programme. Finally, greater expectations and scrutiny of a student

in the final placement of the programme may increase the likelihood of a student failing practice at this late stage.

There are no simple ways to address these findings, however establishing clarity around expectations for each stage of the programme along with consideration of placement allocation models may contribute to an extent. There appears to be a particular need to revisit the purpose of year 1 practice learning and consider whether mentors '*looking in first year at general learning and getting them to just experience lots of things'* (Student Y, Mentor 26: 236-237) is sufficient. That is sufficient not only in terms of assessment and allowing a student to progress, but also sufficient in terms of enabling a student to engage fully in a 'community of practice' to support development and achievement (Wenger 1999). Clarifying understandings of the aspects of a student and their practice that should constitute a fail in years 1 and 2 through enhanced mentor training and updating activities could be beneficial. Rotational models of placement allocation such as those used in the programme that was the basis for this study, could impose limitations on the mentors and prevent them from adequately getting to know the student. This could lead to the mentor '*passing someone when you don't know that person fully'* (Student U, mentor 22: 134). Use of a 'hub and spoke' model of allocation of practice learning experiences, where the allocated mentor in the base placement (the 'hub') oversees a student's development and assessment across both the base and short attached, complementary experiences (the 'spokes'), may facilitate better knowledge by a mentor of a student's capabilities as well as enhance student achievement (Roxburgh 2014).

Finally implications were identified relating to concerns surrounding the determination of the standard of a student's practice. Integration of findings revealed the key criteria of importance in pass, borderline and fail decisions for each stage of the programme (Table 20). However in using only threshold standards of 'achieved' and 'not achieved' for any consideration of proficiencies and overall summative decision taken, what constitutes the actual threshold determining a mentor's decision against the criteria was difficult to establish. In the study this was shown to be a particular issue for students whose academic achievements were in the mid-low range, where inconsistency in decisions and limited feedback was most noted (Table 19). It might be that use of a grading tool

to assist decisions about a student's practice would improve a mentor's ability to establish the standard of practice achieved. However in an evaluation of a practice assessment tool incorporating grading, though mentors believed that grading allowed them to better discriminate in their practice assessment decisions, they still were less confident when faced with a failing student (Heaslip & Scammell 2012). Thus use of a grading tool may not address the issue where problems in decision making exist. Equally a review of the evidence for lecturer involvement in a summative graded decision as is required in midwifery pre-registration programmes, suggests that the presence of a lecturer does not improve the validity and reliability of the grading process, given that *'the lecturer brings no empirical data to the tripartite assessment'* (Passmore & Chenery-Morris 2014, p96).

From the findings in this study a degree of confidence can be placed in those decisions made about the standard of student practice in relation to high academic achieving students (Table 19). This suggests that the way academically able students present themselves in some way enables mentors to judge their practice capability. That mentors valued good graduates is interesting to note. Ever since the transfer of registered nurse preparation into higher education there has been a wide ranging debate about whether nurses are now 'too clever to care?' (Gallagher 2005, Watson 2006, Gillett 2012). Part of this debate has been the suggestion that as emphasis is placed on the '*harder* technical-rational or more academic side of nursing' this has been to the detriment of the '*softer* caring components of everyday practice' leading to 'the kind of nurses deemed *too posh to wash*' (Gallagher 2005, p14-15). Yet in this study an examination of practice concerns and fail rates (Figure 13) suggest it was the highest academic achievers from the programme who were performing the best in practice. This is a finding more in line with comments from Watson & Thompson (2000) regarding the better decision making skills of graduate nurses and the role that higher education can play in developing capable, as well as competent practitioners (Watson 2006); perhaps demonstrating that they were 'clever enough to care' and may 'add value' to practice (Girot 2000).

Findings from my study indicated that the value added was in terms of how all the key criteria to pass were integrated within a student's practice and noticed by a mentor in their decision making, for example:

'B's clinical skills are of a high standard. She is a quick learner and adapts to most situations. She is good with patients and has built a professional relationship with the staff. She recognises the art of planning and importance of prioritising.' (B 1: 20-23)

The ways that this good practice is noticed and contributes to a judgement of the student, as captured in the decision making model developed here (Figure 30), could inform mentor decision making improvements across the full standard of practice. Future work using this model of mentor decision making with its associated theoretical conceptualisation (Figure 31) offers the possibility to develop a new model for practice assessment. A model that perhaps better facilitates rather than hampers mentor decision making and one that is grounded in actual mentor decision making practices, as well as judgement and decision making theory. Such a model can incorporate an assessment of individual criteria as well as an evaluation of the whole, both of which have been shown to contribute to the decision that the student is 'safe enough to pass'. In addition processes in any newly developed assessment model could better reflect current mentor judgement and decision making, based as it is on pre-existing mentor expectations and initial and accumulating impressions (Figure 30). In undertaking any such redesign it may be that incorporating multi modal forms of assessment such as structured practice assessment tools, use of simulation, objective examinations of students in both simulated and practice settings may enhance reliability of assessment for the key criteria considered (Figure 31). Such an approach may also promote and capture student learning, a core component of professional practice (Levett-Jones et al 2011, Roberts 2011, Ulfvarson & Oxelmark 2012). Comparisons between nursing clinical assessment with assessment in the performing arts suggests that there is scope for the development of new and creative approaches to assessing student practice (Roberts 2011). Future work on a model of student assessment based on the model of mentor decision making presented in this study has a part to play in such developments.

8.3.3 Research

In considering recommendations for future research there is a need to clearly articulate the boundaries to the claims that are made for this study. This was a small scale endeavour, undertaken by one part-time researcher as part of her PhD studies, without the resources and experience available to larger research teams. The focus of the study was one adult nursing programme from one university in England, with mentors involved from a range of local healthcare providers.

The strengths of the study are the use of mixed methods research which enabled gathering and analysis of both qualitative and quantitative data, and use of integration strategies to strengthen and establish the inferences made. Adopting a pragmatic but systematic approach to the research design, building upon existing knowledge, responding to extant research recommendations and locating the examination of mentor decisions within the context in which they occurred, was also beneficial. Finally stimulated recall interview methods and use of a structured framework for thematic analysis have contributed to the overall rigour of the study.

With the benefit of hindsight, if conducting the study again, a thematic analysis of all mentor comments documented in the students' PADs and consideration of mentor feedback as additional criteria to be used in the sampling frame (Table 8) for selection of sign-off mentors to interview, may have added further insights. In the study, no thematic analysis was conducted until after the stimulated recall interviews were completed. Limitations of documented evidence in the mid-low range of academic achievement might have come to light earlier resulting in some additional sign-off mentors being selected for interview. Following a cohort of students through a programme, rather than examining decisions made about them retrospectively may provide further insights into the concerns identified by this study. Timelier scheduling of sign-off mentor interviews in some instances may also increase the trust that can be placed in the data collected regarding mentors cognitive processes. Nonetheless, conduct of the study has resulted in findings which contribute to a developing understanding of how mentors form judgements and reach a decision regarding an assessment of student competence in practice, and thus address the primary concern and motivation for the study.

Taking this into account, consideration of the implications identified from the study findings has revealed a number of areas for future practice development in sections 8.3.1 and 8.3.2. The research recommendations arising from these implications are summarised in Table 23.

Implications	Research Recommendations
Decision making of mentors appears reasonable but there are limitations in the confidence that can be placed in them, and limitations of evidence documented for some decisions, which may not support this conclusion.	Survey further mentor decisions documented in student PADs to confirm criteria and their use. Survey mentors to test out the developed model and its application outside pre-registration adult nursing. Explore further mentor decision making for students in mid-low academic range where fewer comments and less consistency in decisions noted.
Non-adherence to regulatory standards challenges integrity and accountability of decisions, possibly contributing to a student appeal or sanctions from the regulator (NMC).	Investigate student complaints and appeals regarding mentorship to establish most problematic areas of non-adherence and the reasons underpinning non-adherence to regulatory standards.
Low expectations earlier on in the programme may limit student development or support a lenient summative decision. This may contribute to student failing practice at a later stage when there is increasing expectation and scrutiny by a mentor.	Examine rates of practice fails across programmes to determine where these may occur and whether rates are higher in the final year / placement of the programme.
Lack of transparency in measuring the threshold of practice, especially for borderline students, with consistent and more open measurement demonstrated for academically achieving students.	Conduct a systematic review of measurement of standards of practice, especially with regards to discrimination at the interface between 'just good enough' / 'not good enough'.

Table 23: Summary of Study implications and associated research recommendations.

Further research to develop the ideas and findings presented in this study will ensure that any future developments in terms of educational policy and practice are grounded empirically, thus increasing the effectiveness of any changes made. The recommendations for further research outlined address two areas: testing of the criteria identified and the model developed, and extending an understanding of mentor decision making processes and practices especially for low to mid-range academically achieving students.

Conducting further thematic analysis of mentor comments contained in the interviews in the student PADs, is required to confirm the criteria used by mentors to inform their decisions not only within adult health pre-registration nursing programmes but also how criteria may vary, or their importance vary across the other fields of pre-registration nursing. Combining this with a wider survey of mentors would allow the model of mentor decision making to be confirmed and refined and its applicability to the wider arena of mentor decision making regarding student competence ascertained.

An important finding of the study has been that mentors value and make consistent decisions about students who are academically strong, whilst inconsistent decisions may be made for weaker students, with limited evidence provided to support and justify the decision taken. This presents a significant risk to the confidence that can be placed in the mentor decisions that are taken. Further research into mentor decision making is required for students who appear to be achieving around the threshold standard to understand how achievement of the standard is determined and identify strategies to support and strengthen decisions taken.

8.4   A personal reflection

At this point where I prepare to move on from this research journey and take forward the understandings developed, it is timely to pause for a moment and consider the narrative of this research for myself and for a broader understanding of mentor decision making.

I started with a problem in my work role concerning the assessment of students in practice by their mentors. Consideration of the mentor literature revealed this to be more than a local issue, and indicated a pervasive nature to the concerns that were being experienced locally. At the same time the literature identified gaps in current knowledge and offered few solutions to the difficulties occurring. Considering this to be an important issue to investigate, primarily for the potential effect that a non – robust system of student assessment can have on the quality of patient care, I

embarked upon my PhD journey. This has been a difficult area of practice to investigate, not least for the abundance of anecdotal comment and opinion that existed, but also for the scarcity of empirical work undertaken which could illuminate how to investigate the concern identified. The methodological stance taken and the resulting study design, was borne out of a slow, and at times painful, evolutionary process which sought to find ways of investigating mentor decision making that was more than descriptive, but also achievable within the resources available for the study and my developing skills set.

A particular challenge was to find a way to get mentors to talk about a decision actually taken, rather than to provide an account of an idealised way of deciding about a student and their practice. Stimulated Recall Methodology was invaluable for providing the means to achieve this. Response to a presentation of the method at a research conference (Burden 2014) along with subsequent acceptance of an article on the method and its use to Nurse Researcher (accepted 28/08/14) suggests that the approach is of wider interest to any investigation that seeks to develop an understanding of decision making.

