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University of Strathclyde

Department of Education

"To see oursels as ithers see us!" An exploration of student nurses' conceptions and implementation of peer review and self-assessment

By

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A thesis presented in part-fulfilment of the requirements of the degree of Doctor of Education

2013

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ACKNOWLEDGEMENTS

which I was very grateful for. Jan was also excellent at spotting errors with my early thesis writing and gave some very useful tips on rectifying the situation. Thank you, Jan.

I was very happy with my supervisory arrangements at that time and as such I found myself very disappointed when Ray advised me that he was no longer going to be employed with the University of Strathclyde. Within a few weeks, Jan also advised me that she was moving away from the University. I was four months into my third year of the course by this time. Through this disappointment there was also a feeling of gratitude for having met both of these fine people and a sense of wondering what would happen now.

My next supervisor was Dr Rowena Murray, recently promoted to Professor Rowena Murray. I had met Rowena already during one of the first year EdD modules I had completed and had been impressed by her knowledge of scholarly writing. Rowena was an inspiring supervisor who in my opinion took the role of doctoral supervisor very seriously. Supervision sessions were enhanced for me through Rowena's invitation to participate in group supervision as well as individual supervision. I had the great pleasure of meeting other doctoral students. We were all at different stages of our studies and had the opportunity of providing/receiving very useful information within this group setting. The sense of camaraderie encouraged positivity even during times of tears and frustration. Thank you, Rowena.

My independent reviewer, Dr Claire Cassidy, encouraged me to reconsider my terms of reference and the boundaries of my study, when I had thought that I had given due consideration to these. I realise that the rigour of my research has been strengthened as a result of this reconsideration. Thank you, Claire.

I could not have undertaken this doctoral level study at all had it not been for the support provided by my family, particularly Jake my husband, David my son and Sophie my Springer Spaniel dog. Their patience and support along with their unwavering belief in me is something I am most grateful for.

The Course Director, Aileen Kennedy and the teaching team on the EdD course were all inspiring and the level of feedback provided to me at each stage of the taught modules was first class. 'Thank you'.

ABSTRACT

Engagement with peer review and self-assessment potentially influences the development of self-regulatory capability (Nicol, 2010; Sadler, 2010; Boud, 2007) and therefore could be beneficial to student nurses who at the point of professional registration are required to demonstrate this capability (Nursing and Midwifery Council (NMC), 2010). However, engagement with peer review is not always a positive experience for learners. A negative peer review experience can result in loss of confidence, decreased self-esteem and withdrawal from the learning process (Duers and Brown, 2009; Ecclestone and Pryor, 2003).

The aim of this qualitative research study was to explore student nurses' (n=25) conceptions and implementation of peer review and self-assessment; an area that was identified as being under-researched (Rout and Roberts, 2007). Ethical approval was obtained.

Adoption of a non-probability, purposive sampling technique permitted selection of participants undertaking a pre-registration nursing programme within a Higher Education institution. Data collection took place on 34 occasions, utilising focus group discussion, practical task and individual interview methods.

Data analysis involved the application of six main concepts derived from the theories of the Zone of Proximal Development (Vygotsky, 1978) and Symbolic Interactionism (Blumer, 1969) to transcribed data. A potential limitation of concept-driven data analysis is its minimising effect on the emergence of new material directly from the data (Tappen, 2011), therefore Miles and Huberman (2004) 3 stage analysis model was also utilised.

The study contributes empirical evidence of student nurses' conceptions and implementation of peer review and self-assessment. A new feedback form was created and used by participants during the study; a form created by student nurses for use by student nurses in the future. Recognition of the potential of peer review and self-assessment engagement to influence the development of self-regulatory capability was verbalised by participants during the study.

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CHAPTER 1: INTRODUCTION

'TO SEE OURSELS AS ITHERS SEE US!'

AN EXPLORATION OF STUDENT NURSES' CONCEPTIONS AND IMPLEMENTATION OF

PEER REVIEW AND SELF-ASSESSMENT.

1.1: Introduction and rationale behind topic choice

Just as a candle flame can light up a dark area, this thesis set out to explore and illuminate student nurses' conceptions and implementation of peer review and self-assessment. Rout and Roberts (2007) argued from their systematic review of research papers into the topic of peer review in nursing (n=92) that despite peer review having been an area of research within nursing there was not a single research paper available to them that involved student nurses as participants; rather, the participants within the sourced and reviewed papers were nurse lecturers or qualified nurses. A gap in the knowledge base, in relation to student nurses, was thus exposed.

The candle flame requires to be kept alight through a supply of oxygen, heat and fuel, and without any one of these elements the flame will be extinguished. Likewise, my research project had three elements that kept it alive, namely personal (the oxygen), professional (the heat) and academic (the fuel) influences.

1.1.1: Personal - the oxygen supply

The 'oxygen' or 'personal' supply to the research project was provided through the desire to answer the research questions and ultimately develop a feedback tool, specific to nursing education and developed by student nurses, that would potentially prevent student nurses feeling 'torn to shreds' as a result of engaging with peer review. During Masters level research into student nurses' experiences of formative assessment (n=16) there was articulation by the student nurse participants of being 'torn to shreds', by their peers, with verbalisation of subsequent feelings of anxiety and decreased self-esteem following engagement with peer review (Duers and Brown, 2009). That study, with its small participant numbers and qualitative nature of inquiry, made no claims that negative peer review experience is a common occurrence; rather it offered insight into the possibility that, within nursing education, engagement with peer review has the potential to result in student nurses being subjected to a negative experience. Ecclestone

and Pryor (2003) recognise that when learners are exposed to negative peer review experience the impact can be that the learner withdraws from the learning process. This troubled me to think that potentially student nurses would withdraw from their studies due to something that with further exploration might be rectifiable. With retention of student nurses on the course being a high priority area currently (University of the West of Scotland (UWS), 2011), and with literature indicating that a negative peer review experience can result in withdrawal from the learning process (Ecclestone and Pryor, 2003), the exploration of student nurses' conceptions and implementation of peer review within the programme of study would appear, therefore, to be timely and important. Additionally, further study in this field satisfied a personal desire to be equipped to enter more fully into the academic community discussions on how best to engage learners in the 21st Century in the learning and assessment process.

1.1.2: Professional - the heat supply

Gopee (2001), Nicol (2010a), Sadler (2010) and Boud (2007) all put forward convincing arguments that peer review can potentially influence the development of professional self-regulation, thereby providing the 'heat' or 'professional' supply to this thesis. The professional body for nursing, namely the Nursing and Midwifery Council (NMC), requires that at the point of registration a practitioner must be capable of self-regulation. This self–regulation involves the practitioner being able to think through the consequences of action and being self-reliant (NMC, 2010). This places responsibility on the nurse teachers to prepare the student nurses in such a way as to ensure this capability at the point of course completion (NMC, 2004). However, as Bandura (1991) points out, self-regulation is a complex process that begins with development of the ability to self-monitor behaviour and then determine the effects of the identified behaviour. To be able to do this, set standards are required, against which the behaviour can be assessed and judged. Bandura (1991) asserts that these standards must take account of environmental circumstances as well as personal factors. Nicol (2011) takes this idea forward with his suggestion that learners should be involved in the setting of standards against which subsequent performance can be judged. The involvement of student nurses in the setting of criteria for peer review/self-assessment did not appear to

be an area that had been previously explored (Rout and Roberts, 2007) and thereby offered the opportunity for the study to contribute to the topic knowledge base.

1.1.3: Academic - the fuel supply

The 'fuel' or 'academic' supply to the thesis is provided through the intention to gain a professional doctoral degree and to simultaneously build on the work of Professor David Nicol, whose literature includes information on the principles of good assessment. Taking forward the ideas of Nicol (2009) about good assessment principles resulted in the study being designed in such a way as to elicit data relating to what student nurses' thoughts were of good peer review and good self-assessment. The flame was lit and exploration of student nurses' conceptions and implementation of peer review and self-assessment commenced.

1.2: Terms of reference

Within publishing, the term peer review relates to formal scrutiny of scholarly work (Ruiz, Candler and Teasdale, 2007). However, for my research study, the term peer review has been taken to mean the process by which an individual's equals (student nurses at the same stage of the pre-registration course, within the University setting) authenticate their peer's performance with a set task (Gopee, 2001). For my study the term self-assessment has been taken to mean the realistic determination of one's own strengths and weaknesses against set criteria (Boud, 2007). The term 'good' for the purposes of my study was taken to mean useful, effective and of worth to the participants.

Contemporary contributors to the academic literature on the topic of peer review and self-assessment (Nicol, 2009, 2010a, 2010b, 2011; Sadler, 2010; Boud, 2007; Topping, 2005; Orsmond, 2004; Orsmond and Merry, 2009; Bloxham and West, 2004 and Falchikov, 2001, 2005) offer information that whilst supportive of the engagement of learners with the peer review and self-assessment process during a course of study also acknowledges potential disadvantages of such engagement. The aforementioned literature indicates that becoming skilled in self-assessment and peer review positively influences the process of learning during a course of study and in lifelong learning entered into thereafter. Lifelong learning is not optional within the field of nursing

(NMC, 2010). To maintain the professional status of registered nurse, each nursing practitioner requires, on an annual basis, to confirm with the professional body that knowledge and skills base are being kept up to date (NMC, 2010) through engagement with the learning process.

The field literature also highlights that the assessment of the processes of learning and working are often best undertaken by the learners, with Nicol (2011), in particular but not exclusively, arguing that to involve the learner in the setting of criteria against which performance can be measured is a learning process in itself. Peer review and self-assessment, according to the contemporary authors named, can foster in the learner a sense of ownership of learning and responsibility for learning and this can be a motivating factor, with subsequent increased independence and less reliance on the teacher. Other transferable skills of teamwork, leadership, creative problem solving and effective communication can emerge from the processes of reflection, interchange of ideas, analysis and critical judgement of one's own work and that of others that engagement with peer review and self-assessment fosters. This process can ultimately influence the development of the self-regulatory capability, as defined previously.

Disadvantages associated with peer review and self-assessment, as illustrated within the literature of the aforementioned authors, include an initial reluctance by learners to the idea of peer review and self-assessment perhaps because of learners lacking confidence in their own evaluative ability. Less able students, according to the literature, sometimes have a tendency to grade themselves and their peers too highly, particularly in new areas of learning. Conversely, more able students can tend to mark themselves and peers lower, particularly in areas in which they are experienced. When peer review involves assessment through grading there can be problems with student collusion, with mutual awarding of each other high marks. Personality clashes may also result in lower marks being awarded than potentially should have been.

Although there is a wealth of literature on peer review, Rout and Roberts (2007) found from their international systematic review of the literature on peer review in nursing and midwifery (n=92), that literature within the student nurse context is scarce. Yates, Martin and Ash (2008) in a more recent review of literature commissioned by the

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National Cancer Nursing Education Project (EdCaN), an Australian initiative, provided a similar indication of the scarcity of literature on peer review within the student nurse context. Yates, Martin and Ash (2008) found that of articles relating to assessment of competency in nursing practice (n=52), peer review was discussed in only four. Of these four, only one related to pre-registration students and this was merely in reference to them; moreover, the actual peer review involved the assessors of pre-registration nursing students, not the students themselves (Yates, Martin and Ash, 2008).

The word 'lecturer' for the purpose of the literature review chapter of my study has been replaced by the word 'teacher'. During the writing of my literature review chapter the use of the term 'teacher' closely followed by the use of the term 'lecturer' made the text less well structured and comprehensive than when the one term was used.

The title of the research is such that the Scottish context within which the study was conducted was illustrated. This was due to the idea that when Robert Burns, a Scottish poet penned the words 'To see oursels as ithers see us' (Burns, 1785) he captured for me the idea of being able to see oneself through the eyes of another. I would argue that peer review provides a means of seeing oneself through the eyes of another.

The terms 'peer review' and self-assessment' were used within the title of my research study and there were several reasons why the title was written as it was. The first of these was that the title of my study demonstrated consistency with the 'peer review' that Gopee (2001) Nicol (2010a) Sadler (2010) and Boud (2007) refer to and the 'self-assessment' referred to by Lew, Alwis and Schmidt (2010) and Boud (2007). Also the use of the terms 'peer review' and 'self-assessment' differentiated for me two distinct stages in my research study design. The first stage being participant engagement in peer review and the provision/receipt of feedback from peers and the second stage being the process of self-assessment based on the activity on which peer review was based. The terms 'peer review' and 'self-assessment' were also familiar to the student nurse participants as these are the terms used within the institutional context of the study. Finally, by having the two distinct terms 'review' and 'assessment' access to my work when it reaches publication may potentially be widened.

1.3: Thesis summary

The first chapter provides an overview of the personal, professional and academic factors that exerted influence on the undertaking of this exploration of student nurses' conceptions and implementation of peer review and self-assessment. One such factor was the compelling research evidence that engagement with peer review and self-assessment potentially influences the development of self-regulatory capability (Nicol, 2010; Sadler, 2010; Boud, 2007). Another factor was that although potentially beneficial to student nurses who at the point of professional registration are required to demonstrate this capability (NMC, 2010), engagement with peer review is not always a positive experience for learners (Duers and Brown, 2009). Enduring a negative peer review experience can result in loss of confidence, decreased self-esteem and withdrawal from the learning process (Duers and Brown, 2009; Ecclestone and Pryor, 2003).

The second chapter reviews the literature. The literature search strategy is described within this chapter. Literature review began in 2009 on commencement of the Doctor of Education course and continued until the point of submission. Contemporary writers such as those mentioned in the first paragraph and seminal writers within the field of peer review and self-assessment, such as Black, Wiliam, Topping and Falchikov are introduced and their contributions to the knowledge and opinion base on the topic are presented. The review of literature pertaining to educational theory and research methodology and how it underpins the study is presented. Literature review influenced the setting of the research study's five research questions, namely:

1. What do student nurses think that the purpose/value of peer review is?
2. What do student nurses think that the purpose/value of self-assessment is?
3. What do student nurses think good peer review is?
4. What do student nurses think good self-assessment is?
5. How do student nurses think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value?

Chapter three contains details of the theoretical and conceptual underpinning of my study. The idea that people can learn a certain amount on their own and then require

assistance from a more experienced other (Vygotsky, 1978) and the idea that social interaction plays a part in the forming and reforming of concepts (Blumer, 1969) led me to adopt and underpin my study with Vygotsky's theory of the Zone of Proximal Development (ZPD) and Blumer's theory of Symbolic Interactionism. My analytical lens was formed through engagement with Vygotsky's and Blumer's theories. The creation of a conceptual framework provided a written/visual presentation of the main things being studied and their apparent relationship to each other (Miles and Huberman, 2004). The development of this conceptual framework from the theoretical framework adopted to underpin the study is clarified within the chapter that bridges the literature review the methodology chapters.

The fourth chapter of my thesis provides information on the methodology and methods adopted for my study. My constructivist ontological and interpretivist epistemological assumptions and rejection, for this study, of alternative assumptions about reality and how knowledge is created and shared are explained. My research design strategy and conceptual framework diagram are presented. Ethical principles and my adherence to them are critically analysed, as are the focus group discussion, practical task and individual interview methods used to collect and analyse data. My data collection strategy is presented in flowchart form.

The data collection strategy is discussed and evaluated within the fifth chapter. Data collection process stages were named 'Conceptualisation', 'Implementation' and 'Consolidation', the idea being to illustrate the 'thinking', 'doing' and 'bringing together' aspects of the data collection strategy. Methods adopted included focus group discussion, practical task engagement and individual interviews, with the use of more than one method facilitating data triangulation. Each method brought with it certain advantages and limitations and within this chapter these are exposed and strategies to minimise limiting effects are outlined. One such example is the utilisation of Nominal Group Technique (NGT) during focus group discussion to permit the voice of each participant to be heard and to minimise the potential for individual voices of dissent being silenced.

My data analysis strategy and discussion of findings is contained within chapter six. When analysing the data the conceptual tool proved to be valuable in providing for me the analytical lens through which the collected data was organised and made sense of. The application of the particular components of the conceptual tool to the data reflected the idea of concept-driven data analysis (Tappen, 2011). This concept-driven data analysis involved three aspects of Vygotskian theory being applied to the data; watching and learning from others; the passing on of beliefs and values to others; the acceptance of the less experienced by the more experienced. Three aspects of Blumer's (1969) theory of symbolic interactionism were also applied to the data. This was done through highlighting on the manuscript evidence of a participant having acted on the meaning he/she placed on something and then entering into social interaction and as a result of this having adapted, abandoned or confirmed the meaning held. However, Tappen (2011) suggests that this type of data analysis process can limit the generation of new material emerging directly from the data. Therefore in order to minimise the potential for this to happen a data-driven analysis subsequently took place. Miles and Huberman (1994) method of data analysis, that involved reduction, display and conclusions drawn from the data was applied to the data and proved useful in making sense of the information in relation to the research questions and enhanced the account of the research generated through the concept-driven analysis that took place initially.

Chapter seven provides answers to the first two of my five research questions which related to the student nurses' conceptions of the purpose and value of peer-review and self-assessment. The findings in respect to these two research questions are presented and critically discussed. The linking of these two research questions was useful for publication purposes. To have addressed all five research questions within one chapter would have been too wordy for publication and questions one and two naturally combine, as both explore student nurses' conceptions of purpose and of value. Also for the purpose of future publication a sub-title provided for this chapter was: Peer review and self-assessment purpose and value: Student nurses' conceptions revealed. The definitions of peer review and self-assessment as terms of reference were those identified by Gopee (2001) and Boud (2007) respectively.

Chapter eight provides answers to research questions three and four, relating to the student nurses' conceptions of good peer review and good self-assessment. Findings from my study are presented and critically discussed. Identical to the rationale behind the combining of research questions one and two, research questions three and four are combined, with the sub-title for this chapter being: Components of good peer review and good self-assessment: Student nurses' conceptions revealed. The definitions of peer review and self-assessment as terms of reference were those identified by Gopee (2001) and Boud (2007) respectively.

Chapter nine presents the answer to my fifth and final research question, related to the student nurses' thoughts on how the conceptions, outlined through the answering of research questions one to four, were reflected during peer review and self-assessment engagement during the study. Conceptions were reflected within a tool that took the structure of a feedback form. The process of creation of this new feedback tool, designed by participants following focus group discussions, is presented and critically discussed.

The extent to which the aim of the study was realised is critically analysed. The study contributes empirical evidence of student nurses' conceptions and implementation of peer review and self-assessment. A new feedback form was created and used by participants during the study. The limitations to my study are acknowledged. Rather than make claims I offer tentative assertions as to student nurses' conceptualisation and implementation of peer review and self-assessment, based on my small sample (n=25). What this group of nurses offered was some insight into what can and might be possible in relation to peer review and self-assessment. The impact that undertaking the study has had on me personally, professionally and academically is identified. Six recommendations for practice and training are made to take the contributions of the study forward.

The analogy of the candle flame with its three elements that enable it to shed light was used to represent the personal, professional and academic influences that underpinned the undertaking of the study in order for light to be shed on an area that was under-researched, yet integral to professional development (NMC, 2008); that of student nurses' conceptions and implementation of peer review.

1.4: Research aim

The aim of my study, therefore, was to explore student nurses' conceptions and implementation of peer review and self-assessment.

The next chapter provides a review of the literature on the topic and the subsequent influence of this literature on the development of the research questions, conceptual tool and on the research design of my study.

CHAPTER 2: LITERATURE REVIEW

2.1: Introduction

Randolph (2009) recognises that the thesis can be jeopardised through flaws in the literature review. These flaws include, for example, lack of clarity in relating the literature to the research topic and a lack of critical examination of the empirical literature research designs (Gall, Borg and Gall, 1996). In an attempt to prevent such flaws from occurring the Boote and Beile (2005) Literature Review Scoring Rubric was utilised to structure the literature review chapter. Although this rubric was created with the intention of being used as a tool for evaluating a literature review (Randolph, 2009) the rubric provided set criteria against which the quality of my literature review was measured as it developed. The five categories within this rubric, namely Coverage, Synthesis, Methodology, Significance and Rhetoric provide the subheadings that provide structure and guide the reader through the literature review chapter.

Coverage

Within this section, literature inclusion and exclusion is justified. To assist this process of justification a systematic literature search strategy was adopted. The manner in which my literature search was conducted is outlined. Hart (2008) provides a comprehensive guide to literature searching and this proved to be a useful resource in relation to my management of information. Of particular significance to me were the currency, relevance, availability and authority of the literature on the topic of peer review and self-assessment. Bruce (2001) suggests that adhering to criteria such as these prevents the exhaustive coverage of everything written about the topic, indicative of a naive approach to the literature search and selection process. She also argues that through exhaustive coverage of everything written the process of critical synthesis becomes more difficult than it need be (Bruce, 2001).

Synthesis

Synthesis involves critical examination of the literature in order to discover what is known and what still requires to be known within the topic field. Within this section, the topic is situated in the broad scholarly literature and its historical context is examined. Key vocabulary is articulated and explained. Ambiguities within the literature

are noted in order that a new perspective on the literature may emerge. The relationship between the literature and my own study is identified and clarified.

Methodology

Research methodologies and methods are examined and their associated benefits and limitations are identified, with particular emphasis on their relevance to my own study. During examination of the research methodologies and methods used by researchers the rubric designed by Cailli, Ray and Mill (2003) was used. This rubric has the following 4 elements which were considered:

1. The theoretical positioning of the researcher
2. The congruence between methodology and methods
3. The strategies to establish rigour
4. The analytic lens through which the data are examined

(Cailli, Ray and Mill, 2003:5)

Elements 2 and 3 were at times more straightforward to ascertain when reviewing the literature than elements 1 and 4. This was due to the author (s) clarifying the former and failing to explicitly outline the latter.

Significance

This section requires the practical and scholarly significance of the literature under review to be rationalised. The practical and scholarly significance of the reviewed literature is subsequently applied to my study. The way in which my research questions developed from literature review is clarified.

Rhetoric

This section provides the opportunity for some claims about the literature to be made. These claims are based on the summary, analysis and synthesis of the literature. The assumptions that have arisen through review of the literature are clarified, in order that the pre-suppositions that underpin the study are made explicit from the outset. Through utilisation of the Boote and Beile (2005) rubric a coherent, systematic and structured overview of the existing body of knowledge and opinion base within the topic field of peer review and self-assessment is now presented.

2.2: Coverage

In determining inclusion and exclusion of literature the following search strategy was adopted. The academic databases were accessed through the University of the West of Scotland (UWS) e-library using the keywords 'peer review', 'self-assessment', 'formative assessment', 'student nurses', 'nursing', 'nurses', 'education', 'methodology, 'research methods', and 'Higher Education'. Databases accessed included Cumulative Index to Nursing and Allied Health Literature (CINAHL), Ovid, Higher Education Academy, Education Resources Information Centre (ERIC) and the Electronic Management Research Library Database (EMERALD). As databases were searched the numbers of items that became available and were subsequently selected as resources on which to base my literature review were documented. Table 1 provides an example of one such recording of the literature search using the database Emerald and entering the keywords 'formative assessment', 'peer review' and 'higher education':

Search strategy			
Database Name	Keywords/Limits set	Volume of literature	Further limits set to minimize volume and improve quality of papers
Emerald	Formative assessment/no limits	1146 items	ADD 'peer review'
	'Peer review' added	Reduced volume to 254 items	ADD 'higher education'
	'Higher education' added	Reduced volume to 176 items	Show abstracts
	Abstracts read	Reduced volume to 3 items	Selection of 3 items made

Final selection	Rationale behind choice
1. Developing employability skills: peer assessment in higher education Type: Article, Research paper Author(s): Simon Cassidy Source: Education + Training; Volume: 48 Issue: 7; 2006	Why? Contemporary (post 2005) material relevant to study
2. Peer Assessment in Graduate Management Education Type: Article Author(s): John H. Kelmar Source: International Journal of Educational Management; Volume: 7Issue: 2; 1993	Why? Older material but useful references to locate seminal literature from
3. Using peer review to foster good teaching Type: Article, Case study Author(s): Sue Samson, Donna E. McCrea Source: Reference Services Review; Volume: 36 Issue: 1; 2008	Why? Contemporary material relevant to study

Table 1: Search strategy exemplar

At times Boolean logic was utilised, for example, when using the CINAHL database. This resulted in literature becoming available relating to, for example, 'peer review' 'AND' 'nurses'. Watson, McKenna, Cowman and Keady (2008) suggest that using the Boolean operator 'OR' can broaden a search considerably and this was used to source a wide range of literature. Publication dates were also limited at times to 'from 2005' in order that contemporary material was quickly sourced (Bryman, 2008). The contemporary empirical papers provided valuable references to appropriate seminal literature on the field of inquiry. The names Black, Wiliam, Vygotsky, Yorke, Nicol, Sadler and Boud were cited frequently within the contemporary literature, as were the names Topping, Falchikov, Rust and Rowntree. I therefore benefited from having names of authors, researchers and theorists whose work I could access and potentially make use of to inform my study. Utilisation of Google Scholar, entering the title of the article as cited on reference pages of the contemporary source, proved to be a very efficient way of obtaining seminal literature (Randolph, 2009).

The titles of research papers were influential in the search process. Hart (2008) argues that review of both literature relevant to the topic under investigation and literature relating to methodology and research methods are essential to a research project. The significance of Hart's (2008) argument to my own study was that through reviewing literature relevant to the topic of peer review and self-assessment work already done or in progress was identified and duplication of research previously undertaken was avoided. Errors made by other researchers and limitations acknowledged by writers when reporting their own research process raised my awareness of potential mistakes within the research process. This heightened awareness permitted me to put into place preventative measures. For example Weaver (2006) realised (after obtaining an 8% questionnaire response rate) that her timing of the data collection took her to a point during a period of time when students were preparing for summative assessments (assessment *of* learning). Weaver (2006) highlighted this as a limitation of her study, saying that student focus was totally on gaining success in these summative assessments, not on participating in a research study. The importance of timing data collection so that

the research participants were in a good position to respond to the research questions was therefore recognised and was addressed during my study.

The initial literature items that were sourced and obtained (n=203) consisted of books, empirical papers, articles and theses which assisted me in the design of my research and the gaps subsequently identified within existing empirical research helped in the justification for my study.

If the title of empirical papers clearly indicated affinity with the research topic under investigation, methodology or research methods the abstract was accessed. The abstracts then assisted in the identification of the relevance of the literature to my particular research study. I also noted the keywords used by the author(s) within the abstracts. Further keywords, for example, 'self-regulation', 'symbolic interactionism', 'Zone of Proximal Development' and 'transformational learning' emerged through this process. A further search was conducted with the inclusion of these keywords. Within this literature names that were cited frequently included Land, Meyer, Cousin, Bandura, Blumer and Vygotsky.

The credibility of the author(s) and the credibility of the journal(s) in which the article was published was an influential factor in my decision to include or exclude the literature. When author credentials were clearly stated and when the journal was peer reviewed there was more likelihood of inclusion of the literature in my review, due to the increased academic confidence I had in these papers. The initial literature search resulted in full length articles (n=190) being obtained for those abstracts that correlated well with my research topic, had the potential to add to the knowledge and opinion base, had author credentials clearly stated and were published in a peer reviewed journal. Articles were excluded when the abstract did not correlate well to my research topic, failed to add anything to the knowledge or opinion base and when the credibility of the author(s) or journal(s) became difficult to ascertain. Due to time constraints when some of the full length articles were unavailable online they were excluded immediately. However, for those articles unavailable online that were considered pivotal to the literature review a search within the actual physical libraries at UWS and the University of Strathclyde took place. An inter-library loan enabled me obtain the Blumer (1969)

book that provided valuable information on the theory of Symbolic Interactionism, as did literature from Benzies and Allen (2001) who aimed to expand the dialogue in relation to mixed method research through presentation of symbolic interactionism as an underpinning theory for such studies. The translated works of Vygotsky were also obtained through library search and purchase of 'Mind in Society' (Cole, John-Steiner, Scrivner and Souberman, 1978) and 'Thought and Language' (Kozulin, 1986). Literature search continued from the commencement of the study until the point immediately before submission of my thesis, with the most contemporary material being related to the teaching and learning of students within the ever increasing complexity of the 21st Century world in which we live and function (Barnett, 2009; 2011; 2012).

2.3: Synthesis

Critical examination of the literature illuminated what was known and what still required to be known within the topic field. However, prior to presentation of this material the topic is situated in the broad scholarly literature and its historical context examined. Key vocabulary is articulated and explained. Ambiguities within the literature are noted in order that a new perspective on the literature may emerge. The relationship between the literature and my own research study is identified and clarified.

Within publishing, the term peer review relates to formal scrutiny of scholarly work (Ruiz, Candler and Teasdale, 2007). However, for my research study the term peer review has been taken to mean the process by which an individual's equals (student nurses at the same stage of the pre-registration course, within the University setting) authenticate their peer's performance with a set task (Gopee, 2001).

Peer review and self-assessment tend to find themselves categorised as formative assessment (Black, 2000). Differentiating formative assessment from summative assessment Rowntree (1987:7) defines formative assessment as 'Diagnostic appraisal, directed towards developing the student and contributing to his growth' and summative assessment as 'Terminal tests and examinations coming at the end of the student's course, or indeed by any attempt to reach an overall description or judgement of the student'. Seminal contributors to the topic knowledge base, Black and Wiliam (1998) simplified these definitions of formative and summative assessment as the former being

assessment *for* learning and the latter as being assessment *of* learning. For Rust (2002) formative assessment is distinguished from summative assessment through its intention to assist the student to learn through the provision of feedback that can improve future performance, but at a time prior to terminal decisions being made regarding progress on a course. How much has been learnt by the student is subsequently identified through summative assessment (Hallam, Kirkton, Peffers and Stobbart, 2004).

       Contemporary contributors to the academic literature on the topic of peer review and self-assessment include Nicol (2009; 2010, 2011), Sadler (2009, 2010), Boud (2000, 2007), Topping (2005), Orsmond (2004) and Orsmond and Merry (2009). However, although there is a wealth of literature on peer review, Rout and Roberts (2007) found from their international systematic review of the literature on peer review in nursing and midwifery (n=92), that literature within the student nurse context is scarce. Yates, Martin and Ash (2008) in a more recent review of literature commissioned by the National Cancer Nursing Education Project (EdCaN), an Australian initiative, provided a similar indication of the scarcity of literature on peer review within the student nurse context. Yates, Martin and Ash (2008) found that of articles relating to assessment of competency in nursing practice (n=52) peer review was discussed in only four. Of these four, only one related to pre-registration students and this was merely in reference to them; the actual peer review involved the assessors of pre-registration nursing students, not the students themselves (Yates, Martin and Ash, 2008). Having said this, a contemporary research paper with student nurses as the participant group became available. Set in Britain and within the Higher Education context this paper provided a description of the implementation and evaluation of peer-assessment of clinical skills for student nurses and indicated the positive influence of formative assessment on clinical skills development (Rush, Firth, Burke and Marks-Maran, 2012). Further analysis of this paper is within the main body of the chapter.

2.3.1: Peer review and self-assessment: what is already known?

2.3.1.1: Historical context

Peer review and self-assessment tend to be categorised as formative assessment (Black, 2000) and Melland and Volden (1998) and Maxwell (2009) recognise this as being the type of assessment that can prepare students not only to be successful in summative assessment tasks but also more importantly to be successful in the world beyond the classroom. This is a compelling argument as it fits well into the employability and lifelong learning agendas within higher education settings, making formative assessment a contemporary topic (Quality Assurance Agency (QAA), 2009) and one that the School of Health Nursing and Midwifery and the University as a whole supports (UWS, 2008; 2012).

In recognition of the idea of preparing students for future success, Quinn (2001) claimed that assessment should not be seen simply as a way of measuring attainment but rather formative assessment should be seen as an integral component of the teaching and learning process. However, although very much in favour of formative assessment (Black and Wiliam, 1998) as a result of a meta-analysis of studies relating to formative assessment (n=250), Black (2006) claims that summative assessment will continue to predominate whilst institutional funding is reliant on assessment providing evidence of success. Interestingly, preceding Black's (2006) claim was Yorke's (2001) warning that summative assessment could be harmful to student learning because of the learner becoming more concerned with grades than reflecting on their learning. Fuelling interest in the area of formative assessment within the Higher Education setting during the early part of the 21st Century was Yorke's (2001) proposal that during the first year of study within the Higher Education setting engagement with formative assessment should be an integral aspect of the curriculum. However, at the same point in time as Yorke was arguing for increased exposure to formative assessment, Mutch and Brown (2001) highlighted the increasingly important emphasis placed on the quality assurance aspect of assessment through growing Institutional and National demands for quality improvement, which Brown (2001) recognised as including benchmarking, programme specifications and Codes of Practice. From a nursing perspective, the professional body,

named the Nursing and Midwifery Council and commonly referred to as the NMC, continue to exert influence on assessment practice within the nursing curriculum. A recent example of this was the introduction of summative numeracy testing since 2008 in each year of the three year nursing course (NMC, 2008) where a 100% pass is required in order to progress. This supports De Vries and Crozier's, (2008) suggestion that the historical, national, legal and pedagogical contexts in which institutions are rooted influence the approach to the assessment of student's learning. Wyatt-Smith and Cumming (2009) agree that internal and external bodies influence assessment practice.

Wyatt-Smith and Cumming (2009) explain that whilst teachers are attempting to progress assessment cultures through such projects as '*Assessment for Learning'* (Black, Harrison, Lee, Marshall and Wiliam, 2003; National Research Council, 2001) and the Re-Engineering Assessment Practices (REAP) project (Nicol, 2007), the large-scale, standardised testing for accountability and reporting purposes has maintained priority status by government and policy makers. Continued funding is reliant on adherence to policy so compliance is mandatory (Universities UK, 2008). However, Nicol (2007) argues that increasing student numbers within higher education settings results in directly proportionate rises in assessment costs. Diversity in backgrounds can mean that unless appropriate support systems are in place for students, progression rates will decrease, with direct effect on retention and associated loss of substantial funds for institutions when students fail to complete courses (Yorke, 2005). Formative assessment, and peer review in particular, is suggested as a way of dealing with these factors (Nicol, 2007).

Prior to Black's (2006) claim that summative assessment would continue to dominate whilst institutional funding was reliant on assessment providing evidence of success was the Quality Assurance Agency (QAA) recommendation that more emphasis was to be placed on helping students to improve their learning through formative assessment, with a subsequent decrease in the emphasis being placed on summative assessment (QAA, 2005). The recommendation was made based on what the QAA determined to be a wide acceptance, by those involved within the field of education, of the educational value of formative assessment as a way of improving learning. Indeed,

this concern with increasing student exposure to formative assessment was not merely a United Kingdom issue. Rather, it was of global interest, as illustrated by the involvement of the Centre for Educational Research and Innovation/Organisation for Economic Co-operation and Development (CERI/OECD) in the debate. Although in concurrence with the QAA (2005) recommendation for increased formative assessment within the curriculum, CERI/OECD (2005) put forward the point that large class sizes, busy curriculum and diverse students influence the wider practice of formative assessment within higher education institutions. This is a compelling argument, based on the fact that class sizes of up to 150 student nurses, from diverse backgrounds, are not uncommon within the context in which my study was undertaken.

Lines and Mason (2005) identified that the educational value of formative assessment that was accepted by the QAA (2005) was demonstrated through the provision of feedback on progress at the time of engagement with the formative assessment and the opportunity to feedforward and inform future development. However, although the idea of increasing student exposure to formative assessment and decreasing exposure to summative assessment during a course of study theoretically would appear to be straightforward the reality was not quite so straightforward. The QAA (2005; 9) also claim that 'on one hand students tend not to value anything that 'does not count', and on the other that modularity and other structural factors have conspired to squeeze out formative tasks in favour of summative ones'. A survey of students and teachers (n=1050) substantiated this idea with an account that indicated that students pay little attention to non-assessed tasks and do not attend to oral feedback as it is not recognised as being significant to their learning (Glover, 2004). Unfortunately, peer review found itself sitting within a mind-set where summative assessment 'clearly directs and motivates students' (QAA, 2005: 9) and given the fact that continuation on the course and future employment prospects are reliant on success with summative assessment the QAA (2005) were not surprised that greater emphasis was being placed on summative than on formative assessment by students. However, there is evidence within a quantitative paper that was reviewed that engagement with formative

assessment can improve summative assessment performance (Carrillo-de-la-Pen et al, 2009).

It was with academic acknowledgement of the potential for formative assessment to improve summative assessment performance (Black and Wiliam, 1989, Yorke, 2003, Nicol, 2007) that Carrillo-de-la-Pen et al (2009) examined the extent to which student involvement with formative assessment improved summative assessment performance. Adopting a quantitative methodology, the authors invited health science students (n=548) to participate in a mid-term formative assessment prior to mandatory involvement in an end of term summative assessment. Those students who participated in formative assessment obtained better mean marks than those who did not participate. The results obtained by Carrillo-de-le-Pen et al (2009) were not surprising to me as they reflect the literature evidence. However, conversely, Price, O'Donovan and Rust (2007), although in agreement that indeed literature evidence indicates that an improvement in summative performance occurs when a formative intervention takes place, expressed their disappointment when in reality within their study no tangible improvement was demonstrated. This said, Aoun (2011) recognises that within Higher Education, the concept of peer assessment has been somewhat controversial in relation its effectiveness in improving summative assessment performance for quite some time. Evidence emerging from Aoun' s (2011) reflection on the implementation of peer assessment over a two year period and set within a postgraduate unit indicates that the effectiveness of peer assessment in relation to improving summative assessment performance can be placed more at the door of process than product. Therefore it would seem that it is from the implementation rather than the concept that problems with peer assessment arise.

Price, O'Donovan and Rust (2007) conducted a mixed methods study that aimed to evaluate the putting into practice of a social constructivist assessment process model, within the Business School of a Higher Education institution. Participants (n=503) engaged with peer review prior to undertaking a summative assessment. Grades gained in summative assessment were not tangibly improved, despite peer review intervention, and the authors offer some reasons as to why this might have been the case. One such reason is the idea of students settling for being 'good enough' (Price, O'Donovan and

Rust, 2007: 150), however the authors admit that there was no evidence to support such an interpretation. The overall conclusion to the study was that the peer review intervention was unsuccessful and further research was required to determine why. Despite what other literature evidence suggests, the intervention failed. A commendation of this study might be the authors' request for collaborative work with other researchers' in the field to take forward the recommendation for further research.

When opened to further scrutiny it became evident from both of the studies that as a motivation for students to participate in the research a 'reward' of up to 5% increase in the summative assessment mark was offered by Carrillo-de-la-Pen et al (2009) and a 3% increase by Price, O'Donovan and Rust (2007). It may therefore be argued that although Carrillo-de-la-Pen et al (2009; 63) state that "In all cases, participation in the formative assessment was completely voluntary", the lure of a 5% increase may have impacted on participant decision to become involved in the research. Research confidence in this study decreased as a result of this finding although there was an appreciation that the research took place within Spanish universities (n=4) and that for human beings to participate in research there has to be something in it for them. Gray (2004) points out that the respondent must have the authority, capacity and motivation to respond. Put simply, the person needs to have access to the information required to make a response and see responding as being in their own best interests. Indeed, Price, O'Donovan and Rust (2007) base their provision of a 3% increase in summative grade to anyone who attended a peer review workshop and attached the peer review form to the work being submitted for summative assessment on what they say is 'extensive research literature about student instrumentality'. Yorke (2003) recognises that for such instrumental students formative assessment may be viewed as merely extra, non-essential work, that without grades, or perhaps the lure of a 3% increase in summative grade, attached to it is of little interest to them. My own study although designed free of any such reward was designed with the intention of being of benefit to the participant in terms of his/her learning and development.

Despite Price, O'Donovan and Rust's (2007) findings I remained influenced by Black and Wiliam's (1998) meta-analysis of studies relating to formative assessment

(n=250) and to the idea that formative assessment has the potential to be an effective way in which to promote student nurse learning due to its emphasis on assessing for improvement. Carlisle and Jordan (2005) speculate that the Russian psychologist Vygotsky may have had influence on the ideas of Black and Wiliam (1998). Indeed, within a discussion paper, Black (2000) makes reference to Vygotsky's hypothesis of the Zone of Proximal Development (ZPD). This hypothesis is that a student can learn a certain amount on her or his own. Thereafter assistance is required in order for the student to move the learning further. This assistance can take the form of encouragement or through provision of, for example, written feedback on performance to prompt the student to move to a higher level of learning (Carlisle and Jordan, 2005). However, Chaiklin (2003) in earlier work than that of Carlisle and Jordan (2005) argued in relation to what he termed 'assistance assumption' that Vygotsky was not so interested in the 'what?' but more interested in the 'why?' of the ZPD and this incorporated Vygotsky's idea of internalisation, activity theory and societal theory. These aspects of the ZPD were taken forward as conceptual tools within my own study and are further outlined later on in this chapter.

All of the aforementioned information was important to my research as it highlighted two significant factors for my consideration. The first of these is how I could best engage student nurses in my formative assessment type research study in a meaningful way and secondly how I could best facilitate the provision of feedback/feedforward in the most user-friendly way. Two goals were therefore set:

1. By the end of the data collection phase of the study student nurse participants will have engaged with a peer review and self-assessment process.
2. By the end of the data collection phase of the study student nurse participants will have created and used a peer review/self-assessment feedback form.

The manner in which these two goals were achieved is explained within chapter 4, chapter 5 and chapter 6.

2.3.1.2: Purpose and Value of peer review and self-assessment

Rust (2002) recognises that assessment itself serves many functions including grading and quality assurance for internal and external mechanisms. These two functions tend to be characteristically associated with summative assessment. Assessment also permits the provision of feedback on performance, an opportunity for learning and can act as a motivator for learning and these functions are characteristics of both summative and formative assessment (Rust, 2002). It may be argued that peer review and self-assessment, with involvement of the learners in performance evaluation, potentially fulfils these latter three functions of assessment. Additionally, a growing body of compelling evidence suggests that engagement with peer review provides the opportunity for a student to develop the complex appraisal skills necessary for development of self-regulation ability (Gopee, 2001; Orsmond, 2004; Nicol, 2010; Sadler, 2010 and Boud, 2007).

2.3.1.3: Nursing context/Self-regulatory capability

Within the context of nursing the practitioner requires to be capable of self-regulation at the point of professional registration (NMC, 2010). Self-regulation is defined as the ability to independently think through the consequences of action; to know what actions are right and important (NMC, 2010) and this Boud (2007) claims is a defining characteristic of professional work. Bandura (1991) recognises self-regulation as a complex process that begins with development of the ability to self-monitor behaviour and then determine the effects of the identified behaviour. Lew, Alwis and Schmidt (2010) and Boud (2007) agree that obtaining the key skill of self-assessment is essential to the development of self-regulatory capability. Topping (2005), an eminent writer within the field of education, claims that engagement with peer review can improve self-assessment ability. Geilen, Dochy and Onghena (2010) expressed their concern that studies relating to peer-assessment research fail to address Topping's typology and do not provide a full description of their practice. In an effort to overcome this situation Geilen, Dochy and Onghena (2010) offer a summary table of the inventory of peer assessment diversity (Appendix 1). In relation to my study, I would argue that

the practice of peer review, within the context of the undertaking of the study, has been fully described.

Topping's claim is corroborated by McPherson (2011) who found through his qualitative research into the use of peer review software by Higher Education students (n=7) that through assessment and evaluation of the work of others the ability to self-assess and self-evaluate was strengthened. Liu and Carless (2006) who undertook a large-scale survey of tertiary students (n=1740) and academics (n=460) in Hong Kong, thus providing an international stance on the topic, suggest that the reason that peer review can enable students to better assess themselves is because some skills are common to both peer and self-assessment - critical reflection, listening to and acting on feedback, sensitively assessing the work and providing feedback. Boud (1995), who is regarded as an eminent writer within the field of education (The Centre for Learning, Teaching and Assessment, 2008), recognises that to self-assess a learner requires to make judgements about what has been learnt and that peers can provide rich information for subsequent use by the learner during the self-assessment process.

Components of what is referred to by Boud (2007) as the key skill of self-assessment, include the ability of the student to realistically determine his/her own strengths and weaknesses against set criteria. However, research conducted by Orsmond, Merry and Reiling (2002) that was commissioned by the Higher Education Academy found that a peer-assessor was able to make a more objective judgement than a self-assessor when asked to assess a product. In the case of the nursing context, within which my research study was undertaken, set criteria are contained within the NMC (2008) Code. Could it be that self-assessment involves more than simply a determination of strengths and weaknesses, rather willingness on the individual's part to maintain and even improve strengths and reduce or eliminate weak aspects of performance? The literature sourced did not appear to focus at any point on this matter. I found myself wondering if self-assessment might then be set within a spectrum - being able to self-assess to being good at self-assessment. This idea took the form of a research question – "What do student nurses think good self-assessment is?" To date this appears to be a fertile area for exploration.

Topping (2005) makes the point that peer review can improve self-assessment ability, with a subsequent gain in what he refers to as metacognitive gains. Metacognition refers to knowledge of one's own thinking and those factors that influence this thinking (McCormick, 2003). As previously indicated, Nicol (2009; 2010; 2011), Sadler (2010) and Boud (2007) claim that peer review has the potential to influence the development of professional self-regulation. The Centre for Learning, Teaching and Assessment (2008) recognises these three scholars as highly influential figures within the field of education and for me this increased the likelihood that their claim has significance to my study. The significance of their assertion, that peer review has the potential to influence the development of professional self-regulation, to my own study, lies in the fact that at the point of professional registration the NMC requires that a practitioner is capable of self-regulation (NMC, 2010). This self-regulating professional will demonstrate an 'understanding of knowing what is right or what is important' (NMC, 2010:6) and the benchmark against which to judge this understanding is provided by the NMC Code (NMC, 2008).

Liu and Carless (2006) suggest that engaging learners in thinking about achieving outcomes to a certain agreed standard is a learning process in itself and Nicol (2010b) expands on this theme by stressing that with peer review, the process of reflection and development of student ability to evaluate a peer's performance has the potential to encourage students to develop objectivity in relation to criteria, which can then be transferable to the professional world, to their own work and performance. Poikela (2004) recognises that tacit and potential knowledge are weakly assessed through traditional assessment therefore peer review may offer the means through which a more rounded assessment of knowledge and skills acquisition may be made.

However, to acquire the complex appraisal skills necessary for the development of self-regulation ability it is necessary for the student to be able to make evaluative judgements on the performance of self and others and subsequently be able to explain these judgements, making use of criteria to do so (Sadler, 2010). By reviewing the work of others, Sadler (2010), Nicol (2010a) and Nicol and MacFarlane-Dick (2006) concur

that by commenting on the work of others, students develop objectivity in relation to standards which can then be transferred to their own work.

However, Knowles, Holton and Swanson (2005) put forward the point of view that the ability of adult learners to engage effectively in peer review is influenced by such things as their motivation, own needs and goals and life experience. Mezirow (1997) agrees with the aforementioned influential factors and suggests that adult learners often focus on practical short term objectives such as subject mastery and attainment of specific competencies and that this may involve instrumental learning as described by Price, O'Donovan and Rust (2007). Willingness/unwillingness or ability/inability to engage may thus be seen when adult learners are involved in peer review. This said, Knowles, Holton and Swanson (2005:66) argue that the amount and diversity of life experience that adult learners possess makes these adult learners '...the richest sources for learning', with Mezirow (1997) suggesting that adult learners desire to become socially responsible and autonomous thinkers.

Topping (2005), however, provides a warning in relation to any differential in ability or experience of learners when peer review is to take place. When the differential in ability or experience is greater between the reviewer and the reviewed the expectation is that there will be less conflict and more scaffolding during the peer review process. Conversely, there can be problems when the differential is too great or the reviewer has no greater correct knowledge than the reviewed. When this happens, according to Topping (2005), the result can be minimal cognitive engagement or worse still faulty learning. This information had implications for my research design in relation to the group participants being at the same stage of the course as each other during the peer review practical task. Therefore my study was designed so that a 1st year participant would peer review another 1st year participant, a 2nd year participant would peer review another 2nd year participant and a 3rd year participant would peer review another 3rd year participant.

In relation to the engagement of the participants with the peer review process, Black and Wiliam (1998), seminal writers within the field of education, argue that the exchange of information that takes place when human beings interact with each other

during the peer review process has the potential to lead to knowledge discovery. Honeychurch and Draper (2010) expand on the idea of this knowledge discovery by claiming that when students are encouraged to discover knowledge for themselves then better learning takes place. This confirms Rust's (2002: 4) claim that '… involving students in the assessment process can have very definite educational benefits'. What then are these benefits?

A major advantage of peer review, as identified by Gerhinger, Ehresman, Conger and Wagle, (2007) is that it allows the sharing of good practice and instantaneous personal response provision and receipt. This Nicol (2011) claims results in feedback being provided/received at a point in time when it still matters to the learner thus providing for the learner the potential opportunity to act on it. However, the complexity of peer review becomes apparent when Nicol (2010a) argues that simply transmitting this peer review information, without discussion of it, is unlikely to lead to improvement. Indeed, Nicol (2010a) puts forward the argument that in order for learning to occur as a result of engagement with peer review, the student needs to be given the opportunity to analyse what is being said by the peer reviewer, ask questions of the peer reviewer and discuss the answers given, connect this discussion to prior learning and then use what is now known to improve performance in future. A learner requires skill in negotiation techniques, tactfulness and assertiveness, if they are to provide their perspective on a peers' performance that will subsequently enable the peer to realise personal weaknesses and strengths (Sadler, 2010). Interestingly, the skills highlighted by Sadler are identical to those skills that Barnett (2012) recognises as integral to one's functioning within the ever complex 21st Century world.

An interview investigation undertaken by Orsmond and Merry (2009) developed some of the aforementioned ideas about self-assessment and self-regulation. Classified into 'high' and 'non high' achieving students based on their grade histories, third year biology students (n=36) across Universities (n=4) were interviewed. The focus of the interview was to investigate how students processed their tutors' feedback. Several key points emerged from the study. Findings indicated that 'high' achieving students sought meaning from the feedback. They tried to draw from the feedback its significance to

their own work and could then translate comments into action to improve. The students moved closer towards being capable of self-regulation. In contrast, 'non high' achieving students tended to focus on the surface details rather than search for meaning. These students also, it is reported by Orsmond and Merry (2009), found difficulty in relating the feedback to their own work. This meant that these students found it difficult to translate comments into action to improve. Evident within the 'non high' achiever group was a dependency relationship on the teacher. From these findings Orsmond and Merry (2009) argue that if teachers increased the provision of feedback to the 'non-high' achievers, the student dependency might just increase. This they claim would have the effect of removing the student further from the self-regulation that was apparent within the high achiever group. Carless (2007) also recognised this potential within his reflective account of a four-year funded project, set within a Higher Education institution in Hong Kong, that explored how assessment could be better focused on enhancing student learning. A limitation of his study was that feedback on student oriented learning was mainly provided by the teacher, his fear being expressed as the potential for this to increase student dependency on the teacher.

These studies relate to my research in terms of the indication that to move students from teacher regulation to self-regulation, alternative feedback strategies require to be designed. It supports the idea that peer review is such an alternative. The NMC (2010) consider that self-regulation can be evidenced through nurses recognizing what is right and what is important. If peer review can assist in this process then it becomes an important element within the pre-registration nursing curriculum. Although engaging with peer review can be a time consuming and confrontational experience for some learners (Ecclestone and Pryor, 2003), McPherson (2011) in a small qualitative study, set within a Higher Education institution, found that self-regulatory capability was developed through engagement with peer review.

In relation to self-regulation, McPherson (2011) found in his research into the use of PeerMark, a computer software package that facilitates the process of peer review, that engaging with peer review empowered students (n=7) to self-correct and self-regulate. One participant in this study made the point that highlighting a flaw in

another's work can result in an appreciation and identification of similar flaws in their own work. A limitation of McPherson's study may be the small participant numbers. However, Nicol (2007) and the Re-Engineering Assessment Practices (REAP) project team members had also implemented e-technology for formative assessment with large numbers of participants (n=6000) and findings were similar to those of McPherson in relation to development of self-correction and self-regulation capabilities. The REAP project was driven by the Scottish Funding Council's e-learning transformation programme and had both an educational and a practical purpose (Nicol, 2007). Its educational purpose was to develop student capability in self-regulating their learning. Developing the capability of self-regulation, according to Nicol (2007), prepares the student for lifelong learning.

The significance of this to my research is that when the student nurses complete their pre-registration course, the NMC requires that each nurse is capable of self-regulation so development in this area would be exceptionally useful prior to registration with the professional body. A main underpinning assumption within the REAP project was that students required a more active role within the assessment processes if they were to become self-regulating learners (Nicol, 2007). The significance of this to my own study lies in the involvement of the student nurse participants in the creation of a peer review/self-assessment feedback form; on the assumption that an active role in this aspect would result in associated self-regulation ability enhancement.

The REAP project's practical purpose was to decrease teacher assessment workload whilst increasing the quality of learning and assessment for the student (Nicol, 2007). It may be tentatively argued that reducing costs was also a purpose of this project: increased student numbers also equate to an increase in room bookings (real estate) and administration support, so perhaps e-technology could reduce this impact through students working external to the Higher Education setting.

Nicol (2007) also claims that technology-supported formative practices can reduce staff time on assessment. However, when Nicol's (2007) claim was opened to further scrutiny, not all redesigns resulted in reduced teacher time on assessment. At times, it merely redistributed it. The REAP project did, however, Nicol (2009) claims,

demonstrate learning improvements in some of the redesigned modules, for example, exam performance improvement and failure rates reduction. Data collected via focus group discussion and questionnaire responses indicated improved student satisfaction in all of the redesigned modules (Nicol, 2009).

It is not clear from the literature whether or not the participants had choice in the matter of becoming involved in the REAP project. It may tentatively be argued, on the basis of the funding body's vested interest, that the e-learning transformation was going to happen irrespective of participant willingness to be involved. However, Nicol (2007) indicates outcomes of this initiative were the beginnings of self-regulated learners with improved grades. It may be argued that if formative assessment practice can be proved effective with 6000 students then the process should be easily transferrable into the student nurse curriculum where the student numbers are less than this. However, Bennett and Gitomer (2009) urge caution in relation to placing tests on computers without first understanding how students learn and how the technology can be used to allow for complex assessment questions, which require complex student answers. Absence of this understanding will lead to no substantive change in assessment practice (Bennett and Gitomer, 2009). Certainly, the e-technology employed within the REAP project was not simply computer tests, for example audience response systems were utilised within class settings (Nicol, 2007).

From this earlier work, Nicol (2010b) is clear that learners require to be given the opportunity for regular exposure to peer review and self-assessment, although this in itself is not sufficient to develop capability for self-regulation. Students also require the ability to critically evaluate their own and their peers' work/performance. Providing students with exemplars of differing quality of performance by previous cohorts may assist this process (Merry and Orsmond, 2004; Sambell, 2011). Sadler (2010) suggests that this capability can develop through the student making evaluative judgements and then explaining these judgements; however, he does suggest that students prefer to be reviewed rather than review due to the perceived responsibilities associated with peer review. Nicol (2011) suggests that it is the assessment aspect of peer review that proves challenging and Cassidy (2006) in a mixed methodology study confirms this suggestion

with the argument that it is inexperience that exerts influence on the preference to being assessed over assessing a peer. Falchikov (2001), described by Liu and Carless (2006: 282) as 'probably the most prominent writer on peer involvement in assessment', put forward the point that students dislike having power over their peers or peers having power over them. Brew (1999) argued that to assess someone's performance is to have power over a person with Liu and Carless (2006) suggesting that power relations impact on students due to the audience for their work no longer being the teacher but also their peers. However, Welsh (2007) recognised that discomfort over assessing peers diminished over time and similar to Nicol (2010b) argues that regular exposure to peer-assessment is necessary for this initial discomfort about evaluating a peer to reduce.

In relation to the value of peer review, Cassidy (2006) explored the potential of peer-assessment to influence the development of employability skills of Higher Education students (n=41). Data collection was via self-report questionnaires and an open discussion, following a peer-assessment exercise. Nicol (2010b) asserts that this discussion is integral to the peer review process if learning from it is to take place. Cassidy's study indicates that peer-assessment has the potential to influence the development of employability skills. However, for this potential to be realized, clear guidance and a structured framework for peer review are recommended. Although Cassidy (2006) found that participants' attitudes towards peer-assessment are positive he found, in concurrence with Sadler (2010) that students prefer being assessed to assessing their peers because of the perceived responsibilities associated with peer review, as discussed previously.

The relevance of this research to my own research study lies in self-regulation being an employability skill required by the NMC (2010) at the point of professional registration.

Cassidy's use of purposive sampling ensured that students with previous exposure to peer review were selected for participation in the study. Bryman (2004) considers that sampling in this manner can assist in the correspondence between the research questions and the participants. That is, people who are in the position of being able to answer the research questions are asked to participate. If someone has had no

experience of engagement with peer review and the research involved exploring their experience of peer review there would be little to be gained from asking the person to participate. Additionally the researcher could place the person in an awkward position and this would have ethical implications (Scottish Educational Research Association (SERA), 2005; British Educational Research Association (BERA), 2004).

The claims made by Cassidy (2006) and Sadler (2010) regarding peers' assessing one another are supported by the findings of a qualitative study undertaken more recently (Rush, Firth, Burke and Marks-Maran, 2012). Rush, Firth, Burke and Marks-Maran (2012: 225) found that student nurses (n=158) were '… almost unanimously positive about being assessed by peers'. Perhaps a criticism of this study may be the wording of this finding, when the unanimous nature of the student nurse opinion is left open to question through the inclusion of the word 'almost'. It might be argued that either the student nurses were unanimously positive about being assessed by peers or they were not.

In relation to the clear guidance and structured framework that Cassidy (2006) recommends, Lui and Carless (2006) put forward an argument that engaging learners in thinking about achieving outcomes to a certain agreed standard is a learning process in itself. Lui and Carless (2006) argue that peer-feedback is preferable to peer-assessment in its potential to improve student learning. They base an argument for engagement of students with criteria and for the embedding of peer involvement in curriculum on Lui's (2005) large scale survey of tertiary students (n=1740) and academics (n=460) in Hong Kong. The aim of the survey was to obtain information on assessment beliefs and experiences and it is these survey findings that permitted Lui and Carless to present the aforementioned argument. The work of Lui and Carless is supported by Hounsell, Xu and Tai (2007). This is of significance to my research in relation to the student nurse participants' creation of a feedback form that they subsequently used during engagement with peer review and self-assessment.

Engagement with peer review offers students the opportunity to develop the ability to scrutinise, analyse and evaluate a peer's performance (Gerhinger, Ehresman, Conger and Wagle, 2007). This brings with it the developing ability to articulate the

summary of the performance and make suggestions as to how performance might be improved in future. In so doing, communication skills can develop (Gerhinger, Ehresman, Conger and Wagle, 2007) not just for the person reviewing but also for the person being reviewed (Topping, 2005). The potential sharing of good practice, the learning from one another and the gaining of insight into one's own development that can happen during peer review is cited by Rout and Roberts (2007) as yet a further advantage that can facilitate personal and professional growth.

However, when peer review and self-assessment activities were introduced to level 2 biochemistry students (n=not provided) the students found difficulty with the idea of assessing their friends (Assender, 2004). A solution to this problem, according to Nicol (2011) is to refrain from asking students to criticize each other's work and instead encourage the students to highlight an area for improvement or an issue that would be worthwhile for the peer to address in the future.

Sluijmans, Brand-Gruwel, Van Merrienboer and Martens (2004) suggest that there is a necessity for students to be trained in peer review techniques. In relation to this point, Yorke and Knight (2004) recognise that it is necessary for the students participating in the peer review process, to be open to their own limitations, ignorance and the resultant mistakes that this may lead to. This, Yorke and Knight (2004) recognise, is not always easy for students and can negatively influence the feedback on performance that is provided/received.

Empirical research indicates that when negative peer review is experienced the results can be long lasting and damaging to self-esteem and confidence (Ecclestone and Pryor, 2003; Duers and Brown, 2009). Ecclestone and Pryor's (2003) research intention was to gain insight into learners' identities and dispositions for learning. From findings they provide a warning in relation to consequences of involvement with a negative peer review experience. In their action research study, involving students (n=25) and teachers (n=9) from two English Further Education Colleges, Ecclestone and Pryor (2003) found that enduring a negative peer review experience can have a lasting impact on student self-esteem and subsequent withdrawal from the learning process. Duers and Brown (2009) in an exploration of student nurses' (n=16) experiences of formative assessment

found that a peer review experience of 'being torn to shreds' resulted in anxiety, decreased self-esteem and decreased confidence. These findings are significant to my study in relation to engaging the student nurses in positive experience of peer review and self-assessment through identification of other components of these processes.

2.3.2: Peer review and self-assessment: what is not yet known?

At the conception of my research study, a gap in the knowledge and opinion base in relation to student nurses' conceptions and implementation of peer review and self-assessment, was identified through a systematic review of literature on peer review in nursing conducted by Rout and Roberts (2007) who found that although student nurses are engaging with peer review during their course of study there remains a paucity of robust literature into this engagement. This claim was based on a systematic review of literature (n=52) on peer review in nursing. From the international research papers sourced (n=92) and reviewed (n=52) there were only ten of these that originated from the UK. These 10 included qualitative, quantitative and mixed methodology papers. Although 92 papers on the topic had been sourced by Rout and Roberts there were only 52 reviewed and the reason provided by the authors for this was that some of the papers replicated others. Hart (2008) recognises a systematic and structured search and review of the literature potentially prevents the replication of studies that have previously been undertaken, perhaps indicating that authors of some of the papers sourced by Rout and Roberts (2007) had not conducted the systematic and structured search and review that Hart (2008) advises.

Of great significance to my research study was the indication that there was no paper sourced that focussed on peer review among student nurses, thereby illuminating a potential gap in the knowledge base. Of the UK papers reviewed research focus was based on peer review among staff in education and peer review among staff in practice. A criticism of Rout and Roberts' (2007) systematic review would be that the search strategy utilised in the sourcing of research papers on the topic is so briefly explained in their paper that its systematic and rigorous nature remains unknown. To avoid this criticism in my own research study my search strategy was clarified at the beginning of this chapter. It is appreciated that when papers are accepted for publication word

limitation may prove to be a constraining factor in authors providing greater detail regarding such information as the search strategy utilised.

Since the commencement of my study a contemporary paper has become available that does relate directly to student nurses within a Higher Education setting in Britain (Rush, Firth, Burke and Marks-Maran, 2012). This qualitative research study involved student nurse participants (n=320) and the aim of the paper was to describe the implementation of a peer-assessment scheme for clinical skills. Information is supplied that indicates that questionnaires were used to collect data and the response rate was 49.4%. However, the questionnaire is not made available to the reader. The questionnaire would seem to be a less than obvious choice of data collection instrument when determining people's experiences of something; there may be an instant response to questions rather than a reflective and critical response (Bryman, 2004). Also, questionnaires can be limited in the amount of information obtained regarding people's feelings and experiences (Ellington, Percival and Race, 1995). The number of participants cited made me review the qualitative nature of the paper as such a number of participants may be more common within quantitative studies (Bryman, 2008). However, it would seem that the aim of Rush, Firth, Burke and Marks-Maran's (2012) study was not to seek in-depth information regarding participant experience of peer-assessment. The criteria against which peers were assessing/being assessed was that of the Essential Skills Clusters (ESCs) developed by the NMC (2008). Therefore the student nurses themselves were not involved in the setting of the criteria. Nicol (2010b) argues that learners should be involved with setting criteria for assessment to be as beneficial to the learning process as possible. My study differs from Rush, Firth, Burke and Marks-Maran's (2012) study in its research intention, methodology and methods employed.

In recent years, Professor David Nicol has been influential in disseminating information regarding what makes a good assessment. Nicol (2009) identified twelve principles of good assessment and feedback practices (Appendix 2). However, the paper appears to be written with emphasis on guiding teachers to adopt the principles when assessing students. Following due consideration of these principles, a notion began to

ignite regarding the extent to which these principles could be useful to student nurses within the self-assessment process. Similarly, with self-assessment being integral to the development of self-regulation ability (Lew, Alwis and Schmidt, 2010), and peer review assisting in this process (Nicol, 2010; Sadler, 2010) theory development around what good self-assessment is, may prove to be beneficial to the educational community. Whether or not good peer review and good self-assessment exist in the world of the student nurse, and whether being good at one necessarily means being good at the other, are areas where literature appears to be scarce at this time (Rout and Roberts, 2007), thereby indicating a fertile area for further exploration.

2.4: Methodology

The impact of ontological and epistemological assumptions on the adoption of particular methodology is debated within the literature, with claims made that a researcher's own basic beliefs can influence their adoption of a particular ontological and epistemological stance (Polit and Beck, 2006; Holloway, 2005; Cohen, Mannion and Morrison, 2005; Bryman 2008). Although Oliver (2010) recognises the influence of ontological assumptions on the research process he argues that the aims of the proposed research should guide the decision as to the methodology that will be adopted and subsequently the data collection instruments and method that will be utilised. However, Hek, Langton and Blunden (2000) recognise aims more as providing a benchmark against which the extent to which the study achieves what it set out to do can be evaluated.

Avis (2005) questions whether or not epistemological assumptions are actually beneficial in leading a researcher to adopt a particular methodological approach and suggests that perhaps the research questions should be the prompt to research design, rather than the researcher's epistemological orientation. This, Avis (2005) claims, is because of the practical implications of not having to embark on the merry go round of defining what qualitative research actually is, which Avis (2005) argues is normally to define such qualitative methods as not quantitative, and vice versa. In relation to this quantitative/qualitative debate, Cousin (2009) offers a convincing argument in relation to quantitative and qualitative research not being polar opposites but rather that both

involve interpretation, a certain degree of objectivity/subjectivity and numeracy in some shape or other. In relation to orientation towards objectivity, Paley (2005: 201) puts forward the claim that:

> '... to 'believe in' objectivity is simply to accept that there is a distinction between how it seems and how it really is, and that we determine which is which by adopting a universally agreed procedure (for example some form of universal measurement)'.

Accepting that there can be a distinction between how it seems and how it really is, I would argue that the 'universal measuring' of human beings, as social entities, is not quite as straightforward a process as 'universal measuring' of some physical object might be.

There is also evidence of on-going debate between the proponents of the qualitative approach to research design and those whose ontological and epistemological stance directs them towards adoption of a quantitative paradigm, in particular as to such aspects as the positivist research terms of validity, reliability and generalisability of studies (Paley, 2005a). To explain this further, Paley (2005a:207) offers his opinion that what he refers to as 'paradigm tables' can actually hinder the researcher, by encouraging the thinking that by accepting certain ideas of 'validity, objectivity and truth the researcher is directed into accepting such things as certainty, realism, correspondence...' This he argues is an unnecessary burden and his solution is to recommend abandonment of the idea that objectivity and truth necessarily require certainty, realism and correspondence, and embrace the idea that objectivity can assist in illuminating error and illusions within the research study. Lui and Matthews (2005) highlight that what can be viewed as a 'paradigm' by some people can be viewed as a 'theory' by others, as in the case of constructivism. This idea is of significance in relation to my own study in relation to the clear identification of terms of reference.

Inter-changeability of research terms within the literature was evident during the review process. What Cohen, Mannion and Morrison (2005) term as nominalism is termed by Bryman (2008) as constructivism. Both terms refer to alignment with the ontological assumption of social reality being subjective and the result of individual

cognition. Constructivism is defined by Bryman (2004: 538) as an *"Ontological position that asserts that social phenomena and their meanings are continually being accomplished by social actors"*

Similarly, the assumptions of social reality being external and objective for Cohen, Mannion and Morrison (2005) were termed realism, whereas for Bryman (2004) this same assumption was termed objectivism. Irrespective of the terms used, in relation to my research topic of peer review and self-assessment, assumptions that concepts exist outside and independent of the student nurse participant's interpretation of them, were less believable to me, than those assumptions that there are multiple and diverse realities that are context dependent.

The exploratory nature of my research aim with its focus on meaning and interpretation directed me towards the adoption of a qualitative research approach. Had my aim been to test a particular hypothesis the adoption of a more positivist approach, which "strives for measurability, predictability and the ascription of causality" (Cohen, Manion and Morrison, 2005: 28) would have perhaps been a more appropriate choice. There was within my particular research study no specific hypothesis or theory to be tested. Rather, there was a desire to search for the meaning and understanding that student nurses hold of the peer review and self-assessment process. The reality of this was neither fixed nor pre-determined and this further to the fact that there was no specific hypothesis to be tested guided me to reject the quantitative approach in favour of the qualitative approach for the proposed research study. Unfortunately, however, Sandelowski (2000) suggests that within a research design hierarchy where 'true' prediction and control experiments are the gold standard, qualitative researchers feel the need to defend their research design. This can involve the researchers seeking what Sandelowski refers to as epistemological credibility through categorisation of the research as phenomenological, ethnographic, grounded theory or naturalistic.

However, Cailli, Ray and Mill (2003) as a result of reviewing manuscripts and grant proposals found that an increasing number of qualitative studies had not designated their work as phenomenological, ethnographic, grounded theory or naturalistic. Rather these studies were generic in nature and rigorous criteria for design and evaluation of such

studies were unavailable thereby prompting Cailli, Ray and Mill's (2003) analysis of generic qualitative research approaches. Recognising that quantitative methods stem from the objectivist or positivist philosophy and qualitative methods stem from constructivist philosophy, Cailli, Ray and Mill (2003) argue that given that knowledge development is a central aim of any research, within generic qualitative studies the researcher's understanding of the importance of an epistemological or theoretical position from which to underpin the research requires to be demonstrated. To demonstrate this understanding Cailli, Ray and Mill (2003) suggest that the researcher addresses four key areas:

1. The theoretical positioning of the researcher
2. The congruence between methodology and methods
3. The strategies to establish rigour
4. The analytic lens through which the data are examined

(Cailli, Ray and Mill 2003:5)

This rubric was used during literature review and also applied to my study design.

The significance of the aforementioned literature to my study lies in the necessity for clarification of my motives, assumptions adopted and a personal history that led to the undertaking of the research. Cailli, Ray and Mill (2003:5) are clear that choice of topic on which to concentrate research study is never a 'naïve choice' and therefore is underpinned by personal values that are brought into play. The idea of 'bracketing' these personal values is itself a matter of debate within the literature. Meyer and Land (2003) argue that once a concept is 'known' it is impossible for it to become 'unknown' in the mind of the researcher. Cailli, Ray and Mill (2003) make reference to the ideas of the critical scholars for whom the putting aside of pre-suppositions through the process of 'bracketing' as being untenable and undesirable. In relation to my own study, Davies (2007) puts forward the argument that I perceive the world and reality in a unique way, due to my life experience to date. Davies (2007) expands on this theme through provision of a caution regarding the necessity to consider the impact of my ontological orientation on my ability to maintain research neutrality. This concept of research neutrality was acknowledged when my epistemological assumption of interpretivist,

with its associated tendency to dispute the notion of research neutrality was adopted. My interpretation of 'bracketing' was to employ a strategy whereby my pre-suppositions and assumptions were identified and managed in order that the generated account of the research was as accurate and truthful as it possibly could be. Engaging in a process of reflexivity throughout the entire study assisted in this process.

The examination and uncovering of my place as a researcher in the research process is identified by Holloway (2005) by the term reflexivity. Streubert and Carpenter (2011) use the term 'self-reflection' when describing reflexivity. Reflexivity according to Carolan (2003:8) '… is a term that is widely used, with a diverse range of connotations, and sometimes with virtually no meaning at all'. However, in concurrence with Koch (2006) who recognises reflexivity as emphasising the importance of self-awareness, political/cultural consciousness and ownership of one's own perspective and thereby adding credibility to the research, Jootun, McGhee and Marland (2009:42) suggest that 'Reflecting on the process of one's research and trying to understand how one's own values and views may influence the findings adds credibility to the research and should be part of any method of qualitative inquiry'. I thus determined my positionality in relation to my study through identification of the internal positive and negative aspects of me as a researcher; my strengths and weaknesses. I also determined opportunities and threats to me as a researcher.

Distinguishing methodology from methods prevented speculation about the research approach. Development and utilisation of my conceptual framework acted as a facilitation mechanism for the demonstration of rigour within the research process (Evans, 2002) through providing the transparency of the research process that Burgess, Seiminski and Arthur (2006) consider as being integral to effective demonstration of rigour. My analytic lens, i.e. how I engaged with the data, involved using concepts derived from Vygotskian theory and from Blumer's (1969) theory of symbolic interactionism and applying them to the data during analysis.

Review of the empirical literature facilitated insight into how other researchers approached the research design process. As the empirical literature was reviewed it became evident that at times perhaps Hewitt-Taylor's (2011:13) common sense

argument that during research '… the best way to find something depends on what it is you are trying to find' was perhaps discounted by researchers. The following two qualitative papers provide examples to explain this assertion.

Koh (2009) aimed to explore nurse teachers (n=20) perspectives of formative assessment, via a single, one-to-one semi-structured interview yet she employed a convenience rather than a purposive sampling technique. Koh's (2009) method of sampling could therefore perhaps be open to criticism as she employed convenience sampling which Bryman (2004) considers as a poor way to sample. This is due to the fact that people may be recruited as participants through merely being easily accessible rather than being best placed to be able to answer the research questions (Bryman, 2004). However, convenience sampling can be useful if time and cost are restraining factors and a general idea about a topic is all that is required (Burns and Grove, 2003). This may have been Koh's intention but was not explicit within the paper. A potential flaw in the account of the research was that the model of practitioner was not defined. One might tentatively argue that those teachers with a preference for constructivism may be more inclined to participate in formative assessment practice and having adopted a convenience sampling technique Koh may have attracted such participants and thereby biased the findings. Insight into the technique employed by Koh directed my decisions relating to sampling of participants using a purposive technique. This purposive sampling is explained further within chapter 4.

Another paper that was interesting in relation to the methods used was that of McLellan (2001). McLellan (2001) surveyed teachers (n=80) and undergraduate students (n=130) in order to describe assessment practices as these were experienced by students and tutors. Data was collected using a 40 item questionnaire. As with Rush, Firth, Burke and Marks-Maran's (2012) choice of data collection method, as previously critiqued, the questionnaire used by McLellan would also seem to be a less than obvious choice of data collection instrument given that the aim of the research was to determine people's experiences of something; As Ellington, Percival and Race (1995) argue, questionnaires can be limited in the amount of information obtained regarding people's feelings and experiences and there is the potential for instant responses to questions

rather than a reflective and critical response to be obtained. Thus, although Koh's (2009) method of sampling may have been open to criticism it may be tentatively argued that Koh's single, one-to-one semi-structured interview fitted well with the qualitative paradigm adopted and was a more appropriate way of obtaining information during exploratory study.