Using a mixed methods design for the study and adopting a structured approach to thematic analysis supported collection of data from different perspectives and analysis and integration activities that provided new knowledge about mentor decision making and challenged any assumptions I may have held. In my new understanding of mentor decision making, I came to a realisation that decisions and practices were not as haphazard or unstructured as I had at times feared and that I had found out things which I had not expected. For example, I had not been aware that the academic quality of the student could, and was being discerned by mentors, perhaps indicating a greater integration between theory and practice than is often believed. Furthermore I now understand that, although subjectivity does exist within the mentor decision making process, this is more to do with combining and weighting of evidence gathered about a student and less to do with the personal and likeable qualities of a student. This is reassuring, both in terms of its effect upon assessment, but also for students who may be anxious that they will not be liked. However this is not to say that the student –mentor relationship is not important. Certainly comments from mentors indicated that they looked more favourably on students who were enthusiastic and proactive in their learning and

engaging in patient care. It may be that the relationship matters more in terms of student development, for the increased learning opportunities provided and for the confidence that a student develops as a result of feeling comfortable in the environment, which ultimately feeds into the overall quality of the student a mentor is deciding on.

So what now? The study has been enabling as it has provided a new understanding of how mentors form judgements and reach a decision regarding an assessment of student competence in practice, the aim of the study. In addition areas of ongoing concern have been identified. These include the limited effect that assessment tools and strategies have, the potential role that low expectations early in a student's programme may have on a student failing practice in the final year or placement, and less consistent decision making for academically less able students. The challenge now is to understand these concerns better so that any actions taken in response to this study, for example mentor training to improve written feedback or the development of new assessment tools and strategies, impact upon these areas of greatest risk, in order to deliver a student who, at the end of the programme is 'Fit for Registration'.

References:

Aitken L.M., Marshall A., Elliott R., McKinley S. (2011) Comparison of 'think aloud' and observation as data collection methods in the study of decision making regarding sedation in intensive care patients. International Journal of Nursing Studies **48** 318-325

Allan H.T., Smith P., O'Driscoll M. (2011) Experiences of supernumerary status and the hidden curriculum in nursing: a new twist in the theory-practice gap? Journal of Clinical Nursing **20** 847-855

Altmann T.K. (2007) An evaluation of the seminal work of Patricia Benner: Theory or philosophy? Contemporary Nurse **25** 114-123

Andersson N., Klang B., Petersson G. (2012) Differences in clinical reasoning among nurses working in highly specialised paediatric care. Journal of Clinical Nursing **21** 870-879

Andrews G.J., Brodie D.A., Andrews J.P., Hillan E., Thomas B.G., Wong J., Rixon L. (2006) Professional roles and communications in clinical placements: A qualitative study of nursing students' perceptions and some models for practice. International Journal of Nursing Studies **43** 861-874

Ashworth P.D., Gerrish K., Hargreaves J., McManus M. (1999) "Levels" of attainment in nursing practice: reality or illusion? Journal of Advanced Nursing **30** (1) 159-168

Attride-Stirling J. (2001) Thematic networks: an analytic tool for qualitative research. Qualitative Research **1** (3) 385-405

Banning M. (2008) A review of clinical decision making: models and current research. Journal of Clinical Nursing **17** 187-195

Barker M., Blacow L., Cosgrove S., Howorth N., Jackson G., McMahon J. (2011) Implementation of 'sign-off' mentorship: different perspectives British Journal of Nursing **20** (19) 1252-1255

Benini A. (2000) Construction of Knowledge. Rome, Gnome.

Benner P. (1984) From Novice to expert: Excellence and power in Clinical Nursing. Menlo Park, California, Addison_Wesley.

Benner P., Tanner C.A., & Chesla C.A. (1996) Expertise in Nursing Practice Caring, Clinical Judgment, and Ethics. New York, Springer Publishing.

Bidmead C., Cowley S. (2005) Evaluating family partnership training in health visitor practice. Community practitioner **78** (7) 239-245

Black S. (2011) Being a Mentor who fails a Pre-registration Nursing Student in their Final Placement: Understanding Failure Unpublished PhD thesis. London South Bank University.

Bloom B. (1953) Thought processes in lectures and discussions. Journal of General Education **7** 166-169

Boyatzis R.E. (1998) <u>Transforming qualitative information: thematic analysis and code development.</u> Sage, Thousand Oaks CA.

Bradshaw A. (2000) Competence and British nursing: a view from history. <u>Journal of Clinical Nursing</u> **9** 321-329

Brannen J. (2005) Mixing Methods: The entry of qualitative and quantitative approaches into the research process. <u>International Journal Social Research Methodology</u> **8** (3) 173-184

Braun V., Clarke V. (2006) Using thematic analysis in psychology. <u>Qualitative Research in Psychology</u> **3** 77-101

Bray L., Nettleton P. (2007) Assessor or mentor? Role confusion in professional education. <u>Nurse Education Today</u> **27** 848-855

Brown N. (2000) What are the criteria that mentors use to make judgements on the clinical performance of student mental health nurses? An exploratory study of the formal written communication at the end of clinical nursing practice modules. <u>Journal of Psychiatric and Mental Health Nursing</u> **7** 407-416

Brown L., Douglas V., Garrity J., Shepherd C.K. (2012) What influences mentors to pass or fail students. <u>Nursing Management</u> **19** (5) 16-21

Brunswik E. (1952) <u>The conceptual framework of psychology.</u> Chicago, University of Chicago Press.

Bryman A. (2006) Integrating quantitative and qualitative research: how is it done? <u>Qualitative Research</u> **6** (1) 97-11

Buckingham C.D., Adams A. (2000a) Classifying clinical decision making: a unifying approach <u>Journal of Advanced Nursing</u> **32** (4) 981-989

Buckingham C.D., Adams A. (2000b) Classifying clinical decision making; interpreting nursing intuition, heuristics and medical diagnosis. <u>Journal of Advanced Nursing</u> **32** (4) 990-998

Burden S. (2014) Methods for investigating decision making: an evaluation of artefact-mediated interviews as a data collection method in decision making research. Paper presented to the <u>RCN International Nursing Research Conference, 2-4 April, Glasgow, RCN.</u> [online] Available at <u>http://www.rcn.org.uk/__data/assets/pdf_file/0008/569222/5.4.3_Burdon_Y.pdf</u> [Accessed 2/05/14]

Burnard P. (1991) A method of analysing interview transcripts in qualitative research. <u>Nurse Education Today</u> **11** 461-466

Burton J., Hope K.W. (2005) An exploration of the decision-making processes at the point of referral to an Admiral Nurse Team. <u>Journal of Psychiatric and Mental Health Nursing</u> **12** 359-364

Busse A., Borromeo R.F. (2003) Methodological reflections on a three-step-design combining observation, stimulated recall and interview. <u>ZDM – The International Journal on mathematics education</u> **35** (6) 257-264

Butler M.P., Cassidy I., Quillinana B., et al (2011) Competency assessment methods – Tool and processes: A survey of nurse preceptors in Ireland. <u>Nurse Education in Practice</u> **11** 298-303

Cader R., Campbell S., Watson D. (2005) Cognitive Continuum Theory in nursing decision-making. Journal of Advanced Nursing **49** (4) 397-405

Cahill H. (1996) A qualitative analysis of student nurses' experiences of mentorship. Journal of Advanced Nursing **24** (4) 791-799

Carlisle C., Luker K., Davies C., Stilwell J., Wilson R. (1999) Skills competency in nurse education: nurse managers' perceptions of diploma level preparation. Journal of Advanced Nursing   **29** (5) 1256-1264

Carnevali D.L. & Thomas M.D. (1993) Diagnostic Reasoning and Treatment Decision Making in Nursing Philadelphia, Lippincott.

Carper B. (1978) Fundamental patterns of knowing in nursing. Advances in Nursing Science **1** (1) 13-23

Cash K. (1995) 'Benner and expertise in nursing: A critique' International Journal of Nursing Studies **32** 527-34

Cassidy S. (2009a) Interpretation of competence in student assessment. Nursing Standard **23** (18) 39-46

Cassidy S. (2009b) Subjectivity and the valid assessment of pre-registration student nurse clinical learning outcomes: Implications for mentors. Nurse Education Today **29** 33-39

Cassidy S. (2013) Acknowledging hubris in interpretative data analysis. Nurse Researcher **20** (6) 27-31

Chambers M.A. (1998) Some issues in the assessment of clinical practice: a review of the literature Journal of Clinical Nursing **7** 201-208

Charters E (2003) The Use of Think-aloud Methods in Qualitative Research. An Introduction to Think-aloud Methods. Brock Education. **12** (2) 68-82

Cherryholmes C.H. (1992) Notes on Pragmatism and Scientific Realism. Educational Researcher **21** 13-17

Cheyne H., Dowding D.W., Hundley V. (2006) Making the diagnosis of labour: midwives' diagnostic judgement and management decisions. Journal of Advanced Nursing **53** (6) 625-635

Cioffi J. (1997) Heuristics, servants to intuition, in clinical decision making. Journal of Advanced Nursing **26** 203-208

Cioffi J. & Markham R. (1997) Clinical decision-making by midwives: managing case complexity. Journal of Advanced Nursing **25** 265-272

Cioffi J. (1998) Decision making by emergency nurses in triage assessments. Accident and Emergency Nursing **6** 184-91

Cioffi J. (2000) Nurses' experiences of making decisions to call emergency assistance to their patients. Journal of Advanced Nursing **32** (1) 108-114

Cioffi J. (2012) Expanding the scope of decision-making research for nursing and midwifery practice. International Journal of Nursing Studies **49** 481-489

Clark T., Holmes S. (2007) Fit for practice? An exploration of the development of newly qualified nurses using focus groups. International Journal of Nursing Studies **44** (7) 1210-1220

Clynes M.P., Raftery S.E.C. (2008) Feedback: an essential element of student learning in clinical practice. Nurse Education in Practice **8** (5) 405-411

Collins K.M.T., Onwuegbuzie A.J., Sutton I.L. (2006) A model incorporating the rationale and purpose for conducting mixed methods research in special education and beyond. Learning Disabilities: A Contemporary Journal **4** 67-100

Cooksey R.W. (1996) Judgment analysis: Theory, methods and applications. San Diego, CA. Academic Press.

Cope P., Cuthbertson P., Stoddart B. (2000) Situated learning in the practice placement. Journal of Advanced Nursing **31** (4) 850-856

Cowan D.T., Norman I., Coopamah V.P. (2005) Competence in nursing practice: A controversial concept – A focused review of literature. Nurse Education Today **25** 355-362

Cowin L.S., Hengstberger-Sims C., Eager S.C., Gregory L., Andrew S., Rolley J. (2008) Competency measurements: testing convergent validity for two measures. Journal of Advanced Nursing **64** (3) 272-277

Creswell J.W., Plano Clark V.L. (2011) Designing and Conducting Mixed Methods Research. (2nd ed) Thousand Oaks, CA. Sage.