To fulfil the potential for formative assessment to improve student learning and ultimately increase overall grades, Koh (2009) advised that a parallel shift was necessary in the beliefs that nurse teachers adopt in relation to the purposes of this type of assessment. However, MacLellan (2001) found that although some teachers might declare a commitment to the formative purposes of assessment, their practice does not always reflect this. She claims that those teachers who were inclined to share and discuss practice and materials with their colleagues were more likely to demonstrate formative assessment practice within the classroom. Teachers who themselves showed little interest in sharing and discussing practice, and those less interested in reading; reflecting and accommodating were less inclined to engage in formative assessment practice within the classroom. MacLellan (2001) and Koh's (2009) research findings confirm the previous research study findings of Hayward, Priestly and Young (2004) whose qualitative research into ways of embedding formative assessment within the classroom found that the attitudes and beliefs of the individual teachers were influential in their willingness to utilise formative assessment practice. However, Yorke (2003) argues that other determinants, for example workloads (teacher and student) and time and cost implications are just as likely to influence the practice of formative assessment. Indeed, Carless (2007) found that engaging academics with his learner-oriented assessment project (LOAP) was particularly challenging due to the negative image of assessment amongst academics. The negative image of assessment amongst the academics, Carless (2007) claims was in part due to the accountability and perceptions held relating to the difficult and problematic nature of assessing another's work and heavy marking loads.

Koh and McLellan are explicit in their positive value stance on formative assessment practice and this makes it difficult to determine whether their research has been over or under emphasised at some points in order to reflect their values. The

significance of the aforementioned literature to my own methodology for my study was that of recognising that my own positive stance on formative assessment practice was something that had driven my initial entry into the world of research. Subsequently as a result of this insight I made every effort to ensure that ownership of the data being presented and the information within the new feedback form lay with the student nurse participants and not with me. To do this, both a concept-driven and text-driven (Tappen, 2011) data analysis strategy were employed in order to minimise the aforementioned risk. Further explanation of this strategy is within chapter 4 and chapter 6.

Rudestam and Newton (2001) and Cronin, Ryan and Coughlan (2008) argue that the avoidance of errors is a valuable reason for undertaking literature review. The error made by Weaver (2006), who timed the data collection phase of her research to coincide with a period of summative assessment for her participants', previously highlighted within the introduction to this chapter, was not replicated within my study.

2.4.1: Vygotsky's Zone of Proximal Development

Although I had realised my orientation towards constructivism prior to this point in time, review of the literature pertaining to the Russian psychologist Vygotsky confirmed this personal constructivist orientation. This tradition views learning as being social in nature. Cole, John-Steiner, Scrivner and Souberman, (1978) edited the translation of Vygotsky's Russian language works into the English language and in so doing highlighted the difficulties associated with the process of translation and editing. These difficulties included such things as the copious amounts of work that Vygotsky wrote without editing. During times of illness Vygotsky is reported to have dictated his papers and within these are repetitions, gaps and a lack of proper references (Cole, John-Steiner, Scrivner and Souberman, 1978) which Cole, John-Steiner, Scrivner and Souberman (1978) state led them to hazard guesses as to the sources to which Vygotsky referred. Kozulin (1986: lvi) confirms this lack of references as being due to Vygotsky being 'well aware that he was losing in his struggle with tuberculosis, Vygotsky had no time for the luxury of including well-prepared references…often he simply named a researcher without mentioning any exact work'. Provision of this information raised awareness that the literature is indeed a translation of Vygotsky's work; therefore other

sources of literature were reviewed in an attempt to further interpret Vygotsky's work. Smidt (2009), Tryphon and Voneche (1996) Rieber and Carton (1987), Moll (1993), Daniels (1996) and Hedegaard (1996) all provided an overview of Vygotsky's work, which having reviewed the literature certainly indicates a fusion of ideas that can be rather complex to decipher. Liu and Matthews (2005), Phillips (1995) Doolittle (1995) and Shayer (2003) all offer suggestions as to the application of Vygotsky's theory in practice.

What became evident from review of the literature pertaining to the work of Vygotsky was the complexity of unravelling Vygotsky's theory. Indeed Blanck (1993:31) referred to Vygotsky as a man who 'speaks to us from the future', a man who 'did not write his memoirs' and whose history therefore 'must be reconstructed from fragments that form pieces of a puzzle'. Prompted by inconsistencies in the interpretations of constructivism within the available literature, Lui and Matthews (2005) examined the underlying epistemological beliefs of popular constructivist theories and their criticisms. From this examination it was concluded that validation of ideas related to the qualitative differentiation of the social collective from the total sum of separate individuals was nigh on impossible. However, for Lui and Matthews (2005) insight into the Vygotskian idea that human beings' search for 'the truth' was strengthened. Vygotsky's ideas about the complexities associated with concept formation underpinned my thinking as the data was analysed and related to student nurses' conceptualisation of the topic of enquiry (Vygotsky, 1986). Concept formation according to Vygotsky is:

> *"...more than the sum of certain associative bonds formed by memory, more than a mere mental habit; it is a complex and genuine act of thought that cannot be taught by drilling..."* (Vygotsky, 1986: 149)

Rather, Vygotsky argued that mental development required to have reached a necessary level in order for concept formation to happen. Shayer (2003) suggests that with no theory on how to test the aforementioned argument, Vygotsky offered the concept of the Zone of Proximal Development (ZPD). Common conceptions about Vygotsky's Zone of Proximal Development are outlined as having three aspects;

generality assumption, assistance assumption and potential assumption (Chaiklin, 2003). The first of these three relates to the idea that the ZPD is 'applicable to all kinds of subject matter', the second to the idea that 'learning is dependent on the interventions of a more competent other' and the third of these ideas relates to the 'property of the learner that permits best and easiest learning' (Chaiklin, 2003: 41).

The Zone of Proximal Development is defined in the literature as:

> *"...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers"* (Vygotsky: In Cole, John-Steiner, Scrivner and Souberman, 1978: 86).

The idea of collaboration outlined within Vygotsky's definition was something that Kennedy and Allan (2009) took forward in a small pilot study of BEd (Honours) in Primary School Teaching students'. The aim of this study was to offer insight into approaches that potentially lead to the development of students' skills in collaboration and peer-assessment of teaching. Although Kennedy and Allan (2009) identify their appreciation that no claims could be made from a study that involved only three participants, a tentative assertion was put forward that collaboration is integral to professional working. This paper is one of the few papers reviewed where the authors explicitly acknowledge the influence that their perspectives may have had on the data analysis process. A criticism may be that these actual perspectives were not made explicit.

Chaiklin (2003) questions the use of the word development rather than learning in Vygotsky's definition of the ZPD and subsequently suggests that Vygotsky's use of the word development was indeed intentional and referred not to development of any particular skill but to overall development. In relation to this overall development, Tudge (1993) claims that Vygotsky thought that the context in which interactions occur as being of critical importance; that schooling should be mainstream for all children and that streaming according to specific mental or physical needs could have profound consequences for the developmental process. Recent changes to the placing of children

with specific learning needs within mainstream schools may perhaps substantiate Vygotsky's thinking, if indeed he did think this way and the translation of his works were not misinterpreted.

In relation to the concept of misinterpretation, Shayer (2003) points out that where he understands that Vygotsky made reference to *'more capable peers',* Van der Veer and Valsiner (1993: 337) have translated this from the Vygotskian Russian writings into the English language as *"more intelligent partners".* For me this posed a problem. I would put forward the argument that a person may be more capable due to exposure and experience of a particular phenomenon without necessarily being more intelligent than the person who has not yet gained the experience and exposure to make them capable. Illustrated is a problem associated with my reliance on the various translations into the English language of the Russian writings of Vygotsky due to my inability to read and interpret his writings first hand.

Chaiklin (2003) attempts to answer a question related to why the ZPD exists and concludes that to assess an individual's current developmental level facilitates insight into developmental needs of that individual. Irrespective of the terms used to describe the peer as 'more capable' or 'more intelligent', Vygotsky's idea was, according to Tudge (1993) that of joint attainment of meaning. Tudge (1993) argues that there is no guarantee of this meaning being at a higher level when two peers interact, even with one being more capable than another. Tudge suggests that the actual process of interaction holds the key to developmental progress.

The idea of '*collaboration with more capable peers',* however, was according to Shayer (2003) never formally researched. At the time of Vygotsky's research being undertaken, Shayer (2003) argues that only a psychologist and a child were involved in the studies. Indeed, the work of Vygotsky that has become available through translation of some of his writings from the Russian to the English language principally relates to children. Seminal literature recognises that adult and child learners are different (Knowles, 1980), for example, in relation to their self-concept, when self-direction replaces dependency; in their experience, when the reservoir of experience provides a rich resource for learning; and in their motivation to learn, which Knowles (1980)

suggested becomes internal as individuals mature. The relevance of Vygotskian theory to my research therefore had to be explored further given that my research participants were adult learners and not children.

Evidence became available in the form of a quote from Gallimore and Tharp (1993) that the Vygotskian theory to the context of my study involving adult learners was indeed relevant: '…*identical processes of self- and other-assistance in the ZPD can be seen operating in the learning adult'* (Gallimore and Tharp, 1993: 186)

Gallimore and Tharp (1993) put forward the idea that to enhance and maintain competent self-regulatory performance the addition of other-regulation can prove useful and that:

> *'Even for adults, the effort to recall a forgotten bit of information can be aided by the helpful assistance of another, so that the total of self-regulated and other-regulated components once again resembles commonplace functioning of parent and child. Even the competent adult can profit from regulation for the enhancement and maintenance of performance.'*
>
> (Gallimore and Tharp, 1993:186).

The significance of the review of the aforementioned literature lies in its relevance to the adult learner participants within my study. Review of other available literature within the context of the Higher Education setting (O'Neill, Moore and McMullin, 2005) further convinced me that the Vygotsky's theory had relevance within the context of my research study. Carlisle and Jordan (2005), contributors to the aforementioned literature, make reference to the Vygotskian theory of ZPD as being useful to effective learning and teaching within the Higher Education setting. What Carlisle and Jordan (2005) claim is that more can be learnt by a student when he/she is assisted by a teacher, a peer or a mentor than can be learnt independently. This reflects Vygotsky's notion of an adult or more capable peer/more intelligent partner assisting the child to move along the ZPD, only for Carlisle and Jordan (2005) the adult learner replaces the child learner that Vygotsky refers to. Knowles, Holton and Swanson (2005:66) argue that the amount and diversity of life experience the learners possess

means that they have the potential to be '...the richest sources for learning'. This said, Knowles, Holton and Swanson (2005) put forward the point of view that the ability of adult learners to engage effectively in peer review is influenced by such things as their motivation, own needs and goals and life experience. Such factors can influence a positive or negative impact on the learner's willingness or ability to engage with the peer review process.

Van der Veer and Valsiner (1994) provide information in relation to the idea of internalisation through what Vygotsky referred to as cultural-historical roots. One of Vygotsky's co-worker's named Leont'ev (also known in text as Leontiev) had originally agreed with the Vygotsky's ideas of cultural-historical theory. However, as time went on, Leont'ev began to distance himself from Vygotsky's ideas and he re-named cultural – historical theory as societal-historical theory (Van der Veer and Valsiner, 1994). This, Van der Veer and Valsiner suggest was an attempt by Leont'ev to align himself to the official ideology and this in itself is perhaps an indication of the world in which Vygotsky lived and worked.

Three interpretations of Vygotsky's idea of internalisation are put forward by Lave and Wenger (1996). Of interest to me, during my study, was that at the first mention of Vygotsky to other scholars a typical response was 'oh yes, scaffolding and support'. However, Moll (1993) illuminates the fact that the term scaffolding was never actually used by Vygotsky. It is a concept put forward by Jerome Bruner, who developed Vygotsky's work (Moll, 1993). Lave and Wenger (1996: 144) identified scaffolding within the ZPD as *"The distance between problem solving abilities exhibited by a learner working alone and that learner's problem solving ability when assisted by or collaborating with more experienced people"*.

This scaffolding, Lave and Wenger (1996) claim, relates to the controlling and supporting of a learner until they have mastered whatever the given task was. As with scaffolding for a building, once the structure is complete the scaffolding can be removed (Diaz, Neal and Amaya-Williams, 1993). Vygotsky explained this concept as the learner working alongside others and watching and learning from them (Cole, John-Steiner, Scrivner and Souberman, 1978).

Previously identified also was Vygotsky's theory that the fundamental trait of learning is that it initiates a ZPD and internalisation subsequently takes place. The component of internalisation is the third of the four stage model that Gallimore and Tharp (1993) provide. This four stage model portrays the relationship between other-regulation and self-regulation and the progress of a learner through the ZPD:

Stage 1: assistance provided by more capable peers - this can provide direction or modelling

Stage 2: assistance provided by the self – self-guidance. In adults this stage involves the talking to oneself to assist learning.

Stage 3: internalisation, automization, and fossilisation – evidence of self-regulation has vanished and emergence from the ZPD occurs. Performance is executed effectively and assistance is no longer required.

Stage 4: De-automization – enhancement and maintenance of performance may require a return to stages 1 and 2 (as in lifelong learning)

Vygotsky makes reference to watching and learning from others, sharing values and beliefs with others and being brought from the edge into the body of the contextual group as having influence on the internalisation process (Cole, John-Steiner, Scrivner and Souberman, 1978) and for my study these components were applied during data analysis.

Other aspects of Vygotskian theory that were thought to have relevance to my study were those of Cultural-historical theory, which encompasses Vygotsky's ideas of activity theory and of cultural tools (Vygotsky, 1978). The notion of peer review I hold is that it involves social interaction (activity) and involves the recording of this interaction on a feedback form (cultural tool).

Activity theory involves individuals working in a group, each person bringing with them their own individual goals and associated actions. Daniels (2001) recognises that within any group activity there is a degree of negotiation and organisation that takes place in order to achieve a common goal. An activity comprises a subject (person or group of people engaged in the activity) an object (what the subject is interested in and which drives and directs the activity) and a tool (artefact mediated/object oriented). This

idea aligned with my research in relation to my study having involved student nurses (subject) who exploring peer review and self-assessment (object) were provided with the opportunity for concrete experience to be gained (object oriented) using video recording (artefact mediating tool) and a newly created feedback document (artefact mediating tool).

Vygotsky (1978) recognised cultural tools as the objects, signs and systems developed by human beings to assist with thinking. He further recognised that development of these cultural tools happened over time and within communities and included such things as language, symbols, music and art (Tryphon and Voneche, 1996). This idea influenced the research design in relation to the creation of a tool by the student nurse participants that would subsequently be useful to other student nurses during engagement with peer review and self-assessment. These cultural tools are what Vygotsky refers to as artefact mediated tools and Eraut (2006) explains that such tools can facilitate the surfacing of tacit knowledge, also referred to by Rush, Firth, Burke and Marks-Maran (2012) as intuition.

Rieber and Carton (1987), the editors of the English edition of 'The Collected Works of L. V. Vygotsky' explain Vygotsky's ideas comprehensively when they write that Vygotsky was of the opinion that as human beings we use tools for practical and symbolic purposes and that initially these tools are external to us and used to interact with nature or with other human beings. However, Vygotsky recognised that as a user of these tools we are affected by them and subsequently internalise them and they shape our thinking and our ability to gain control of our world and ourselves (Rieber and Carton, 1987).

2.4.2: Blumer's Symbolic Interactionism

Having himself been influenced by Vygotskian theory, Blumer (1969) put forward the theory of symbolic interactionism. Willis (2007) recognises the interpretivist epistemological orientation incorporated within this theory of symbolic interactionism in the claim:

'The study of humans is not the study of 'real' or concrete events in the external world. Symbolic interaction research studies human interaction

and emphasizes the need to keep in mind that human interaction is not based solely on the way the external world 'really' is. That interaction is based, instead, on how humans interpret their world. It is thus symbolic meaning rather than concrete meaning that is most important in symbolic interaction studies' (Willis, 2007:177).

The scope of my research study is such that the sociological perspective of Blumer (1969) was adopted, as opposed to the rather more philosophical perspective of Mead (1934), due to its closer correspondence with the research study aim.

Blumer's work emanated from the earlier work of Mead (1934), a founding father of the theory of Symbolic Interactionism who proposed the notion that the emergence of the individual, this is the 'I', is influenced by the process of which the 'me' is a part (Margolis and Catudel, 2001). Blumer (1969), in his book entitled 'Symbolic Interactionism' expanded on the seminal work of Mead by putting forward the idea that symbolic interactionism involves three main stages.

The first stage within the theory of Symbolic Interactionism (SI) is that people act on things according to the meaning they place on these things. Secondly, people interact socially, and through this interaction exchange of views on the meaning of things takes place. Thirdly, people can adapt, abandon or continue to hold the meaning they have placed on things, as a result of this social interaction. However, the complexity of the creation of meaning cannot be underestimated (Rose, 2012) and literature on semiotics is an area worthy of review on its own merit. Time constraints prevent me at this point from delving deeper into this field. This said, Van Leeuwen (2005) supports my interpretation of meaning as being shaped by social processes and suggests that the scaffold to the making of meanings can be seen in terms of what is named 'discourse'. Mezirow (1997) argues that learning is a social process with discourse central to the making of meaning. Within the context of the medical profession discourse can be defined in terms that it *'... refers to the special language of medicine, the form of knowledge it produces and the professional institutions and social spaces it occupies'* (Nead, 1988:4).

This idea relates to Foucault's (1972) seminal writing on discourse when he puts forward the view that although discourse can influence people into certain ways of acting, at the same time it does not imply as compulsory rules for thought and behaviour. Rather as Rose (2012) suggests it is through the involvement in discourse that human subjects are produced and the sense of self is made. This sense of self develops in literature (Callero, 2003) and within the theory of SI (Blumer, 1969); an interesting concept to me given that the beginning part of my research title was 'To see oursels as ithers see us!'

Liamputtong (2009:5), in one sentence, explains SI theory as being *'based on the premise that individuals construct their perceptions and meanings as a result of their interactions with others'.* Liamputtong has written numerous books, ten of which relate to research methods within the qualitative paradigm and was therefore considered to be a credible source of information.

The significance of this theory to my research study lies in the research design incorporating a data collection strategy that allows for participant conceptions of peer review and self-assessment to be identified, for these individual conceptions to be shared with others and for the creation of a shared set of assumptions about peer review and self-assessment.

2.5: Significance

The practical and scholarly significance of the literature under review was rationalised. In practical terms, undertaking the literature review facilitated the development of my conceptual framework, illustrated within chapter 3 and Chapter 4. Leshem and Trafford (2007:95) acknowledge that doctoral students can 'struggle with the issue of conceptual frameworks'. However, the role of the conceptual framework in the emergence of what is referred to by Leshem and Trafford (2007) as 'doctorateness' cannot be underestimated. My interpretation of this doctorateness can therefore be seen in terms of the development of my conceptual framework. Reinforcing my conceptual framework was the work of the writers and researchers identified within this literature review, my own experience and observations within the topic area and also my research assumptions. Literature provided by Cleary, Horsfall and Hunt (2012) differentiated

between what constitutes a high quality thesis and a low quality thesis, substantiating Leshem and Trafford's (2007) claims of the emergence of 'doctorateness'.

The main literature that made mention of conceptual frameworks included thesis, books and papers written specifically about conceptual frameworks (Miles and Huberman, 2004; Evans, 2002). However, even within PhD and EdD theses that were reviewed, although conceptual frameworks were mentioned, the manner in which these were developed and how the concepts were applied during data analysis was not made explicit. Murray (2003) urges that engagement with doctoral criteria should be explicitly addressed within the thesis. This criterion involves movement from the descriptive level of thinking and research through an analytical and interpretative process towards conceptualisation of the issues under investigation (Leshem and Trafford, 2007).

The field of enquiry for the Doctor of Education (EdD) thesis was that of peer review and self-assessment. Further study in this field progressed previous research undertaken in part-fulfilment of a Master of Science degree in Nursing and Applied Education and satisfied a personal desire to be equipped to enter more fully into the academic community discussions on how best to assess learners in the 21st Century and prepare these learners for lifelong learning and success. The most contemporary literature that was reviewed (Barnett, 2012; Austin, 2012) provided information on how to prepare learners to function within the complex world of the 21st Century through focussing on human qualities as well as knowledge and skills.

Of scholarly significance is the wealth of literature available on the topic of peer review and self-assessment, with the contemporary contributions to the academic literature made by Nicol (2009; 2010, 2011), Sadler (2010), Boud (2007), Topping (2005) and Orsmond (2004) providing information that highlights the important role of peer review and self-assessment in the development of self-regulation capability. Review also indicated that literature on the topic within the student nurse context is scarce (Rout and Roberts, 2007; Yates, Martin and Ash 2008). This is despite the Royal College of Nursing (2003), a professional organisation, recognising peer review as an intrinsic component of clinical governance.

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Sadler (2010), Nicol (2010) and Boud (2007), deemed to be highly influential figures within the field of education (Centre for Teaching, Learning & Assessment, 2008), assert that peer review has the potential to influence the development of professional self-regulation and this is of significance to my study in relation to Nursing and Midwifery Council (NMC, 2010) requirements that nurses are capable of self-regulation at the point of registration. The capability of self-regulation, as stipulated by the NMC, requires the practitioner to possess "… understanding of knowing what is right or what is important" (NMC, 2010: 6) and the NMC Code provides for professional nurses a benchmark against which to judge this understanding (NMC, 2008). Within the literature Boud (2007) agreed with Bandura (1991) that self-regulation is the monitoring of one's own performance in relation to set standards. Putting this message into practice, within my study the student nurse participants created a feedback tool containing standards derived from focus group discussions, thus providing set criteria against which performance monitoring was made possible.

Of practical and scholarly significance is that argument put forward by Lew, Alwis and Schmidt (2010) and Sadler (2010) that development of self-regulatory capability happens through students obtaining the key skill of self-assessment. Supporting this argument is Topping's (2005) suggestion that peer review can improve self-assessment ability, due to the metacognition improvement that engagement with peer review may influence i.e. the knowledge of one's own thinking and the factors that influence such thinking (McCormack, 2003) In practical terms my study was designed to explore this thinking in relation to peer review and self-assessment. Boud (2007) explained that self-assessment requires the ability to determine realistically one's own strengths and weaknesses against a set standard. This information had practical significance within my study through the creation of a feedback form, by student nurse participants, that provided set standards against which strengths and weaknesses could be determined.

In relation to self-assessment, Sadler (2010) argued that the ability to self-regulate is wider than just assessing one's self but rather emerges through student acquisition of complex appraisal skills and that this involves assessing others; through

evaluating the work of peers, learners can acquire objectivity towards their own work. Nicol (2010b), Sadler (2010) and Boud (2007) agreed that the ability for students to critically evaluate their work, and the work of their peers, is essential to the development of self-regulation. Gopee (2001), Orsmond (2004), Nicol (2010b), Sadler (2010) and Boud (2007) all agree that engagement with peer review provides the opportunity for a student to develop the complex appraisal skills necessary for development of this self-regulation ability. Salient information regarding student self-regulation capability was provided within an interview investigation undertaken by Orsmond and Merry (2009). This literature was of practical and scholarly significance in relation to findings that increasing feedback that is provided by teachers can potentially lead to increased student dependency. This increased dependency can potentially remove the student further from self-regulation capability. Nicol (2010a), Sadler (2010) and Boud (2007) argue that engagement with peer review and self-assessment can potentially lead to the development of self-regulation capability.

However, Nicol (2010b) asserted that learners' require to be provided with the opportunity of regular exposure to peer review and self-assessment. This idea is of practical significance to pre-registration nursing curriculum development. Although exposure to peer-assessment and self-assessment is important, Sadler (2010) argued that exposure alone is not enough; if the potential for peer review and self-assessment to influence ability to self-regulate is to be realised then acquisition of complex appraisal skills is necessary. The scholarly significance of this is explained by Sadler (2010) when he argues that the acquisition of complex appraisal skills can be obtained through students being able to make evaluative judgements on the performance of self and others, and explain these judgements, making use of criteria to do so. With regard to criteria, Nicol (2010b) points out that with peer review, the process of reflection and development of student ability to evaluate a peer's performance has the potential to encourage students to develop objectivity in relation to criteria, which can then be transferable to the real professional world, to their own work and performance. However, Boud (2007) concurs with Nicol's assertion that regular exposure to peer

review is necessary for this objectivity to occur. This regular exposure to critically reviewing the work of peers was supported by Cassidy (2006).

Although Cassidy (2006) found that participants' attitudes towards peer review were positive he agreed with Sadler (2010) that students prefer being reviewed rather than reviewing their peers because of the perceived responsibilities associated with peer review. This Cassidy (2006) indicates is influenced by student inexperience in the assessing of others. Nicol (2011) recognised that it was indeed the assessment aspect of peer review that proved challenging for students. The practical significance of this literature lies in the solution offered by Nicol (2011) to this problem. What Nicol (2011) suggests is that rather than asking students to criticize each other's work instead the students should be encouraged to highlight an area for improvement or an issue that would be worthwhile for the peer to address in the future. Cassidy's study indicates that peer review has the potential to influence the development of employability skills, however, for this potential to be realized, clear guidance and a structured framework for peer review are recommended. My research offered guidance and framework in the feedback tool that was designed by the student nurse participants.

2.6: Rhetoric

Within this section some claims are made that are based on the summary, analysis and synthesis of the literature.

The literature review commenced with justification of literature inclusion and exclusion through an overview of the systematic literature search strategy that was adopted.

The literature was critically examined to illuminate what is known and what still requires to be known within the topic field and the topic was situated in the broad scholarly literature and had its historical context examined. Key vocabulary was articulated and explained. Ambiguities within the literature were noted in order that a new perspective on the literature emerged. The relationship between the literature and my own research study was identified and clarified.

This literature review was undertaken with the intention of identifying work already done or in progress on the topic of peer review and self-assessment. Through

identification of this work duplication of research previously undertaken was avoided. Rout and Roberts (2007) systematic review of the literature relating to peer review in nursing proved to be pivotal in highlighting a gap in the current knowledge base and extinguished any personal concern that my research study replicated previous studies undertaken.

Research methodologies and methods were examined and their associated benefits and limitations were identified, with particular emphasis being placed on their relevance to my own research study. Errors made by other researchers and limitations acknowledged by writers when reporting their own research process assisted me to pre-empt potential pitfalls and thereby prevent them. Review of the literature, consisting of books, empirical papers, articles and theses, assisted me in the design of my research and gaps that became evident in existing empirical research helped in the justification for my study. Rudestam and Newton (2001) argue that the avoidance of errors is a valuable reason for undertaking literature review.

The practical and scholarly significance of my research study was rationalised. Applying this message into practice, my study was designed with the intention of not containing any internal contradictions and remaining true to its purpose and truthful in its data reporting. I found myself agreeing with Paley (2005:112) who asserts that the qualitative approach, that I adopted, permitted me to make *'tentative assertions as to how things seem'* to this group of student nurses (n=25). I thus realised that my decision to adopt a qualitative paradigm for my research study brought with it the need to pay particular attention to my interpretation of the data, particularly in relation to any claims that could be made in relation to reality, to remain true to my study purpose and to be truthful in my data reporting.

Taking all of this into account, I accepted that employing a qualitative research design facilitated me to probe beneath the surface of the topic and make sense of what peer review and self-assessment meant to the student nurse participants. I would argue that what this group of nurses offered was some insight into what can and might be possible in relation to peer review and self-assessment.

Utilisation of Boote and Beile (2005) Literature Review Scoring Rubric to structure the literature review chapter provided set criteria against which the quality of my literature review was measured as it developed. The five categories within this rubric, namely Coverage, Synthesis, Methodology, Significance and Rhetoric signposted the review so that it flowed systematically. Of practical and scholarly significance were certain assumptions taken forward from the literature review:

Assumption 1 - People act on things according to the meaning they place on these things (Blumer, 1969).

Assumption 2 – A negative experience can have long lasting effects on learners and can result in decreased self-esteem, anxiety and withdrawal from the learning process (Ecclestone and Pryor, 2003; Duers and Brown, 2009).

Assumption 3 – Social interaction can progress learning through the Zone of Proximal Development (Vygotsky, 1978) and can influence subsequent placing of meaning on things (Blumer, 1969).

Assumption 4 – People amend, abort or continue to hold the meanings they placed on things following social interaction (Blumer, 1969)

Assumption 5 – Engagement with peer review and self-assessment potentially influences the development of self-regulatory capability (Nicol, 2010; Boud, 2007; Sadler, 2010).

Literature review highlighted a scarcity of research literature relating to student nurses' conceptions of peer review and self-assessment (Rout and Roberts, 2007; Yates, Martin and Ash, 2008). In relation to concept formation, the literature of Vygotsky (1978) and Blumer (1969) and Assumption 1, as listed above, exerted influence on the development of research questions 1 and 2, as listed below. Assumption 2, as listed above, and the work of Nicol (2009), whose principles of good assessment appeared to be set with emphasis on providing educators with a framework to work from, influenced the development of research questions 3 and 4. It was intended that the answers to research questions 1 to 4 would provide criteria on which to base a new feedback form that future student nurses could use during engagement with peer review and self-assessment. Assumption 5, as listed above, influenced the development of research

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question 5, as listed below. The setting of these research questions provided a means of meeting my study aim of exploring student nurses' conceptions and implementation of peer review and self-assessment.

2.7: Research questions

Literature review also influenced the setting of the research study's five research questions, namely:

What do student nurses think that the purpose/value of peer review is?

What do student nurses think that the purpose/value of self-assessment is?

What do student nurses think good peer review is?

What do student nurses think good self-assessment is?

How do student nurses think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value?

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CHAPTER 3: THEORETICAL AND CONCEPTUAL FRAMEWORK

3.1: Introduction

Having taken on board the ideas of Murray (2003) and Leshem and Trafford (2007) that engagement with doctoral criteria should be explicitly addressed within the thesis this chapter is dedicated to outlining the development of my own conceptual framework. The development of my conceptual framework began with an exploration of what a conceptual framework actually is and the purpose it serves within research. Miles and Huberman (2004) indicate that a conceptual framework is a written or visual presentation of the main issues being studied and their apparent relationship to each other. Evans (2002) puts forward a convincing argument that a conceptual framework can act as a facilitation mechanism for the demonstration of rigour within the research process. With transparency of the research process being considered as integral to effective demonstration of rigour (Burgess, Seiminski and Arthur, 2006) this chapter provides information on how I produced my own conceptual framework. The framework itself has been incorporated within the methodology and methods chapter, where the manner in which it was used to design and implement my research study is further clarified.

Providing the foundation on which to build my conceptual framework were my personal, professional and academic reasons for undertaking doctoral study, documented within the introductory chapter of the thesis and therefore not repeated here. The reasons for undertaking the research directed the literature review, which subsequently influenced adoption of theories that were raised repeatedly within literature relating to peer review and self-assessment. These theories were namely those of Lev Vygotsky and Herbert Blumer.

The determination of my own positionality in the research process illuminated the impact that I might have on the research process and the impact that the research process might have on me. The information that became available to me as a result of determining my positionality was used to inform the study design. Ganga and Scott (2006) recognise determination of positionality as an integral aspect of the qualitative research process. Holloway (2005) terms this examination and uncovering of my place

as a researcher in the research process as 'reflexivity' and further evidence of my reflexivity, with tabulation of my positionality, is demonstrated within the methodology and methods chapter of my thesis. Influences on me included material obtained from review of the literature on the topic of peer review and self-assessment and on the methodologies and methods adopted by different researchers as they attempted to gain insight into the topic.

3.2: Literature influence on the design and implementation

Reference to literature within the context of the Higher Education setting (O'Neill, Moore and McMullin, 2005) convinced me that Vygotsky's theory of the Zone of Proximal Development (ZPD) had relevance within the context of my research study. This theory indicates that a person can learn a certain amount unaided but then requires assistance in order to progress this learning. The literature review chapter, preceding this chapter in my thesis, has expanded on the knowledge base in relation to both Vygotsky's and Blumer's theories. The intention of this chapter is to indicate how concepts deriving from the theory have been used to frame my research study.

Carlisle and Jordan (2005), contributors to the aforementioned literature, make reference to the Vygotskian theory of ZPD as being useful to effective learning and teaching within the Higher Education setting. Given the Higher Education setting context of my own study the underpinning of my own research with Vygotsky's theory therefore seemed to be relevant. What Carlisle and Jordan (2005) claim is that more can be learnt by a student when he/she is assisted by a teacher, a peer or a mentor than can be learnt independently. Although Vygotsky put forward the suggestion that co-operation with more capable peers/more intelligent partners movement along the ZPD would happen; Shayer (2003) argues that this was never formally researched. At the time of Vygotsky's research being undertaken, Shayer (2003) argues that only a psychologist and a child were involved in the studies. Additionally, the work of Vygotsky that has become available through translation of some of his writings from the Russian to the English language principally relates to children. Seminal literature recognises that adult and child learners are different (Knowles, 1980), for example, in relation to their self-concept, when self-direction replaces dependency; in their

experience, when the reservoir of experience provides a rich resource for learning; and in their motivation to learn, which Knowles (1980) suggested becomes internal as individuals mature. The relevance of Vygotskian theory to my research therefore had to be explored further given that my research participants were adult learners and not children.

Evidence of the relevance of Vygotskian theory to the context of my study involving adult learners became available in the form of a quote from Gallimore and Tharp (1993:186) that identified '…*identical processes of self- and other-assistance in the ZPD can be seen operating in the learning adult'*

For Carlisle and Jordan (2005) the adult learner replaces the child learner that Vygotsky refers to. Drawn from my literature review was Knowles, Holton and Swanson's (2005:66) suggestion that the amount and diversity of life experience the learners possess means that they have the potential to be '...the richest sources for learning'. This said, Knowles, Holton and Swanson (2005) put forward the point of view that the ability of adult learners to engage effectively in peer review is influenced by such things as their motivation, own needs and goals and life experience, saying that such factors can exert positive or negative impact on the learner's willingness or ability to engage with the peer review process. Through inclusion of younger adults and more mature adults in my study an attempt was made to balance the impact that life experience may exert.

As an adult learner myself I can identify with the Vygotskian theory of the ZPD. Through my collaboration during my EdD studies with more capable peers/more intelligent partners in the form of my research supervisors, movement from what I was capable of independently to what I have become capable of with assistance has been evident. As an adult, I concur with Gallimore and Tharp's (1993) idea that to enhance and maintain competent self-regulatory performance the addition of other-regulation can prove useful and agree wholeheartedly with their assertion that:

> *'Even for adults, the effort to recall a forgotten bit of information can be aided by the helpful assistance of another, so that the total of self-regulated and other-regulated components once again resembles*

commonplace functioning of parent and child. Even the competent adult can profit from regulation for the enhancement and maintenance of performance.' (Gallimore and Tharp, 1993: 186).

Following my systematic search and review of the literature I had gathered empirical and opinion evidence on what was already known, or thought to be known, about peer review and self-assessment. My research intention was to make a unique contribution to the knowledge base on the topic and to the practice of peer review and self-assessment within the pre-registration nursing curriculum therefore it was important to me that a gap in the knowledge base was identified in order for my intention to be fulfilled. Gaps were identified, as previously discussed within the literature review chapter. From review of the various methodologies and methods adopted by previous researchers, I also developed ideas of how best I could discover the answers to what was not yet known. The research questions derived from literature review were:

What do student nurses think that the purpose/value of peer review is?

What do student nurses think that the purpose/value of self-assessment is?

What do student nurses think good peer review is?

What do student nurses think good self-assessment is?

How do student nurses think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value?

The exploratory nature of these questions directed towards adoption of a qualitative methodology and subsequent employment of methods appropriate to qualitative research.

3.3: Assumptions

My study was underpinned by certain assumptions adopted from the theory of Blumer and Vygotsky and the data collection strategy aligned with these assumptions. Table 2 illustrates this alignment.

Assumptions and their influence on my study	Research design underpinned by assumptions
Assumption 1: *People act on things according to the meaning they place on these things (Blumer, 1969).* Meaning held by student nurses in relation to peer review and self-assessment requires to be identified and defined	Ask research questions 1 and 2 Focus group discussion using Nominal group technique (NGT)
Assumption 2: *A negative experience can have long lasting effects on learners and can result in decreased self-esteem, anxiety and withdrawal from the learning process (Ecclestone and Pryor, 2003; Duers and Brown, 2009).* Factors that positively and negatively influence peer review and self-assessment requires to be identified.	Ask research questions 3 and 4 Focus group discussion using NGT Creation of feedback form derived from Focus group discussion.
Assumption 3: *Social interaction can progress learning through the Zone of Proximal Development (Vygotsky, 1978) and can influence subsequent placing of meaning on things (Blumer, 1969).* Identification of influence of engagement with peer review and self-assessment on the student nurses' ideas about the purpose, value and what makes peer review and self-assessment good.	Practical task of engaging with peer review and self-assessment utilising the newly created feedback form. Gather data relating to the utility of the feedback form.
Assumption 4: *People amend, abandon or continue to hold the meanings they placed on things following social interaction (Blumer, 1969).* Identification of student nurses' amendment, abandonment or continuation of thoughts about peer review and self-assessment.	Individual interviews to explore influence of engagement with the practical task on subsequent thoughts about peer review and self-assessment.
Assumption 5: *Engagement with peer review and self-assessment potentially influences the development of self-regulatory capability (Nicol, 2010; Boud, 2007; Sadler, 2010).* Evidence of self-regulatory ability having been influenced by engagement with the peer review and self-assessment process requires to be identified.	Ask research question 5 Individual interviews to explore the potential influence of peer review and self-assessment engagement on self-regulatory capability.

Table 2: Alignment of assumptions and research design

3.4 Zone of Proximal Development

As outlined previously, at the first mention of Vygotsky during my research studies to other scholars a typical response was 'oh yes, scaffolding and support'. However, Moll (1993) identified that the term scaffolding was never actually used by Vygotsky. Nevertheless, scaffolding relates to the controlling and supporting of a learner until they have mastered whatever the given task was and as with scaffolding for a building, once the structure is complete the scaffolding can be removed (Diaz, Neal and Amaya-Williams, 1993). To my mind the peer review process incorporates this idea of control and support, with the self-assessment process identifying for a person their mastery of a task.

The fundamental trait of learning according to Vygotsky is that it initiates a ZPD and internalisation subsequently takes place. This internalisation process was referred to by Vygotsky as 'the process of knowing' that potentially happened through the watching and learning from others, from the sharing of values and beliefs with others and through the integration of the newcomers to a community. Lave and Wenger (1996) explain Vygotsky's theory of internalisation through making reference to scaffolding, cultural influence and societal influence.

Although not directly referred to as scaffolding by Vygotsky, the idea of assistance provision during the learning process and the concept of watching and learning from others in order to internalise information was taken forward as a conceptual tool within my study when the participants watched and learned from each other during the practical task stage of data collection. This concept of watching and learning was subsequently applied to the collected data during analysis. The concept of watching and learning was further sub-divided and the data analysed in relation to:

1. Participants thoughts and feelings about the process of watching their peers/selves

2. Participants thoughts and feelings about learning associated with the watching of peers/selves

3. Participants thoughts and feelings about the process of being watched by peers

4. Participants thoughts and feelings about learning associated with the

   being watched by peers

However, Vygotsky argued that in order for a concept to reach maturity it required a merging of what he referred to as scientific and everyday concepts (Cole, John-Steiner, Scrivner and Souberman, 1978). Watching of others was therefore not enough. Hedegaard (1988) was reported by Daniels (1996: 144) to have referred to this as *"The distance between understood knowledge, as provided by instruction, and active knowledge, as owned by individuals"*. Vygotsky therefore offered further ideas on concept formation, written about under the title of cultural-historic theory (Smidt, 2009).

How knowledge is constructed and passed on and the influence of culture on this process was reported by Smidt (2009) to have been a matter of intrigue to Vygotsky. A definition of Vygotsky's cultural-historic theory accepted for the purpose of my research data analysis was that *"…culture refers to the ways in which groups of people pass on beliefs and values and the products of human work and thought"* Smidt (2009: 18). This component of passing on of beliefs and values about peer review and self-assessment thus became a further concept that drove my data analysis process.

Lave and Wenger (1996) suggest that within the previous two interpretations of internalisation within the ZPD the social aspect of internalisation is paid lip service to and requires further discussion. A societal interpretation of the ZPD put forward by Engestrom (1987: 174) is *"…the distance between the everyday actions of individuals and the historically new form of the societal activity…"* Lave and Wenger (1996: 144) explain that a societal interpretation of internalisation involves concentrating on the processes of social transformation in terms of *"…the changing relations between newcomers and old timers in the context of changing shared practice"*. Within the context of my particular study I have interpreted this in terms of student nurses sharing what at times are different ideas on nursing practice from those that nurses who have been longer term within the practice placement setting have become familiar with and accustomed to. The intention of my study is not to compare these differences, rather to illuminate evidence of societal internalisation within my collected data.

Vygotsky's idea of 'collectivisation' (Van der Veer and Valsiner, 1994) reflects the aforementioned interpretations by Engestrom (1987) and Lave and Wenger (1996) of internalisation. Alignment to Blumer's idea of SI may be seen in relation to this internalisation process, resulting in people acting on something in a particular manner (Blumer, 1969).

The theory put forward by Blumer (1969) included the idea that people act on things according to the meaning they place on these things; the people then enter into social interaction with other people and from this social interaction adapt their meaning accordingly.

Evidence of internalisation having occurred is demonstrated, according to Vygotsky (1978: 132) when the *"...individual has the capacity to externalise and share with other members of the social group her understanding of their shared experience"*. Table 3 illustrates the move from theory to influence study design to concepts derived from the theory and used during the study. The influence of the ideas derived from the theories of Vygotsky and Blumer and their subsequent use as conceptual tools with which to analyse collected data is presented overleaf.

Theoretical underpinning: Vygotsky and Blumer		
Theoretical component	Theoretical Sub-component/concept	Data searched specifically for evidence of:
Vygotsky's Zone of Proximal Development (ZPD)	Internalisation Scaffolding/ Watching and Learning	Thoughts and feelings about the process of watching their peers/selves

Thoughts and feelings about learning associated with the watching of peers/selves

Thoughts and feelings about the process of being watched by peers

Thoughts and feelings about learning associated with the being watched by peers |
| | Internalisation Culture/Sharing of beliefs | Sharing of beliefs and values about peer review and/or self-assessment.

Purpose of peer review
Value of peer review
Characteristics of good peer review
Barriers to peer review
Purpose of self-assessment
Value of self-assessment
Characteristics of good self-assessment
Barriers to self –assessment |
| Vygotsky's ZPD + Blumer's Symbolic Interactionism | Internalisation Societal/from edge to belonging + Action based on meaning Social interaction Amendment/adaptation/confirmation to meaning and subsequent action | Being taken from the edge into the body of the group.

Confirmed/amended/abandoned meaning and change of action, or not, in alignment. |

Table 3: From theory to practical application of concepts

Adopting such a strategy facilitated the answering of the first four of my five research questions. For the means of answering the fifth research question, two further concepts offered by Vygotsky were utilised. These concepts derived from Vygotsky's theory of activity and his theory of cultural tools.

3.5: Activity theory

This Vygotskian theory involves individuals working in a group, each person bringing with them their own individual goals and associated actions and its relevance to my study is identified following a brief overview of the theory. Within group activity, Vygotsky recognised that the whole situation requires to be understood by each person, with a common goal held by the group. This idea is explained well by Leontiev (1978) in the provision of an example of a tribe who are hunting. Some of the individuals in the group have the goal of encouraging the herd of animals towards other members of the group who have the goal of killing the animals. Although hunting may, according to Leontiev, be seen as an immediate goal he argues that the real motive for this group may well be survival through the obtaining of food and clothing. This motive, he suggests, guides the activity and becomes therefore a common goal shared by the group. Daniels (2001) recognises the within any group activity there is a degree of negotiation and organisation that takes place in order to achieve a common goal. An activity comprises a subject (person or group of people engaged in the activity) an object (what the subject is interested in and which drives and directs the activity) and a tool (artefact mediated/object oriented). The relevance of activity theory to my study lies in my study involving student nurses (subject) who exploring peer review and self-assessment (object) were provided with the opportunity for concrete experience to be gained (object oriented) using video recording (artefact mediating tool) and a newly created feedback document (artefact mediating tool). Inclusion of activity theory to my study permitted the opportunity for a concrete experience of peer review to be gained by those participating in the research. It also provided a platform for the utilisation of the cultural tool that is now outlined.

3.6 Cultural tools

Vygotsky (1978) recognised cultural tools as the objects, signs and systems developed by human beings to assist with thinking. Vygotsky recognised that development of these cultural tools happened over time and within communities and include such things as language, symbols, music and art (Tryphon and Voneche, 1996). This idea influenced the research design in relation to the creation of a tool by the

student nurse participants that would subsequently be useful to other student nurses during engagement with peer review and self-assessment. These cultural tools are what Vygotsky refers to as artefact mediated tools and Eraut (2006) explains that such tools can facilitate the surfacing of tacit knowledge, also referred to as intuition (Rush, Firth, Burke and Marks-Maran, 2012).

Rieber and Carton (1987), the editors of the English edition of 'The Collected Works of L. V. Vygotsky' explain Vygotsky's ideas comprehensively when they write that Vygotsky was of the opinion that as human beings we use tools for practical and symbolic purposes and that initially these tools are external to us and used to interact with nature or with other human beings. However, Vygotsky recognised that as a user of these tools we are affected by them and subsequently internalise them and they shape our thinking and our ability to gain control of our world and ourselves (Rieber and Carton, 1987). The ideas put forward by both Vygotsky and Blumer aligned to my own interpretivist epistemological assumptions in so much as that I believe that knowledge is created and shared through social interaction. I also accept the idea that tools whether they are physical, an example being an anatomical eye, or abstract, such as a model of nursing, can assist in the shaping of our thinking.

My conceptual framework took the theory as indicated previously and utilised it in such a way as its influence on my particular study could be recognised initially in written form and subsequently as the visual presentation illustrated within the next chapter of the thesis (Miles and Huberman, 2004)

With my research study emphasis on social interaction through focus group participation, within a particular culture of student nurse education and the subsequent creation and utilisation of a feedback tool during the student nurse participants' engagement with peer review and self-assessment application of the theories of Vygotsky and Blumer to the research process proved to be an effective strategy for the answering of the research questions and ultimate achievement of the research aim of exploring student nurses' conceptions and implementation of peer review and self-assessment.

CHAPTER 4: RESEARCH DESIGN: METHODOLOGY AND METHODS

4.1: Introduction

The aim of my study was to explore student nurses' conceptions and implementation of peer review and self-assessment. The intention of this chapter of the thesis is to provide details of the research design process adopted in order to achieve this aim and of the thinking that led to decisions being made as they have been. Hewitt-Taylor (2011:13) puts forward a convincing point in relation to research study design, in her claim that 'the best way to find something depends on what it is you are trying to find'. My research study intention was to gain knowledge about (find) student nurses' conceptions of peer review and self-assessment. The way in which I approached the 'best way' of obtaining of this knowledge was to consider my ontological orientation, in the first instance. As Davies (2007) suggests, I perceive the world and reality in a unique way, due to my life experience to date. Davies (2007) expands on this theme through provision of a caution regarding the necessity to consider the impact of my ontological orientation on my ability to maintain research neutrality. This concept of research neutrality is acknowledged when my epistemological assumption of interpretivist with its associated tendency to dispute the notion of research neutrality is outlined within the main body of this chapter.

Developing a research design strategy that would be most appropriate to the development of, and subsequent answering of, the research questions, to ultimately achieve my research aim; the aim of my research being the exploration of student nurses' conceptions and implementation of peer review and self-assessment, involved consideration of the significance of alignment between my ontological and epistemological assumptions (Bryman, 2008). Ontology is associated with the nature of reality (Oliver, 2010) and Davies (2007) suggests that influencing how we perceive the world and reality are such things as our age, gender and our life experience which makes unique our contribution to the knowledge base.

The term 'epistemology' is viewed by Oliver (2010) as being associated with the gaining of knowledge of this reality. However, more commonly the term relates to the nature of knowledge, with Davies (2007:236) simplifying the term through indicating

that epistemology is a 'philosophical concept concerning how you know what you know'.

Although Oliver (2010) recognises the influence of ontological assumptions on the research process he puts forward the argument that the aims of the proposed research should guide the decision as to the methodology that will be adopted and subsequently the data collection instruments and method that will be utilised. Hek, Langton and Blunden (2000) recognise aims more as providing a benchmark against which the extent to which the study achieves what it set out to do can be evaluated.

From the aim of my study to explore student nurses' conceptions and implementation of peer review and self-assessment were derived the research questions that would assist in the achievement of the aim. These research questions recognised the qualitative nature of my research study, asking what student nurses think that the purpose and value of peer review and self-assessment is, what student nurses think good peer review and good self-assessment are and how student nurses think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value. The methods employed to gain answers to these research questions included focus group discussion using Nominal Group Technique, a practical task and individual interviews. The rationale behind the use of these particular research methods are expanded upon within the main body of this chapter. Adhering to the ethical principles of conducting research was integral to the research design (SERA, 2005; BERA, 2004; Paniagua, 2002) and all of my ethical considerations are also explained within this chapter.

4.2: Ontological orientation

Polit and Beck (2006), Holloway (2005), Cohen, Mannion and Morrison (2005) and Bryman (2008) all assert that a researcher's own basic beliefs can influence their adoption of a particular ontological and epistemological stance. The assumptions that I hold in relation to the nature of reality and the nature of human knowledge did in fact direct me towards adoption of those particular ontological and epistemological assumptions that best reflected my own view. Perhaps through having been immersed within the hectic, unpredictable and subjective world of nursing, for many years, I found

that the ontological assumption that I most relate to is that of the constructivist researchers. Constructivism is defined by Bryman (2004: 538) as an *"Ontological position that asserts that social phenomena and their meanings are continually being accomplished by social actors"*.

Younkins (2004:3) argues that by aligning myself to the constructivist ontological stance I adopt the assumptions that the world is '*... unknowable, contingent, ungrounded, unstable, and indeterminate'*. However, I am not convinced that the world is what Younkins (2004) refers to as 'unknowable'. What I do think is that we can know something at a point in time and then something impacts on whatever it is that we know that indicates further research has to take place and we realise that what we thought we know is no longer a truth. Perhaps being born at a time when thalidomide was being prescribed to expectant women to prevent morning sickness has influenced my thinking about what the 'truth' is. I was fortunate that my mum who had been prescribed this medicine that had been marketed as a new wonder drug procrastinated in obtaining this medicine. Quickly this drug went from being considered a wonder drug to being withdrawn from the market as children were born with birth defects that included shortened limbs and the 'truth' about the drug changed.

What Bryman refers to as constructivism, Cohen, Mannion and Morrison (2005) term 'nominalism' to indicate an ontological assumption of social reality being subjective and the result of individual cognition. My term of reference is constructivism. Having initially identified my orientation towards constructivism and having considered the extent to which the constructivist ontology could influence my research design, I subsequently considered the extent to which I may be open to the influence of the objectivist/realist researcher assumptions. These assumptions are of social reality being external and objective. Cohen, Mannion and Morrison (2005) term these assumptions as 'realism' whereas for Bryman (2004) this same assumption is termed 'objectivism'. My term of reference is objectivism. I realised that irrespective of the terms used, in relation to the research topic of peer review and self-assessment, assumptions that these concepts exist outside and independent of the student nurse's interpretation of them, is less believable to me, than those assumptions that there are multiple and diverse realities that

are context dependent. To explain my rationale behind this, nursing itself is heavily regulated (NMC, 2008; 2010) with the environment within which nurses learn being social in nature, thereby providing a context whereby the many and diverse situations within which I have found myself have shaped my perceptions of reality. Having identified my constructivist ontological orientation, epistemological assumptions are now considered.

4.3: Epistemological orientation

Oliver (2010) describes epistemology as being concerned with the nature and form of knowledge and the way in which it is attained and imparted to other human beings. According to Bryman (2008), the nature of epistemological assumptions can be positivist, interpretivist or realist. Bryman (2008) explains that positivist researchers adopt a stance that advocates for applying the methods of the natural sciences to the study of social reality. In contrast to this, interpretivist researchers adopt a stance that advocates the grasping of the subjective meaning of social action. Realist researchers adopt a stance that acknowledges a reality independent of the senses. I was interested in capturing (grasping) the student nurses' conceptions and implementation (subjective meaning) of peer review and self-assessment (social action). I therefore found myself most attracted to the interpretivist assumption more than the other epistemological assumptions due to its match with my research aim and my epistemological orientation. I realised that this particular epistemological orientation also aligned to my ontological orientation, which Bryman (2008) recommends as being a key factor in the research design process.

Those who subscribe to interpretivist assumptions, according to Cohen, Mannion and Morrison (2005), orientate themselves to the assumption that the nature of knowledge is subjective and based on the unique and essentially personal nature of experience and insight of the individual within a social action context. Additionally, Oliver (2010: 87) asserts that the interpretivist epistemology embraces the idea that the beginning of "negotiating a sense of shared understanding of the world" happens when a human being expresses an opinion and another human being responds to it. This notion fitted well to the topic of peer review, when student nurse is provided with the

opportunity to express and respond to opinions. However, the interpretivist approach that I decided to adopt did, according to Davies (2007), bring with it the risk of me interpreting the research data relative to my own views of the world and how knowledge should be obtained. This was modulated through development of my conceptual framework and utilisation of the adopted theoretical concepts therein during data analysis.

However, Avis (2005) questions whether or not these epistemological assumptions are actually beneficial in leading a researcher to adopt a particular methodological approach and suggests that perhaps the research questions should be the prompt to research design, rather than the researcher's epistemological orientation. This, Avis (2005) claims, is because of the practical implications of not having to embark on the merry go round of defining what qualitative research actually is, which Avis (2005) argues is normally to define such qualitative methods as not quantitative, and vice versa. In relation to this quantitative/qualitative debate, Cousin (2009) convinced me that both qualitative and quantitative research studies involve interpretation, a certain degree of objectivity/subjectivity and numeracy in some shape or other.

In relation to the idea of objectivity, although I do accept Paley's (2005b) argument that there can be a distinction between how it seems and how it really is, I would argue that the 'universal measuring' of human beings, as social entities, is not quite as straightforward a process as 'universal measuring' of some physical object might be. Taking the aforementioned into account I decided that my ontological and epistemological stances, alongside my research questions, directed me towards adopting a qualitative approach to research design.

There is evidence of on-going debate between the proponents of the qualitative approach to research design and those whose ontological and epistemological stance directs them towards adoption of a quantitative paradigm, in particular as to such aspects as the positivist research terms of validity, reliability and generalisability of studies (Paley, 2005a). Putting into practice Paley's (2005a) message that illumination of error and illusions within the research study should be embraced, my study was designed with the intention of not containing any internal contradictions and remaining true to its

purpose and truthful in its data reporting. Having agreed with Paley (2005a:112), as identified earlier in my thesis, that adoption of a qualitative approach permitted me to make no more than *'tentative assertions as to how things seem'* to this group of student nurses (n=25), I appreciated the need to pay particular attention to my interpretation of the data, particularly in relation to any claims that could be made in relation to reality, to remain true to my study purpose and to be truthful in my data reporting.

Taking all of this into account, I accepted that qualitative research design would facilitate me to probe beneath the surface of the topic and make sense of what peer review and self-assessment mean to the student nurse participants. I would argue that what this group of nurses offered was some insight into what can and might be possible in relation to peer review and self-assessment within the nursing curriculum.

4.4: Theoretical underpinning

Literature review revealed to me the theory of Symbolic Interactionism (Bryman, 2004) and resulted in review of the literature of Blumer (1969). The theoretical tradition that proved useful as a framework for my research study was Vygotskian in nature with the addition of Blumer's (1969) notion of symbolic interactionism. Concepts derived from theories of the Zone of Proximal Development and symbolic interactionism facilitated the development of my conceptual framework from the theoretical framework. Vygotsky (1896-1934) may best be described as a key theorist (Cole, John-Seiner, Scrivner and Souberman, 1978) rather than methodologist, such as Glaser and Strauss or Lincoln and Guba. However, Blumer (1969) who states that he was influenced by the writings of Vygotsky describes himself as a methodologist.

Carlisle and Jordan (2005) argue that learners can learn a certain amount on their own before they reach a point referred to by Vygotsky (1934) as the Zone of Proximal Development (ZPD). Thereafter the learner requires assistance to move their learning forward. As part of my research design I wished to incorporate a task that would potentially facilitate the movement of learners through their ZPD where other-regulation makes way for self-regulation and the internalisation process that Vygotsky refers to as the process of knowing. Gallimore and Tharp (1993) provide a four stage model that

portrays the relationship between other-regulation and self-regulation and the progress of a learner through the ZPD:

Stage 1: assistance provided by more capable peers - this can provide direction or modelling

Stage 2: assistance provided by the self – self-guidance. In adults this stage involves the talking to oneself to assist learning.

Stage 3: internalisation, automization, and fossilisation – evidence of self-regulation has vanished and emergence from the ZPD occurs. Performance is executed effectively and assistance is no longer required.

Stage 4: De-automization – enhancement and maintenance of performance may require a return to stages 1 and 2 (as in lifelong learning)

It would appear from this information that we are continuously in a cycle of movement within this zone and each unique person may be at different stages of movement. The 4 stage model shaped my study design in so much as that through the inclusion of the practical task participants' engaged with peer review and self-assessment activity that stages 1 and 2 of the model highlighted above make reference to. Stage 3 of the model, that of internalisation, shaped the data analysis approach I adopted and this is expanded upon at a later point within this chapter. Nursing is a career that requires the life-long learning commitment that stage 4 of the model outlines (NMC, 2010).

Symbolic interactionism (SI) with its emphasis on emergence of our notion of 'self' was an interesting concept to me due to its relevance to my research topic. Blumer (1969) expanded on the work of Mead (1934) by putting forward the idea that symbolic interactionism involved three main stages. The first of these is that people act on things according to the meaning they place on these things. Secondly, people interact socially,

and through this interaction, exchange of views on the meaning of things takes place. Thirdly, people can adapt, abandon or continue to hold the meaning they have placed on things, as a result of this social interaction. Blumer (1969) also puts forward the view that SI can also indicate an appreciation of how others see us and this concept fits well to the research topic of peer review and self-assessment and the title of my study; To see oursels as ithers see us! An exploration of student nurses' conceptions and implementation of peer review and self-assessment.

4.5: Conceptual framework

In order to bring the theory as identified above to a practical level that would be useful to my study a conceptual framework was developed as illustrated in Diagram 1 below.

Conceptual framework
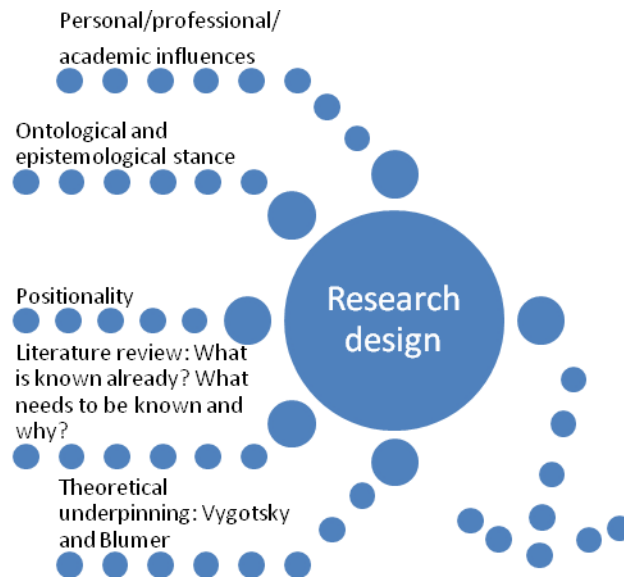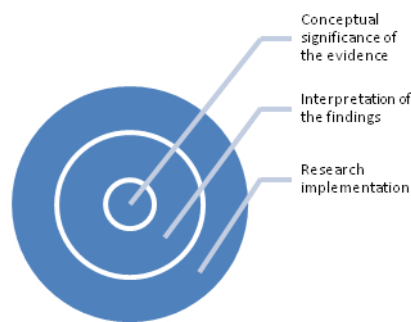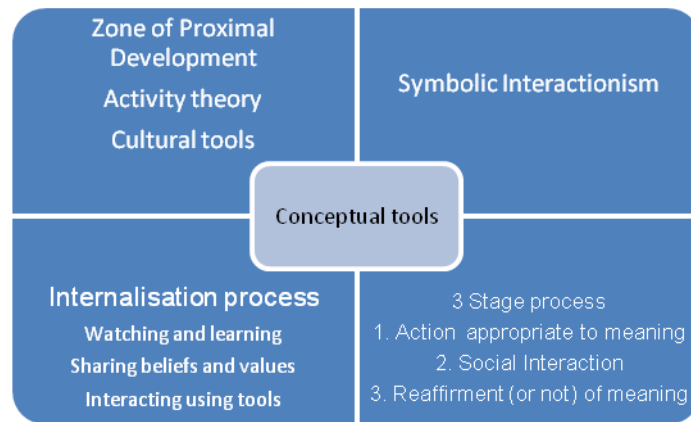
Thesis Contribution

Diagram 1: Conceptual Framework

4.6: Ethical Considerations

All decisions made, in relation to the proposed research, were underpinned by information provided within guidance documents produced by the British Educational Research Association (BERA) and the Scottish Educational Research Association (SERA); namely, Revised Ethical Guidelines for Research (2004) and Scottish Educational Research Association Ethical Guidelines for Educational Research (2005). These documents clarified the responsibilities associated with undertaking research within the educational field to ensure it was conducted in an ethical manner. Ethics committees follow sound ethical principles, in order to protect all of those who are

involved in research (Hek, Langton and Blunden, 2005; Royal College of Nursing, 2007). Ethical approval was sought from both the University of Strathclyde (Appendix 3) and University of the West of Scotland (UWS) Ethics Committees, prior to the study beginning; although necessity for approval from UWS was unnecessary due to approval being granted from the University of Strathclyde.

4.6.1: Researcher role

A point raised by the University of Strathclyde Departmental Ethics Committee was in relation to perceived power relations, due to my position as a nursing teacher who was accessing student nurses within the institution to which I belonged. I considered my role and provided evidence of how I could counteract effects of perceived power relations. In my attempt to counteract any effects of perceived power relations within the classroom, I took on board advice that Bradbury-Jones and Alcock (2010) offer when they suggest that the researcher should state their role as EdD student/researcher and clarify that participation in the research study is voluntary and no-one should feel at all obliged to participate or feel that non-participation will affect their studies or progress on the course. The potential participants were made aware of my role as an academic. However, during a face to face information giving session, potential participants were advised that this academic role was secondary at this point in time to my role as an EdD student/researcher (Williams, 2005). In order to reinforce the researcher position as EdD student rather than academic, all forms of communication with the participants highlighted this. For example, after the signature on the participant information letter and consent form '(EdD student)' was written and the verbal information-giving session began with me stating my role as EdD student/researcher. The participant information letter and consent form was distributed following the verbal information-giving session.

Savin-Baden and Major (2010) make the point that rarely do ethical dilemmas such as those that reach the attention of the public actually happen, for example the falsifying of findings or maltreatment of research participants. I found myself wondering about the potential for this to be due to such cases perhaps being rarely exposed, although I could not source literature that confirmed this possibility. Savin-Baden and Major (2010) also suggest that a researcher should assure the trustworthiness of the study through

adherence to what they call virtue theory or bringing the ethics of research to life rather than merely attempting to adhere to static ethical principles. One of the ways in which I brought the ethical principles to life was by determining my own positionality in the research process. This is something that Ganga and Scott (2006) recognise as an integral aspect of the qualitative research process. The questions that were answered through this process were:

1. What might impact on me when I am carrying out my research?
2. How might I impact on the research? (Ganga and Scott, 2006)

The examination and uncovering of my place as a researcher in the research process was underpinned by the literature of Holloway (2005), Streubert and Carpenter (2011), Carolan (2003), Koch (2006) and Jootun, McGhee and Marland (2009) as previously discussed on page 40 of my thesis.

I thus determined my positionality in relation to my study (Table 4) through identification of the internal positive and negative aspects of me as a researcher; my strengths and weaknesses. I also determined opportunities and threats to me as a researcher. I had no control over those factors that were external to me however I grasped opportunities and worked towards minimising the potential negative effects of the identified threats.

Strengths	Weaknesses
Empathetic	'Doer' more than 'talker'
Self-regulating	Think that everyone
See things through	knows what I know
Opportunities	**Threats**
Insider status/credibility	Perceived power relations
Reviewer for NET journal	Workload commitments
Effective supervisors	Time

Table 4: My positionality

Having determined my positionality the information was then used to inform the study and my place as a researcher in the process. To overcome my identified weaknesses and minimise the perceived threats an action plan was created and the action taken was subsequently recorded as Table 5 illustrates.

Identified problem	Action taken
'Doer' more than 'talker' Plan: Talk about my research	I submitted an abstract to present my early emergent findings at an international Society for Research in Higher Education (SHRE) conference. The abstract was accepted and I had to 'talk' in front of international researchers as I presented the emergent findings from my pilot study. A keynote speaker at the conference, Professor Paul Ashwin, attended my presentation and this supported my belief that my research study could be of interest to a wider audience and potentially add to the current knowledge base within the field of education and nursing. I also presented my research to academic colleagues who were undertaking the Effective Research Supervisors course. The questions asked by attendees on both of these occasions convinced me that the design of my study had been appropriate.
Think that everyone knows what I know Plan: Develop a poster and listen to/respond to questions asked/statements made	I produced a poster that was presented at the EdD induction and networking conference. The development of the poster encouraged me to think through such things as what was known about peer review and self-assessment at the commencement of my research study and what was now beginning to be known as a result of my research study being undertaken. Subsequently, as my research study progressed, this poster was amended to include the emergent findings of my exploratory study and was presented for a 2nd year at the EdD induction and networking conference, at the Scottish Educational Research Association (SERA) conference and at the Enhancing Nursing Through Educational Research (ENTER): Inaugural Scottish Conference
Perceived power relations Plan: Ensure participants are clear about my doctoral student status	I illustrated to my research participants my EdD student status both verbally and in any written documentation to them
Workload commitments Plan: Create a Gantt chart and adhere to it Time Plan: Use time wisely	I created a Gantt chart and managed my time diligently and effectively to balance my work/life/study commitments. I did however accept promotion and this brought with it increased workload and time implications. The need to adhere to my Gantt chart became essential and managing to attend a writer retreat proved to be a very wise decision in terms of time management.

Table 5: Action plan

The title of my study 'To see oursels as ithers see us' was designed in such a way as to encompass the idea of people seeing things differently. Robinson (2006) in a

keynote speech argues that the differences in the way things are seen by people emerge from the dynamic nature of intelligence. Intelligence itself is a matter of debate within the academic literature (Robinson, 2006) with Gardner's ideas of multiple intelligences impacting on thinking and practice in education (Gardner, 1983). However, in relation to my own research study intelligence itself, although a factor relating to how people may see things differently, was not the main focus of the study and was therefore identified as being an underpinning element rather than a topic for further exploration. The information did permit me to assume that the way in which we see ourselves can potentially be very different from how other people see us and therefore designing the study in such a way that peer review preceded self-assessment allowed for exploration of this. Indeed, my research study provided an example of how someone might see themselves differently from others. A participant considered that she was being 'professional' yet her peers thought this professionalism was actually 'stand-offish' and may negatively impact on her provision of patient care.

4.6.2: Trustworthiness of my research study

The reliability associated with quantitative research studies took the form of the qualitative equivalent of dependability in my study. To demonstrate dependability a decision trail was maintained throughout the study and each of the chapters within the thesis provides documentary evidence of this. The section that follows on from this section provides information relating to how I adhered to the ethical principles of research, an overview of which was provided earlier on in the thesis. Through providing documentary evidence of decision making during my study the intention was that other scholars/researchers might be assisted with deciding if my study, carried out within the context of student nurses within a Higher Education setting, may be seen in another context. This, qualitative researchers refer to as transferability (Paley, 2005b). To evidence credibility I ensured that I adhered to the principles of good research practice at all stages of the research process, as dictated by BERA (2004) and SERA (2005).

Overall, my study was designed with the intention of being deemed by its audience of educationalists, nurses, students and anyone else with a vested interest in my topic, as a trustworthy, accurate and fair representation of the student nurses'

conceptions and implementation of peer review and self-assessment. The whole process of how I did this is now described.

4.7: Demonstrating adherence to ethical considerations

4.7.1: Participant information

My participant information letter (Appendix 4) was designed in such a way that individuals were placed in the position of being able to give informed consent to participation. Information that was provided included details of what my study hoped to achieve, what was expected in terms of time and effort, what potential benefits of participation in the study might be and what potential benefits to future student nurses might be. The rights of the individual to withdraw from the study at any point in time were also explicitly stated on the letter. Participants were also provided with a flowchart that outlined the data collection process, as shown in Table 6 overleaf.

University of Strathclyde Humanities & Social Sciences   **UWS** UNIVERSITY OF THE WEST *of* SCOTLAND

Flowchart: Participant information

Stage 1

Focus group discussion will be audio taped. Issues to be explored in relation to self-assessment and peer review include Purpose, Value, Good characteristics, Barriers

Post it notes will be distributed for you to complete sentences such as

"I think that the purpose of self-assessment is…"
"The value in peer review is…"
"A reason that I would self-assess is to…"
"To be good at peer review I would need to…"
"Barriers to peer review/self-assessment include…"

Focus group questions would include, for example

How often have you been exposed to peer review? Was this structured or ad hoc?

Assuming that the purpose of self-assessment is to improve learning and performance, how do you think this happens?

What would make engagement with self-assessment good? What might potential barriers (if any) be?

Do you think that there is any relationship between peer review and self-assessment? What is this relationship?

From the answers to these questions we can create what for the time being will be called a 'Good peer review criteria form' and 'Good self-assessment criteria form'. These titles can be altered and you can suggest titles for them.

Stage 2

Task – monitoring vital signs (video recorded)

In pairs, within the skills lab you will each monitor the other's vital signs and document your findings using the MEWS chart

Peer review task - As a group you will be asked to view the video recording and review your five peers' performance with the task, using the 'Good peer review criteria form'. We will debrief following this.

2 weeks later

Self-assessment task - You will be asked to view your own performance on video (on your own) and complete the 'Good self-assessment criteria form'

I will discuss with you the extent to which the self-assessment reflects the peer review feedback and to what extent your performance reflects the focus group discussion on the purpose and value of peer review and self-assessment.

Stage 3

Individual interviews will take place and be audio taped. You may or may not be interviewed. Potential interview questions include- Did engagement with peer review help you in the self-assessment process? What has been learned as a result of your participation in the study? Have any of your views changed?

Lorraine Duers (EdD student)

Table 6: Participant information flowchart

The research was designed with the intention of causing no harm (nonmaleficence) and the study was undertaken to benefit (beneficence) student nurse

education (Gallagher and Hodge, 2012). SERA (2005) are clear that any research being carried out requires that it makes a worthwhile contribution to the quality of education and I believe that my research study has potentially done this. Each potential participant, on receipt of the verbal participant information and subsequently the participant information letter, was provided the opportunity to ask questions and the time to consider whether or not they wished to participate. Providing these opportunities demonstrated my respect for the student nurse's autonomy (the showing of deferential regard for the individual's independence and freedom).

4.7.2: Participant consent

Written consent was obtained prior to participation in the study and on the consent form it was explicit that the student nurse had the right to withdraw from the research study at any time, without having to provide a reason and without any prejudice to future relations (Appendix 5). One participant did decide to withdraw from my research study following the focus group discussion. Although my participant information letter and consent form had made explicit the fact that a participant could withdraw at any time without providing a reason for this decision the email sent to me did provide me with a reason for the withdrawal. I found that I appreciated being advised of the reason as it satisfied me that my research design was in no way responsible for the decision being made to withdraw from my study. Personal circumstances underpinned the decision. I thanked the participant for his input and I sought consent from him to retain his quotes from his input into the focus group discussion. He granted me his permission to retain his quotes. Refusal would have resulted in all data relating to the participant being removed and documentation to this effect being placed within the report on data collection in the thesis. Although this may have interfered with strands of thought I still consider that if a participant had withdrawn and did not wish any quotes from input included in my collected data then it would only have been right to remove the quotes. The withdrawal of a participant, at this point, did not jeopardise any of the other participants. However, a participant was required for the implementation data collection stage so a person was invited from the reserve list, created as a component of my sampling strategy that is explained shortly. The

participant who withdrew represented the year 2 student nurse group and the category 'under 29 years old' and the reserve participant satisfied these criteria. The person was invited to the implementation data collection stage, introduced to the other 5 participants and I briefed all 6 on this data collection stage process.

4.7.3: Data protection and storage

Adequate data protection and storage was essential to protect the anonymity of participants and confidentiality of research materials. The consent form that each participant dated and signed was kept in a locked drawer and separately from all other research data.

The Data Protection Act (1998) legislation was adhered to (Information Commissioner's Office, 2011). Each participant was allocated a pseudonym, of their own choosing, so that although their name was on the consent form, which was stored safely and separately from all other research data, their name was not kept on any other paperwork or computer files and their names were not shared with any supervisor. The allocation of the participants own choice of pseudonym meant that at the point of publication the participants will be able to recognise themselves. Research data was kept in a lockable filing cabinet within an office within the University of the West of Scotland. The office is locked when vacant and only I have a key to the filing cabinet. Care was taken to protect identity during transcription of conversations that took place, so that local dialect or individual speech pattern remained anonymous. It is proposed that destruction of data will be within three years of gaining the doctoral degree. This is for publishing purposes only and the data will continue to be stored as described above.

4.7.4: Sampling strategy/participant details

In relation to the sampling strategy, my initial intention was to compile registers of those student nurses who met the inclusion criteria and select the 5th name on each register to invite the person to participate in the study. This was to minimise the chances of student nurses with particular characteristics, or points to prove, from biasing the data in any way. However, potential benefits of becoming a participant within my research study was highlighted by the University of Strathclyde Departmental Ethics Committee as a reason to give everyone within the purposive population an opportunity to become

involved with the research study, if they so wished. These potential benefits included being provided with the opportunity to enhance the student nurse's own personal and professional development and being involved in the development of new theory on the topic of peer review and self-assessment. Through sampling, as described, I sought to demonstrate fairness and equity and thus adhere to the ethical principle of justice (Parahoo, 2006).

Utilisation of purposive sampling encouraged selection, and subsequent invitation to participate, of student nurses with experience of engagement with peer review and self-assessment. Exclusion criteria included anyone not a student nurse and anyone who had not experienced engagement with peer review or self-assessment. Stratified random sampling of the purposive sample, with the intention of maximising variation, resulted in six categories being identified. These categories included males, females, less than 29 years of age, over 29 years of age, experience of Higher Education and no experience of Higher Education. Cousin (2012b), however, provides a cautionary note that even by sub-dividing my sample in such a manner the likelihood of capturing entirely the variation within the population to which my study related was minimal. This is acknowledged as a limitation of my study.

A further consideration taken into account during the research design process was the extent to which the subjectivity of these student nurses has been constructed through the community of practice to which they belong. One of the ways of limiting the degree to which the subjectivity impacted on the actual study was to select 1st, 2nd and 3rd year student nurses (n=24) to participate in my research study. Please note the number of participants increased to n=25 from the original intended n= 24. Each of the main data collection groups had the numbers as indicated above, with the exception of the year 1 group where a 7th participant asked to be involved, as she said to me that she had heard from someone in my pilot group about how much they enjoyed and learned from their participation in my study. As she met the inclusion criteria the person was welcomed into the group. This did have implications for the 2nd stage of the data collection in relation to time but the other members of the group stated that they were happy to accommodate the 7th person.