Critical Appraisal Skills Programme (CASP) (2013) Critical Skills Programme Appraisal Tools. [online] Available at http://www.casp-uk.net/ [accessed 24/09/14]

Crotty M. (1998) Foundations of Social Research: Meaning and Perspective in the Research Process. Thousand Oaks, CA. Sage.

Cutcliffe J.R., McKenna H.P. (1999) Establishing the credibility of qualitative research findings: the plot thickens Journal of Advanced Nursing **30** (2) 374-380

Dempsey N.P. (2010) Stimulated Recall Interviews in Ethnography. Qualitative Sociology **33** 349-36

Denzin N.K., Lincoln Y.S. (eds) (2011) The Sage Handbook of Qualitative Research. (4th ed) London, Sage.

DH (2005) Research Governance Framework for Health and Social Care. (2nd ed) London, Department of Health. [online] Available at http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4108962 [accessed 25/11/12]

DH (2006) Modernising Nursing Careers. Setting the Direction. London, Department of Health.

DH (2011) Governance arrangements for research ethics committees: a harmonised edition. London, Department of Health. [online] Available at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_133993.pdf [accessed 20/11/12]

DH (2012) Liberating the NHS: Developing the Healthcare Workforce. From Design to Delivery. Leeds, Department of Health.

DH (2013) The Education Outcomes Framework Leeds, Department of Health.

Devers K.J., Frankel R.M. (2000) Study design in Qualitative research-2: Sampling and data collection strategies. Education for Health **13** (2) 263-271

Dolan G. (2003) Assessing student nurse clinical competency: will we ever get it right? Journal of Clinical Nursing **12** 132-141

Douglas C., Osborne S., Reid C., Batch M., Hollingdrake O., Gardner G. (2014) What factors influence nurses' assessment practices? Development of the Barriers to Nurses' use of Physical Assessment scale. Journal of Advanced Nursing **70** (11) 2683-2694

Dowding D., Thompson C. (2003) Measuring the quality of judgement and decision-making in nursing. Journal of Advanced Nursing **44** (1) 49-57

Dowding D., Spilsbury K., Thompson C., Brownlow R., Pattenden J. (2009) The decision making of heart failure specialist nurses in clinical practice. Journal of Clinical Nursing **18** 1313-1324

Dreyfus H., Dreyfus S. (1985) Mind over machine New York, The Free Press.

Dreyfus H.L., Dreyfus S.E. (1996) The relationship of theory and practice in the acquisition of skill. Chapter 2 in Benner P., Tanner C.A., Chesla C.A. (1996) Expertise in Nursing Practice Caring, Clinical Judgment, and Ethics. New York, Springer Publishing.

Duffy K. (2003) Failing students: a qualitative study of factors that influence the decisions regarding assessment of students' competence in practice. Glasgow Caledonian University.

Duffy K. (2006) Weighing the Balance: A grounded theory study of the factors that influence the decisions regarding the assessment of students' competence in practice. Unpublished PhD thesis. Glasgow Caledonian University.

Elcock K.S., Curtis P. Sharples K. (2007) Supernumerary status – An unrealised ideal Nurse Education in Practice **7** 4-10

English I. (1993) Intuition as a function of the expert emergency nurse: a critique of Benner's novice to expert model. Journal of Advanced Nursing **18** (3) 387-393

Ensign J (2003) Ethical issues in qualitative health research with homeless youths. Journal of Advanced Nursing **43** (1) 43-50

Eraut M. (1994) Developing Professional Knowledge and Competence London, Falmer Press.

Ericsson K.A., Simon H.A. (1980) Verbal reports as data. *Psychological Review* **87** 215-251

Eva K.W., Norman G.R. (2005) Heuristics and biases – a biased perspective on clinical reasoning. Medical Education **39** 870-872

Evans J. St.B.T. (2008) Dual-processing accounts of reasoning, judgment and social cognition. Annual Review of Psychology **59** 255-278

Evans J. St. B.T. (2010) Thinking twice: Two minds in one brain. Oxford, Oxford University Press.

Evans J. St. B.T. (2011) Dual-process theories of reasoning: Contemporary issues and developmental applications. Developmental Review **31** 86-102

Fahy A., Tuohy D., McNamara M.C., Butler M.P., Cassidy I., Bradshaw C. (2011) Evaluating clinical competence assessment. Nursing Standard **25** (50) 42-48

Feilzer M. Y. (2010) Doing Mixed methods research Pragmatically: Implications for the Rediscovery of Pragmatism as a Research Paradigm. Journal of Mixed Methods Research **4** (1) 6-16

Ferrario C.G. (2004) Developing clinical reasoning strategies: cognitive shortcuts. Journal for Nurses in Staff Development **20** (5) 229-235

Field D.E. (2004) Moving from novice to expert – the value of learning in clinical practice: a literature review. Nurse Education Today **24** 560-565

Finch J.L. (2009) Can't Fail, Won't Fail – Why Practice Assessors Find it Difficult to Fail Social Work Students. A Qualitative Study of Practice Assessor's experiences of Assessing Marginal or failing Social Work students. Unpublished Professional Doctorate in Social Work, University of Sussex, Brighton.

Fitzgerald M., Gibson F., Gunn K. (2010) Contemporary issues relating to assessment of pre-registration nursing students in practice. Nurse Education in Practice **10** 158-163

Flick U. (2009) An introduction to Qualitative Research (4ᵗʰ ed) London, Sage.

Flyvberg B. (2001) Making Social Science Matter: Why social Inquiry fails and how it can succeed again. Cambridge, Cambridge University Press.

Fonteyn M.E. (1999) Thinking Strategies for Nursing Practice New York, Lippincott.

Forsberg E. Ziegert K. Hult H. Fors U (2014) Clinical reasoning in nursing, a think-aloud study using virtual patients – A base for an innovative assessment. Nurse Education Today **34**, 538-542

Fotheringham D. (2010) Triangulation for the assessment of clinical nursing skills: A review of theory, use and methodology. International Journal of Nursing Studies **47** 386-391

Fox M.C., Ericsson K.A., Best R. (2011) Do Procedures for Verbal Reporting of Thinking Have to be Reactive? A Meta-Analysis and recommendations for Best reporting Methods Psychological Bulletin **137** (2) 316-344

Fransella F., Bell R., Bannister D. (2004) A Manual for Repertory Grid Technique. Chichester, Wiley.

Fulton J., Bohler A., Hansen G.S., Kauffeldt A., Welander E., Santos M.R., Torarinsdottir K., Ziarko E. (2007) Mentorship: An international perspective. Nurse Education in Practice **7** 399-406

Gainsbury S. (2010) Mentors admit to passing bad students. Nursing Times **106** (16) 1-3

Gallagher A. (2005) Too clever to care? Nursing Standard **19** (18) 14-15

Gallagher P., Smith T., Ousey K. (2012) Problems with competence assessment as it applies to student nurses. Nurse Education in Practice **12** 301-303

Gass S. & Mackey A. (2000) Stimulated recall methodology in second language research. New Jersey, Lawrence Erlbaum Associates.

Gelling L. (2014) When to use mixed methods. Nurse Researcher **21** (4) 6-7

Gerrish K., McManus M., Ashworth P. (1997) Levels of achievement: a review of the assessment of practice. London, English National Board.

Gerrish K., Hill C., Mawson S., Gerrish P. (2008) A pragmatic approach to resolving tensions between the educational validity of master's projects in healthcare settings and ethical and governance requirements. Learning in Health and Social Care **8** (2) 123-134

Gibbs G.R. (2007) Analyzing Qualitative Data Book 6, The SAGE Qualitative Research Kit. London, Sage.

Gibson W.J., Brown A. (2009) Working with Qualitative Data London, Sage.

Gigerenzer G., Goldstein D.G. (1996) Reasoning the fast and frugal way: Models of bounded rationality. Psychological Review **103** 592-596

Gigerenzer G., Goldstein D.G. (1999) Betting on one good reason: The Take the Best heuristic. In Gigerenzer G., Todd P.M., & the ABC Research Group. Simple Heuristics that Make Us Smart. New York, Oxford University Press.

Gillett K. (2010) From 'part of' to 'partnership': the changing relationship between nurse education and the National Health Service. Nursing Inquiry **17** (3) 197-207

Gillett K. (2012) A critical discourse analysis of British national newspaper representations of the academic level of nurse education: too clever for our own good. Nursing Inquiry **19** (4) 297-307

Girot E.A. (1993) Assessment of competence in clinical practice: a phenomenological approach. Journal of Advanced Nursing **18** 114-119

Girot E.A. (2000) Assessment of graduates and diplomats in practice in the UK – are we measuring the same level of competence? Journal of Clinical Nursing **9** 330-337

Gladwin C.H. (1989) Ethnographic Decision Tree Modelling Book 19, Qualitative research Methods Series. Thousand Oaks, CA, Sage.

Glen S. (2009) Nursing education – is it time to go back to the future? British Journal of Nursing **18** (8) 498-502

Goldstein W.M. (2007) Social Judgment Theory: Applying and Extending Brunswick's Probabilistic Functionalism. Chapter 3 in Koehler D.J., Harvey N. (eds) (2007) Blackwell Handbook of Judgment and Decision Making Oxford, Blackwell Publishing.

Gonzi A., Hager P., Athanasou J. (1993) The development of Competency-Based Assessment Strategies for the Professions National Office of Overseas Skills Recognition Research Paper no 8, Canberra, Australian Government Publishing Service.

Gopee N. (2008) Assessing student nurses' clinical skills: The ethical competence of mentors. International Journal of Therapy and Rehabilitation **15** (9) 401-407

Goransson K.E., Ehnfors M., Fonteyn M.E., Ehrenberg A. (2008) Thinking strategies used by Registered Nurses during emergency department triage. Journal of Advanced Nursing **61** (2) 163-172

Goulet F., Jacques A., Gagnon R., Racette P. Sieber W. (2007) Assessment of Family Physician's Performance Using Patient Charts. Interrater reliability and concordance with Chart-Stimulated Recall interview. Evaluation & the Health Professions **30** (4) 376-392

Graneheim U.H., Lundman B. (2004) Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Education Today **24** 105-112

Greene J.C. (2006) Toward a methodology of mixed methods social inquiry. Research in the Schools **13** (1) 93-99

Greene J.C., Caracelli V.J., Graham W.F. (1989) Toward a conceptual framework for mixed-method evaluation designs. Educational Evaluation and Policy Analysis **11** (3) 255-274

Guest G., MacQueen K.M., Namey E.E. (2012) Applied Thematic Analysis Thousand Oaks, CA, Sage.

Hamers J.P.H., van der Hout M.A., Halfens R.J.G., Abu-Saad H.H., Heijltjes A.E.G. (1997) Differences in pain assessment and decisions regarding the administration of analgesics between novices, intermediates and experts in pediatric nursing. International Journal of Nursing Studies **34** 5 325-334

Hamm R.M. (1988) Clinical intuition and clinical analysis: expertise and the cognitive continuum. p78-109 In Dowie J. & Elstein A. (eds) Professional Judgement: A Reader in Clinical Decision-Making. Cambridge, Cambridge University Press.