Rationale behind inclusion categories of over and under 29 years of age stemmed from the average age of student nurses on admission to the course being 29 years old (University of the West of Scotland (UWS), 2011). The rationale behind the Higher Education completion/non-completion inclusion criterion was based on findings from the Orsmond and Merry (2009) research study on how students processed feedback within the Higher Education setting. This research paper was reviewed within the literature review chapter of this thesis.

My sampling and selection strategy proved to be successful. Each focus group had the six participants intended (although one group did have 7 as explained earlier), one from each category, as listed above, to provide maximum variation.

4.7.5: Transparency of the selection process

The selection process was made transparent through a face to face meeting with the purposive sample, where verbal information about the research study, reflecting the information provided on the participant information letter, was provided. The following aspects were made explicit at this meeting:-

The aim of the research study

Expectations of what participation would involve

Inclusion criteria

Proposed participant numbers

Mechanism for participants to withdraw from research study

The final point about a mechanism to facilitate withdrawal from the research study emerges through concurrence with advice provided by Bradbury – Jones and Alcock (2010) regarding this. Consideration of this aspect resulted from the University of Strathclyde Departmental Ethics Committee wishing information as to how withdrawal from my study would be facilitated. I decided that a reserve participant list could prove useful in terms of facilitating withdrawal. The compilation of a reserve participant list thus indicated my recognition that participation in my research study was voluntary, with participants having the right to withdraw at any time. It also indicated recognition of the impact that withdrawal of a participant may have on the other students within the participant group, particularly at the point when the participants are working

in pairs. With the reserve list compiled from each of the inclusion categories, as previously indicated, there would be less likelihood of any difference in the actual structure of the group from happening, for example, if a male student nurse withdrew from the study he could be replaced by a male student nurse from his year group. However, this was based on the presumption that the reserve male student nurse would agree to this.

Final participant numbers were therefore:

Pilot study participants (n=6)

Main study participants (n=19)

Reserve list participants (n=18)

4.8: Research Methods

Underpinned by the notion that there is no single all-encompassing method recommended for use by researchers undertaking qualitative research (Flick, Von Kardoff, and Steinke, 2004), data was collected using a variety of methods, namely focus group discussion, practical tasks that were observed and video recorded and individual interviews. Using more than one method or source of data was regarded as being useful as a way of cross checking data; a process known in research terms as triangulation (Rebar, Gersch, MacNee and McCabe, 2011). According to Lincoln and Guba (1985) adopting such a strategy enhances the rigour and trustworthiness of a study. Each method has certain advantages and disadvantages associated with its use and these are tabulated overleaf (Table 7) in relation to my own study.

Method	Advantages	Disadvantages
Focus Group	From my perspective enjoyable and interesting. Afforded me the opportunity to study the ways in which concepts on peer review and self-assessment emerged on an individual and collective level A wide range of opinions were obtained Social interaction where the probing of ideas was undertaken - people listened to each other's ideas and thereby were afforded the opportunity to qualify or modify their own view on the topic under scrutiny Affective as well as cognitive domains were observed and subsequently evaluated	Data analysis implications such as people talking over other people or reduced auditability of recording, time consuming nature of transcription Group dynamics such as reticent or overpowering personalities and danger of 'Groupthink' although a disadvantage commonly outlined was controlled to a certain degree through using Nominal Group Technique prior to a more open discussion
Individual interview	Provided greater depth as opposed to the breadth of opinion obtained through focus group discussion More personal interaction between researcher and participant. Transcription process far more straightforward than that of focus group because only one person spoke at a time. More sensitive information was explored Provided the opportunity for triangulation of data obtained through focus group discussion Provided the opportunity to obtain data relating to the effectiveness (or not) of the research design from the participant viewpoint	People wanted to provide a 'right' answer initially and told me what they thought I wanted to hear. This lessened as the interview progressed and at the point of the digital recorder being switched off comments were made that indicated the 'right' answer approach had been adopted Provided only a snapshot of what participants thought of peer review and self-assessment at the particular time

Table 7: Advantages and disadvantages associated with study methods.

4.8.1: Data collection strategy

The three main stages in the data collection process were named the Conceptualisation, the Implementation and the Consolidation stages. The rationale behind naming the data collection stages as I did was to illustrate the 'thinking', 'doing' and 'bringing together' aspects of the data collection strategy.

Two flowcharts were created: One specifically for distribution to participants and the other one for use by me, as a framework to follow during the data collection phase of my study. The participant flowchart was shown previously and the one I used with more detailed information contained within it is illustrated in Table 8:

Conceptualisation stage

Focus group discussion using NGT will be audio taped – participants (n=6 at one time). Groups (n=3). Issues to be explored in relation to self-assessment and peer review

Purpose, Value, Good characteristics ,Barriers

Post it note distribution for participant to complete the sentence:

"I think that the purpose of peer review is…"

"I think that the purpose of self-assessment is…"

"The value in peer review is…"

"The value in self-assessment is…"

"A reason that I would self-assess is to…"

"Peer review requires me to…"

"To be good at self-assessment I would need to…"

"To be good at peer review I would need to…"

"Barriers to peer review/self-assessment include…"

Focus group questions would include:

How often have you been exposed to peer review? Was this structured or ad hoc?

How often have you been exposed to self-assessment? Was this structured or ad hoc?

Assuming that the purpose of peer review is to improve learning and performance, how do you think this happens?

Assuming that the purpose of self-assessment is to improve learning and performance, how do you think this happens?

What would make engagement with peer review good? What might potential barriers (if any) be?

What would make engagement with self-assessment good? What might potential barriers (if any) be?

Do you think that there is any relationship between peer review and self-assessment? What is this relationship?

With participants, create 'Good peer review criteria form' and 'Good self-assessment criteria form'

Implementation Stage

Task – monitoring vital signs (video recorded)

In pairs monitor vital signs and document findings using MEWS chart

Peer review task- Participants (n=6 at a time until all 18 participants have engaged with peer review) will be asked to view video recording and review five others using the 'Good peer review criteria form'. Debrief following this. 2 weeks later

Self-assessment task- Participants (n=1 at a time until all 18 participants have self-assessed) will be asked to view own performance on video and complete the 'Good self-assessment criteria form'

Researcher to discuss with participant the extent to which the self-assessment reflects the peer review feedback and to what extent their performance reflects the data from the focus group discussion on the purpose and value of peer review and self-assessment.

Consolidation Stage

Individual interviews (n=6) will take place and be audio taped. Potential interview questions include-

Did engagement with peer review help in the self-assessment process? What has been learned as a result of participation in the study? Have any of the participant's views changed?

Table 8: Data collection flowchart.

Watson, McKenna, Cowman and Keady (2008) highly recommend that a pilot study is undertaken to test the feasibility of the study. Therefore a pilot study was undertaken for the purposes of testing the focus group questions and Nominal Group Technique (NGT), which until the point of the pilot study was a theoretical concept that had not been used in the real life setting. My pilot study tested the feasibility of the study and illuminated areas for improvement prior to the main study taking place. The stages of the data collection during my pilot study were replicated during my main study.

4.8.2: Focus group discussion/Nominal Group Technique (NGT)

Conceptualisation stage

The focus group method fitted well with the theoretical perspective of symbolic interactionism, with participants interacting and creating a shared meaning of the purpose and value of peer review and self-assessment and what good peer-review is and what good self-assessment is. However, Litoselliti (2003) puts forward a limitation to the focus group method as being that of individual voices of dissent being silenced. As a way of minimising the potential for this to happen, Nominal Group Technique (NGT) was employed at the beginning of the focus group meeting. Tague (2004) recognises NGT as a structured method of obtaining data from all participants through each individual's involvement in the technique's four individual stages of

1. Generation of ideas (independently)
2. Sharing of ideas in a researcher facilitated manner (without discussion at this point in time). Listing of these ideas.
3. Clarification of individual ideas and then grouping of ideas with similarity to one another.
4. Prioritisation of ideas (through individual voting system)

The specific techniques that were employed and the required participant input are explained further.

Ground rules for the group participation were established and verbally agreed upon at the start. Litoselliti (2003) asserts that this is integral to a successful focus group discussion. The focus group discussion using NGT lasted approximately one hour and thirty minutes and was audio taped using a digital recorder.

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Reflecting Tague's (2004) stages of the NGT, participants firstly generated their individual ideas on paper (in relation to putting into their own words what they think the purpose and value of peer review and self-assessment are and what they think constitutes good peer review and good self-assessment). Post it notes were issued to participants with the start of a sentence which the participant then completed. This strategy facilitated the gaining of each individual's opinion on a range of aspects related to the answering of the research questions. An example of this was "To be good at peer review I would need to …."

Each individual verbalised their idea, in adherence to stage 2 of the NGT process (Tague, 2004) but no discussion around them happened at this point. The points were listed on a flipchart.

Adhering to stage 3 of the NGT process, each participant had the chance to clarify their own idea and group together the post-it notes with similar ideas written on them.

The final stage of the NGT process is the prioritisation of the ideas through individual voting. This final stage took place during the pilot study but was abandoned for the main data collection phases due to its non-relevance to the answering of the research questions.

Following this, a semi structured discussion of the purpose and value of peer review and self-assessment took place. Participants were asked their views on what makes for good peer review and good self-assessment. Beginning the session with NGT assisted the participant's interaction at this stage as everyone had previously had the opportunity to offer opinions and have these opinions heard and the participants appeared to be relaxed in each other's company.

The final part of the focus group discussion involved creating a form (using the initial emerging data) that was subsequently used by the participants in the implementation phase of the research study.

A key aspect of focus group discussion, according to Holloway (2005) is the interaction between participants so that participant views can emerge. In an attempt to facilitate appropriate interaction a comfortable room within the university setting was

booked and refreshments were made available. There was initially to be a maximum of six participants in each group, the number being based on Watson, McKenna, Cowman and Keady (2008) recommendation of between four and eight participants. Watson, McKenna, Cowman and Keady (2008) claim that less than four participants are not considered as constituting a focus group, however, the writers do not stipulate who considers this to be the case (if it is indeed the case). However, for the session that took place with the first year students a seventh participant asked to be included. The person met the inclusion criterion so became a participant and her inclusion had minimal impact on the original research design. Focus group discussion employing NGT took place on three occasions, comprising of a first year student nurse group initially, then a second year student nurse group and finally a third year student nurse group.

4.8.3: Practical task

Implementation Stage

The practical task took place immediately after the focus group discussion. Participants performed the skills of peer review and self-assessment, **t**hrough engaging in a task of monitoring of vital signs of pulse, respiratory rate and temperature, which was video recorded for two reasons. The first of these was in order for the participant group, from their particular year group, to view the video for the purpose of peer reviewing, with the video recording acting as a mediating artefact to surface things which are tacit (Eraut, 2006). Seidel, Sturmer, Blomberg, Kobarg and Schwindt (2011) found, from their experimental study of teachers' (n=67) analysis of the use of video recording as a means of learning, that when teachers watched their own performance of teaching prior knowledge was activated and experiences about teaching and learning surfaced. The second reason was so that each individual could review their own performance in order to self-assess, using the feedback form that had been designed by participants specifically for this purpose. The venue was a skills laboratory within the university and the session took up to no more than one hour of the participants' time.

The task involved participants working in pairs; one participant was 'the nurse' and the other was 'the patient'. Included in the task of monitoring of vital signs of pulse, respiratory rate and temperature was consideration of communication (verbal and non-

verbal), infection control (hand washing and equipment cleansing and use of disposable thermometer earpiece) and documentation of findings (on specific observational chart known as a MEWS chart – an acronym for Modified Early Warning Score system).

Participants, in their specific year group, were invited to view the video-recording and it was at this point that they completed the peer review form developed from focus group discussion. This process facilitated comparison and contrasting of student performance against set criteria i.e. what student nurses thought good peer review and good self-assessment are and how they actually did it.

Participants were invited to view the video recordings on their own for the purpose of completing the new self-assessment feedback form. Following this each participant was asked how they thought that their implementation of peer review and self-assessment reflected the ideas of its purpose and value identified previously through focus group discussion. Answers to this question were then documented by the participant at the bottom of the self-assessment feedback form. The feedback forms were collected for data analysis purposes and a photocopy provided for the participant to keep so that the information contained within the peer review and self-assessment feedback forms could be used to inform future practice. This stage of data collection took no more than thirty minutes of the individual's time.

This data collection phase happened nine times, three times with 1st year students, three times with 2nd year students and three times with 3rd year students and resulted in data from the peer review and self-assessment process being gathered.

4.8.4: Individual interviews

Consolidation stage

Semi-structured individual interviews (n=6) were undertaken, within a two week period of having participated in the implementation stage of the study, to assist me in gaining data that confirmed or challenged emergent information from focus group discussions. Interviewees had been engaged with the first two phases of the data collection process, thereby in a strong position to offer information. Sampling for individual interviews was through asking for two participants from the full participant group for each year group. Each interview was audio taped and lasted no more than one

hour. Questions at this stage reflected data emerging from stages one and two of this research process. Although I had set potential questions prior to undertaking the actual study, as illustrated on the data collection flowchart, a fuller interview schedule was developed once focus group discussion and practical sessions took place. I was interested in gaining information, from the participant, regarding whether engagement with peer review helped in the self-assessment process; how self-assessment was (or was not) influenced by peer review; what the participant thought of the feedback form that had been created; what had been learned (or not) as a result of participation in the study; had any of the participant's views changed throughout the duration of involvement with the study. The interviews were transcribed verbatim within one day of taking place in an attempt to ensure accuracy of data.

4.8.5: Data Analysis

The first of two common processes that, according to Ritchie, Spencer and O'Connor (2003) underpin qualitative data analysis, involved me managing the data to reduce it and the second of these processes required me to make sense of the data and generate accurate accounts of it. There were six steps to the analysis process and these are described and discussed within the data analysis chapter. A very brief overview is provided here as a sample of some of the content of the data analysis chapter.

During analysis, the coding system used for the NGT post-it notes data were simply year 1, year 2, year 3 and pilot. The post-it notes data were categorised and connections subsequently made. This facilitated conclusions to be reached regarding the main themes that emerged from this particular data. This process reflects Watson, McKenna, Cowman and Keady (2008) 5 Cs sequence for qualitative data analysis, the letter C being representative of the first letter of the words codes, concepts, categories, connections, conclusion.

Focus group discussions were audio recorded and personally transcribed within a day of the group discussions, in adherence to the research proposal application details that had gained ethical approved. This transcribed data was subsequently analysed through a process recognised as concept-driven (Tappen, 2011). This concept-driven data analysis involved three aspects of Vygotskian theory being applied to the data;

watching and learning from others; the passing on of beliefs and values to others; the acceptance of the less experienced by the more experienced. Concepts of SI were also applied to the data. This facilitated a process of making sense of the data. However, a criticism of employing concept-driven data analysis is that the opportunity for new material to emerge directly from the data may be neglected (Tappen, 2011). To counteract this limitation associated with the concept-driven data analysis, a data-driven analysis subsequently was employed. I read the raw transcribed data until familiarity occurred, taking my direction from suggestions made by Fereday and Muir-Cochrane (2006), Braun and Clarke (2006) and Attride-Stirling (2001) as to the benefits of doing this in order to be able to interpret the data accurately.

A decision to manually organise the data was taken as a result of previous experience and confidence with the process of manual data organisation and the idea that I could engage myself fully with the data without distraction of the computer software. Polit and Beck (2012) recognise that although manual methods of organising qualitative data are becoming less common as the use of computer software such as Nvivo (Van den Eynden and Chatsiou, 2011) are becoming more popular the manual approach to organising qualitative data continues to offer the potential for the researcher to get closer to the data, whilst remaining true to the cognitive process of data analysis without the distraction of a more mechanical process.

4.9: Concluding comments

The steps of the research design process from the point of determining the ontological stance to indicating how the data were analysed and the resultant findings have been outlined in a design strategy that was logical and facilitated achievement of my research study aim. In my planning at all stages I have been strategic and realistic in terms of what could be achieved. Adherence to ethical principles was integral to the research design at all stages. The research strategy utilised proved to be appropriate in illuminating the previously untapped knowledge within the field of student nurses' and their conceptions and implementation of peer review and self-assessment.

The following chapter takes forward the theory of data collection to the reality of data collection, through providing a detailed description of the data collection process during my study.

CHAPTER 5: DATA COLLECTION STRATEGY

5.1: Introduction

This chapter provides information on the process of gathering data to assist me in the answering of my research questions and subsequent achievement of the aim of my study, which was to explore student nurses' conceptions and implementation of peer review and self-assessment. Table 9 provides a reminder of the research questions.

What do student nurses think that the purpose and value of peer review is?
What do student nurses think that the purpose and value of self-assessment is?
What do student nurses think good peer review is?
What do student nurses think good self-assessment is?
How do student nurses think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value?

Table 9: Research Questions.

Within this chapter my adherence to the data collection strategy and flowchart outlined within chapter 4 is clarified. The data collection strategy was itself underpinned by five main assumptions drawn from literature review. These assumptions were:

Assumption 1 - People act on things according to the meaning they place on these things (Blumer, 1969).

Assumption 2 - A negative experience can have long lasting effects on learners and can result in decreased self-esteem, anxiety and withdrawal from the learning process (Ecclestone and Pryor, 2003; Duers and Brown, 2009).

Assumption 3 – Social interaction can progress learning through the Zone of Proximal Development (Vygotsky, 1978) and can influence subsequent placing of meaning on things (Blumer, 1969).

Assumption 4 – People amend, abandon or continue to hold the meanings they placed on things following social interaction (Blumer, 1969).

Assumption 5 – Engagement with peer review and self-assessment potentially influences the development of self-regulatory capability (Nicol, 2010; Boud, 2007; Sadler, 2010).

The connection between these assumptions and the data collection methods employed is clarified within the main body of this chapter prior to fuller explanation of each data collection method.

Data collection took place within a comfortable room within the university setting and refreshments were made available. Equipment required to assist with the collecting of data was checked prior to use and rooms rearranged for maximum participant engagement and comfort. There were three stages to the data collection phase of the study and the rationale behind the naming of each stage as 'Conceptualisation', Implementation' and 'Consolidation' was to illustrate the 'thinking', 'doing' and 'bringing together' aspects of the data collection strategy.

The first stage, namely the 'Conceptualisation' stage, involved the collecting of data through four focus group discussions that were audio recorded. Nominal Group Technique, a technique that has already been described in the previous chapter, was utilised.

On conclusion of each of the four focus group discussions the participants' within each group created a peer review and self-assessment feedback form and these forms can be viewed within chapter 9. The main content of both forms are similar, with only the identifier name, introduction and concluding sections being different.

During the second stage, named the 'Implementation' stage, participants were engaged, in pairs, with a practical task that involved peer review and self-assessment activity which was video recorded. The participant created feedback forms were used and commented upon by the participants.

Each participant chose a peer participant and worked in pairs to monitor vital signs and document findings using a chart commonly referred to as a MEWS chart (Appendix 6) which is an acronym for Modified Early Warning Scoring. As each pair undertook the practical task within a clinical skills lab setting, one took on the role of the nurse and the other the role of the patient. The other members of the group viewed the undertaking of the practical task through a one way observation window. Feedback on the performance of the member of the pair who was in the role of the nurse was documented on the peer review feedback form that the group members had created. Once all of the pairs had

performed the task and had been peer reviewed there was a debriefing session when the feedback forms were distributed between the peers and the feedback comments were discussed. The participants then documented, at the bottom of the feedback form, their opinion of using the form along with any suggestions as to how the form might be improved. This information was useful as the form was taken from its conceptualised stage to its completion stage, as illustrated within chapter 9.

The final stage of data collection, named the 'Consolidation' stage involved the undertaking of individual interviews (n=6) with 1st year (n=2), 2nd year (n=2) and 3rd year (n=2) participants.

The chapter commences with information relating to some of the challenges encountered during my pilot study and the subsequent action taken to overcome these challenges and prevent them recurring during my main study. Watson, McKenna, Cowman and Keady (2008) highly recommend a pilot study being undertaken and the benefits of having undertaken my pilot study were evident when the challenges experienced during the pilot study were not replicated during the main data collection phase of my study.

5.2: Challenges encountered during my pilot study

There were four main challenges that arose during the data collection phase of the study. The first of these was external noise during the pilot study focus group discussion. The room that had been allocated for my meeting was adjacent to a staff open area. I had timed my pilot study focus group discussion to take place when staff tended not to be using the area. However, an extraordinary tea break took place during the time my focus group discussion was being recorded. A sign was on the door of the room I was using that informed staff that my focus group was taking place, however, my sign went unnoticed initially. What was probably only minutes after the noise began it ceased, as a colleague drew the attention of the other staff members to my sign. The staff members were subsequently very apologetic. During the noisy period of time, however, one of the Dictaphones I had with me failed to record clearly the conversation. Fortunately I had taken another Dictaphone into the room with me and placed it at another position within the room, based on advice provided during discussion of my

study at its proposal stage with Professor Ray Land, who was my EdD supervisor at the time. The digital recording on the second machine was clear. However, to prevent the potential for this particular challenging situation from recurring during subsequent main study focus groups, a meeting with the administrator who allocates rooms resulted in a room within a quieter area of the University being made available to me. The problem of external noise did not recur during the main study, although I continued to record using two Dictaphones just in case of malfunction of one.

A second challenge involved the University inbuilt video recording system called SMOTS, an acronym for Scotia Medical Observation and Training System. The pilot study group were due to undertake the practical task, which was to be video-recorded, when the SMOTS equipment, working without fail prior to this particular occasion, malfunctioned. The malfunction was such that the task could be filmed but not replayed. The replaying function was essential to the self-assessment element of the practical task. Fortunately a check of the function of the equipment prior to the time of the pilot group practical activity meant that I could overcome the problem the malfunctioning equipment had presented, prior to the participants arrival. A manual video recorder was borrowed from colleague. However, instructions for use had to be very quickly absorbed. The attachment of the video camera to the tripod was my first challenge. With this challenge met I then ensured that the video recording would capture the scene and sounds within the room. An external microphone provided the means of capturing the sound.

To ensure that the video camera would function as I wished it to, I sought the assistance of a colleague. My colleague moved around the room and spoke as he did so. Replay of the recording indicated that the picture and sound were of a satisfactory quality. By the time the participants arrived for the practical task the equipment was set up and ready for use. My colleague who had kindly provided the manual video recorder on this occasion agreed to me keeping it until my data collection with all participants had been completed. The SMOTS equipment, once repaired, functioned effectively for my main study group recordings.

The third challenge was that of keeping to the time schedule I had proposed for the NGT phase of the focus group discussion. The pilot study revealed the time consuming nature of the voting stage of NGT. The NGT element of the discussion took longer than predicted as a result of this voting stage and the resultant information added little to the study. For this reason, this stage of the NGT was rejected for the main study focus group discussions that took place.

Finally, the proposed timing of two weeks between the peer review and self-assessment activity proved challenging. My initial intention was that a two week period would offer the participants' time to reflect on the peer review feedback they had been provided with. During my pilot study this two week period was adhered to. However, just prior to the time of the self-assessment activity taking place a pilot group participant apologised, saying that she would not be able to attend as her wisdom tooth had become infected and she had an emergency appointment with the dentist. A further pilot study participant had another commitment that he had forgotten about and asked that his viewing of the recording of the practical task and self-assessment take place on another date. Both of these people did self-assess eventually but said to me that from their point of view it would have been better for them to have completed the self-assessment on the day of the practical activity. This feedback from these participants influenced my thoughts that the self-assessment should take place at the time when participants are in performing the task anyway. When I recruited my main study participant groups I gauged their opinion on the self-assessment activity taking place on the same day as the practical task and peer review. The decision to perform the practical task in totality at the time of attendance for this stage of the data collection strategy was agreed and subsequently took place during my main study.

Another issue that emerged as a result of undertaking the pilot study related to two of the questions that I had set to prompt focussed discussion. These were:
How often have you been exposed to peer-review? Was this structured or ad hoc?
How often have you been exposed to self-assessment? Was this structured or ad hoc?

In reality, pilot group participant responses to these questions, which were on reflection rather positivist in nature, added nothing to the answering of the research questions. The questions were therefore rejected for the main study. A detailed description of the main study data collection is now presented.

5.3: Conceptualisation stage

5.3.1: Focus group discussions

Underpinned by assumptions 1, 3 and 4, assumption 1 being that people act on things according to the meaning they place on these things (Blumer, 1969), assumption 3 being that social interaction can progress learning through the Zone of Proximal Development (Vygotsky, 1978) and can influence subsequent placing of meaning on things (Blumer, 1969) and assumption 4 being that people amend, abandon or continue to hold the meanings they placed on things following social interaction (Blumer, 1969) the focus group method for data collection was selected. The focus group method permitted data gathering through exploration of participant thoughts on the topic under scrutiny and also provided for participants the opportunity for the social interaction that assumption 3 and 4 recognise as impacting on what the participants subsequently might think of peer review and self-assessment.

Adopting a qualitative approach to my research design, I moderated four focus group discussions and utilised nominal group technique (NGT), a technique Delbecq, Van de Ven and Gustafson developed in 1971 (Delbecq, Van de Ven and Gustafson, 1986). Having never employed this particular technique before, I utilised Tague's (2004) NGT framework as a guide. Tague (2004) recognises NGT as a structured method of obtaining data from all participants through each individual's involvement in the generation, sharing, clarification and grouping of ideas relating to the subject under exploration, in this case the purpose and value of peer review and self-assessment and what components potentially make for a good experience or not during engagement with both. These identified stages of NGT were adhered to during all focus group meetings.

NGT has a further stage, that of prioritisation of the ideas (Delbecq, Van de Ven and Gustafson, 1986). Within the pilot group this prioritisation of the NGT data took

place. However, subsequently I rejected this particular stage of NGT. The rationale behind my decision to reject the idea of prioritising the ideas was twofold. Firstly, it was the breadth of ideas rather than, for example, the number of people who agreed on a certain point being more significant than another point, which enabled the answering of my research question. Davies (2007) also suggests that the counting of numbers of students who agree/disagree with a particular point moves the interpretative account to one that is rather more positivist in nature. This was not my intention. Secondly, the time intensive nature of the prioritisation process had become evident to me when NGT was employed with my pilot study participants. Adopting the assumption that my participants were very busy people who had given their valuable time to me, I felt obliged to ensure that at all stages of my data collection process their time was used effectively and efficiently. As a part-time doctoral student holding down a full-time teaching position it was also in my best interest to utilise time effectively and efficiently.

Three of my four focus groups had six participants and one focus group had seven participants (n = 25 total participants). The reason for the group of seven rather than six participants was due to a student nurse arriving with a friend on the day of the focus group discussion and asking to be involved in my research study. This student nurse, pseudonym Natalia, said to me that she had been told by someone who had already participated in my pilot study that it was 'really enjoyable and taught you lots'. Natalia met the criteria for inclusion in my study as she was a student nurse with experience of engagement with peer review and self-assessment. The only exclusion criteria set for my research study was that of not being a student nurse and not having experience of engagement with peer review and self-assessment, therefore I had no reason to exclude her from participating. Although Natalia's inclusion in the group was not what I had planned and required some reorganisation during the subsequent practical session of my study I welcomed her into the group and she proved to be a valuable contributor during the focus group discussion.

I found through using the nominal group technique that each participant was provided with the opportunity to put forward his/her own opinion without being influenced by other members of the group. The potential silencing of individual voices

of dissent that Litoselliti (2003) puts forward as a limitation to the focus group method was also minimised through use of this NGT. NGT has been criticised as potentially creating artificial consensus (Tague, 2004), however through my decision to reject the prioritisation stage of the NGT process I would argue that this potential was minimised.

To satisfy the stage known as the 'generation' stage of the NGT (Tague et al, 2004) each participant completed a sentence on a post-it note. Table 10 illustrates these sentences.

"I think that the purpose of peer review is…"
"I think that the purpose of self-assessment is…"
"The value in peer review is…"
"The value in self-assessment is…"
"A reason that I would self-assess is to…"
"Peer review requires me to…"
"To be good at self-assessment I would need   to…"
"To be good at peer review I would need to…"
"Barriers to peer review/self-assessment include…"

Table 10: NGT post-it note incomplete sentences

However, following the pilot group NGT session I decided to include a further post-it note that would perhaps drill down that bit further into what in particular student nurses required from the peer review process. This sentence began with "When a peer reviews me I would like feedback on particular aspects of my performance, especially…" and this NGT post-it note was added during the main study.

The completion of the post-it notes by the participants was done in silence and independently during all four focus group sessions. Ideas were thus generated by the participant without influence being exerted by anyone else. This strategy maximised participant involvement within my study and prevented a situation called groupthink from occurring. This idea of groupthink is, according to Henningsen, Henningsen, Eden and Cruz (2006), a phenomenon that occurs when members of a group comply with each

other even when they might privately and individually disagree with the group preference.

The information on each of the post-it notes was then verbalised by each participant in turn satisfying the 'sharing' stage of NGT. All of the post-it notes were then placed on the wall of the room in which the focus group discussion was taking place in order that they could be read by all participants.

Participants were then provided with the opportunity to ask questions about the ideas; the 'clarification' stage of NGT. Once ideas were clarified, participants rearranged the post-it notes on the wall of the room in which the meeting took place so that similar ideas were grouped together; the 'grouping' stage of NGT.

Coded simply using the year number for the year group participating in each particular stage of the data collection, the data was collected and stored safely and securely until all data had been collected. During analysis the post-it notes (n=25 in total) were read and similarities were highlighted through movement of the post-it notes on A4 sheets of paper. Connections were made and themes emerged. At this point data from the different year groups were still separate in relation to the data as a whole. Subsequently connections were made between the year group data and the information was themed in totality. This process is explained further in the following chapter.

Following implementation of the NGT component of the focus group meeting a fuller discussion took place and this discussion was framed around the questions illustrated within Table 11 overleaf.

How often have you been exposed to peer-review? Was this structured or ad hoc? (Question asked only during pilot study)
How often have you been exposed to self-assessment? Was this structured or ad hoc? (Question asked only during pilot study)
Assuming that the purpose of peer review is to improve learning and performance, how do you think this happens?
Assuming that the purpose of self-assessment is to improve learning and performance, how do you think this happens?
What would make engagement with peer review good? What might potential barriers (if any) be?
What would make engagement with self-assessment good? What might potential barriers (if any) be?
Do you think that there is any relationship between peer review and self-assessment? What is this relationship?

Table 11: Focus group discussion prompt questions

The focus group discussions were audio taped, with two digital recorders available in the event of malfunction of one, bearing in mind that this had proven to have been a wise decision at the time of the pilot study. However, at the time of the pilot study it was not so much the Dictaphone that malfunctioned, rather there was external noise. During transcription of the recorded pilot group data it was difficult to hear what was being said on one of the Dictaphones when the discussion was being replayed. Fortunately the sound quality on the second Dictaphone was better, making it possible to capture the data.

Underpinned by assumption 2 that a negative experience can have long lasting effects on learners and can result in decreased self-esteem, anxiety and withdrawal from the learning process (Ecclestone and Pryor, 2003; Duers and Brown, 2009) following each focus group discussion, participants put forward suggestions relating to the creation of a feedback form that could be used by student nurses during peer review and self-assessment engagement. The idea was that the feedback form would encapsulate the participants' conceptions of the purpose and value of peer review and self-assessment and provide a framework against which performance could be evaluated in a fair and positive way. The development of the form is analysed within chapter 9.

5.4: Implementation stage

5.4.1: Practical task

Underpinned by assumption 3 that social interaction can progress learning through the Zone of Proximal Development (Vygotsky, 1978) and can influence subsequent placing of meaning on things (Blumer, 1969) and assumption 5 that Engagement with peer review and self-assessment potentially influences the development of self-regulatory capability (Nicol, 2010; Boud, 2007; Sadler, 2010), a practical task was incorporated within the research design.

The people involved in the practical task were the same people who participated in the focus group discussions, with the exception of one person who joined as a research participant after the focus group discussion had taken place. This was as a result of a participant wishing to withdraw from the study. The process put in place to enable participants to withdraw was outlined in the previous chapter. I met with the person who joined the group to provide her with information on the focus group discussion and the feedback form that had been created by the participants within the group that she was joining for the practical task. The participant chose her pseudonym and was introduced to the other members of her group using this pseudonym. The participants responded by introducing themselves using their chosen pseudonyms. The participants laughed and commented on the pseudonyms and this seemed to provide a bond between them. Cohesiveness within a group is a factor that Henningsen, Henningsen, Eden and Cruz (2006) identify as being influential in the manner in which groups function.

The practical task involved student nurses working in pairs to undertake the monitoring and recording of each other's temperature, pulse rate and respiratory rate (TPR) and to document the readings. Two small rooms known as communication rooms due to them having an observation window between them were utilised for the task. Whilst two participants were undertaking the task the other participants observed the performance through the observation window between the two rooms. The SMOTS equipment, in addition to visually recording the task, also permitted display of the room in which the participants were involved in the practical task, to be shown on a computer screen within the observation room so participants observing the performance could

clearly see and hear the pair involved in the task whilst the performance was recorded by the system. The participants documented on the new peer-review feedback form their comments on the peer performance. When a pair were actually undertaking the task it would be impossible for them to complete the peer review documentation for each other therefore their performance was video recorded in order that the recording could be viewed and peer review on each other made possible at a later point.

Once all members of the group had monitored and recorded the TPR the group viewed the video recording together. Those who had already watched the performance at an earlier point were able to confirm their earlier documentation of the peer performance as they watched and listened for a 2nd time. Of the pair who had been performing one was the person being peer reviewed and the other was playing the role of a patient for the purpose of the exercise. Therefore one of the pair completed a peer review form whilst the other completed a self-assessment form. Initially the idea was that self-assessment would take place two weeks after the peer review had taken place. However, the pilot study raised indication that this in reality proved difficult for participants. Additionally, the opportunity to self-assess whilst in attendance for the practical activity was supported by study participants.

The forms were collated following the practical activity and participants were provided with a photocopy of the form to inform their learning at a later date (Murphy, 1999).

Following the practical task stage of the data collection process further information was gained on what the participants thought of the form once they had actually used it. To capture this data the participants were asked the question:

'Did the forms do what you thought they might do?'

As each group used the form a bank of responses was obtained and chapter 9 discusses the impact of these responses on the eventual peer review and self-assessment feedback form appearance and content.

5.5: Consolidation stage

5.5.1: Individual interviews

Underpinned by all 5 assumptions, taken forward from literature review and identified within the opening section of this chapter, was the incorporation of individual interviews. Although every attempt was made during focus group discussions to fully involve all participants, the individual interview provided an opportunity for in-depth discussion to take place. Triangulation of the data was also made possible through incorporation of more than one method of data collection (Bryman, 2008).

Individual interviews (n=6) were undertaken with participants whose pseudonyms were:

Natalia and Scott, year 1 participants

Stephanie and Sophie, year 2 participants

Lucy and Elizabeth, year 3 participants

These six individuals who were interviewed had been involved in the previous two data collection stages and were therefore in a good position to answer the prompting questions. Table 12 illustrates these questions.

What did you think the whole thing was about?
What did you think of the post-it notes and subsequent focus group discussion?
What did you think of the peer review and self-assessment forms before you used them?
What did you think of the peer review and self-assessment forms after you used them?
What did you think of being the peer reviewer?
What did you think of being reviewed by your peers?
What did you think of the feedback you gave/received?
Have you learned anything from participating in the study?
Have any of your views on peer review and/or self-assessment changed as a result of your participation?

Table 12: Individual interview questions

Each participant was provided with verbal information on what to expect and the length of time approximately that the interview might be expected to last. The room had a 'do not disturb' sign and the room was arranged in order that the participant felt

empowered. There was no desk between myself and the participant and the only table was a small one on which the Dictaphone was placed. Refreshments were made available, the cost of which was personally paid for. Only one Dictaphone was used although another was readily available.

This Dictaphone recorded the interview conversations. Interestingly on all occasions, prior to the digital recording beginning and following it being stopped, each participant spoke freely and animatedly about their experience of being a participant. Once the button was pressed to begin recording I noticed that each participant became less relaxed and awareness seemed to be heightened. On completion of recording the people became more relaxed again.

Prior to the interview beginning, each participant was asked if they had any questions they would like to ask me and asked if they were comfortable prior to commencement of interview. Each participant said that he/she was clear as to expectations. This he/she said was because the participant letter and flowchart had provided all of the information required. No-one therefore asked a question prior to the interview being recorded.

Each individual interview was undertaken using the questions within Table 12. Interestingly, following the recording of Natalia's individual interview, salient points were made once the recording of conversation was stopped. Such was the nature of what Natalia said that I sought permission to capture through the Dictaphone what she said. This permission was granted. The machine was switched on once again and captured data in relation to diagnosis of dyslexia that had come to light directly as a result of Natalia's participation within my study. If ever a research study contributed to the progress of a student within Higher Education it might be argued that my study did. Enabling support mechanisms had been put in place that permitted Natalia to continue with her nursing course, which at one point Natalia said that she did not see happening.

5.6: Concluding comments

Overall, the strategy that had been devised for data collection, proposed and ethically approved, proved to be most effective in reality. With the exception of the challenges and their subsequent resolution, outlined within this chapter, the data

collection strategy was adhered to and provided an effective framework for me as I gathered my data.

Natalia, Scott, Stephanie, Sophie, Lucy and Elizabeth were thanked for his/her contribution to my research study and advised that on publication of my work because the pseudonym had been personally chosen by the participant each person should be able to recognise his/her contribution to my study. All participants thanked me for providing the opportunity for them to become involved in a study that these people said would benefit future nursing students through the feedback form that had been created.

The collected data was subsequently analysed and the following chapter clarifies the data analysis strategy. The data analysis chapter has been designed in such a way as to provide information that potentially will stimulate debate within the educational and nursing communities and in doing so make a worthwhile contribution to the quality of education and practice within nursing.

CHAPTER 6: DATA ANALYSIS STRATEGY

6.1: Introduction

The aim for this chapter from the outset of the research study was that it would provide an accurate and trustworthy account of the evidence that was gathered during the exploratory study of student nurses' conceptions and implementation of peer review and self-assessment. Hewitt-Taylor (2011) recognises that trustworthiness is an essential component of qualitative research. This chapter therefore provides an overview of the steps taken to maintain as accurate and trustworthy an account of the research study as possible. Lindsay (2007) puts forward the argument that the chances of achievement of 100% accuracy are negligible and therefore to minimise the risks of anyone treating the research findings as absolutely accurate he suggests that a declaration of the limitations of the study should be made. The research study was designed to be undertaken within a particular context using qualitative methods for data collection and data analysis.

A potential limitation of any qualitative research study data analysis process, the effect of which steps were taken to minimise, is that of data being lost during the transcription process (Cohen, Manion and Morrison, 2005). Audio recorded interviews (four focus groups and six individual) were personally transcribed within one day of having taken place whilst the encounter was still fresh in my mind. Bryman (2008) recommends early transcription of audio recorded interviews for this reason. Cohen, Manion and Morrison (2005) argue that the process of transcription of data from the oral and interpersonal form to the written form can potentially result in the loss of data. These writers dismiss the idea that the transcription provides a totally true picture of what took place during any type of interview. Strategies that were therefore employed during the transcription of the data, to minimise the loss of data that Cohen, Manion and Morrison (2005) suggest happens, included the documentation of information on the manuscript about, for example, participant vocal tone and voice inflection, as these can give clues as to the message being given by the words, which once in written form lose their associated human expression. When emphasis was placed on particular points by a participant, or when there were pauses, these were also noted on the manuscript. Other notes were made relating to participant mood and speed of speech. Cohen, Manion and

Morrison (2005) recognise that through adding such information the accuracy of the transcription is potentially maximised. However, I understood that even when additional information was applied to the manuscript, as illustrated above, my interpretation of events could still be open to different interpretation by another human being. Alternative interpretations of the data were therefore contemplated. Through comparing and contrasting to the information available prior to and following the encounter under interpretation my intention was to provide as accurate as possible an account of the data within the confines of my human fallibility (Liamputtong, 2009).

Through making transparent the strategies that were used to analyse transcriptions of the collected data this chapter aimed to enhance the potential for my study findings to be believable to other scholars. Lincoln and Guba (1985) term the believability of qualitative research as 'credibility'. Further markers of trustworthiness within qualitative research studies include dependability, transferability and confirmability (Lincoln and Guba, 1985). The making transparent of my data analysis process within this chapter therefore also aimed to assist other scholars to identify how the findings of my study might be applied within a different context and to determine how likely my findings were to apply at other times. The steps that were taken to minimise the potential intrusion of my ontological and epistemological orientation on the study were incorporated within the data analysis strategy, an overview of which is included within this chapter of the thesis.

The decision to manually organise the data was taken as a result of previous experience and confidence with the process of manual data organisation and the idea that I could engage myself fully with the data without distraction of the computer software. Nvivo software was accessed and used initially but with an increased awareness that the software merely organised the data and did not analyse it, the decision was made to resort to a manual data management and analysis system. The main advantage of this to me was that I was not tied to sitting in front of a computer screen, instead I could have the data spread around the room in which I was working and move around as I organised the reams of paper into a semblance of order. Ritchie, Spencer and O'Connor (2003) make the point that, irrespective of the particular data analysis approach adopted, it is

the reduction of and making sense of the data that underpins all qualitative data analysis. Conversely, Lincoln and Guba (1985) put forward the argument that qualitative data should not be reduced but rather reconstructed. I would consider my raw data to have been reconstructed and through the process of reconstruction subsequently reduced.

Polit and Beck (2012) recognise that although manual methods of organising qualitative data are becoming less common as the use of computer software such as Nvivo are becoming more popular the manual approach to organising qualitative data continues to offer the potential for the researcher to get closer to the data, whilst remaining true to the cognitive process of data analysis without the distraction of a more mechanical process. Manual organisation of the qualitative data and subsequent analysis moved the data from its raw stage towards the generation of an explanatory account; research questions were answered and the research study aim achieved. Within a qualitative research study this process is referred to by Watson, McKenna, Cowman and Keady (2008) as a 5 Cs sequence of events, the 'C' representative of the initial letter in the words 'codes', 'concepts', 'categories', 'connections' and 'conclusions'.

Throughout the chapter the pseudonyms that were chosen by the participants (Appendix 7) are written as (pseudonym, number representing year of study i.e. 1, 2, 3) next to any direct quotations. Through permitting the choice of pseudonym it was hoped that on publication of the study the participants would be able to recognise their input into the production of the work. The decision to permit this was based on the assumption that had I chosen the pseudonym for each participant the potential for the individuals to recognise their contribution within my published work may have been reduced. Beginning with a tabulated plan of the data analysis process, the chapter proceeds to an explanatory account of each of the steps (n=6) taken to move from the raw data to the answering of the research questions.

6.2: The data analysis process

A series of data analysis steps (n=6) were tabulated. Table 13 illustrated this series of steps.

Step	Type of data requiring analysis	Data analysis method used
Step 1	Conceptualisation stage data: NGT post-it notes	Miles and Huberman (1994) 3 stage data analysis method 1. Reduction 2. Display 3. Conclusion
Step 2	Conceptualisation stage data: Focus group discussion audio recordings	Data transcription from spoken word to written manuscript. Documentation of visual and non-verbal cues that had been noted during focus group discussion
Step 3	Conceptualisation stage data: Transcribed manuscript of focus group discussion	Concept-driven (V = Vygotsky and B= Blumer) Concepts applied to the data: Watching and learning from others (V) The passing on of beliefs and values to others (V) The acceptance of the less experienced by the more experienced (V) Acts on meaning (B) → Social interaction (B) → Meaning impacted upon (B)
Step 4	Implementation stage data: Written documentation of thoughts on peer review and self-assessment forms	Miles and Huberman (1994) 3 stage data analysis method 1. Reduction 2. Display 3. Conclusion
Step 5	Consolidation stage data: Individual interviews	Miles and Huberman (1994) 3 stage data analysis method 1. Reduction 2. Display 3. Conclusion
Step 6	All previously analysed data	Reconstruction of the analysed data to answer the research questions: RQ 1&2 Purpose and value of peer review/self-assessment RQ 3&4 Components of good peer review/good self-assessment RQ 5 Influence of conceptions of peer review/self-assessment on implementation of peer review/self-assessment

Table 13: Steps of data analysis process

Chapter sub-headings were derived from the names allocated to the stages of the data collection strategy. The rationale behind this was to provide a seamless link

between the data collected and the data analysed. The subheadings used, with associated rationale for inclusion within the data analysis chapter, are illustrated within Table 14.

Chapter No.	Heading	Rationale
6.2	The data analysis process: A 6 step process that was tabulated and presented above.	To provide transparency to the strategy adopted
6.3	Data analysis: Conceptualisation stage data (Step 1,2 and 3 of the data analysis process were incorporated within this sub-chapter)	To generate an account of data collected through four focus group discussions and creation of feedback forms by participants
6.4	Data analysis: Implementation stage data (Step 4 of the data analysis process was incorporated within this sub-chapter)	To generate an account of data collected through the participants (n=25) involvement with a practical task where the new feedback forms were used
6.5	Data analysis: Consolidation stage data (Step 5 of the data analysis process was incorporated within this sub-chapter)	To generate an account of data collected through individual interviews (n=6)
6.6	Concluding comments on the data analysis process	To examine the extent to which the data analysis process has generated an accurate and trustworthy account of the data
7	Peer review and self-assessment purpose and value: Student nurses' conceptions revealed. (Step 6 of the data analysis process as tabulated below was incorporated within this and the following two sub-chapters)	Answers RQ 1 and 2
8	Components of good peer review and good self-assessment: student nurses' conceptions revealed	Answers RQ 3 and 4
9	Peer review and self-assessment: A new feedback tool designed by student nurses for use by student nurses.	Answers RQ 5

Table 14: Chapter headings and rationale

An overview of each of the steps of the data analysis process is now provided, with commentary that assists in the process of making sense of the data.

6.3: Data analysis: Conceptualisation stage data

6.3.1: Step1 NGT post-it notes

Step 1	Conceptualisation stage data: NGT post-it notes	Miles and Huberman (1994) 3 stage data analysis method 1. Reduction 2. Display 3. Conclusion

This step and the subsequent two steps of the data analysis process assisted me to generate an account of data collected through four focus group discussions and creation of feedback forms by participants.

The application of nominal group technique during the four focus group discussions resulted in the capturing of data on post-it notes that illuminated student nurses' (n=25) conceptions of peer review and self-assessment. A 3 stage method of analysis employed to generate an account of this post-it notes data was that suggested by Miles and Huberman (1994). The stages of this method, named Reduction, Display and Conclusion Drawing are defined:

Reduction: Coding and processing of information through detailed reading and re-reading of transcripts. The coding of data assists in the identification of key issues.

Display: Scrutiny of coded texts assists in the display of data in tables, charts or matrices. Subsequently the data can be compared and contrasted and a fuller thematic description can emerge.

Conclusion Drawing: Further interrogation of the data assists in the identification of links between themes and the formation of possible theories that explain relationships in the data.

NGT post-it notes data obtained from each of the four focus groups were given an associated identifier of 'Pilot', 'Year 1', 'Year 2' and 'Year 3'. The post-it notes began with an incomplete sentence, illustrated within Table 15, and the participants completed these sentences independently of each other, although in the same room.

"I think that the purpose of peer review is…"
"I think that the purpose of self-assessment is…"
"To be good at peer review I would need to…"
"To be good at self-assessment I would need to…"
"Barriers to peer review include…"
"Barriers to self-assessment include…"
"Peer review is of value to me because…"
"Self-assessment is of value to me because…"
"When a peer reviews me I would like to be informed of certain aspects of my performance especially…"

Table 15: Post-it notes sentences for completion by participants

Key issues emerging from the post-it notes data had been identified by the participants, in adherence with stage 3 of the NGT process described in the methodology chapter, therefore during the reduction stage of the data analysis (Miles and Huberman, 1994) the data were re-read to affirm that no key issues had been missed. The key issues identified during the NGT session seemed to have been captured by participants. Data were then displayed in tables. Once tabulated, comparison and contrasting of information collected from all four focus groups became possible. Similar words were colour coded, the key to the colour coding being provided at the foot of each table, and links were made. The following table illustrates this process with the first of the post-it notes data, where the incomplete sentence 'I think that the purpose of peer review is…' was completed by the participants. This incomplete sentence was one of nine such sentences, as previously identified in Table 15, and the same process as the one tabulated in Table 16 was used with each of the other eight incomplete sentences. The conclusions drawn from analysis of the collected data are placed as smart art graphics immediately after Table 16.

Pilot: Participants n=6	Year 1: Participants n=7	Year 2:Participants n=6	Year 3: Participants n=6
Reduction involved coding of the concepts: 'I think that the purpose of peer review is…'			
Display involved tabulation of NGT data and coding of this data			
'To assess and feedback on performance to help reinforce things that you are doing that you don't realise' 'To improve what you are doing in the future through feedback provided by peers' 'To give and receive constructive feedback to help you self-assess' 'To offer the best learning opportunity through letting me see myself through others eyes' 'For assessment of strengths and weaknesses can be highlighted and I can be prepared for the next time I do the task and improve' 'Examine practice and provide feedback'	'Similar to self-assessment to highlight SWOT. The difference being input from others' 'To judge your performance with the help of your peers' 'So that people might see the areas that need improving that you don't or the areas that you think you're not so good at the other person might see this different' 'Identify a peer's strengths, weakness. To educate fellow peers. To help peers become better in the task being reviewed' 'One gets to hear what improvements are needed. How to improve themselves and work better. Allows others to read and assess us as it is unbiased' 'To enable others to understand their strengths and weaknesses in a skill. To give constructive feedback to help not hinder others learning' 'For others to be assessed against your own standards. To try to ensure that feedback is positive and that negative feedback has a purpose. To be measured against a certain standard to ensure best practice is in place for everyone to follow'	'To highlight gaps in knowledge and to reflect how you would do things differently yourself' 'To identify strengths and weaknesses in activity' 'To make the reviewer think what they should/should not be doing themselves' 'Allow students to offer constructive criticism and make them think about what they have observed' 'To promote student development' 'For the purpose of assessment of others'	'Assess each other and give feedback constructively' 'Enables constructive feedback from a person who has the same professional/personal status i.e. not expert reviewing a students work – peer review also facilitates learning for all parties' 'Observing a colleague and providing advice on improvements' 'To gain constructive criticism from fellow peers that helps identify strengths, weaknesses and common practices' 'Identifying good practice and identify areas of practice that could be developed' 'Identify areas of practice that is both good and bad + highlight any weaknesses or gaps'
Conclusion: Conceptions of the purpose of peer review included: Purpose 1:Assessment Purpose 2: Identification of strengths and weakness Purpose 3: Feedback Purpose 4: To inform/improve practice. Feedback that could inform practice to subsequently facilitate improvement in both peer and self-performance; the gaining of insight into strengths and weaknesses and the identification of knowledge gaps in both peer and self through the assessing of peers were thought of as purposes of peer review. Key ▉ Purpose 1 ▉ Purpose 2 ▉ Purpose 3 ▉ Purpose 4			

Table 16: Exemplar of post-it notes data analysis process

To further reduce the data and for the purpose of poster presentation of the research study at conference, namely the Scottish Educational Research Association (SERA) and Enhancing Nursing Through Educational Research (ENTER) Inaugural Scottish Conference, smart art graphics were used to display the data that emerged from the NGT process. These are shown below, with Diagram 2 illustrating the purpose of peer review.
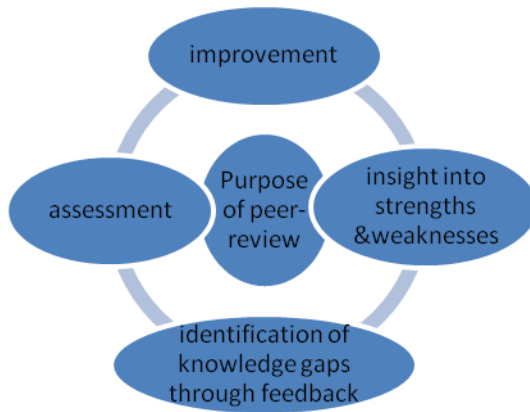
Diagram 2: Purpose of peer review

The exact same process of analysis for the NGT data relating to the purpose of peer review was utilised for the post-it note beginning with the words "I think that the purpose of self-assessment is…" and four main purposes emerged as shown in Diagram 3.

Diagram 3: Purpose of self-assessment

Similarly conclusions drawn from analysis of the data pertaining to "Peer review is of value to me because…" included those shown in Diagram 4.
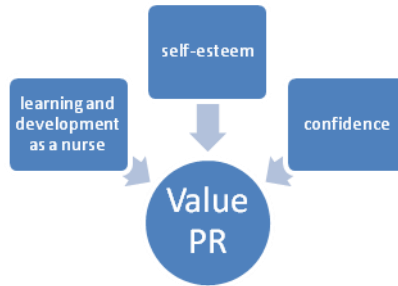
Diagram 4: Value of peer review

Three main components that emerged from the NGT post-it note data "Self-assessment is of value to me because…" are illustrated in Diagram 5.
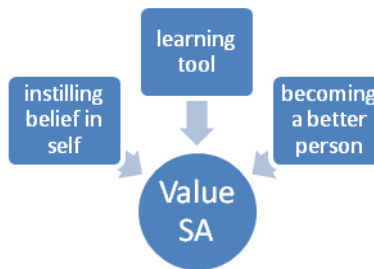
Diagram 5: Value of self-assessment

Conclusions drawn from analysis of the data collected in response to the NGT post-it note sentences "To be good at peer review I would need to…" and "Barriers to peer review include…" were placed in diagrammatic format with the former in the plus area and the latter in the minus area shown in Diagram 6.

Honesty
Good communication skills
Diplomacy/sensitivity
Sound knowledge base
Ability to provide/receive criticism
Willingness to engage
Putting relationships aside

Dishonesty
Poor communication skills
Lack of diplomacy/sensitivity
Weak knowledge base
Inability to provide/receive criticism
Unwillingness to engage
Inability to put relationships aside

Diagram 6: Components of/Barriers to good peer review

Conclusions drawn from analysis of the data that was collected in response to the NGT post-it note sentences "To be good at self-assessment I would need to…" and "Barriers to self-assessment include…" are shown in Diagram 7.

Honesty
Motivation
Time
Focus
Ability to be self-critical
Balance of confidence: not too much/not too little

Dishonesty
Lack of motivation
Lack of time
Lack of focus
Lack of/too much confidence
Socio-cultural influences

Diagram 7: Components of/Barriers to good self-assessment

The data gathered from the post-it notes where participants completed the sentence "When a peer reviews me I would like to be informed of certain aspects of my performance especially…" proved to be highly influential to the development of the feedback tool that was created by participants. Participants indicated on the post-it notes that the particular aspects of performance that a review by a peer should address included such aspects as: "How I made someone feel", "How I came across", "My communication skills" and "My skills and weaknesses in giving compassionate care". A post –it note response used an exclamation mark to illustrate the importance of the feedback in providing not simply information on what had been observed but also the reasons for the peer picking up on certain elements of performance. Bernardes and

Hanna (2009) recognise the importance of the 'why?' of performance feedback, to student nurses who are reaching the point of professional registration, as Morgan was. The post-it note read as:

> *"When a peer reviews me I would like to be informed of certain aspects of my performance especially…" What I did well – and why? What I did not do so well – and why? Was anything a potential worry? What could I do better?* (Morgan, 3)

Although the post-it notes were completed anonymously the reason I was able to add the participant name to the direct quotation above was due to the fact that the participant who wrote this on the post-it notes identified themselves during the focus group discussion as having documented this conception during the NGT session. Morgan (3) reiterated the importance of the "why?" as being in order for her to confirm that the peer was in fact accurate in their knowledge and skills base. What Morgan seemed to be requesting was for the reasoning and vocal justification that Diaz, Neal and Amaya-Williams (1993) suggest as being required for self-regulatory capability to develop. Morgan displays what Orsmond and Merry (2009) regard as an attribute of a 'high' achieving student in relation to her search for meaning from the feedback.

Morgan is similar to those students in Orsmond and Merry's (2009) study who tried to draw from the feedback its significance to their own work and then translated comments into action to improve and through doing so moved closer towards being capable of self-regulation. Conversely, 'non high' achieving students tended to focus on the surface details rather than search for meaning (Orsmond and Merry, 2009). If this is the case then the addition of the 'why?' that Morgan suggests as being necessary within a peer review feedback form may prove to be futile as far as those students who are only concerned with the surface details are concerned. However, for students such as Morgan, the 'Why?' of the feedback would seem to be an essential component of the peer review process.

Topping (2005) recognises that when the differential in ability or experience is greater between the reviewer and the reviewed the expectation is that there will be less conflict and more scaffolding during the peer review process. Conversely, there can be

problems when the differential is too great or the reviewer has no greater correct knowledge than the reviewed and the result can be minimal cognitive engagement or worse still faulty learning. Morgan's idea was raised again during an individual interview with Lucy, one of the year 3 participants, when she recognised that for her to change her practice she would need to agree with the feedback from the peer who had been reviewing her. Lucy recognised that peer review provided an opportunity to "see how other people perceive you and to see if you come up with the same as other people…if someone else identifies your strengths it reinforces and boosts your confidence up a good bit" However, Lucy also said that:

> *"...you can change your practice if [the word 'if' was emphasised by Lucy by being drawn out as i...f... Her eyes raised towards the ceiling and the tone of her voice changed from what it had been prior to the word 'if' being said to a deeper tone] you agree with what your peer has come up with. You know what your actual weakness was".* (Lucy, 3)

Perhaps, as Morgan suggested, inclusion of the 'why?' question within the feedback form would assist someone like Lucy in the process of taking on board the peer feedback. This perhaps relates to Blumer's (1969) assertion that people act on information in relation to the meaning it holds for them. If the feedback holds little or no meaning for the learner then the likelihood of acting on may be reduced, as identified by Lucy in her use of the word 'if'. The information obtained about feelings and explanations during the NGT session informed the inclusion of a section within the new feedback form, designed by the study participants, which encouraged peer reviewers and self-assessors to put themselves in the position of a patient/client to whom nursing care is being delivered. The 'why?' element of the peer review feedback was also incorporated into the new form.

The data collected through the NGT process informed the subsequent focus group discussion. Exploration of the themes that emerged from the NGT post-it notes data took place during the focus group discussion that immediately followed on from the NGT session. The discussion that took place during the focus group session was audio recorded and during step 2 of the data analysis process the data was transcribed from

spoken word to written word; a process that Cohen, Mannion and Morrison (2005) suggest can potentially result in the loss of data. To minimise this loss of data, visual and non-verbal cues were documented immediately after the discussion had taken place and this information was subsequently transferred on to the written manuscript.

6.3.2: Step 2 Focus group discussion audio recordings

Step 2	Conceptualisation stage data: Focus group discussion audio recordings	Data transcription from spoken word to written Manuscript. Documentation of visual and non-verbal cues that had been noted during focus group discussion

This step, in addition to the previous step and subsequent step of the data analysis process assisted me to generate an account of data collected through four focus group discussions and creation of feedback forms by participants.

Audio recorded focus group discussions took place immediately after the NGT session, during the conceptualisation stage of the data collection process. The collected data was personally transcribed. Cohen, Mannion and Morrison (2005) recognise that transcription can become a record of merely the spoken data that, whilst important, fails to capture the visual and non-verbal cues that happen during a social encounter. Therefore, had I delegated the transcribing of the data task to someone else, such non-verbal and visual data would have potentially been lost, thereby impacting on the interpretation and resultant account of the information that had been provided by the participants during focus group discussion.

The process of transcribing qualitative data is recognised by Davies (2007) as a time consuming task. Each one hour of conversation during focus group discussion took me approximately 10-11 hours to transcribe. Bryman (2008) recognises that the transcription process for focus group data is rather more complex than for individual interviews due to the requirement to capture data on who is talking as well as what is being said.

During the pilot study noise outside the room in which the focus group was being held meant that the audibility of the digitally recorded discussion was reduced. Fortunately, having a plan B in place meant that two digital recorders were used to

capture data during the session and where one of these failed to capture the data because of the external noise, the second recorder did capture what was said and the sound quality was good. Subsequent focus groups were timed in order to take place during quieter periods, although the two digital recorders were present, just in case of any malfunction or any external impact out with my control. Bryman (2008) suggests that it should take approximately 5-6 hours per hour of speech when an individual interview is being transcribed. Each transcription of the individual interviews took me approximately 7 hours as I took care over the adding of non-verbal cues to the manuscript in order that as accurate an account of the encounter was available to inform the subsequent research findings and recommendations for further study. Through having to play and pause and type and often rewind, replay and repeat the process, the commitment to transcribe, proved worthwhile. I had experienced the context and group dynamics within which the data had been collected therefore was best positioned to add commentary to supplement the digitally recorded verbal data that was available and provide a richer account of the data as a result.

6.3.3: Step 3 Transcribed manuscript of focus group discussion

| Step 3 | Conceptualisation stage data: Transcribed manuscript of focus group discussion | Concept-driven (V = Vygotsky and B= Blumer) Concepts applied to the data: Watching and learning from others (V) The passing on of beliefs and values to others (V) The acceptance of the less experienced by the more experienced (V) |

This step and the previous two steps of the data analysis process assisted me to generate an account of data collected through four focus group discussions and creation of feedback forms by participants.

Transcriptions of each of the focus group discussions were analysed through a process recognised as concept-driven (Tappen, 2011). This concept-driven data analysis involved the three components derived from Vygotskian theory that had been identified

in my conceptual framework being applied to the data: watching and learning from others; the passing on of beliefs and values to others; the acceptance of the less experienced by the more experienced. These components relate to the internalisation process that Vygotsky recognises as the process of knowing. Each component was applied to the data in order i.e. the concept of watching and learning of others was the first concept applied. This concept was further broken down into four components that were applied to the data. These components were:

1. Participants thoughts and feelings about the process of watching their peers/selves

2. Participants thoughts and feelings about learning associated with the watching of peers/selves

3. Participants thoughts and feelings about the process of being watched by peers

4. Participants thoughts and feelings about learning associated with the being watched by peers

Through adoption of the concept-driven analysis, a manuscript that generated an account of the student nurse participants' conceptions of peer review and self-assessment that had been influenced through watching and learning from others; the passing on of beliefs and values to others and the acceptance of the less experienced by the more experienced became available. This process was repeated replacing the Vygotskian components with those of Blumer (1969) and the concepts of participants applying a certain meaning to peer review/self-assessment, engaging in social interaction and resultant impact on the meaning previously held for peer review/self-assessment were applied to the data.

Through adoption of a concept-driven approach the potential for my own pre-suppositions to bias the data analysis was reduced (Tappen, 2011). This manuscript was subsequently shared with my supervisor who advised that, although appropriate, reconstruction of the manuscript into chapters would be useful for the publication of the work. On this advice, the manuscript was reconstructed into chapters that were sub-headed in such a way that the research questions were incorporated within their title and

the large volume of work (20,000 words) subsequently subsumed into the context of the chapters entitled "The purpose and value of peer review and self-assessment: what do student nurses think?"; "Components of good peer review and good self-assessment: student nurses thoughts revealed" and "Creating a new peer review and self-assessment feedback tool: what did student nurses think of the process and utility of it?

Another component of the conceptualisation stage of the data collection process was the creation of feedback forms by the participants. These forms were created with the purpose of being used by participants during the implementation stage of the data collection process and for future use by student nurses during engagement with peer review and self-assessment. The original forms created by the pilot group were shown to each group who then adapted them to suit their particular needs. The final focus group participants brought the best of each of the developing forms together to form the peer review and self-assessment feedback form, as shown in the chapter entitled 'Creating a new peer review and self-assessment feedback tool: what did student nurses think of the process and utility of it?'.

6.4: Data analysis: Implementation stage data

6.4.1: Step 4 Written documentation

Step 4	Implementation stage data: Written documentation of thoughts on peer review and self-assessment forms	Miles and Huberman (1994) 3 stage data analysis method 1. Reduction 2. Display 3. Conclusion

This step assisted me to generate an account of data collected through the participants (n=25) involvement with a practical task where the new feedback forms were used.

The implementation stage involved participant engagement with a practical task where a feedback form created for the purpose of peer review and self-assessment was utilised. Participant opinion on the use of the forms was captured through a request for written information at the foot of the forms. Analysis of the data using Miles and Huberman (1994) 3 stage data analysis method is illustrated in Table 17.

Pilot: Participants n=6	Year 1: Participants n=7	Year 2:Participants n=6	Year 3: Participants n=6
Reduction involved coding of the concepts emerging from the collected data shown below			
Display: Conceptions related to using Peer review/self-assessment feedback forms in tabulated form			
The creators of the initial forms: "Perhaps a tick box for generic skills could be included. I liked the part that made me think from the patient angle" "Short term long term goals could perhaps be changed to Advice to peers on improvement" "Action plan section not used" "I didn't like the section that asked about what might make a patient anxious even though I had been the one who suggested including it on the form" "I liked the part of the forms that reminded folk about the spirit of honesty and sensitivity right at the top of the page. I think this prevented negativity in the feedback" "I didn't fill out the action plan or what might make a patient anxious section so maybe these are not necessary parts of the forms"	"Forms were useful although I wrote too much although that is just me. I find it difficult to be succinct. A tick box as well as comments section might be helpful to someone like me. Feedback I gave and got was sensitive and I think honest" "I took great feedback from my peers which have helped me build my confidence for going on placement. I really enjoyed today" "I feel that the forms allowed my peers to add many good comments as well as constructive criticism without being harsh or negative" "I feel that the form allowed the peer review to be definitely given in the spirit of honesty and fairness and sensitivity" "The forms meant that all comments were positive as well as critical and this was beneficial and sensitive" "When I was using the form it helped to educate me. Whilst I was picking out things that they could have done better it got me thinking and it kind of stuck in my head so that not to do that when I perform their task" "The forms were just no good for me. Maybe a tick list or blank spaces for me to write down my own thoughts and opinions would be better for me I think"	"I thought they were quite good forms. They looked easy to fill out and were easy to use" "The forms made you think about putting yourself into their shoes and how you would do things" "The peer review forms were good for you to see what other people thought of you" "They were good because it is all open questions so you actually have to give constructive feedback. Rather than it just being yes or no you have to expand on the feedback" "Good that they weren't just a tick list. A checklist would just be too easy for people to tick things off without thinking about it" "I liked the patient viewpoint section because you can improve your practice. I didn't like the part that asks about goals for the peer because I think goals are personal and you can't make goals for someone else"	"…helped me to identify simple errors that are made. Seeing it written in black and white gave me confidence in my strengths. Peer review was enjoyable and beneficial as an overview of me and my peers practice" "Hard to write action plan during watching scenario so I put points with others in other boxes. A checklist of ESCs to tick might prevent repetition of things like adhered to infection control and communication skills" "Found it difficult to fill in and watch at the same time but this is likely due to being unfamiliar with the forms and would sort itself out" "I thought it was good. The earlier you start using the forms the more time you will get to adapt to them" "I found the forms really useful. It would be good to get them out in placement" "I really liked the part where the patient's perspective was included as this is what being a nurse is all about"
Conclusion: Using the feedback form: The idea of a tick list, as illustrated in red, was attractive to some participants and unattractive to others. This led to the final version of the forms being inclusive of both a checklist and a commentary section. The advantages of using the forms far outweighed the disadvantages on the whole. Aspects of the forms that participants particularly liked included the idea of providing/receiving feedback on performance based on how the performance might be perceived by a patient/client and the notion of honesty and sensitivity actually appearing as a requirement at the top of the peer review feedback form. Dislikes included sections of the form being unnecessary. The comments resulted in compilation of the final feedback forms as identified within the data collection chapter. Key ▆ Structure ▆ Advantages ▆ Disadvantages			

Table 17: Exemplar of analysis process for feedback form data

Through random selection, the participant who wrote the comment that the forms were just no good for her, as documented in table 17, was individually interviewed and it

was through interview that the reason for the forms being regarded as no use to her became evident. Interestingly, the reason for the participant not finding the forms to be beneficial did not become evident until the interview had taken place, the participant was thanked and the digital recorder switched off. During the interview the participant had said that she had found difficulty filling in the forms but put this down to a time issue and said that the forms themselves were 'OK' and it was just that she took too long to complete the various sections. However, almost the minute the digital recorder was switched off the participant said that she had been really glad she took part in the research because since taking part she has been diagnosed with dyslexia. She then permitted me to audio record for data analysis purposes what she subsequently told me. She said that the first indication that something was wrong was when she realised the difficulty she had placing information within the sections of the feedback forms that had been created by the pilot group, discussed with this participant's group and used during the practical session of the study. Subsequently Natalia went into practice placement and realised a similar difficulty with forms used in practice areas. This prompted her to seek advice from the Enabling Support services within the University she attended. She said that she had thought dyslexia meant that 'you couldn't read or write' but she now realised that the type of dyslexia she has is related to her requiring an increased amount of time for the thought processes to be altered from the spoken to written form. With extra time and familiarisation of the feedback forms she said that she thought that there would be no problem with using them.

Contemplation of the information supplied by the participant resulted in the sourcing and review of literature relating to dyslexia in adults within Higher Education (Riddell and Weedon, 2006; Siegel and Smythe, 2005). Conclusions drawn from this literature, in relation to my study, were that the peer review and self-assessment forms must be fit for purpose for all student nurses. The key to successful integration of all students within the process of peer review and self-assessment using such forms does not, as Siegel and Smyth (2005) suggest, stem from the material itself but the understanding of how best to use the material. In the case of the participant within the study familiarisation with the form and increase in the length of time for completion

could perhaps help. A recommendation of the study would therefore be that all users of the forms are introduced to them through a discussion of the requirements of each section so that all students are placed in the best position of using them irrespective of any enabling support requirements and that an appropriate length of time is set aside for completion of the forms during engagement with peer review and self-assessment exercises. In collaboration between the teachers, the student nurse and the feedback form resource the identification of an appropriate length of time could be agreed that suits every learner irrespective of having been diagnosed with dyslexia or not.

6.5: Data analysis: Consolidation stage data

6.5.1: Step 5 Individual interviews

Step 5	Consolidation stage data: Individual interviews	Miles and Huberman (1994) 3 stage data analysis method 1. Reduction 2. Display 3. Conclusion

This step assisted me to generate an account of data collected through individual interviews (n=6)

The consolidation stage involved individual interviews (n=6) that were then analysed through reduction, display and conclusion. The semi-structured interview involved the asking of the open ended questions that started with the introduction of 'Thank you for agreeing to be interviewed. In relation to my research study that you participated in can I ask you…?' Table 18 illustrates the individual interview questions.

Individual Interview questions
1. What did you think the whole thing was about? 2. What did you think of the post-it notes and subsequent focus group discussion? 3. What did you think of the peer review and self-assessment forms before you used them? 4. What did you think of the peer review and self-assessment forms after you used them? 5. What did you think of being the peer reviewer? 6. What did you think of being reviewed by your peers? 7. What did you think of the feedback you gave/received? 8. Have you learned anything from participating? 9. Have any of your views on peer review and/or self-assessment changed as a result of your participation?

Table 18: Individual interview questions

An example of the process of data analysis of individual interview data can be viewed in Table 19. The same process as outlined within this table was used for all of the semi-structured questions asked of participants as indicated in Table 18 above.

Have any of your views on peer review and/or self-assessment changed as a result of your participation?
Scott Year 1: "Yes. I think that everyone should be able to take criticism whether good or bad. It has probably educated me in how to put it across to somebody without being kind of malicious about it. I now think you can be critical but nice about it and not to hurt someone. At the end of the day that's not going to make them feel much better so if you can put it in a nice way everyone can learn from it".
Natalia Year 1: "Yes. I liked that everyone got on. It was a relaxed environment and everything. I enjoyed it more than I thought I would and it built up a bit more confidence".
Stephanie Year 2: "Not really. Going through college I was involved in peer review and I have self-assessed although not using such good feedback forms".
Sophie Year 2: "Probably. With peer review that it is alright for people to review you and to advise you and to say maybe you could do this better and they are not criticising you, they are just there to help. You know maybe you can't see it – something that can be done in a better way" . I think self-assessment is helpful and I think a lot of people don't think of it that way and I didn't either. Since taking part in the research I think that when I am doing things I might be a bit more organised because I take a notebook and write down things like things I had done and things I would like to do better and how I could improve. So my views have changed and for the better".
Elizabeth Year 3: "Yes. To be honest with you I would have said I didn't really see the point in it but now I think it is vital and I think it is vital that we should have it in our training from day one. I think we could all learn from it and it would be good to see maybe a video of us in 1st year and see how we have progressed and how confident we have become…I don't think I've got much confidence but when I read what the peers had written then they seemed to think that I'm quite a confident person. But I don't feel that way inside. But that helped me because I think people can pick up on my lack of confidence but it was the opposite so that made me feel better about myself that in practice I am doing all right…actually I suppose when I watched it back (video recording) I did look confident". I think you need the forms and I think the way it was done is ideal. I think it was really good to peer review and then assess ourselves".
Lucy Year 3: "Yes. I didn't think it was half as important as it is. I just thought well you should be peer reviewing. The forms should definitely be taken into practice for mentors to use and then you have got it in black and white. There is not enough time in practice for mentors to sit with you and say to you in a constructive way that you are not doing this very well or you need to practice on that"
Conclusions drawn from coded text: Conception change: Participants views changed for the better with one of the six having already formed an opinion on peer review and self-assessment that was not altered through participation in the study. Feelings about feedback: Constructive criticism was regarded as being helpful when put across in a nice way. Adapted meaning: The idea that peer review and self-assessment impacted on confidence and learning was highlighted by participants. Key: ▮ Feelings about feedback ▮ Conception change ▮ Adapted meaning

Table 19: Process of data analysis of individual interviews

Indication of participants having changed their conception of peer review perhaps illustrates Blumer's (1969) notion of symbolic interactionism. The meaning that was placed on the peer review process prior to and following the socially interactive encounters of focus group discussion and engagement with a practical task during the study appear to have been amended.

Data deriving from participant responses to individual interview questions 1 and 2 confirmed that the research design had achieved what it set out to achieve. The participants who were individually interviewed confirmed that the participant letter had been fully informative of the subsequent process. The experience of being a research participant was viewed as positive for all six participants who were individually interviewed. With NGT being employed for the first time I was keen to gain participant opinion about the use of this technique and again all participants were highly positive about it, recognising that it permitted everyone to feel part of the research and prepared well for the subsequent focus group discussion on the topic of peer review and self-assessment.

Individual research questions 3, 4, 7 and 8 informed the sub-chapter on the usefulness of the peer review and self-assessment feedback forms and the potential for their wider use within the nursing curriculum.
Individual research questions 5 and 6 informed the sub-chapter comprising of an overview of the components of good peer review and good self-assessment that emerged from the study.

Individual research question 9 permitted the exploration of the underpinning of my research study with Vygotsky's theory of the ZPD and Blumer's theory of symbolic interactionism. The use of the cultural tools, in the case of the study the feedback form and video recording, in addition to the activity that involved social interaction does indeed appear to have influenced a change in conception about peer review and self-assessment, as demonstrated in the participant quotes within table 19.