Hammersley M. (1992) What's Wrong with Ethnography? London, Routledge.

Hammond K.R. (1996) Human Judgment and Social Policy Irreducible Uncertainty, Inevitable Error, Unavoidable Injustice. Oxford, Oxford University Press.

Hammond K.R., Stewart T.R. (eds) (2001) The essential Brunswik: Beginnings, explications, applications. Oxford, Oxford University Press.

Hancock H.C. Easen P.R. (2006) The decision-making processes of nurses when extubating patients following cardiac surgery: an ethnographic study. International Journal of Nursing Studies 43, 693-705

Harbison J. (2001) Clinical decision making in nursing: theoretical perspectives and their relevance to practice. Journal of Advanced Nursing **35** (1) 126-133

Hardman D. (2009) Judgment and Decision Making Psychological Perspectives. BPS Textbooks in Psychology. Oxford, BPS Blackwell.

Hart C. (1998) Doing a Literature Review London, Sage.

Hasson F., McKenna H.P., Keeney S. (2013) Perceptions of the unregistered healthcare worker's role in pre-registration student nurses' clinical training Journal of Advanced Nursing **69** (7) 1618-1629

Heaslip V., Scammell J.M.E. (2012) Failing underperforming students: The role of grading in practice assessment Nurse Education in Practice **12** 95-100

Hedberg B., Larsson U.S. (2003) Observations, confirmations and strategies – useful tools in decision-making process for nurses in practice? Journal of Clinical Nursing **12** 215-222

Hicks F.D., Merritt S.L., Elstein A.S. (2003) Critical Thinking and Clinical Decision Making in Critical Care Nursing: A Pilot Study. Heart and Lung **32** (3) 169-180.

Hoffman K.A., Aitken L.M. Duffield C. (2009) A comparison of novice and expert nurses' cue collection during clinical decision-making: verbal protocol analysis. International Journal of Nursing Studies **46** 1335-1344

Holland K. (2010) Editorial- The education of student nurses in practice: The impact of professional and workforce change. Nurse Education in Practice **10** 249-250

Holland K., Roxburgh M., Johnson M., Topping K., Watson R., Lauder W., Porter M. (2010) Fitness for practice in nursing and midwifery education in Scotland, United Kingdom Journal of Clinical Nursing **19** 461-469

Howe K.R. (1988) Against the Quantitative-Qualitative Incompatibility Thesis or Dogmas Die Hard Educational Researcher **17** 10-16

Hughes K.K., Young W.B. (1990) The Relationship between Task Complexity and Decision-Making Consistency. Research in Nursing and Health **13** 189-197

Hunt L.A., McGee P., Gutteridge R., Hughes M. (2012) Assessment of student nurses in practice: A comparison of theoretical and practical assessment results in England Nurse Education Today **32** 351-355

Hutchings A., Williamson G.R., Humphreys A. (2005) Supporting Learners in Clinical Practice: capacity Issues. Journal of Clinical Nursing **14** 945-955

Hutchison T., Cochrane J. (2014) A phenomenological study into the impact of the sign-off mentor in the acute hospital setting Nurse Education Today **34** 1029-1033

Hyatt S.A., Brown L., Lipp A. (2008) Supporting mentors as assessors of clinical practice. Nursing Standard **22** (25) 35-41

IRAS (2011) The Integrated Research Application System. [Online] Available at www.myresearchproject.org.uk [accessed 24/11/12]

Jankowicz D. (2004) The Easy Guide to Repertory Grids Chichester, Wiley.

Jennett P., Affleck L. (1998) Chart Audit and Chart Stimulated Recall as methods of needs assessment in Continuing Professional Health Education. The Journal of Continuing Education in the Health Professions **18** 163-171

Jervis A., Tilki M. (2011) Why are nurse mentors failing to fail student nurses who do not meet clinical performance standards? British Journal of Nursing **20** (9) 582-587

Jinks A.M., Morrison P. (1997) The role of the external examiner in the assessment of clinical practice….. part 1 Nurse Education Today **17** (5) 408-412

Jinks A.M., Richardson K., Jones C. (2014) A context analysis of student training records dating from the 1950/1960s: What were desirable and undesirable student nurse characteristics? Nurse Education Today **34** 526-531

JISC (2007) Methods for evaluating the learner experience of e-learning. JISC Learner experiences of e-learning. [online] Available at www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/guide-1_evaluation.pdf
[Accessed 30/06/09]

Johnson R.B., Onwuegbuzie A.J. (2004) Mixed Methods Research: A Research Paradigm whose time has come. Educational Researcher **33** (7) 14-26

Johnson R.B., Onwuegbuzie A.J., Turner L.A. (2007) Toward a Definition of Mixed Methods Research. Journal of Mixed Methods Research **1** (2) 112-133

Kahneman D. (2011) Thinking, Fast and Slow London, Penguin Books.

Kenny G. (2004) The origins of current nurse education policy and its implications for nurse educators. Nurse Education Today **24** 84-90

Keren G., Teigen K.H. (2007) Yet Another Look at the Heuristics and Biases Approach. Chapter 5 in Koehler D.J., Harvey N. (eds) (2007) Blackwell Handbook of Judgment and Decision Making Oxford, Blackwell Publishing.

King L. & Macleod Clark J.M. (2002) The role of intuition and the development of expertise in surgical ward and intensive care nurses. Journal of Advanced Nursing **37** 322-329

Lankshear A. (1990) Failure to fail: the teacher's dilemma. Nursing Standard **4** (20) 35-37

Larkin P., Begley C.M., Devane D. (2014) Breaking from binaries –using a sequential mixed methods design. Nurse Researcher **21** (4) 8-12

Last L., Fulbrook P. (2003) Why do students leave? Suggestions from a Delphi study Nurse Education Today **23** (6) 449-458

Lauder W., Roxburgh M., Holland K., Johnson M., Watson R., Topping K., Porter M., Behr A., (2008) Nursing and Midwifery in Scotland: being Fit for Practice. University of Dundee, Scotland

Lauri S., Salanterä S. (1998) Decision-Making Models in Different Fields of Nursing. Research in Nursing and Health **21** 443-452

Lauri S., Salanterä S., Chalmers K., Ekman S., Kim H.S., Kappeli S. Macleod M. (2001) An Exploratory Study of Clinical Decision-Making in Five Countries. Journal of Nursing Scholarship **33** (1) 83-90

Lauri S., Salanterä S. (2002) Developing an instrument to measure and describe clinical decision making in different nursing fields. Journal of Professional Nursing **18** (2) 93-100

Lejonqvist G.B., Eriksson K., Meretoja R. (2012) Evidence of clinical competence Scandinavian Journal of Caring Sciences **26** 340-348

Leners D.W. (1992) Intuition in nursing practice. Journal of Holistic Nursing **10** 137-153

Levett-Jones T., Gersbach J., Arthur C., Roche J. (2011) Implementing a clinical competency assessment model that promotes critical reflection and ensures nursing graduates' readiness for professional practice Nurse Education in Practice **11** 64-69

Lewin D (2007) Clinical learning environments for student nurses: key indices from two studies compared over a 25 year period Nurse Education in Practice **7** 238-246

Lincoln Y.S., Guba E.G. (1985) Naturalistic Enquiry Newbury Park CA, Sage.

Lipshitz R., Klein G., Orasanu J., Salas E. (2001) Focus article: taking stock of naturalistic decision making. Journal of Behavioural Decision Making **14** 331-352

Lloyd Jones M., Walters S., Akehurst R. (2001) The implications of contact with the mentor for preregistration nursing and midwifery students. Journal of Advanced Nursing **35** (2) 151-160

Luhanga F., Yonge O., Myrick F. (2008) Precepting an unsafe student: The role of the faculty Nurse Education Today **28** 227-231

Lyle J. (2003) Stimulated Recall: a report on its use in naturalistic research. British Educational Research Journal **29** (6) 861-878

Lyneham J., Parkinson C., Denholm C. (2008) Explicating Benner's concept of expert practice: intuition in emergency nursing. Journal of Advanced Nursing **64** (4) 380-387

Maggs – Rapport F. (2001) 'Best research practice': in pursuit of methodological rigour. Journal of Advanced Nursing **35** (3) 373-383

Manias E., Aitken R., Dunning T. (2004) Decision-making models used by 'graduate nurses' managing patients' medications. Journal of Advanced Nursing **47** (3) 270-278

Mazhindu G.N. (1995) Professional achievements in nurse education and training: a study of the personal constructs used to assess student nurses' professional achievements. Unpublished PhD Thesis. University of Reading.

McCarthy B., Murphy S. (2008) Assessing undergraduate nursing students in clinical practice: Do preceptors use assessment strategies? Nurse Education Today **28** 301-313

McDonach E., Barbour R.S., Williams B. (2009) Reflections on applying for NHS ethical approval and governance in a climate of rapid change: prioritizing process over principles. International Journal of Social Research Methodology **12** (3) 227-241.

Mead D., Hopkins A., Wilson C., (2011) Views of nurse mentors about their role. Nursing Management **18** (6) 18-23

Meenaghan A., O'Herlihy A., Durand M.A., Farr H., Tulloch S., Lelliott P. (2007) A 55kg Paper Mountain: The impact of new research governance and ethics processes on mental health services research in England. Journal of Mental Health **16** (1) 149-155

Midgley K. (2006) Pre-registration student nurses perception of the hospital-learning environment during clinical placements Nurse Education Today **26** 338-345

Mid Staffs NHS Trust (2010) Mid Staffordshire NHS Foundation Trust inquiry. Independent Inquiry into care provided by Mid Staffordshire NHS Foundation Trust: Jan 2005-March 2009. [Online] Available at http://www.midstaffsinquiry.com/documents.html [accessed 20/11/12]

Mid Staffs NHS Trust (2013) The Mid Staffordshire NHS Foundation Trust Public Inquiry. Chair – Robert Francis QC. [online] Available at http://www.midstaffspublicinquiry.com/report [accessed 2/05/14]

Miles M., Huberman A. (1994) An Expanded Sourcebook: Qualitative data analysis (2nd ed) London, Sage.

Milligan F. (1998) Defining and assessing competence: the distraction of outcomes and the importance of educational process. Nurse Education Today **18** 273-280

Moseley L.G. & Davies M. (2008) What do mentors find difficult? Journal of Clinical Nursing **17** 1627-1634

Munhall PL (1988) Ethical considerations in qualitative research. <u>Western Journal of Nursing Research</u> **10** (2) 150-162

Murray S.C. & Williamson G.R. (2009) Managing capacity issues in clinical placements for pre-registration nurses <u>Journal of Clinical Nursing</u> **18** 3146-3154

Myall M., Levett-Jones T., Lathlean J. (2008) Mentorship in contemporary practice: the experiences of nursing students and practice mentors <u>Journal of Clinical Nursing</u> **17** 1834-1842

National Nursing Research Unit (NNRU) (2014) <u>Sustaining and assuring the quality of student nurse mentorship: what are the challenges?</u> Policy plus evidence, issues and opinions in healthcare **43** June 2014. London, King's College. [online] Available at http://www.kcl.ac.uk/nursing/research/nnru/policy/By-Issue-Number/Policy-Issue-43.pdf [accessed 14/08/14]

Neary M. (1996) An investigation of the assessment of student clinical competencies during the Common Foundation Programme of Project 2000 Unpublished PhD thesis, University of Wales, Cardiff

Neary M. (2001) responsive assessment: assessing student nurses' clinical competence. <u>Nurse Education Today</u> **21** 3-17

Newell B.R., Lagnado D.A., Shanks D.R. (2007) <u>Straight Choices. The Psychology of Decision Making</u> Hove, Psychology Press.