The sixth and final step of the data analysis process involved a restructuring of the new body of analysed data that had emerged as a result of the previous 5 steps having been undertaken.

6.6: Restructuring of analysed data

6.6.1: Step 6 Previously analysed data restructured

Step 6	All previously analysed data restructured	Reconstruction of the analysed data to answer the research questions: RQ 1&2 Purpose and value of peer review/self-assessment RQ 3&4 Components of good peer review/good self-assessment RQ 5 Influence of conceptions of peer review/self -assessment on implementation of peer review/self -assessment

This step assisted me in examining the extent to which the data analysis process had generated an accurate and trustworthy account of the data and the extent to which the research questions had been answered.

The intention of inclusion of this step in the process was to provide evidence of achievement of the aim of the study. Three chapters were entitled:

Chapter 7: Research questions 1 and 2. For publication purposes a title developed was 'Peer review and self-assessment purpose and value: Student nurses' conceptions revealed'.

Chapter 8: Research questions 3 and 4. For publication purposes a title developed was: Components of good peer review and good self-assessment: Student nurses' conceptions revealed.

Chapter 9: Research question 5. This chapter for publishing purposes was entitled: Peer review and self-assessment: A new feedback tool designed by student nurses for use by student nurses.

Through presenting the analysed data in such a manner the potential for chapters to be acceptable for publication was thought to be increased.

6.7: Concluding comments

As I personally transcribed the focus group discussions, observed the practical task and undertook the individual interviews I was beginning to gain an idea about the conceptualisation and implementation of peer review and self-assessment within the student nurse context at each point of the process. However, the temptation to jump to conclusions was resisted and it was not until all of the data collection was complete that

the process of analysis of the 'whole' body of data was undertaken. Lindsay (2007) points out that this is an appropriate strategy to adopt when undertaking both qualitative and quantitative data analysis. This said, at every stage of the process, from the development of the research problem to this point of formal data analysis as a chapter in the thesis, there has been an on-going process of reflection with analytical memos kept. Cormack (2000) suggests that reflexivity is typically what should happen during qualitative research.

When analysing my data the temptation to list and describe rather than interpret what had been said by participants was resisted. Rather the Vygotskian concepts of watching and learning from others and the passing on of values and beliefs and the products of human work and thought were applied to the data. Through adopting this technique the analysis process may best be described as concept-driven (Tappen, 2011). However, Tappen (2011) recognises that concept-driven data analysis may limit the potential for generation of new material emerging directly from the data. Advocated by Grbich (2007) and Holliday (2007) for its usefulness in making the data less complicated and more understandable, adopting a thematic analysis approach, in addition to the concept-driven analysis, increased the potential for new material to emerge directly from the data and thereby reduced the chance of the limitation recognised by Tappen (2011) becoming a reality.

Through applying the 3 stage method of reduction, display and conclusion (Miles and Huberman, 1994) to particular collected data, namely NGT post-it notes, feedback forms data and the individual interview data, generation of new material directly from the data was facilitated. The material that emerged directly from the data was subsequently categorised, connected to the concept-driven material that emerged from the collected data, and conclusions were drawn, thereby adhering to the sequence of events during qualitative data analysis that Watson, McKenna, Cowman and Keady (2008) advocate. Further sense was made of the whole new body of information about student nurses' conceptions and implementation of peer review and self-assessment.

The study was designed with the intention that my data collection methods would have the potential to facilitate the answering of my research questions and as such at the

point of analysis I would return to these questions and make sense of the evidence in relation to them. The research questions were: "What do student nurses' think that the purpose/value of peer review is? What do student nurses' think that the purpose/value of self-assessment is? What do student nurses' think good peer review is? What do student nurses' think good self-assessment is? How do student nurses' think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value? This approach of designing the study in advance is perhaps contrary to what Polit and Beck (2012: 487) would suggest for qualitative research studies where the design is emergent and 'design decisions are not specified in advance'. Through making reference to, and linking their idea to, the writings of Lincoln and Guba (1985), Polit and Beck (2012) put forward the idea that an emergent design is not sloppy or lazy.

However, from a personal viewpoint having a pre-determined research design structure to work from proved to be an effective strategy for me. As my conceptual framework developed so did my understanding of the rigour that could be demonstrated to my research through the application of a credible theoretical underpinning. Utilisation of my conceptual framework, illustrated within the previous chapter of my thesis, assisted me in the process of my thinking, my creating of structures and my identification of emergent themes.

In order that a reader may confirm (or not) the accuracy of my interpretation of the data, direct participant quotes were made available throughout this chapter, and within the chapters which follow, with the pseudonym and year of the course that the participant was in written as (pseudonym, number) at the end of the direct quotation. I have intentionally tried to refrain from using terms such as 'a couple' or 'a few' in an attempt to maintain specificity throughout the data analysis chapter.

The research study findings and the discussion of them were intended to be presented in such a way as to be publishable as separate papers to a variety of journals, such as Nurse Education Today, Assessment and Evaluation in Higher Education, Nurse Researcher and the Journal of Nursing Education.

The following chapter entitled: Research questions 1 and 2 'Peer review and self-assessment purpose and value: Student nurses' conceptions revealed' presents research findings in relation to this particular aspect of the study.

CHAPTER 7: RESEARCH QUESTIONS 1 and 2

Peer review and self-assessment purpose and value: Student nurses' conceptions revealed.

Heading developed from research questions	Underpinning conceptual framework components (V = Vygotsky and B= Blumer)
1. 'What do student nurses' think that the purpose/value of peer review is?' 2. 'What do student nurses' think that the purpose/value of self-assessment is?'	Watching and learning from others (V) The passing on of beliefs and values to others (V) The acceptance of the less experienced by the more experienced (V) Acts on meaning (B) → Social interaction (B) → Meaning impacted upon (B)

7.1: Introduction

"To be honest with you I would have said I didn't really see the point in it [peer review and self-assessment] but now I think it is vital and I think it is vital that we should have it in our training from day one. I think we could all learn from it and it would be good to see maybe a video of us in 1ˢᵗ year and see how we have progressed and how confident we have become…I don't think I've got much confidence but when I read what the peers had written then they seemed to think that I'm quite a confident person. But I don't feel that way inside. But that helped me because I think people can pick up on my lack of confidence but it was the opposite so that made me feel better about myself that in practice I am doing all right…actually I suppose when I watched it back [video recording] I did look confident." (Elizabeth, 3)

In the illustrated quote Elizabeth identifies an issue with confidence that through participation in the study appears to have been transformed for the better. In his article about learning for an unknown future, Barnett (2012) cites confidence as an important factor in enabling students to function in a world that he suggests as being increasingly challenging and complex. Barnett (2012) suggests that assisting students, towards becoming practitioners who are able to function and cope with the demands placed on them within this rapidly changing and complex world, a change from emphasising

knowledge and skills towards an emphasis on human qualities within Higher Education settings may be required. Dannefer et al (2005) recognised that methods of assessing such human qualities were in need of development. My study stemmed from concern that student nurses' had experienced negative peer review (Ecclestone and Pryor, 2003; Duers and Brown, 2009) that left them feeling anxious and with decreased confidence and self-esteem; my intuitive instinct being that human qualities played a role in the process either being experienced positively or negatively by student nurses.

This chapter provides the account of student nurses' conceptions of the purpose and value of peer review, generated through focus group discussions.

Details of this data analysis process utilised were outlined already within the previous chapter of my thesis. Table 20 outlines the purposes and values associated with peer review and self-assessment that the study participants identified:

Purpose: Peer review	Value: Peer review
Improvement	Learning and development as a nurse
Assessment	Self-esteem increase
Insight into strengths and weaknesses	Confidence increase
Identification of knowledge gaps	
Purpose: Self-assessment	Value: Self-assessment
Improvement	Instilling belief in self
Assessment/reflection	Learning tool
Insight into strengths and weaknesses	Becoming a better person
Identification of knowledge gaps	

Table 20: Purpose and value of peer review and self-assessment

The concept of reflection associated with self-assessment has been emphasised by Koch (2006) and Nicol (2010a), who recognise the importance of reflection on the development of self-awareness and ownership of one's own perspective.

7.2: Purpose and value of peer review and self-assessment: Improvement.

The introductory quotation from Elizabeth, a year 3 student nurse participant, appears to demonstrate a shift in conception about the value of peer review. As a result of participation in the study Elizabeth's conception of peer review appears to have

changed from it being something that had little value to something that she subsequently considered to be an essential component of student nurse education. Her point about the use of the video recording during the practical task of peer review engagement, that was a design feature of the study, supports what Eraut (2006) and Seidel, Sturmer, Blomberg, Kobarg and Schwindt (2011) suggested as beneficial in surfacing tacit knowledge.

It may perhaps be argued that this shift in conception had also resulted from alignment with the Vygotskian theory of Elizabeth being provided with the opportunity to share her values and beliefs with peers, who shared their opinions with her, during focus group discussion and engagement in a peer review practical task. Additionally, as per Blumer's (1969) theory of symbolic interactionism, with peer review and self-assessment initially being conceived by Elizabeth as having little point to it she claimed that her engagement with these processes was minimal, prior to participation in the study. However, both Blumer and Vygotsky recognise social interaction as exerting influence on concept formation and as Elizabeth indicates her conception of peer review was amended as a result of engagement with peer review during the study; Concept formation being "… *a genuine act of thought….*" (Vygotsky, 1986: 149).

Elizabeth's suggestion that year 1 performance might be reviewed in year 3 of the course, on the basis of this review being an indicator of developmental progress as a nurse, may well reflect Turner's (1969) idea of liminality, which characterises the transitional space/time within which the student nurse learner progresses through certain rites of passage towards becoming a qualified nursing practitioner. Elizabeth's quote might also be interpreted as being related to the idea that now, transformed by professional thinking and discourse, the concept of herself as a nursing practitioner has been strengthened in readiness for entry to the professional register. This idea then supports contemporary literature that suggests that engagement with peer review and self-assessment is beneficial to the potential capability to become self-regulating Gopee (2001), Nicol (2010a), Sadler (2010) and Boud (2007).

The Vygotskian concept of watching and providing feedback to a peer was recognised by all participants in the study as integral to the process of peer review, with

improvement through the receipt and provision of feedback being a main purpose of peer review. In relation to her own ZPD, Morgan said:

"...I think you can always be better. There's always someone better than you, aim for that. Don't ever think you know it all. And that is probably my fear. So I won't end up like that because I've saw people like that and I think I don't want to be like that" (Morgan, 3)

Morgan appears to have internalised information, based on watching others and has subsequently learnt about the type of person she wishes to be and also the type of person she does not want to be. She has now expressed this information to others, an indication, according to Vygotskian theory that internalisation has indeed taken place. Relating what Morgan said to what Blumer's (1969) social interactionism theory, the idea of a fear of thinking she knows it all appears to have been confirmed to Morgan through a social interaction process whereby she has watched others and recognised that she does not want to emulate the behaviour she has witnessed. Confirmation of the meaning held on something reflects the third stage of Blumer's (1969) theory of symbolic interactionism.

Recognising the potential for the watching of others to facilitate internalisation, or what may be referred to as the process of knowing (Vygotsky, 1978), the participants' thoughts and feelings about watching themselves and their peers were explored. Sophie provided information that she thought it was good to watch her peers. She substantiated this through explaining that, for her, being able to watch peers perform confirmed to her the idea that making mistakes is something that happens and should be something that she should thus address with rather more kindness than she had previously afforded herself during the self-assessment process. She said:

"I think it was good to watch them [peers] because automatically when you are doing yours [task] you are...quite nervous about it. But after we had done ours first I was able to relax and it was good to watch other people. Because I think that you think at times you are silly, not silly as such, but that sort of thing. But when you see other people all making mistakes you

know it's easy to make mistakes and you shouldn't be so hard on yourself"
(Sophie, 2).

The anxiety felt by Sophie appeared to stem from the idea she had of being regarded as 'silly' should she make a mistake during performance of a task. Emphasis did not appear to be in relation to her peers viewing her as 'silly' but rather in relation to her own perception of being 'silly'. Results of an experimental design study investigating the impact of stress on self and peer-assessment suggested that females, although more stressed than males when engaged in self and peer assessment, perform better in future summative tasks through having this engagement (Nigel and Pope, 2005).

Sophie also spoke of being anxious of peers watching her perform but she claims that she felt this anxiety lessened as she watched her peers perform. This supports Rush, Firth, Burke and Marks-Maran's (2012) study that found that student nurses' levels of anxiety did decrease as the peer-review process progressed.

The idea of making mistakes during a practical peer-review task was something that would not be replicated within the real-life setting. The rationale being, those concerning aspects of performance, as a direct result of watching oneself on camera, would be amended. Elizabeth explained that:

"The thing is as the other people went in I realised that there were things I hadn't done and I would like to think that if that was in practice I would do that and I don't know if it was nerves like for example I never asked … but I would like to think that in practice I would remember that and I certainly will remember it now… I think it was really good to actually look at yourself and pick out aspects of what you could do better…and what you would change" (Elizabeth, 3)

The idea of changing aspects of performance based on what had been seen perhaps substantiates Vygotsky's notion of internalisation through watching and learning from others and in Elizabeth's example from watching oneself. It also perhaps substantiates Blumer's notion of amendment of action based on a new meaning of what it is to be a nurse.

Although Scott, a year 1 participant, said during individual interview that he recognised that sometimes it can be the small act of kindness that can make a difference to a patient, through participating in the research study and engaging with the peer review process this conception was confirmed. He thought that peer review was valuable in helping him to:

"...look for the small details that could make a difference" (Scott, 1)

Similarly, Stephanie, a year 2 participant, recognised that peer review proved valuable to her through providing information on the way she came across to peers and that this gave her an indication of the way she came across to patients and in relation to this she made the comment:

"...nursing is about how you relate to patients –they will judge you as a nurse in the way you come across" (Stephanie, 2)

It would seem that Stephanie is demonstrating the metacognition that Topping (2005) recognises as being an advantage of engagement with peer review. She has expressed her own thoughts and outlined the factors that have influenced such thoughts. Vygotsky suggests that internalisation plays a part in the knowledge of one's own thinking. It would seem that engagement with peer review had influenced Scott's movement through his ZPD and influenced his thinking on what constitutes making a big difference for his patients. Blumer (1969) would possibly argue that the social interactive aspect of the peer review impacted on this process through confirming for Scott that it was indeed the small details that could make a big difference for his patients.

7.3: Purpose and value of peer review and self-assessment: Assessment.

Personal and professional growth, according to Rout and Roberts (2007) can be influenced through the sharing of good practice during peer review. For Elpi, a participant in the year 1 focus group the self-assessment, that followed the peer review during the study, helped her to confirm what she believed to be true and this she said was important in order for her to be confident that her actions were appropriate. What Elpi actually said was:

"...I want to ensure that the things I do and say are what I actually believe and self-assessment is an important part of believing in myself and feeling confident in my actions" (Elpi, 1)

Bowen (2005) argues that mature cognitive development becomes possible through students reconciling what they learn with what they believe. Bowen (2005) also claims that the growth in understanding, values, and commitment made possible through personal engagement in the learning process has achieved cultural currency within educational settings; with Cousin (2012) and Fanghanel and Cousin (2012) recognising that the global citizenship expectation of the 21st Century graduate requires cultural awareness capability.

The idea of personal growth is also seen through the process of reflection on practice. Koch (2006) recognises reflexivity as emphasising the importance of self-awareness, political/cultural consciousness and ownership of one's own perspective. This point was illustrated during year 1 focus group discussion when Sultan said:

"I am a better person through self-assessing. Looking back on certain events and learning from them or improving in case the next time it happens again" (Sultan, 1)

Although participants indicated that they thought that a main purpose of peer review/self-assessment was to assess each other/selves when it came to the point of having to advise a peer of flaws in performance this appeared to prove to be a challenging aspect for them. Although participants agreed that it was easy to find fault in a peer's performance when watching him/her they found it more difficult to express what they themselves referred to as negative criticism. This seemed to be due to the fact that they wished to be viewed of as 'nice' and did not want to be seen as issuing orders to people who they considered to be of equal status to themselves. However, participants were of the opinion that if they were doing something wrong then they would like this to be highlighted to them. To illustrate these aforementioned ideas here is a small section of text from one of the focus groups where an example of a situation within the practice placement setting was provided by Dawn who said:

"...she had never used it [a dynamap] and you see things that she is doing wrong and you're noting it but you're saying 'you're doing that great' and thinking to yourself 'I better bring that bit up next week'...You don't want to be pure 'you're doing that wrong!' You want to be dead nice" (Dawn, 3)

Although participants, within the year 3 focus group that Dawn was a member of, agreed that there is a temptation to act in the such a manner, they also verbalised the idea that had they been the student in question they would have wished to have been told the truth about their performance. A comment taken from an individual interview with Natalia, a participant within the year 1 focus group, also substantiates this claim. Natalia said in relation to a weakness in her performance that had been highlighted by her peers:

"...it was good they noticed...I am glad they were honest...made me more aware of what I am doing" (Natalia, 1)

A discussion about having double standards; wanting to be told the truth but unwilling to tell peers the truth took place within the year 3 focus group with the comment being made towards Dawn:

"I think that is interesting because I would probably have been like you but if I had been that student I would like to have been told...So I mean it's kind of double standards there isn't it? (Elizabeth, 3)

Dawn however went on to explain how she diplomatically resolved the problem through actually becoming a role model for the student. She carried out the procedure and encouraged the student to watch and learn from what she did and how she performed the task. This, Dawn said was a more comfortable solution to the dilemma she found herself in. The main problem for Dawn appeared to be connected with her opinions of the equal status of herself and the student to whom she was referring as explained below:

"...what I ended up doing was doing it myself, like taking her but doing it myself ... more like her peer reviewing me I suppose...I think if I was a staff nurse I would have done it differently...like student and staff nurse...you feel more comfortable. Because you are both students you don't want to be pure 'I'm telling you what to do' all the time you know" (Dawn, 3)

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Indication therefore seems to be that being of equal status to the person you are watching perform can prove to be an issue, with adaptation such as suggested by Dawn becoming a way of diplomatically dealing with a situation that feels uncomfortable. Cousin (2006) puts forward the idea that in order to grasp subject specific concepts a learner enters into the liminal state, that Meyer and Land (2006) describe as being troublesome. Herein, Cousin (2006) recognises that often the learner practices mimicry to learn more about the subject. Through Dawn becoming a role model for the peer she spoke about the opportunity for this mimicry to take place occurred. However, in reference to Vygotskian theory for Dawn's peer to be capable of copying what she had observed in Dawn' performance of this task, this peer would have to have reached a stage within her ZPD where the ability to imitate what was being seen and heard had become possible (Moll, 1993).

The seeing of self in the role of the nurse and being able to compare self with peers was regarded as a valuable aspect of peer review and self-assessment. In comparing herself to people who had been provided with the same level of teaching input, Lucy recognised that she could gauge her own progress and learning needs:

> *"Obviously if what they are doing, we're all in the same class and we're all getting the same teaching time and if they know more than me then obviously I'm not doing enough e-learning or enough studying for myself so I think it [peer review] can make you look at your own learning"* (Lucy, 3)

In comparing themselves with their peers the participants could also see that their peers made errors which they said helped them to appreciate that they were better at some things than these peers. This they said resulted in increased confidence. This chapter began with Elizabeth indicating that increased confidence was for her a by-product of the peer review and self-assessment process. The issue of confidence was something that raised itself in all of the focus group discussions and in all of the individual interviews. During the year 3 focus group discussion it proved to be a point at which the participants bonded and laughed along with what Anthony had to say, which was:

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"I gained a bit of confidence ... just by watching others. Because sometimes I feel that I'm maybe not so good at something but then when I peer review someone else I realise that they are making similar errors or different errors and this may not be the right thing to think but it gave me a bit of confidence thinking well I am doing that better than them" (Anthony, 3)

At this point in the focus group discussion Anthony laughed and the others in the group joined him in laughing. The benefits of peer-review in relation to increasing confidence were expressed and Anthony went on to say:

"Until that stage I might have not realised it and just thought that everybody else was better than me" (Anthony, 3)

For all of the participants in my study this was the first time they had seen themselves in their role as nurses. David, one of the year 2 participants, said that he had learned from watching his own performance that he required to try to control his nerves more and try to improve his confidence. In alignment with Blumer's (1969) theory the meaning that David has placed on his peers', similar to what Anthony said about thinking that everyone else was better than him, was amended through the realisation, through watching himself and his peers, that his peers were not always better than him.

Mary said in relation to learning from watching peer/self:

"It got me used to 'performing' in front of the camera before my practical exam. It also helped to know that other students were not perfect either. I learned that it was hard to write anything positive about myself, something that I had always suspected. I found it equally hard to write anything negative about others; though I think I was quite fair in my comments" (Mary, 2)

Mary in this quote reflects her suspicions regarding her ability to write. Deep-rooted beliefs are thought to be difficult to address, as once something is known, Meyer and Land (2003) argue that it cannot be unknown. Cousin (2006) referred to this 'often irreversible' status as a characteristic of a threshold concept. There seems to be an acceptance by Mary that what she suspected has in fact been substantiated through

engagement with this task and because of this it may be that the meaning placed on self-assessment has been confirmed as accurate, as per Blumer's theory of symbolic interactionism, and therefore will not change unless further social interaction exerts an influence.

7.4: Purpose and value of peer review and self-assessment: encouraging a thinking process.

Lundstrom and Baker (2009) suggest that peer review can be as beneficial to the reviewer as to the person being reviewed. This suggestion was verified within my study by Judith who stated that a purpose of peer review was

> *"...to make the reviewer think about what they should/should not be doing themselves."* (Judith, 2)

There was also recognition that engagement with peer review and self-assessment means that as the reviewer one can:

> *"...make yourself aware of what you know and, more importantly, what you don't know"* (David, 2)

> *"...make you think about your practice more deeply than usual"* (Elizabeth, 3)

Sultan had only commenced his nursing course a few weeks prior to participating in my study, but he put forward that participating in my study meant that:

> *"...I get to listen to comments from others on improvements and the positive comments encourage me to work harder and improve our field of study and skills"* (Sultan, 1)

This, Sultan said, had influenced his 'thinking processes'.

7.5: Purpose and value of peer review and self-assessment: identification of knowledge gaps.

Nicol (2010b) puts forward the argument that in order for learning to occur as a result of engagement with peer review, the student needs to be given the opportunity to analyse what is being said by the peer reviewer. The student needs to be given the opportunity to ask questions of the peer reviewer and discuss the answers given. The student then needs to connect this discussion to prior learning and then use what is now

known to improve performance in future. An example of this happening in practice was provided by Morgan who said:

"I had a really good experience when I was out on placement with another student that I didn't actually know from my year and it was regarding wound care that I had previously done and she was keen to learn about it. I was that way I was kind of scared to say well you do it this way and you do it that way in case she thought I was just trying to be bossy or whatever. But she was really good at pushing me and saying 'no I want to learn, I want you to show me'. So I asked her 'what do you think we should do? What do you think is the best way to do it? And then we would talk about the way you're supposed to do it and then we would try doing it. And I learned an awful lot as well. It brought my practice right up and she got in touch with me afterwards and said it was a really, really good and she had learned a lot from that. So it was excellent, it was a good experience … good insight to see yourself as others at your level see you as they have that same amount of knowledge as you so it's good to see how they view you based on that." (Morgan, 3)

Christiansen (2008) suggests that by acknowledging performance of a high standards in practice, as Morgan appears to have done, the goals and values of a profession can be maintained and strengthened.

Conversely, the following example was given that illustrated the potential for peer review to interfere with the process of improvement. The particular incident involved engagement with peer review for the purpose of formative assessment of referencing technique ability. This is an excerpt of what Jenna said:

'…academically I am rubbish at referencing and I've had a lot of [pause] extra support for referencing and I've spent a lot of time trying to understand the whole referencing technique…I find it so difficult. And there was a girl who peer reviewed mine and told me they were all wrong [Jenna dropped her gaze to the floor and fidgeted in her chair]. And there were only 3 that I had to do. And I spent 5 hours doing the 3 and she told me they

were all wrong [Jenna's tone of voice changed to that indicative of
displeasure]. And my confidence was totally shattered [emphasis was
placed on the word totally through extension of it] and then when the
lecturer looked at them they were in actual fact all right. But that was about
3 weeks down the line [Jenna looked as if she was about to cry but quickly
gained her composure]' (Jenna, 3)

For Jenna therefore the value of peer review was not one of improving confidence, as the post-it notes data previously indicated as a value, rather Jenna talks of her confidence being 'shattered' and not simply decreased. Blumer (1969) recognises that people act on things according to the meaning they place on them and for Jenna she appears to have believed this girl to be credible and capable of providing her with the correct feedback on her referencing technique. However, after social interaction with the lecturer and other peers she came to realise that perhaps the girl was not quite as competent as she had first thought. From this she amended not only her opinion of the girl but also the meaning she had held in relation to peer review which she no longer trusted.

Her use of the word shattered perhaps indicates the strength of feeling at the time she experienced this event. Ecclestone and Pryor (2003) recognise that when learners are exposed to negative peer review experience the impact can be that the learner withdraws from the learning process completely. The idea of the value of peer review as being related to increased self-esteem and confidence also runs contrary to the experience Jenna shared during focus group discussion. Participants within the focus group to which Jenna contributed were empathetic to her situation with comment made to support her decision to rethink the trust placed in her peer, with Jemima who was sitting directly next to Jenna leaning towards her and placing her arm around her shoulder. Other participants shook their heads and William said:

'That's the thing you have to take on board with peer review. You're
assuming that your peer knows what is right and wrong. If they don't
[pause] they might get it wrong and knock somebody's confidence right out
of the window for no apparent reason... Just because we are adult learners

doesn't mean to say we are good at giving people feedback – that's a skill in

itself.' (William, 3)

Sluijmans, Brand-Gruwel, Van Merrienboer and Martens (2004) suggest that there is a necessity for students to be trained in peer review techniques. In relation to this point, Yorke and Knight (2004) recognise that it is necessary for the students participating in the peer review process, to be open to their own limitations, ignorance and the resultant mistakes that this may lead to. This, Yorke and Knight (2004) recognise, is not always easy for students and can negatively influence the feedback on performance that is provided/received.

When William spoke about the skill of feedback provision, he was unable to expand on this skill apart from realising that it was necessary. However, Sadler (2010) offers insight into the attributes required for feedback provision that will subsequently enable the peer to realise personal weaknesses and strengths. He suggests that the possession of such attributes as expertise in negotiation techniques, tactfulness and assertiveness are desirable.

Jenna provided a cautionary example of what can happen when a peer does not have the appropriate skills or knowledge base to be capable of providing correct information. As Topping (2005) indicated the result of this within the peer review process can be faulty learning. The harm caused to someone can, as Topping claims, be positively harmful to the learner. Ainsley offered her opinion of peer feedback, particularly in relation to differential in ability, saying:

"I think it's quite nice to get an opinion from your peer as such but you

say 'that's great but I'm still going to my lecturer'." (Ainsley, 3)

The year 1 focus group participants did not identify any problems associated with peer feedback. However, having commenced the nursing course a short time before the data collection took place perhaps limited exposure to the peer review/self-assessment process influenced this finding.

Participants in the year 2 group discussed the reliability of any assessment carried out by a peer and the authority status of a lecturer. Koh (2008) suggests that, within

nursing, in order to cope with the requirements of the role in the provision of efficient and effective patient care, the possession of critical evaluation skill is essential.

Sadler (2010) suggests that critical evaluation capability can develop through a student making evaluative judgements and then explaining these judgements. An excerpt from the year 2 focus group discussion illustrates the idea that review by a peer is conceived by participants as being valuable:

> *"I think it could come easier from someone who is an equal. If they pick you up on something you are more likely to take it on board."* (Stephanie, 2)

> *"...it is not someone with authority that is reviewing me but an equal."* (Judith, 2)

> "*It makes you consider as well your understanding of something…when your peers are telling you that they know you've done it wrong then you have to start thinking 'have I been missing out on something here with what everyone else does'."* (David, 2)

Conversely, the idea that a peer may not be as well placed to assess as lecturer with the perceived authority to be able to assess, that a student does not, was put forward

> *"I think it is harder sometimes because you expect a lecturer to tell you what you are doing right and wrong and sometimes people find it hard to accept when somebody else is telling you. Maybe because you think it is always someone in authority you don't think it could be someone on the same level as you telling you that maybe you are doing something right or wrong."* (Louise, 2)

> *"Equally it could be somebody making the same mistakes as you."* (Judith, 2)

To which Louise replied:

> *"So it might not be a reliable assessment."* (Louise, 2)

The differential in ability as a problematic force (Topping, 2005) appears to be substantiated within my study. To counteract this potential there was the suggestion that peer review was fine only:

"*...as long as you've got people in authority to make sure you are getting told the right thing.*" (David, 2)

Interestingly, although Judith had previously indicated during the focus group discussion that peer review was strengthened for her as being that it was a peer and not someone in authority reviewing her, she subsequently seemed to recognise that peers potentially could advise her incorrectly and could merely be someone who was making similar mistakes thereby not in a position to inform her. Perhaps as a result of the social interaction that took place Judith is simply stating an observation or perhaps her conception of a peer's ability to provide accurate information has altered in accordance with Blumer's (1969) theory of symbolic interactionism.

The idea that perhaps a lecturer was preferable to a peer when it came to provision of feedback on performance, runs contrary to literature evidence that engagement with peer review offers students the opportunity to develop the ability to scrutinise, analyse and evaluate a peer's performance (Gerhinger, Ehresman, Conger and Wagle, 2007). It also runs contrary to the idea that engagement in peer review brings with it the developing ability to articulate the summary of the performance and make suggestions as to how performance might be improved in future. The opportunity for the development of communication skills afforded by engagement with peer review (Gerhinger, Ehresman, Conger and Wagle, 2007) not just for the person reviewing but also for the person being reviewed (Topping, 2005) would be missed should a lecturer replace a peer to provide information on someone's performance. The potential sharing of good practice, the learning from one another and the gaining of insight into one's own development that can happen during peer review (Rout and Roberts, 2007) would potentially be negated.

7.6: Concluding comments

Developing the ability to independently think through the consequences of action and to know what actions were right and important was an aspect of peer review and self-assessment that participants highlighted. For example, Morgan, a year 3 participant, identified her requirement for feedback that would inform her of why her performance was evaluated in a particular way by her peers in order to facilitate her

movement towards being the best she possibly could be. Similarly, Scott, who was in year 1 of the course, recognised that the small details can make a big difference to his patients. Indications were that the self-regulation capability required of nurses by the Nursing and Midwifery Council (NMC) at the point of professional registration (NMC, 2010) was already developed in some of the participants and was developing in others.

Peer review was conceptualised by the student nurse participants as serving four main purposes, namely that of assessment; improvement; encouraging a thinking process to happen that ultimately facilitated insight into one's own performance and identification of knowledge gaps. Similarly, the purpose of self-assessment was conceptualised as serving four main purposes that were the same as those for peer review with the inclusion of reflection as an aspect of the assessment purpose identified by participants.

The process of peer review involved watching peers/being watched by peers and learning from others. According to Vygotskian theory the process of knowing, also referred to as internalisation, took place as a consequence of this. The participants perceived engagement with peer review as providing the opportunity for gaps in knowledge to be identified and for strengths and weaknesses of performance to be highlighted. The chapter's opening quotation perhaps illustrates Blumer's theory of symbolic interactionism well, in relation to Elizabeth's verbalisation of the adaptation to the previously held conception of peer review and self-assessment.

Contrary opinion was expressed during the study in relation to peers providing feedback on performance. For some of the participants the fact that review was undertaken by people who were considered to be of equal status to them was a positive aspect of the peer review process. The reason provided for this was that being of equal status made these peers credible in terms of understanding their position. For others, the idea of a peer reviewing their performance was less attractive than being reviewed by a lecturer, who presumably would be able to offer the correct information.

Literature relating to the advantages and disadvantages associated with peer review was cited as a way of confirming, or not, the conceptions put forward by the participants. The insight that developed from peer review was thought by the

participants to potentially lead to improvement and development. The value of peer review was conceptualised in relation to its potential to aid learning and development, in particular in relation to increasing confidence through a realisation that peers are often in the same position and at times may be better or worse than each other when performing a task. The insight into how peers perceive each other was deemed by the participants as being particularly valuable. One participant put forward the point that peers can see you in the same way as patients see you and having insight into how you are perceived is useful within the context of nursing. This idea of 'seeing through the eyes of another person' reflects well with the title of the study. Through participating in the research study the opportunity arose for student nurses to see themselves as others see them.

Once the purpose and value of peer review and self-assessment was clarified the natural progression was to explore what components might make the process of peer-review and self-assessment truly fulfilling for the student nurse participants. The idea of asking questions about good peer review and good self-assessment was drawn from Nicol's (2009) principles of good assessment. The next chapter provides details of the components of good peer review and good self-assessment. Entitled Research questions 3 and 4 'Components of good peer review and good self-assessment: student nurses' conceptions revealed', the next chapter reflects the title well.

CHAPTER 8: RESEARCH QUESTIONS 3 and 4

Components of good peer review and good self-assessment: Student nurses' conceptions revealed.

Heading developed from research questions	Underpinning conceptual framework components (V = Vygotsky and B= Blumer)
1. What do student nurses' think good peer review is? 2. What do student nurses' think good self-assessment is?	Watching and learning from others (V) The passing on of beliefs and values to others (V) The acceptance of the less experienced by the more experienced (V) Acts on meaning (B) ▸ Social interaction (B) ▸ Meaning impacted upon (B)

8.1: Introduction

This chapter provides an overview of the information obtained in response to the asking of research questions:

What do student nurses' think good peer review is?

What do student nurses' think good self-assessment is?

The term 'good' for the purposes of my study was taken, by the participants, to mean useful, effective and of worth to the participants. For the terms peer review and self-assessment the previously identified terms of reference put forward by Gopee (2001) and Boud (2007) were utilised.

The chapter opens with identification of the conceptions that the participants held in relation to the components of good peer review and subsequent identification of what the participants identified as potential barriers to good peer review. Similarly, participant conceptions of components of, and barriers to, good self-assessment are identified. The idea of identification of such components and barriers was to assist the participants with data that could inform the content of the feedback forms, subsequently used by the participants during the practical task data collection stage of my study.

8.2: Components of good peer review

Participant opinion about the components of good peer review was gained during the NGT component of the focus group discussion. Each participant was given a post-it note that began with the words 'To be good at peer review I would need to ….' and

asked to complete the sentence in their own words and independent of other group members, in adherence with the utilisation of NGT (Tague, 2004). Table 21 illustrates the components identified by participants.

Pilot: Participants n=6	Year 1: Participants n=7	Year 2: Participants n=6	Year 3: Participants n=6
Reduction involved coding of the concepts that derived from the completion of the sentence "To be good at peer review I would need to…"			
Display involved tabulation of NGT data and coding of this data			
Be self-conscious of my knowledge base' 'Share my knowledge base knowing it may not be what my peer would want to hear' 'Have the knowledge to review the situation' 'Be confident and not be afraid of telling people where they need to improve' 'Have the courage to be honest' 'Have good knowledge to offer an honest review'	'Have a wider understanding about the subject I am reviewing. Good research skills' Be fair; be critical; use my own knowledge and understanding of any given topic to assess purposefully. Be positive. Be truthful.' 'Be truthful. Not be judgemental or over criticise someone's weaknesses. Ensure that people's strengths are recognised as well as their weaknesses.' 'Think critically and be unafraid to share my criticisms.' 'Be honest and explain to others clearly without offending anyone.' 'Be good at communication. Be able to converse accurately with confidence. Be able to record the communication.' 'Be knowledgeable about the task being reviewed. Honest. Confident. Assertive. Critical. Supportive.'	'Understand what it is and why it is being done' 'Know what aspects of work I was assessing and be honest.' 'Be honest and give positive feedback. I would also need to have a good idea how something is supposed to be done' 'Understand what I was reviewing' 'I would need to demonstrate what I know about the skill' 'Be honest'	'Have a strong understanding of the subject and techniques of reviewing. Also a kind and non-discriminatory attitude.' 'Be a good listener, observer.' 'Be constructive, honest, listen, be positive. Take advice to make improvements.' 'Know what the subject was about, the theory behind any knowledge and be un-biased in order to offer robust feedback.' 'Be non-discriminatory and clear of purpose of review.' 'Have good observation skills, good listening skills and communicate findings in a structured way.'
Conclusion: Conceptions of the components of good peer review included:			
Component 1: Sound knowledge base.			
Component 2: Honesty			
Component 3: Good communication skills			
Component 4: Diplomacy/sensitivity			
Although all 4 components were identified by all groups, emphasis did appear to be placed on communication skills.			
Key ▮ Component 1 ▮ Component 2 ▮ Component 3 ▮ Component 4			

Table 21: NGT data – components of good peer review

The components of good peer review, as identified by participants, reflect the domains of professional demeanour and interpersonal behaviour that exert influence on future learning and development (Epstein, 2007). Active engagement in discussion and the sharing of responsibility for others' learning has been highlighted by Rowe and

Wood (2008) as components of good peer review and the study participants identified these same components in their perceptions of 'good'.

Evident from the displayed data gained from NGT post-it notes, as illustrated in Table 21, was an emphasis on communication as a component of good peer review. This also presented itself strongly within all four focus group discussions.