Norman G. (2005) Research in clinical reasoning: past history and current trends. <u>Medical Education</u> **39** 418-427

Norman I. J., Watson R., Murrells T., Calman L., & Redfern S. (2002) The validity and reliability of methods to assess the competence to practice of pre-registration nursing and midwifery students. <u>International Journal of Nursing Studies</u> **39** 133-145

NMC (2004) <u>Standards of Proficiency for pre-registration nursing education.</u> London, NMC.

NMC (2005) <u>Consultations on proposals Arising from a Review of Fitness for Purpose at the Point of Registration</u> NMC Circular 31/2005. London, NMC.

NMC (2007) <u>Essential Skills Clusters for Pre-registration Nursing Programmes.</u> Annexe 2 to NMC Circular 07/2007. London, NMC.

NMC (2008a) (2nd ed) <u>Standards to support learning and assessment in practice.</u> NMC London. [online] Available at http://www.nmc-uk.org/Documents/NMC-Publications/NMC-Standards-to-support-learning-assessment.pdf [accessed 20/11/12]

NMC (2008b) <u>The code: Standards of conduct, performance and ethics for nurses and midwives</u> London, NMC.

NMC (2009) *Standards for pre-registration midwifery education.* London, NMC. [online] Available at http://www.nmc-uk.org/Educators/Standards-for-education/Standards-for-pre-registration-midwifery-education/ [accessed 2/5/14]

NMC (2010) <u>Standards for Pre-registration Nursing Education 2010</u>. NMC, London. [online] Available at http://standards.nmc-uk.org/PreRegNursing/Pages/Introduction.aspx [accessed 20/11/12]

NMC (2011) *Guidance on professional conduct for nursing and midwifery students.* London, NMC. [online] Available at http://www.nmc-uk.org/Documents/NMC-Publications/NMC-Guidance-on-professional-conduct.pdf [accessed 3/5/14]

NMC (nd) Quality Assurance Framework. For nursing and midwifery education and local supervising authorities. London. NMC. [online] Available at http://www.nmc-uk.org/Documents/EdandQA/Quality%20assurance%20framework.pdf [accessed 31/10/14]

O'Connor S.E., Pearce J., Smith R.L. Voegeli D., Walton P. (2001) An evaluation of the clinical performance of newly qualified nurses: a competency based assessment Nurse Education Today **21** 559-568

O'Driscoll M.F., Allan H.T., Smith P.A. (2010) Still looking for leadership-Who is responsible for student nurses' learning in practice? Nurse Education Today **30** 212-217

Offredy M. (1998) The application of decision making concepts by nurse practitioners in general practice. Journal of Advanced Nursing 28 (5) 988-1000

Orme L., & Maggs C. (1993) Decision making in clinical practice: how do expert nurses, midwives and health visitors make decisions? Nurse Education Today 13 270-276

Ousey K. (2009) Socialization of student nurses – the role of the mentor Learning in Health and Social Care **8** (3) 175-184

Over D. (2007) Rationality and the Normative / Descriptive Distinction Chapter 1 in Koehler D.J., Harvey N. (eds) (2007) Blackwell Handbook of Judgment and Decision Making Oxford, Blackwell Publishing.

Paley J. (1996) Intuition and expertise: comments on the Benner debate. Journal of Advanced Nursing **23** 665-671

Paley J., Cheyne H., Dalgleish L., Duncan E.A.S., Niven C.A. (2007) Nursing's ways of knowing and dual process theories of cognition Journal of Advanced Nursing **60** (6) 692-701

Paliadelis P. Cruickshank M.T. (2003) An exploration of the role that expert knowledge plays in the assessment of undergraduate clinical competence: registered nurses' experiences. Rural and Remote Health 3 [online] 191 1-9 Available from http://rrh.deakin.edu.au [accessed 20/06/10]

Parker C.G. (2014) decision-Making Models Used by Medical-Surgical Nurses to Activate Rapid Response Teams MedSurg Nursing **23** (3) 159-164

Passmore H., Chenery-Morris S. (2014) Exploring the value of the tripartite assessment of students in pre-registration midwifery education: A review of the evidence Nurse Education in Practice **14** 92-97

Paterson B., Dowding D., Harries C., Cassels C., Morrison R., Niven C. (2008) managing the risk of suicide in acute psychiatric inpatients: A clinical judgement analysis of staff predictions of imminent suicide risk. Journal of Mental Health **17** (4) 410-423

Pellatt G.C. (2006) The role of mentors in supporting pre-registration nursing students. British Journal of Nursing **15** (6) 336-340

Pena A. (2010) The Dreyfus model of clinical problem-solving skills acquisition: a critical perspective. *Medical Education Online*: **15** 4846 - DOI: 10.3402/meo.v15i0.4846 [online] Available at http://med-ed-online.net/index.php/meo/article/view/4846 [accessed 2/5/14]

Phillips J.K., Klein G., & Sieck W.R. (2007) Expertise in Judgment and Decision Making: A Case for Training Intuitive Decision Skills. Chapter 15 in Koehler D.J. & Harvey N. (eds) (2007) Blackwell Handbook of Judgment and Decision Making Blackwell Publishing, Oxford.

Phillips E.M., Pugh D.S. (2005) How to get a PhD.A handbook for students and their supervisors. (4th ed) Maidenhead, Open University Press.

Pijl-Zieber E.M., Barton S., Konkin J., Awosaga O., Caine V. (2014) Competence and competency-based nursing education: Finding our way through the issues Nurse Education Today **34** 676-678

Plakht Y., Shiyovich A., Nusbaum L., Raizer H. (2013) The association of positive and negative feedback with clinical performance, self-evaluation and practice contribution of nursing students Nurse Education Today **33** (10) 1264-1268

Polit D.F. & Hungler B.P. (1995) (5th ed) Nursing Research. Principles and Methods Philadelphia, J.B.Lippincott Co.

Pollard C., Ellis L., Stringer E., Cockayne D. (2007) Clinical education: A review of the literature Nurse Education in Practice **7** 315-322

Pretz J.E., Folse V.N. (2011) Nursing experience and preference for intuition in decision making. Journal of Clinical Nursing **20** 2878-2889

Redfern S., Norman I., Calman L., Watson R., Murrells T. (2002) Assessing competence to practice in nursing: a review of the literature. Research Papers in Education **17** (1) 51-77

Rew L. (2000) Acknowledging intuition in clinical decision making. Journal of Holistic Nursing **18** 94-108

Rischel V., Larsen K., Jackson K. (2008) Embodied dispositions or experience? Identifying new patterns of professional competence. Journal of Advanced Nursing **61** (5) 512-521

Ritchie J., Lewis J., McNaughton Nicholls C., Ormston R. (2014) Qualitative Research Practice. A guide for Social Science Students & Researchers. (2nd ed) London, Sage.

Roberts D. (2011) Grading the performance of clinical skills: Lessons to be learned from the performing arts Nurse Education Today **31** 607-610

Robinson S., Cornish J., Driscoll C., Knutton S., Corben V., Stevenson T. (2012) Sustaining and managing the delivery of student nurse mentorship: roles, resources, standards and debates. Report for the NHS London 'Readiness for Work' programme. National Nursing Research Unit, King's College London.

Robson C. (1993) Real World Research A Resource for Social Scientists and Practitioner-Researchers. Oxford, Blackwell.

Rooke N. (2014) An evaluation of nursing and midwifery sign off mentors, new mentors and nurse lecturers' understanding of the sign off mentor role Nurse Education in Practice **14** 43-48

Round A. (2001) Introduction to clinical reasoning. Journal of Evaluation in Clinical Practice **7** (2) 109-117

Rowe V.C. (2009) Using video-stimulated recall as a basis for interviews: some experiences from the field. Music Education Research **11** (4) 425-437.

Roxburgh M. (2014) Undergraduate student nurses' perceptions of two practice learning models: A focus group study Nurse Education Today **34** (1) 40-46

Rutkowski K. (2007) Failure to fail: assessing nursing students' competence during practice placements. Nursing Standard **22** (13) 35-40

Rycroft-Malone J., Seers K., Titchen A., Harvey G., Kitson A., McCormack B. (2004) What counts as evidence in evidence-based practice? Journal of Advanced Nursing **47** (1) 81-90

Saarikoski M., Marrow C., Abreu W., Riklikiene O., Ozbicakci S. (2007) Student nurses' experiences of supervision and Mentorship in clinical practice: A cross cultural perspective. Nurse Education in Practice **7** 407-415

Salvatori P., Simonavicius N., Moore J., Rimmer G., Patterson M. (2008) Meeting the Challenge of Assessing Clinical Competence of Occupational Therapists within a Program Management Environment. Canadian Journal of Occupational Therapy **75** (1) 51-60

Sarantakos S. (2005) Social Research (3rd ed) Basingstoke, Palgrave Macmillan.

Scanlan J.M., Care W.D., Gessler S. (2001) Dealing with the unsafe student in clinical practice. Nurse Educator **26** (1) 23-27

Scholes J., Webb C., Gray M., Endacott R., Miller C., Jasper M., McMullan M. (2004) Making portfolios work in practice. Journal of Advanced Nursing **46** (6) 595-603

Scholes J., Albarran J. (2005) Failure to fail: facing the consequences of inaction. Nursing in Critical Care **10** (3) 113-115

Shakespeare P.,Webb C. (2008) Professional Identity as a resource for talk: exploring the mentor-student relationship. Nursing Inquiry **15** (4) 270-279

Shaw S.E., Petchey R.P., Chapman J., Abbott S. (2009) A double-edged sword? Health research and research governance in UK primary care. Social Science and Medicine **68** 912-918

Silverman D. (ed) (2004) Qualitative Research Theory, Method and Practice. (2nd ed) London, Sage.

Simmons B., Lanuza D., Fonteyn M., Hicks F., Holm K. (2003) Clinical Reasoning in Experienced Nurses. Western Journal of Nursing Research **25** (6) 701-719

Simmons B. (2010) Clinical reasoning: concept analysis. Journal of Advanced Nursing **66** (5) 1151-1158

Simon H.A. (1982) Models of Bounded Rationality Cambridge MA, MIT Press

Skovdahl K., Kihlgren A.L., Kihlgren M. (2004) Dementia and aggressiveness: stimulated recall interviews with caregivers after video-recorded interactions. Journal of Clinical Nursing **13** 515-525

Slevin E., Sines D. (1999) Enhancing the truthfulness, consistency and transferability of a qualitative study: utilizing a manifold of approaches. <u>Nurse Researcher</u> **7** (2) 79-97

Smith A.J., Thurkettle M.A., Dela Cruz F.A. (2004) Use of intuition by nursing students: instrument development and testing. <u>Journal of Advanced Nursing</u> **47** (6) 614-622

Smith A. (2013) Using a theory to understand triage decision making <u>International Emergency Nursing</u> **21** 113-117

Smith J., Bekker H. Cheater F. (2011) Theoretical versus pragmatic design in qualitative research. <u>Nurse Researcher</u> **18** (2) 39-51

Standing M. (2008) Clinical judgement and decision-making in nursing – nine modes of practice in a revised cognitive continuum. <u>Journal of Advanced Nursing</u> **62** (1) 124-134

Stanovich K.E. (2011) <u>Rationality and the Reflective Mind.</u> New York, Oxford University Press

Stanovich K.E., West R.F., Toplack M.E. (2011) The complexity of developmental predictions from dual process models. <u>Developmental Review</u> **31** 103-118

Stevens E. (2013) Conducting interviews with failing students. <u>Nursing Times</u> **109** (8) 22-24

Strauss A.L., Corbin J.M. (1998) <u>Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory</u> Thousand Oaks, CA, Sage.

Stuart C.C. (2007) (2nded) <u>Assessment, Supervision and Support in Clinical Practice</u> a guide for nurses, midwives and other health professionals. Edinburgh, Elsevier.

Suto W.M.I., Greatorex J. (2008) What goes through an examiner's mind? Using verbal protocols to gain insights into the GCSE marking process. <u>British Educational Research Journal</u> **34** (2) 213-233

Tanner C., Padrick K., Westfall U., Putzier D. (1987) Diagnostic reasoning strategies for nurses and nursing students. <u>Nursing Research</u> **36** 358-363

Tashakkori A., Creswell J.W. (2007) The new era of mixed methods. <u>Journal of Mixed Methods Research</u> **1** 3-7

Taylor J., Irvine F., Bradbury-Jones C., Mckenna H. (2010) On the precipice of great things: The current state of UK nurse education. <u>Nurse Education Today</u> **30** 239-244

Teddlie C., Tashakkori A. (2009) <u>Foundations of Mixed Methods Research. Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences.</u> Thousand Oaks, CA, Sage.

Thompson C. (1999) A conceptual treadmill: the need for 'middle ground' in clinical decision making theory in nursing. <u>Journal of Advanced Nursing</u> **30** (5) 1222-1229

Thompson C. Dowding D. (eds) (2002) <u>Clinical Decision Making and Judgement in Nursing</u> Edinburgh, Churchill Livingstone.

Thompson C., Bucknall T., Estabrookes C.A., Hutchinson A., Fraser K., de Vos R., Binnecade J., Barrat G., Saunders J. (2007) Nurses' critical event risk assessments: a judgement analysis. <u>Journal of Clinical Nursing</u> **18** 601-612

Thompson A.G.H. France E.F. (2010) One stop or full stop? The continuing challenges for researchers despite the new streamlined NHS research governance process. BMC Health Services Research **10** 124 [online] Available at http://www.biomedcentral.com/1472-6963/10/124 [accessed 22/11/12]

Thompson C., Spilsbury K., Dowding D., Pattenden J., Brownlow R. (2008) Do heart failure specialist nurses think differently when faced with 'hard' or 'easy decisions: a judgement analysis. Journal of Clinical Nursing **17** 2174-2184

Tod A.M., Allmark P., Alison A. (2009) A practical guide to attaining research ethics approval in the UK. Nursing Standard **23** (25) 35-41

Tower M., Chaboyer W., Green Q., Dyer K., Wallis M. (2012) registered Nurses' decision-making regarding documentation in patient's progress notes. Journal of Clinical Nursing **21** 2917-2929

Tversky A., Kahneman D. (1974) Judgement under uncertainty: heuristics and biases. Science **185** 1124-1131

Twycross A., Powls L. (2006) How do children's nurses make clinical decisions? Two preliminary studies. Journal of Clinical Nursing **15** 1324-1335

UKCC (1986) 'Project 2000' A new Preparation for Practice. London, UKCC.

UKCC (1999) Fitness for Practice. The UKCC Commission for Nursing and Midwifery Education (Peach Report). London, UKCC. [online] Available at http://www.nmc-uk.org/Documents/Archived%20Publications/UKCC%20Archived%20Publications/Fitness%20for%20Practice%20and%20Purpose%20The%20UKCC%20Commission%20for%20Nursing%20and%20Midwifery%20Education%20Report%20September%201999.PDF [accessed 20/11/12]

Ulfvarson J., Oxelmark L. (2012) Developing an assessment tool for intended learning outcomes in clinical practice for nursing students Nurse Education Today **32** 703-708

Wagner A. Uttendorfer-Marek I. Weidle R (1977) Die Analyse von Unterrichtsstrategien mit der Methode des "Nachträglichen Lauten Denkens" von Lehrern und Schülern zu ihrem unterichtlichem Handeln. Unterichtswissenschaft **5** (3) 244-250

Watkins M.J. (2000) Competency for nursing practice Journal of Clinical Nursing **9** 338-346

Watson H.E., Harris B. (1999) Supporting Students in Practice Placements in Scotland Glasgow, Department of Nursing and Community Health Glasgow Caledonian University.

Watson R. (2006) Is there a role for higher education in preparing nurses? Nurse Education Today **26** 622-626

Watson R. & Gelling L. (2012) Editorial: NHS Research Ethics Committees: for whose protection? Journal of Clinical Nursing **21** 2097-2098

Watson R., Stimpson A., Topping A., Porock D. (2002) Clinical competence assessment in nursing: a systematic review of the literature. Journal of Advanced Nursing **39** (5) 421-431

Watson R., Thompson D. (2000) recent developments in UK nurse education: Horses for courses or courses for horses? Journal of Advanced Nursing **35** 1041-43

Watson S. (1994) An exploratory study into a methodology for the examination of decision making by nurses in the clinical area. Journal of Advanced Nursing **20** 351-360

Watson S. (2000) The support that mentors receive in the clinical setting. Nurse Education Today **20** 585-592

Webb C. (1999) Analysing qualitative data: computerized and other approaches. *Journal of Advanced Nursing* **29** (2) 323-330

Webb C. & Shakespeare P. (2008) Judgements about mentoring relationships in nurse education. Nurse Education Today **28** 563-571

Wells L., McLoughlin M. (2014) Fitness to practice and feedback to students: A literature review Nurse Education in Practice **14** 137-141

Wenger E. (1999) Communities of Practice: Learning, Meaning and Identity. Cambridge, Cambridge University Press.

While A.E. (1994) Competence versus performance: which is more important? Journal of Advanced Nursing **20** 525-531

Wilkes Z. (2006) The student-mentor relationship: a review of the literature. Nursing Standard **20** (37) 42-47

Willis P. (2012) Quality with Compassion: the future of nursing education. Report of the Willis Commission 2012. London, RCN. [online] Available at http://www.willscommission.org.uk/__data/assets/pdf_file/0010/486379/Willis_Commission_Report.pdf [accessed 20/11/12].

Windsor C., Douglas C., Harvey T. (2012) Nursing and competencies – a natural fit: the politics of skill / competency formation in nursing Nursing Inquiry **19** (3) 213-222

WHO (2009) Global standards for the initial education of professional nurses and midwives. Geneva, Switzerland, World Health Organization.

WMA (1964) Declaration of Helsinki. Ethical Principles for Medical Research involving Human Subjects. Ferney-Voltaire, France, World Medical Association. [online] Available at http://www.wma.net/en/30publications/10policies/b3/ [accessed24/11/12]

Yang H. & Thompson C. (2011) The effects of clinical experience on nurses' critical event risk assessment judgements in paper based and high fidelity simulated conditions: A comparative judgement analysis. International Journal of Nursing Studies 48, 429-437

Yanhua C., Watson R. (2011) A review of clinical competence assessment in nursing Nurse Education Today **31**

Yin R.K. (2003) *Case Study Research. Design and Methods.* (3rd ed) Applied Social Research Methods Series, Volume 5. Thousand Oaks, CA, Sage.

APPENDIX A: Quantitative Data Extraction Sheet for Student Practice Assessment Documents (PADs)

Placement Area / Type

Placement length

Outcome of Assessment

People identified as contributing to student assessment: MENTOR   YES   NO

TRAINEE MENTOR   YES   NO (with countersignature)

Other – please specify

<u>Process</u>

Interviews undertaken: Week of placement (eg 1-8)

Preliminary		YES	NO
Intermediate		YES	NO
Final		YES	NO
Interviews conducted at scheduled times		YES	NO
Comments provided by mentor at interview	Preliminary	YES	NO
	Intermediate	YES	NO
	Final	YES	NO
Any concerns raised during placement?		YES	NO
Concerns reported to university?		YES	NO N/A
Learning needs identified and agreed at first interview		YES	NO
Student self -assessment at mid-interview		YES	NO
Learning needs reviewed at mid-interview		YES	NO
Number of proficiencies achieved		/	not recorded
Action plan developed at mid-interview		YES	NO
Learning needs reviewed at final interview		YES	NO

APPENDIX B: PARTICIPANT INFORMATION SHEET- SIGN-OFF MENTORS

Project Title: "An investigation into mentor judgements and decisions regarding the competence of undergraduate nursing students in practice."

I am writing to you to invite you to take part in a research study. Before you decide whether or not to participate, I would like you to understand why the research is being done and what it would involve for you. Please take time to consider this information carefully and to discuss it with others if you wish. Please ask me if anything is unclear or if you would like some more information about the study. Thank you for considering participation in this project.

What is the purpose of this study?

The purpose of the study is to investigate documented decisions and the experiences of mentors forming judgements and reaching decisions concerning nursing students' competence in practice. This research is to support my PhD studies. Outcomes of this study will be used to inform future mentor training and partnership working between placement providers and universities to support student practice assessment.

Why have I been chosen?

You have been invited to participate as you have acted as a Sign-off Mentor for a final placement Adult Health nursing student. You therefore have experience as a mentor and specifically in making the final assessment of practice for a student and confirming that the required proficiencies for entry to the register have been achieved. I am looking to recruit a minimum of 16 mentors for this study.

Do I have to take part?

No. Participation is entirely voluntary and there will be no disadvantage to you if you do not wish to participate. If you do wish to take part you will be asked to provide written consent before data collection begins. Contact details (for the researcher, research supervisor and an independent contact) will be provided so that you have the chance to ask questions or discuss any issues or concerns that may arise whilst the study is in progress. You will have the right to withdraw from the study at any time.

What will happen if I take part?

If you agree to take part I will contact you to arrange an appointment to interview you. In the interview I will be asking you to talk through your recent experience of mentoring a final placement student as well as asking for your views generally on aspects of mentoring. The interview should take no more than an hour and will be audio – recorded and transcribed so that your words can be adequately captured. They will be arranged at a time and venue which is convenient for you.

What are the possible risks of taking part?

It is not anticipated that taking part in this research will incur any risks. However, it is possible that you may reflect upon experiences that were frustrating or challenging for you when you are interviewed. Please be aware that you can share as little or as much as you feel comfortable with and you are free to withdraw from

the study at any time. If you withdraw from the study, any information you have provided will be destroyed.

What are the possible benefits of the research?

 The information you provide for the study may provide new insights into student assessment tool design and the guidance and support required by mentors. Equally insights arising from the study may have implications for mentor training and partnership working between placement providers and universities to support student assessment. As an acknowledgement of the time commitment made by mentors participating in the study, all mentors who are interviewed will be provided with a Mentor Update pack to support their annual updating as required by the NMC.

Will my involvement be confidential?

Your participation in the study will remain confidential <u>unless a potential or actual risk of harm is identified.</u> In this instance information may need to be divulged to a 3rd party to ensure your safety or the safety of others (e.g. patients, students).

Any personal data or interview material will be anonymised and stored on password protected computers. Interview tapes and transcripts will be coded and no mentor name will be used or identifiable within the study. Your participation will be known only to the researcher and supervision team. Your name will not be used in any publication, though your words may be quoted. In instances where you could be identified from your words, changes will be made to protect your anonymity.

All data collected will be stored securely and disposed of at the end of the study in line with Research Governance guidance (DH 2005).

What will happen to the results?

The results of the study will be published as part of my PhD thesis, as well as written up and submitted to relevant professional journals. Aspects of the research will also be presented at relevant professional conferences. An executive summary of the findings will be sent to all participants who express an interest in receiving them. Findings will be presented to, and reviewed by HEI course teams responsible for student nurse practice assessment and mentor training and updating.

Who is organising and funding the research?

I am a member of university staff, with my employer part funding my PhD studies.

Who has reviewed the study?

This research has been approved by Faculty of Health & Social Sciences Research Ethics Committee at Leeds Metropolitan University and School Research Ethics Panel, School of Human and Health Sciences, University of Huddersfield.

Further Information

If you have any queries regarding this study please contact me:

Sarah Burden

APPENDIX C:

QUALITATIVE DATA ANALYSIS PROCESS AGAINST BRAUN & CLARKE'S 6 PHASES OF THEMATIC ANALYSIS

Phase of Thematic Analysis	Mentor comments in student PADs	Mentor comments in SR interviews
1. Familiarising yourself with the data	- Transcribed verbatim all mentor comments recorded at 3 interview points per placement. - indexing of transcripts	- Interviews digitally recorded and transcribed by researcher – parallel transcription – using speech recognition software. - indexing of transcripts - accuracy of transcript checked against recordings - completing contact summary sheets immediately post interview
2. Generating initial codes	- initial text segments extracted and coded inductively for meaning - code cards developed including details of definition, boundaries for use, examples of use and location - review of codes for overlap/redundancy, revising allocation of text segments against revised code definitions & updating code cards	- initial text segments extracted and coded inductively for meaning (without reference to codes developed from documents) - developing codes recorded in relation to stage of placement/student interview (eg preliminary, midpoint, final) to capture process and structure of comments - code cards developed including details of definition, boundaries for use, examples of use and location - review of codes for overlap/redundancy, revising allocation of text segments against revised code definitions & updating code cards
3. Searching for themes	- sorting codes into potential themes by examining similarities and differences between codes - review codes for excessive use (? Refocus definition) and co-occurrences	- sorting codes into potential themes by examining similarities and differences between codes - review codes for excessive use (? Refocus definition) and co-occurrences

Phase of Thematic Analysis	Mentor comments in student PADs	Mentor comments in SR interviews
4. Reviewing themes	- review of themes against coded data extracts. Do they form a coherent pattern and do the data extracts fit? - reread data set and check that themes represent the full data set and nothing has been missed. - are there subordinate themes that should be combined, or overlarge themes that should be subdivided (Lumper – Splitter issue Guest et al 2012) - review dimensions of theme (negative / positive comments) - review for co-occurrence of themes	- re-listen to interview recordings at this stage for accuracy of meaning conveyed in intonation, pauses etc - review of themes against coded data extracts. Do they form a coherent pattern and do the data extracts fit? - reread data set and check that themes represent the full data set and nothing has been missed. - are there subordinate themes that should be combined, or overlarge themes that should be subdivided (Lumper – Splitter issue Guest et al 2012) - review dimensions of theme (negative / positive comments) - review for co-occurrence of themes
5. Defining and naming themes	- identifying relationships between basic themes to form 'organising themes' (Attride –Stirling 2001) - identifying relationships between 'organising themes'	- identifying relationships between basic themes to form 'organising themes' (Attride – Stirling 2001) - identifying relationships between 'organising themes'
6. Producing the report	- develop thematic maps representing relationships to be found in documentary data - quantify frequency codes for themes and add to thematic maps - identify text extracts to illustrate developed codes and themes	- develop thematic maps representing relationships to be found in interview data - quantify frequency codes for themes and add to thematic maps - identify text extracts to illustrate developed codes and themes - examine and display relationship(s) between documentary and interview thematic maps – global theme (Attride –Stirling 2001) -construct narrative and identify extracts to illustrate global theme and final thematic map.

APPENDIX D: SUMMARY OF SOM DECISION MAKING AT FINAL INTERVIEW FOR STUDENT 'AK'

SOM comments documented at final interview:

"This placement has been extremely challenging for 'AK' but I feel she has grown and developed well from these challenges. At intermediate interview concerns were raised regarding attitude to other members of staff, communication skills and the way she approached patients……….. Following this performance improved, attitude to staff was less abrasive and challenging and her communication within the team improved. When working with the patients she became more aware of her own self and how she came across. She needs to take the lessons learnt in this area and implement them in future places of work."

……..

Interviewer: So how did this student then reassure you so that you were able to pass them?

SOM: I'm not sure they did…..

Interviewer: You're not sure they did? Okay……

SOM: I have some doubts, but I don't know whether those doubts are because…. She did irritate me. And I don't know whether it's because of, I didn't know whether I was picking on her in the end and whether I was picking faults with her because like I said, everything that I asked her to do she did and the other members of staff on the ward said she had improved. Yes she had improved but I don't know whether she had improved enough……. I do think she will get there but…. I don't know whether we passed her on the right conditions or not.

Interviewer: So you weren't reassured about her?

SOM: No. But I was reassured about, like I said she did do everything that I asked her to do and that's the difficult one. If she hadn't performed and did what we asked then I would not have had any problems failing her and I think it's the fact that we asked, what we asked she did. And if she's not done what you've asked then fail her clearly. But …… *(looks back at the action plan documented at midpoint interview)*………. Everything we have set out to do she's met the target, even if she has only just met the target, and if she's met the target then what can we fail her on?

APPENDIX E: Initial Codes developed from student PADs (n=45)

(Phase 2- Braun & Clarke 2006)

'mentor experiences of assessment of student'

'developed and made progress'

'MDT working'

'needs to ask and show more initiative'

'gained knowledge and insight into'

'can see when things need doing'

'pleasant, friendly and kind'

'fitted in well with the team'

'knows own limits of competence'

'completed all proficiencies'

'competent skills'

'skills development in medicines'

'skills development in wound care'

'will make a good staff nurse'

'good observational and assessment skills'

'a valued member of the team'

'has participated and been involved in'

'requires more experience with'

'learning objectives met'

'prioritisation and time management'

'performing above level of training'

'leadership and management skills'

'understood the rationale for practice'

'a pleasure to work with'

'has learnt skills in'

'learning opportunities'

'grown in confidence'

'uses initiative'

'a proactive learner'

'good with patients'

'gained independence'

'communicates effectively'

'achieved skills in workbook'

'is professional'

'will be missed'

'a competent student'

'asks appropriate questions'

'has enjoyed her placement'

'enjoyed working with her'

'would be welcome to return'

'attendance and time keeping'

'wish her all the best'

'needs to improve confidence'

'hardworking and reliable'

'will be an asset'

APPENDIX F: Initial Clustering of Codes – searching for themes

(Phase 3- Braun & Clarke 2006)

Student as a working member of the team

'pleasure to work with'   'enjoyed working with her'   'MDT working'
'can see when things need doing' 'fitted in well'   'would be welcome to return'
'enjoyed her placement'   'will be missed'   'valued member of the team'
'attendance and time keeping'   'hard working and reliable'

Student as a learner

'developed and made progress'   'has learnt skills in' 'learning opportunities'
'gained knowledge and insight'   'a proactive learner'   participated and been involved
in'
'asks appropriate questions' 'understood rationale for practice' 'needs to ask and
show more initiative' 'grown in confidence' 'uses initiative'   'gained independence'
'needs to improve confidence'

Student competency – abilities in practice

'knows own limits of competence'   'communicates effectively' 'completed all
proficiencies' 'achieved skills in workbook'   'competent skills' 'competent student'
'skills development in medicines'   'skills development in wound care' 'good
observational and assessment skills' 'learning objectives met' 'requires more
experience with' 'performing above level of training'   'prioritisation and time
management' 'leadership and management skills'

Student as an individual – potential future nurse

'pleasant, friendly and kind'   'will make a good staff nurse' 'good with patients'
'is professional'   ''wish her all the best'   'will be an asset'   'mentor experiences of
assessment of student'

APPENDIX G: Revision of Codes – the final codes (n = 25)

(Phase 2 & 3- Braun & Clarke 2006)   (original codes in parentheses)

'Student overall development and progress' *(developed & made progress, learnt skills in)*

'Development of knowledge and understanding' *(gained knowledge & insight into)*

'General development needs stills required' *(requires more experience / knowledge / skills in)*

'Student participation in learning opportunities provided' *(learning opportunities, participated & been involved in)*

'Limitations to learning opportunities or student participation' *(mentor experiences of assessment)*

'Student as an active learner' *(a proactive learner)*

'Student enjoyment in practice' *(has enjoyed her placement)*

'Knowledge base for competent practice' *(knows own limitations, understood rationale for practice)*

'Demonstrates competent skills' *(competent student, competent skills, performing above level of training)*

'Student confidence in practice' *(grown in confidence, needs to improve confidence)*

'Student initiative in practice' *(uses initiative, ask more & show initiative, can see when things need doing, gained independence)*

'Communication skills' *(communicates effectively)*

'Medicines management skills' *(skills development in medicines)*

'Wound care skills' *(skills development in wound care)*

'Assessment skills' *(good observation & assessment skills)*

'Care management skills' *(prioritisation & time management, leadership & management skills)*

'Completed NMC proficiencies and skills' *(Completed all proficiencies, achieved skills in workbook)*

'Achieved identified learning objectives' *(learning objectives met)*

'Demonstrates professional behaviours and attitudes' *(attendance & time keeping, is professional)*

'Demonstrates appropriate personal qualities' *(pleasant, friendly & kind, good with patients)*

'Fitted in and worked well within the team' *(fitted in well, MDT working)*

'A hard working, reliable & valued team member' *(hard working & reliable, valued team member, will be missed, welcome to return, will be an asset)*

'Student a pleasure to work with and mentor' *(pleasure to work with, enjoyed working with her)*

'Will make a good nurse' *(will make a good staff nurse)*

'All the best for the future' *(wish her all the best)*

APPENDIX H: Initial codes identified from sign-off mentor interview data.

(Phase 2- Braun & Clarke 2006)

Starting Placement
1. Placement orientation
2. Mentor allocation and supervision arrangements for students
3. Getting a sense of the student 'early doors'
4. Initial working with a student (reassuring practice)
5. Initial working with a student (worrying practice)

Preliminary interview
6. Scheduling of interview
7. Identifying learning opportunities
8. Setting the development plan
9. Reviewing skills workbooks & previous placements
10. Overseeing student development and progress
11. Measuring student development and progress
12. Expectations of what a student can do
13. Student confidence
14. Student development that is reassuring
15. Student development that is worrying
16. Feedback to students
17. Use of weekly meetings in final placement

Midpoint interview
18. Scheduling of midpoint interview
19. Overall sense of achievement pass / fail?
20. Concerns (that might be passed back to university)
21. Reviewing proficiencies in PADs
22. How proficiencies are achieved and assessed
23. Action when proficiencies not written up
24. Effect of documents on ways of working
25. Feedback from other staff and service users
26. Stage of student's programme
27. Between midpoint and final interview
28. Minimum expectations of practice
29. Student as a professional nurse
30. Criteria for deciding if student safe / unsafe
31. Evaluating for employability (final placement)
32. Student as a team member
33. Comparing students with other students
34. Evaluating as ready to qualify
35. Evaluating interpersonal skills of a student
36. Key criteria influencing pass / fail
37. Things that would make you fail a student
38. Influence of practice setting on decision

Final Interview
39. What is reviewed in final interview?
40. Making / communicating the decision
41. Do we look at final placement students differently?
42. Would you give the final placement student a job?
43. Mentor experiences and relationship to practice

APPENDIX I: First sort of codes into process codes and judgement codes (Phase 3 – Braun & Clarke 2006)

Process codes
1. Placement orientation
2. Mentor allocation and supervision arrangements for students
6. Scheduling of interview
7. Identifying learning opportunities
8. Setting the development plan
9. Reviewing skills workbooks & previous placements
10. Overseeing student development and progress
16. Feedback to students
17. Use of weekly meetings in final placement
18. Scheduling of midpoint interview
22. How proficiencies are achieved and assessed
24. Effect of documents on ways of working
25. Feedback from other staff and service users
27. Between midpoint and final interview
39. What is reviewed in final interview?
40. Making / communicating the decision
43. Mentor experiences and relationship to practice

Judgement codes
3. Getting a sense of the student 'early doors'
4. Initial working with a student (reassuring practice)
5. Initial working with a student (worrying practice)
11. Measuring student development and progress
12. Expectations of what a student can do
13. Student confidence
14. Student development that is reassuring
15. Student development that is worrying
19. Overall sense of achievement pass / fail?
20. Concerns (that might be passed back to university)
21. Reviewing proficiencies in PADs
23. Action when proficiencies not written up
26. Stage of student's programme
28. Minimum expectations of practice
29. Student as a professional nurse
30. Criteria for deciding if student safe / unsafe
31. Evaluating for employability (final placement)
32. Student as a team member
33. Comparing students with other students
34. Evaluating as ready to qualify
35. Evaluating interpersonal skills of a student
36. Key criteria influencing pass / fail
37. Things that would make you fail a student
38. Influence of practice setting on decision
41. Do we look at final placement students differently?
42. Would you give the final placement student a job?

APPENDIX J: Refinement of process and judgement codes (initial code numbers indicated in brackets)
(Phase 3 Braun & Clarke 2006)

Process codes
Orientation to practice setting (1)
Mentor supervision arrangements for students (2)
Scheduling and conducting placement interviews (6, 18, 39, 40)
How proficiencies are assessed and achieved (22, 24)
Negotiating and planning for student development (7, 8, 9)
Overseeing student development (10, 17, 27)
Nature of feedback provided to students (16)
The use of programme standards for assessment (21, 23)
Who contributes to the feedback of students (25)
Mentor experiences of providing feedback (43)

Judgement codes
Getting a sense of the student 'early doors' (3)
Student practice and development that is reassuring (4, 14)
Student practice and development that is worrying (5, 15)
Ongoing measurement of student achievement (11,19)
Mentor expectations for stage of programme (12, 26, 28, 33)
Student as a professional nurse (13, 29)
Raising concerns regarding student practice (20)
Criteria for deciding if a student is safe / unsafe (30)
Final placement students as ready to qualify (34, 41)
Final placement students as employable (31, 42)
Student personal qualities and attributes (32, 35)
Key criteria influencing pass / fail (36)
Reasons for failing a student (37)
Mentor expectations for area (38)

APPENDIX K: First development of process & judgement codes into themes and Organising Themes (after refinement of original codes)
(Phase 4- Braun & Clarke 2006)

Category: The mentor as a manager of the practice (learning and assessment experience)
Theme: Mentor management of supervision and assessment
Orientation to practice setting (1)
Mentor supervision arrangements for students (2)
Scheduling and conducting placement interviews (6, 18, 39, 40)
How proficiencies are assessed and achieved (22, 24)
The use of programme standards for assessment (21, 23)

Theme: Mentor management of learning and development processes
Negotiating and planning for student development (7, 8, 9)
Overseeing student development (10, 17, 27)

Theme: mentor management and provision of feedback on practice
Nature of feedback provided to students (16)
Who contributes to the feedback of students (25)
Mentor experiences of providing feedback (43)

Category: The mentor as a judge of student practice and achievement
Theme: mentor expectations of student practice *(deciding what variables to look at - 'discovering information – Newell et al 2007)*
Mentor expectations for stage of programme (12,26, 28, 33)
Mentor expectations for area (38)
? Final placement students as ready to qualify (34, 41)
? Final placement students as employable (31, 42)   or in 3rd theme

Theme: mentor having a 'sense' of the student's practice *(gathering information on the variables – 'acquiring information' – Newell et al 2007)*
Getting a sense of the student 'early doors' (3)
Student practice and development that is reassuring (4, 14)
Student practice and development that is worrying (5, 15)
Ongoing measurement of student achievement (11,19)
Student personal qualities and attributes (32, 35)
? Student as a professional nurse (13, 29) or in 3rd theme

Theme: mentor criteria for judging student practice *(add up the information gathered – 'combining information' – Newell et al 2007)*
Raising concerns regarding student practice (20)
Criteria for deciding if a student is safe / unsafe (30)
Key criteria influencing pass / fail (36)
Reasons for failing a student (37)
? Final placement students as ready to qualify (34, 41)
? Final placement students as employable (31, 42)

APPENDIX L: NMC Proficiencies (2004) for the programme (http://www.nmc-uk.org/documents/standards/nmcstandardsofproficiencyforpre_registration nursingeducation.pdf)

Common Foundation: Outcomes to be achieved for entry to the branch programme

1.1   Discuss in an informed manner the implications of professional regulation for nursing practice.

1.2   Demonstrate an awareness of the NMC code of professional conduct.

1.3   Demonstrate an awareness of, and apply ethical principles to, nursing practice.

1.4   Demonstrate an awareness of legislation relevant to nursing practice.

1.5   Demonstrate the importance of promoting equity in patient and client care by contributing to nursing care in a fair and anti-discriminatory way.

2.1   Discuss methods of, barriers to, and the boundaries of, effective communication and interpersonal relationships.

2.2   Demonstrate sensitivity when interacting with and providing information to patients and clients.

2.3   Contribute to enhancing the health and social well-being of patients and clients by understanding how, under the supervision of a registered practitioner.

2.4   Contribute to the development and documentation of nursing assessments by participating in comprehensive and systematic nursing assessment of the physical, psychological, social and spiritual needs of patients and clients.

2.5   Contribute to the planning of nursing care, involving patients and clients and, where possible, their carers; demonstrating an understanding of helping patients and clients to make informed choices.

2.6   Contribute to the implementation of a programme of nursing care, designed and supervised by registered practitioners.

2.7   Demonstrate evidence of a developing knowledge base which underpins safe and effective nursing practice.

2.8   Demonstrate a range of essential nursing skills, under the supervision of a registered nurse, to meet individual's needs.

2.9   Contribute to the evaluation of the appropriateness of nursing care delivered.

2.10   Recognise situations in which agreed plans of nursing care no longer appear appropriate and refer these to an appropriate accountable practitioner.

3.1 Contribute to the identification of actual and potential risks to patients, clients and their carers, to oneself and to others, and participate in measures to promote and ensure health and safety.

3.2 Demonstrate an understanding of the role of others by participating in interprofessional working practice.

3.3 Demonstrate literacy, numeracy and computer skills needed to record, enter, store, retrieve and organise data essential for care delivery.

4.1 Demonstrate responsibility for one's own learning through the development of a portfolio of practice and recognise when further learning is required.

4.2 Acknowledge the importance of seeking supervision to develop safe and effective nursing practice.

Branch: NMC proficiencies for entry to the register

1.1 Manage oneself, one's practice, and that of others, in accordance with the NMC code of professional conduct: standards for conduct, performance and ethics, recognising one's own abilities and limitation.

1.2 Practice in accordance with an ethical legal framework which ensures the primacy of patient and client interest and wellbeing and respects confidentiality.

1.3 Practice in a fair and anti-discriminatory way, acknowledging the differences in the beliefs and cultural practices of individuals or groups.

2.1 Engage in, develop and disengage from therapeutic relationships through the use of appropriate communication and interpersonal skills.

2.2 Create and utilise opportunities to promote the health and wellbeing of patients, clients and groups.

2.3 Undertake and document a comprehensive, systematic and accurate nursing assessment of the physical, psychological, social and spiritual needs of patients, clients and communities.

2.4 Formulate and document a plan of nursing care, where possible, in partnership with patients, clients and their carers and family and friends, within a framework of informed consent.

2.5 Based on the best available evidence, apply knowledge and an appropriate repertoire of skills indicative of safe and effective nursing practice.

2.6 Provide a rationale for the nursing care delivered which takes account of social, cultural, spiritual, legal, political and economic influences.

2.7   Evaluate and document the outcomes of nursing and other interventions.

2.8   Demonstrate sound clinical judgement across a range of differing professional and care delivery contexts.

3.1   Contribute to the public protection by creating and maintaining a safe environment of care through the use of quality assurance and risk management strategies.

3.2   Demonstrate knowledge of effective interprofessional working practices which respect and utilise the contributions of members of the health and social care team.

3.3   Delegate duties to others, as appropriate, ensuring that they are supervised and monitored.

3.4   Demonstrate key skills: literacy, numeracy, information technology & management, problem solving.

4.1   Demonstrate a commitment to the need for continuing professional development and personal supervision activities in order to enhance knowledge, skills, values and attitudes needed for safe and effective nursing practice.

4.2   Enhance the professional development and safe practice of others through peer support, leadership, supervision and teaching.