8.2.1: Communication

Participants indicated that clarity and accuracy of what was being said or written was significant to peer-review being recognised by student nurses' as a positive and worthwhile exercise. For Sultan, a year 1 participant, not only should there be oral communication but also written communication. He conceived that to assure good peer-review one would require to:

> *"...be good at communication...able to converse accurately with confidence...able to record the communication." (*Sultan, 1)

Sultan's idea was reflected during the year 3 pilot group discussion by Jenna who said that:

> *"Comments and dialogue are important."* (Jenna, 3)

Nicol (2011; 2012) is adamant that dialogue is vital to the peer review process in order for learning to take place, as explained within my literature review. Austin (2012) agrees with Nicol (2011) that dialogue is important, but more for the reason that dialogue, she claims, is integral to the creation of a common purpose. Relating Austin's message to my study, the common purpose for my participant group was that of identifying the components of good peer review and good self-assessment. Dialogue became the focus of discussion following Jenna's expression of its importance to good peer review and what became evident was the limited time available to participants following any peer review process. William, another member of the focus group in which Jenna was a participant suggested that:

> *"The whole Sim-lab thing would be a great idea for peer review but it is wasted because we're so short of time because when you get to the point of discussion another group have arrived trying to get into the room."* (William, 3)

In response to William's statement I asked the question:

"Is debriefing important?" (Researcher)

This was, on reflection, a closed question which required a further question to be asked. Litoselliti (2003) recognises that during focus group discussion the unpredictability of the conversation can result in such an occurrence. The further prompt question to the response of 'Oh yes' from all of the 3rd year participants to the previous question was:

'What makes it [debriefing] important?' (Researcher)

The following response was provided.

'Because that is where you get your feedback [pause] because it was like sometimes we got thrown into a Sim man scenario and then sometimes you were walking away not knowing what you did well or not.' (Jemima, 3)

Jemima continued this theme that dialogue was important within the peer review process by arguing that peers can better take on board feedback when it is discussed face to face rather than simply on a written feedback form:

"...saying face to face to your peer 'why I pulled you up for this'...'can you see how this might be seen from someone else's point of view?'...they are liable to take that on board better." (Jemima, 3)

The idea of dialogue being incorporated within peer review activity was without exception agreed upon by my study participants (n=25) as being an integral component for peer review to be useful, effective and of worth to the participants. The time for debriefing was indeed an integral component for my study design and following indication from participants as identified, appropriate time for debriefing following student nurse engagement with peer review was a recommendation of this study.

Two further components required to effectively communicate with peers were identified by Morgan and Lucy, who said that good peer review required a peer to:

"... Be a good listener observer." (Morgan, 3)

"...have good observation skills and good listening skills to be able to communicate findings in a structured way." (Lucy, 3)

Liu and Carless (2006) suggest that possession of such skills can be useful both during peer review and also self-assessment. Sadler (2010) also suggests that these skills contribute to the development of the self-regulatory capability that the NMC (2010) require at the point of professional registration.

Additional to the dialogue, listening and observational skills identified thus far, participants within all focus groups recognised honesty as an integral component of good peer review, and indeed good self-assessment. Austin (2012) cites integrity as a quality that prepares students to participate in a world of uncertainty, basing her argument on Barnett's (2012) literature the students require to be prepared not only with knowledge and skills during a course of study but also prepared to possess human qualities, of which integrity is one, in order to cope within the increasingly complex world in which they will be expected to function on completion of the course of study.

8.2.2: Honesty

The words 'honest' or 'honesty' or 'truthful' were spoken on numerous occasions during focus group discussion, the practical task and during individual interviews, not only in relation to peer review but also self-assessment. These words encompass the notion of integrity and related to such things as fairness and non-discrimination. One participant added a dimension to this idea of honesty when he wrote on a post-it note:

"...to have the courage to be honest." (William, 3)

Courage, like integrity, is identified as being a human quality (Barnett, 2012; Austin, 2012) that alongside resilience, criticality and humility to name just a selection of qualities that contribute to a person being what Barnett (2012: 76) terms as an authentic being. This authentic being he suggests will be capable of withstanding challenges to their understanding and to 'act purposively and judiciously'. William was not a lone voice in relation to courage, both George and Archie said during focus group discussions that good peer review involved the peer to:

"...be confident and not afraid of telling people where they need to improve." (George, 3)

"...be unafraid to share my criticisms." (Archie, 1)

When asked why someone might be afraid to be critical of a peer performance the response was of:

"...being afraid of repercussions." (William, 3; George, 3)

However, there were no instances of repercussions expressed by any of the study participants so perhaps the fear was not emulated in reality and reflective more of Mark Twain, the famous American author's idea, when he said "I've had a lot of worries in my life, most of which never happened". However, Sadler (2010) certainly argues that in order to provide a perspective on a peers' performance that will subsequently enable the peer to realise personal weaknesses and strengths, a learner requires skill in negotiation techniques, tactfulness and assertiveness. Such attributes of learning processes are something that Austin (2012: 59) cites as being integral to the creation of what she refers to as 'respectful academic communities'.

8.2.3: Sensitivity/Diplomacy

The tactfulness that Sadler (2010) suggests as being integral to the peer-review process was highlighted during my study as illustrated in comments made that good peer review would entail:

"…explaining to others ...without offending anyone." (Natalia, 1)

"...not be judgemental or over criticise someone's weaknesses. Ensure that people's strengths are recognised as well as their weaknesses." (Mary, 1)

This idea of sensitivity and diplomacy reflects what was written previously about the components of encouragement and sincerity that are associated with the development of self-regulatory capability (Diaz, Neal and Amaya-Williams, 1993). However, although sensitivity and diplomacy were considered to be components of good peer review, a sound knowledge base was thought by participants to be absolutely essential.

8.2.4: Sound knowledge base

Robert, Sultan and Stephanie provided data that reflected this idea of a sound knowledge base:

"...be knowledgeable in the task being reviewed." (Robert, 1)

"...have wider understandings of the subject." (Sultan, 1)

"...have good ideas of how something is supposed to be done."

(Stephanie, 2)

This said, there were certain aspects of their performance that participants would particularly like the peer who was reviewing them to provide them with information about, particularly in relation to the affective domain. Cousin (2006) recognises the importance of the affective domain on learning. Mary and Sophie expressed the desire to be provided with feedback that informs them on:

"...my strengths/ weaknesses in giving compassionate care." (Mary, 1)

"...how I make someone feel." (Sophie, 2)

Thoughtfulness and carefulness are two of the many qualities that Barnett (2012) recognises as being demonstrated by an authentic human being.

Lucy provided a summary of what a good peer review should entail:

> *"A good peer reviewer would be somebody that has a good knowledge base to identify what your strengths and weaknesses are...to give you positive as well as negative feedback. To say, 'that could be improved on'...be open and honest with you...who is going to tell you 'how' to develop your knowledge or develop your skills...not going to say that 'you're not very good at this' but that 'this skill could be improved on and this is how you could improve'...I think this would be good peer review"* (Lucy, 3).

However certain barriers to this happening were highlighted within focus group discussion and individual interviews.

8.3: Barriers to good peer review

NGT post-it notes asked participants to complete the sentence beginning 'Barriers to good peer review include…' Table 22, as shown over the page, provides an overview of the responses given to complete this sentence:

Pilot: Participants n=6	Year 1: Participants n=7	Year 2:Participants n=6	Year 3: Participants n=6
Reduction involved coding of the concepts: that derived from the completion of the sentence 'Barriers to good peer review include…'			
Display involved tabulation of NGT data and coding of this data			
'People not having a mature conception of what this actually involves' 'Friendships and being biased' 'Relationships/ motivation' 'Being in denial' 'Seeing yourself as not being in a position to comment on equals' 'Being afraid of repercussions'	'1. Time 2. Personality clashes 3. Participation' 'Feeling you are being harsh to someone. Not being honest. Not being fair. Looking for more than the person is competent of. Not listening to others' 'People being unwilling to offer honest opinions for whatever reason. People being unwilling to accept other people's criticisms' 'Not listening to others. Not taking account of any criticisms. Being over-critical without any real basis. Arrogance and lack of time' 'Being a personal friend of peer. Continuity of reviews. Honesty and confidence – lack of' 'Need to know that negative review is in fact a positive in a manner that it is for the benefit of our improvement' 'Some people might not like to be critical of others and some others might not like to hear where they have gone wrong if they think they are good in that area'	'Not being able to take criticism' Not wanting to upset other students, being introverted' 'I don't know the answer' 'Not wanting to upset people if comments are not good' 'Shyness, personal feelings (like or dislike of person) 'Not being honest and the person taking things the wrong way i.e. criticism'	Personal like/dislike of person. Ulterior motives i.e. Group competition. Lack of basic knowledge. Lack of interest in general' Not wanting to offend peer. Inability to critically appraise' Biased views on the subject or towards the person. Lack of knowledge on the subject. Communication issues and inexperience' 'Not being honest and always being complementary' 'Being honest'

Conclusion: Conceptions of the barriers to good peer review included:

Component 1: Relationships.

Component 2: Unwillingness/inability to engage

Component 3: Inability to provide/accept criticism

Component 4: Time

Participants were advised that at any point during the NGT session if they were not sure how to answer the question then rather than potentially feeling awkward they should just write 'I don't know the answer'. It can be seen that a participant adopted this strategy, hence the response noted above. Interestingly, a participant noted that continuity of review can be a barrier and this is something that Nicol (2011) recognises as problematic and argues that for students to become good at peer review they require to be exposed to it on a regular basis.

Key ▉ Component 1 ▉ Component 2 ▉ Component 3 ▉ Component 4

Table 22: NGT data - barriers

The identified barriers were explored further during four focus group discussions.

8.3.1: Unwillingness/inability to engage

The idea that peer review was perhaps not being taken as seriously as it might be was put forward, along with the suggestion that this may be due to a lack of confidence in the reviewer's own knowledge base:

> *"...some people were taking it seriously, some people weren't taking it seriously and I think these people felt 'not confident' [made a quotation marks sign with her fingers] enough to peer review other people…because they maybe weren't so good themselves."* (Jemima, 3)

Literature supports this assumption, with Yorke and Knight (2004) recognising that although students participating in the peer review process should be open to their own limitations, ignorance and the resultant mistakes that this may lead to, this is not always easy for students and can negatively influence the feedback on performance that is provided/received.

8.3.2: Relationships

Assender (2004) suggested that students find difficulty with the idea of assessing their friends and Nicol (2011) offered a solution to this problem, as being to refrain from asking students to criticize each other's work and instead encourage the students to highlight an area for improvement or an issue that would be worthwhile for the peer to address in the future. Participants identified personality clashes as a major barrier to effective peer review. However, friends may offer positively biased feedback to each other. Clarke (2005) recognises that false praise can be harmful to the learning process, as falsely praising someone may lead to the person beginning to believe that they are in fact better than they actually are.

8.3.3: Inability to provide/accept criticism

Sluijmans, Brand-Gruwel, Van Merrienboer, and Martens (2004) suggest that there is a necessity for students to be trained in peer review techniques although a participant put forward the point of view that:

"...it's good to do the peer review...look at each other... I have enjoyed peer review. I think it is like everything else in life, it's what you take from it. If you are a negative person you'll take all the negative feedback and you won't focus on the good aspects. If you're a positive person you'll take the negative and turn it into positive...If you take it that someone is slating you, you take it personally...say 'right they are only here to help me'." (Jemima, 3)

Jemima continued by saying that she felt the peer review process was too open and that meant that criticism may be taken as negative rather than positive. Boud, Cohen and Sampson (2006) suggest that when students who are diverse in relation to their age, life experience and culture and who are inexperienced to interacting freely with each other, pedagogical challenges emerge. This study was entered into as a way of identifying those factors that contributed to these 'open processes' and perhaps offer structure to the peer review process; feedback forms created by student nurses, for the purpose of being used by student nurses, that would potentially make less the likelihood of negative experience being felt by the student nurses. Incorporated within these feedback forms were those components of good peer review and good self-assessment, as identified by participants.

Ainsley put forward the idea that respect should underpin the process of peer review when she offered the comment that:

'There was a list came out on Blackboard about the Problem Based Learning groups and it was about respecting other people in the group and in peer review there should also be this respect.' (Ainsley, 3)

Austin (2012) argues that this respect for individuals is integral to reaching effective conclusions to group discussions.

This idea of respect being regarded by Ainsley as an important aspect of peer review is reflected in one of Knowles (1980) principles of adult learning.

Knowles (1980) outlined the following six principles of adult learning:

> Adult learners like to be respected
> Adults are practical
> Adults are internally motivated and self-directed
> Adults are goal oriented
> Adults are relevancy oriented
> Adults bring life experiences and knowledge to learning experiences

Jenna added to this theme of respecting others by saying that she had observed peers who were insensitive:

'...there are some people who have a depth of knowledge...but they don't have the sensitivity to peer review. There were some days that I just wanted to leave the room I was so embarrassed by the way people were peer reviewed' (Jenna, 3)

Respect, as already intimated, is something that Austin (2012) advocates as a pre-requisite for coping with the challenging world that Barnett (2012) outlines, as discussed previously. The feedback form, a contribution of my study, was designed by participants to encourage sensitivity during engagement with peer review

8.3.4: Time

The main barrier of time was mainly in relation to time for debriefing, as previously discussed. Ecclestone and Pryor (2003) recognise the time consuming nature of peer review.

8.4: Components of good self-assessment

The data analysis strategy, of which an overview has been provided, was replicated during analysis of data relating to components of good self-assessment. Due to the exact same process being applied chapter 8.4 commences from the findings that emerged from the NGT post-it note data, rather than providing tabulation of the process.

Of the six components of good self-assessment identified previously and illustrated in Diagram 7, there were three components that had greater emphasis placed upon them and Diagram 8 illustrates these three components.
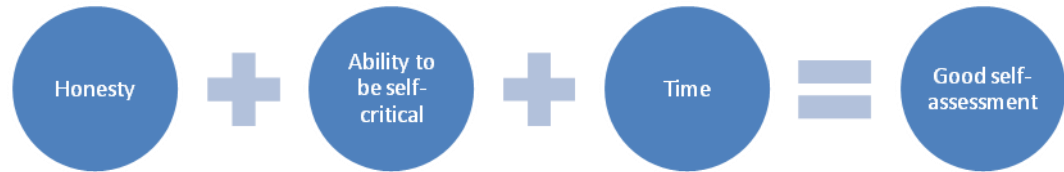
Diagram 8: Components of good self-assessment emphasised

Suskie (2004) through using the term truthfulness, rather than the participant term of honesty, recognises that honesty is integral to good assessment. Participants identified honesty as being essential to both self-assessment and peer review if it were to be useful, effective and of worth to them for personal, academic and professional growth.

8.4.1: Honesty

The idea of being honest as being integral to good self-assessment was highlighted as illustrated:

"...there is no point exaggerating or hiding where I am." (Robert, 1)

"...be honest and not pretend that you are good at a particular thing
when you are not as this will hinder any progression." (Elpi, 1)

However, for participants this idea of honesty was tempered with the idea of fairness and kindness, as indicated by the comments:

"...be fair on myself when judging my skills and performance." (Archie, 1)

"...be honest but not scathing, accept my own limitations, and avoid bias
as self-reported feedback may not be truthful." (Morgan, 3)

The idea of self-reported feedback not being truthful perhaps relates to the idea that through seeing ourselves as others see us we can potentially gain insight to ourselves. Integrity is one of the human qualities that Barnett (2012) suggests as being integral to the authenticity of a human being.

8.4.2: Time

The QAA (2005) and Lines and Mason (2005) realise the time implications of engagement in self –assessment (and peer review) to be practised effectively.

For good self-assessment the component of time was identified:

"To be good at self-assessment I would need to take time to reflect on my own thoughts and actions…." (Mary, 1)

However, time was an aspect that participants highlighted as one of the major barriers to them engaging effectively with the process of self-assessment. The component of time is therefore further discussed within chapter 8.5.1.

8.4.3: Ability to be self-critical

The participants thought that ability to be self-critical was a component of good self-assessment and Sadler (2010) supports this view with the claim that this particular ability was required for development of self-regulatory ability.

"…be critical of myself to improve myself. It is also important to give yourself credit and feel confident in your own beliefs and processes." (Mary, 1)

The idea of believing in oneself was indicated previously in chapter 7.3, with the literature indicating that maturity in cognitive development is made possible through alignment of what a person learns with what they believe (Bowen, 2005). Once again it may be argued that to be capable of this, in accordance with Vygotskian theory, a certain point in the ZPD would have had to be reached, with internalisation of information having been achieved.

8.5: Barriers to good self –assessment

Diagram 7 illustrated the barriers to self-assessment previously identified by participants. Socio-cultural influences on the ability to self-assess usefully and effectively in order for the assessment to be of worth was a matter of discussion within the year 3 focus group.

8.5.1: 'Blowing your own trumpet'

Vygotsky, when he wrote about the Zone of Proximal Development, recognised that societal and cultural factors could potentially impact on a person's ability to move

through their ZPD. The following excerpt drawn from the year 3 focus group discussion, where Anthony and Morgan related working for international companies to the others in the group, illustrates a reticence to recognise personal strengths. Prior to this conversation, participants had been discussing their inability to praise themselves and rather than celebrate their strengths they had a habit of focussing in on faults or areas of weakness. Anthony and Morgan both had opinions to express in relation to this:

"What I would say is that through years of working for different companies...I worked for an [name of country stated] company and they were like [pause] well it was highlighted that the Scottish culture tended to cause us problems. We think down the way where other people think up. So you could have two people with the exact same skills set and the [nationality mentioned here] guy would just think he should be running the company while the Scottish guy is thankful he has a job!" (Anthony, 3)

"That's really true Anthony. When I went to [country named] I spent a lot of time laughing at people high fiving themselves." (Morgan, 3)

"I am not being disrespectful to [people of the nation named] or anything as it is just a different culture obviously...I think it is just the way our society is. I think you know with self-assessment we're much more likely to be hard on ourselves than to be good and praise ourselves because we have this whole idea that once we praise yourself you are just being arrogant. And it is not. You just really have to think 'you know I did that well, really well and I'm proud of myself for doing that' Very difficult to do for all of us." (Anthony, 3)

"That's something that stems from our childhood that we just can't." (Morgan, 3)

Cousin (2012a: 17) recognises that 'Trans-cultural dialogue might be a fitting way of getting students to develop a reflexive view of self and others because it requires an acknowledgement that we are more than an off-the-shelf classification, it requires

appreciation of the dynamic between our cultural inheritance and our capacity to manipulate it….'

The issue of time, or lack of it, was identified as a major barrier.

8.5.2: Time

However, although lack of time was cited by participants as being a major barrier to self-assessing, perhaps it was not as much the time that proved a barrier as the time management, focus and motivation to self-assess. As Robert expressed:

"...time at work/home/university. Being able to set the time to do it and record it can be difficult." (Robert, 1)

However, Lynn recognised that for her the barrier to self-assessment was related to her:

"...lack of time management." (Lynn, 2)

David provided further insight into time management in relation to self-assessment when he said:

"...it is bad time management for me as well because as it comes closer to exams I will think 'well now I better do these things' and then I realise what I don't know and then I'll need to cram it all in." (David, 2)

Although David said that he self-assessed through completion of practice tests from workbooks he chose not to do this anymore:

"... It is terrible time management because I know I should [self-assess] but I won't." (David, 2)

Having said that failure to self-assess was due to 'terrible time management', David then reconsidered this and identified lack of motivation as a factor.

8.5.3: Motivation

David said in relation to life science self-tests:

"...I think it is a lack of motivation more than anything else and I have got it in the back of my head that if I do those tests then it will show the amount I don't know and I can't be bothered so I am not going to" (David, 2)

David therefore appears to have made a conscious decision not to self-assess. Hattie and Timperley (2007) recognise that feedback can be rejected. David seems to

think that it is better not to know how much he may not know rather than be confronted with the idea his knowledge base may be lacking. Perhaps he has reached the point within his ZPD where that assistance of another may help him move forward from this point. Biggs (2012, p42) points out that '…education is about *conceptual* change, not just the acquisition of information' and he claims that educative conceptual change happens when 'Students experience the felt need to get there… "Motivation" is a product of good teaching, not its prerequisite.' Perhaps this accounts for David's lack of motivation or perhaps as Biggs (2012) also suggests David has entered into a game where dealing with the test has become more of an issue than engaging with the task in hand. Judith, on the other hand recognised that perhaps time itself was the actual barrier when she said:

> *"…You are so busy trying to learn the stuff that you don't have time to notice if you have learned before ploughing on to the next thing, trying to learn the next thing. So you don't always have time to take stock of how much you have actually learned."* (Judith, 2)

Gibbs and Simpson (2003) substantiate Judith's comment, indicating that the structure of the curriculum may result in new learning being undertaken prior to feedback being obtained from assessment of the learning that has already taken place.

8.5.4: Lack of focus

Biggs (2012) suggests that by freeing a learner such as Judith to focus on her learning rather than to be focussing on what he refers to as 'urgent assessments' then educational conceptual change is more likely to happen.

One participant thought a barrier to remaining focussed on assessing oneself could be:

> *"Not wanting to admit failure or sounding too good at things."* (Stephanie, 2)

Whilst another put forward the point that:

> *"…poor knowledge – thinking the practice you are doing is acceptable."*
> (Lucy, 3)

8.5.5: Lack of/too much confidence

Lucy thought that this could link to the idea of someone being over confident which she expressed could also prove to be a barrier to self-assessment. This issue of over confidence was expressed by another participant who said:

"...'delusions of grandeur' inability to see own strengths and weaknesses." (Andrew, 3)

Through increased collaboration and dialogue with peers such barriers, as identified by participants, potentially could be removed. As Biggs (2012, p 42) suggests, 'Good dialogue elicits those activities that shape, elaborate and deepen understanding.' For participants this dialogue often happened within the practice placement areas. Carson and Glaser (2010) argue that the ability to collaborate is a skill that all graduates require to possess. Within nursing, collaboration is essential to provision of safe and effective patient care (NMC, 2008).

Participants' identified situations during which their mentors influenced their ideas about the components of good peer review and good self-assessment. These situations reflect well Vygotsky's ZPD theory and Blumer's theory of symbolic interactionism. Mentors are perhaps the 'more capable others' that Vygotsky refers to when he outlines the movement from actual development to potential development with assistance (Vygotsky, 1978). The internalisation, or process of knowing, potentially happens through the student nurse being taken from the edge of the community of nursing to being part of the community of nurses. As a direct result of social interaction with mentors on placement, at times the meaning the participant has placed on something was altered, as illustrated in the quotation provided by Lucy where she talks about the documentation of patient vital signs.

8.5.6: Mentorship

The idea of mentorship leading to internalisation as a result of being taken from the edge of the community of nursing to being part of the group was discussed by Lucy who said:

"I think that self-assessment is a skill...it's not something that happens overnight. I think what helped me was I had in the 1st year a really, really

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good fantastic mentor and whenever I did anything she would say to me
'what do you think went well with that? And what do you think could
have been improved? And could you use something different?'...she said
to me at the start 'I'll have you thinking and you'll be assessing yourself
constantly'. Two to three weeks into the placement when I was going to
do something I'm thinking to myself 'Right could I take anything else
from it? Could I have done anything better?' And we were laughing
about it when she would say 'I've got you thinking' and it was great."
(Lucy, 3)

This example seems to provide evidence of the mentor checking the development of conscious realisation within Lucy; the asking of how she knows what she knows. This conscious realisation will, according to Vygotsky, move Lucy forwards within her ZPD. It may be argued that for the higher mental functions referred to within the aforementioned quote to occur there has to have been what Vygotsky refers to as 'conscious realization' (Wertsch, 1985). Demands for conscious realisation are placed through the asking of such questions as 'how do you know?'. What Wertsch (1985) suggests is that Vygotsky recognised two main conditions to the growth of conscious realisation. Firstly, that automatic processing should replace the need for signs used to mediate problem solving ability. Practically this made sense to me as I considered, for example, that I began my school life by learning to count using my fingers and coloured oblong blocks. I subsequently learned that after a period of time I could count without the need for using my fingers or blocks. The conscious manipulation of these signs to mediate higher mental functions had proved effective and automatic processing occurred. The second condition for this to have happened in relation to my counting was the need for my learning behaviour to be checked initially by my teacher in relation to my "perceptual, directional and sequential sign processing operations" (Clay and Cadzen, 1993: 220).

Dawn and Anthony expressed their approval of this mentor checking of conscious realisation saying:

"I think that's great. I wish most mentors and staff nurses would do that but they don't. You just get left to get on with things most of the time."
(Dawn, 3)

"I think that is the best way if you can get a mentor like that." (Anthony, 3)

There is, from these comments the idea that the participants do indeed desire the conscious realisation afforded by someone checking their mental process movement to a higher level.

Lucy reiterated:

"It was fantastic…with the best will in the world you come in here and you can have the best education, training, and you can have fantastic lecturers and you can have all the equipment like Sim man to practice on but I think that what a lot of people are missing is that we're actually out in practice a whole chunk of the time. Although we have got good teaching in here and we've got good equipment these people are influencing our practice…." (Lucy, 3)

This train of conversation led to discussion of what makes a good mentor and the consensus was that a good mentor would be someone who was constructive and interested in taking a student from the edge of the nursing community to being an effective member of the group. Being what the participants referred to as 'nice' was not enough. To illustrate this here is an excerpt from the discussion:

"I think there is a very big difference in being a nice person, I've never had a mentor who wasn't a nice person, they've all been very nice people and they've all been very good to me but there's a difference between being a nice person and a good mentor. My mentor in 1st year was the only fantastic mentor I've had. She made me think for myself, she made me analyse…." (Lucy, 3)

Brew (2012) recognises the positive influence of this type of teaching that encourages active learning and the development of the creative and critical thinkers. The philosophy of active learning, according to Odom, Glenn, Sanner and Cannella (2009) is such that

when learners move from being passive recipients of knowledge then learning is improved.

For participants within the study, challenge and active learning was welcomed, as illustrated in the following comment:

"In a lot of situations you get the vibe that the person's maybe not that interested in you…But when you get a mentor who challenges you I feel myself growing and I feel interested and by the end of the placement I feel I've come on so much…When your mentor says 'look that up for tomorrow' and I'll go home… and you go in and your confidence rises. I love that. I love to get challenged and I feel that I don't get that enough and then I'll maybe switch off…." (Morgan, 3)

In response to Morgan's comment, Elizabeth said:

"…I've been with mentors who have maybe told me an easier way to do things but then there can be conflict there as well because that is not what we've been taught. Obviously we want to stick to what we have been taught." (Elizabeth, 3)

To which Lucy replied:

"I think the MEWS chart is a good example of that…a number on it. Obviously we are taught that it is a trigger system [a dot placed to indicate a reading] then our mentors and everybody are putting numbers on it…when a staff nurse has said to me 'do you know, see for these [MEWS charts] you should be putting the numbers on' I've found myself saying 'oh thanks very much that is really helpful' and letting her walk away and then I'll go 'well that was nonsense'…so rather than get into confrontation I'm well 'that's nice thanks'…so every placement you are going into you're trying to adapt your practice to suit that person and leave and try to remember 'right I'll need to stop doing that because actually that is not the right way to do it do that when you go into your next placement you have adjusted your practice." (Lucy, 3)

Hattie and Timperley (2007) recognise that feedback does not necessarily reinforce what is understood by the student, as in Lucy's case. However, practice was modified temporarily in response to mentor feedback on documentation of the MEWS chart.

The idea of confrontation, particularly with mentors within the profession, was something that participants had decided they would not enter into and Elizabeth said:

"I remember challenging a nurse once about that and never again!"

(Elizabeth, 3)

To this statement made by Elizabeth, Lucy replied:

"I know it's just not worth it." (Lucy, 3)

Morgan explained that:

"She'll mark you for your attitude and your behaviour and not acknowledge that her knowledge of that is flawed and at the end of the day it's all hoops that we have to jump through." (Morgan, 3)

These comments would appear to substantiate what Brew (2012) recognises as necessary within the Higher Education settings; the sharing of power and the opening up of oneself to challenge. I would argue that this is equally applicable to practice where the student nurse, I would suggest, should be considered as someone who has less experience and exposure to the world of nursing but the potential to become the Chief Nurse one day.

From these participant statements there is evidence that on social interaction with other nurses in practice the student nurse participants adapt their practice accordingly. Even although the student nurse participants expressed the idea that they know what the university has taught them in relation to the meaning that should be placed on, for example, the MEWS chart, within the practice placement areas they are entering into social interaction that results in them acting in a different way as they adapt their thinking to align with the other nurses within their environment. Blumer's (1969) theory indicates such a possibility. However, as Lucy indicated, once the placement is over and the student nurses interact socially with each other again there is a further adaptation to action as the meaning placed on the MEWS chart is re-established in alignment with

what the University lecturers have taught. The participants were ready again to enter their next placement with the idea that avoidance of confrontation was in their best interests if they wished to gain a satisfactory placement report.

8.6: Concluding comments

Good peer review was conceptualised by participants (n=25) as the process of providing or receiving feedback on performance that was honest, sensitive and diplomatic in nature and communicated clearly. Feedback from peers should indicate not only areas of strength but also areas of weakness and integral to this was the idea that peers should offer suggestions on how to improve. Good peer review according to the participants would involve not simply completing a feedback form but also entering into dialogue with peers. This idea reflects Nicol's (2011) claim that dialogue is a necessary component of peer review in order for its learning potential to be realised. Relationships, unwillingness/inability to engage, inability to provide/accept criticism and time were all identified as potential barriers to peer-review being a useful, effective and worthwhile learning activity.

Good self-assessment was conceptualised by participants (n=25) as an honest reflection of status at a given point in time. Austin (2012) recognises that reflection should lead to decision making and to implementing decisions into practice. Time management was necessary for the participants to be able to reflect on their development in relation to skills and knowledge and the participants expressed that for self-assessment to be 'good' then time must be set aside for it.

Good self-assessment also required the ability to be self-critical. This particular ability is required for self-regulatory capability to develop (Sadler, 2010) and Vygotskian theory would indicate that for this development the process of internalisation, or the process of knowing, must take place. Participant quotes indicated that internalisation, through watching and learning from others, sharing thoughts and beliefs with others facilitated the process of knowing.

Literature evidence provided by Liu and Carless (2006) and Boud (1995) has been supported. Skills of critical reflection, listening to and acting on feedback, sensitively assessing the work and providing feedback were indeed found, within

participant comments, to be common to both peer review and self-assessment (Liu and Carless, 2006).

The feedback forms, which were created by the study participants, incorporated the components of peer review and self-assessment that had been identified by the participants as good. The next chapter provides an overview of this process.

CHAPTER 9: RESEARCH QUESTION 5

Peer review and self-assessment: A new feedback tool designed by student nurses for use by student nurses

Heading developed from research question 5: How do student nurses' think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value?	Underpinning conceptual framework components (V = Vygotsky and B= Blumer) Cultural tools (V) Activity theory (V) Acts on meaning (B) → Social interaction (B) → Meaning impacted upon (B)

9.1: Introduction

Smidt (2009: 91) puts forward the idea that Vygotsky was of the opinion that "a human individual never reacts directly to the environment". Rather, all relationships between a human being and objects or events in the environment are mediated by cultural means, signs or tools. The cultural tools utilised during my study were the video recorded practical task and the peer review (PR) and self-assessment (SA) feedback form, developed by the study participants following focus group discussions. The peer review and self-assessment form was developed and tested in this study. As will become apparent as the chapter progresses, this new form directly involved each participant in the setting and evaluating of the criteria against which performance was to be judged. Nicol (2009) alongside such eminent scholars as Boud and Sadler encourage the involvement of learners in the setting of criteria, with Knowles (1980) recognising that adult learners are relevancy oriented and bring life experiences and knowledge to learning experiences. These would seem to be valuable attributes in relation to the design of a new tool for adult learners to use during peer review and self-assessment engagement.

The Quality Assurance Agency (QAA, 2005) recommendation that the opportunity to engage in formative learning activity such as peer review should be encouraged within Higher Education settings was influential in my decision to incorporate a practical task into my study. The practical task, or activity when using Vygotskian theory as an underpinning element, involved the incorporating of certain

concepts (Cole, John-Steiner, Scrivner and Souberman, 1986). The alignment of these concepts with my study activity is illustrated:

Vygotskian concepts	My study
A subject	Study participants
An object	Conceptualisation and implementation of PR and SA
An object oriented tool	Concrete experience of PR and SA
An artefact mediated tool	Video recording and feedback forms

Daniels (2001) recognises that within any group activity there is a degree of negotiation and organisation that takes place in order to achieve a common goal. The goal for the participants was to utilise feedback forms, created from focus group discussion of the purpose, value and components of PR and SA as identified within the previous two chapters, which could potentially be used by student nurses in the future during peer review and self-assessment engagement.

Eraut (2006) who suggested that artefact mediated tools can be useful when attempting to surface knowledge and feelings which are tacit in nature, influenced the desire to incorporate the video recording of the practical task and the feedback tools into my study in order to capture this tacit knowledge and associated feelings.

This chapter begins with an overview of the process of creating the feedback forms. An overview of the activity during which the feedback forms were used and evaluated is also provided.

9.2: Artefact mediated tools: The new feedback form

My decision to involve my study participants in the development of the feedback tools rather than me, as the researcher, designing a tool based on the study findings, was underpinned, specifically but not exclusively, by the works of Lui and Carless (2006) and Nicol (2010b). Lui and Carless (2006) put forward an argument that engaging learners in thinking about achieving outcomes to a certain agreed standard is a learning process in itself and Nicol (2010b) argues that learners should be involved with the setting of criteria for any form of assessment to be as beneficial to the learning process as possible. More recently, Sambell (2011) has published empirical research into the provision of opportunities for students to shift their reliance on tutors as a source of

feedback to peers as the providers of feedback. However, assessment criteria need to be understood by those who provide and obtain feedback commentary during peer review and self-assessment engagement.

Similar to the previous three chapters, NGT post-it notes generated participant ideas. Table 23 illustrates participant responses to the post-it note that began a sentence with "When a peer reviews me I would like to be informed of certain aspects of my performance especially…"

Pilot: Participants n=6	Year 1: Participants n=7	Year 2:Participants n=6	Year 3: Participants n=6
Reduction involved coding of the concepts: that derived from the completion of the sentence "When a peer reviews me I would like to be informed of certain aspects of my performance especially…"			
Display involved tabulation of NGT data and coding of this data			
'How I performed in relation to the ESCs' 'My management skills, documentation and organisation' 'The mistakes I was making' 'What my patients might think of me, honesty' 'Strengths and weaknesses and areas for improvement' 'Interpersonal skills and how comfortable I made the patient'	'What I need to improve, what I could do better and what to do to achieve this' 'Communication skills, nursing skills, although all comments are welcome' 'My communication skills, my strengths and weaknesses in giving compassionate care' 'Competence in appropriate skills' My full performance in general' 'Strengths, weaknesses, knowledge, how I performed in relation to other peers doing the same task' 'How respectful and professional I was'	'How I came across' 'Where improvement is obviously required' I don't know' 'How I made someone feel' 'What is good and bad and how I could improve on things' 'What I missed or did wrong'	'Where I could improve. What I was good at. What I missed out' 'Where I am going wrong. Any gaps identified in my skills and any good points' 'What I did well – and why! What I did not do well – and why! Was anything a potential worry? What I could do better' 'Confidence, ability, what I could do better' 'Areas of practice that could be developed' 'Any areas that are core to my learning and practice'
Conclusion: ---- Psychomotor skills/Measurement of performance against criteria ---- Strengths and weaknesses of performance – cognitive/psychomotor/affective ---- Affective domain qualities ---- Improvement Key ▮ Criterion 1 ▮ Criterion 2 ▮ Criterion 3 ▮ Criterion 4			

Table 23: NGT data analysis process on performance

The initial feedback form that was created by the pilot focus group provided the template for each of the other three focus groups to evaluate. The idea was that this feedback form would capture the participants' conceptions of peer review and self-assessment. Through providing feedback to one another and feedforward to inform future development at the time of engagement with peer review the intention of my study was that the educational value, as indicated by those contemporary and seminal writers identified within my literature review chapter, would be demonstrated. Lines and Mason (2005) concur with my thinking on this matter.

The year 3 pilot group participants were of the opinion that any form that would be used for the purpose of peer review or self-assessment required to be such that it encouraged the provision of positive comments. An example of their thoughts on this included:

"...if you watched someone doing something they were particularly bad at and you go back to them with a long list of criticisms no you have got to look for some positives. Because I don't think anyone can do anything completely bad. I think you have got to look for a positive and start with a positive." (William, 3)

William could not remember what this type of feedback was called but Jemima reminded him saying that she knew this type of feedback as:

"The positive sandwich." (Jemima, 3)

Clarke (2005) suggests the positive sandwich as being beneficial to the learning process. In her book about practical strategies for enhancing pupils' learning in the primary classroom she argues that following feedback on what a peer has done well there should be feedback on what perhaps requires to be improved and then suggestions put forward on ways that the peer could improve his/her performance (Clarke, 2005). For children I would certainly support this approach. However, since entering the field of Higher Education, I have observed student nurses who have taken on board the positive comments and dismissed the constructive, if at times rather more negative, comments, having apparently been misled into thinking that all was well. Student nurses have brought their feedback forms to show me that there was nothing to indicate a

problem, saying that they would have done something to fix it had there been a problem identified by the marker. What I have observed when reading through the feedback forms that student nurses have brought with them is that the problem has been identified but it is so well hidden between positive comments that it has been difficult to discern. Colleagues have expressed to me that they have encountered this difficulty also.

A literature search was undertaken in the hope of sourcing empirical research that supported my anecdotal viewpoint; however, the available literature appeared to support the idea of the positive sandwich approach being beneficial to learners. Glover (2001) undertook a case study (n=5) in Australia, the aim of which was to identify third year nursing students' perceptions and use of feedback in the clinical area. Data was collected via questionnaires, critical logs and interviews. What emerged from her study was that most useful to student's learning were positive feedback and the 'feedback sandwich'. There are manager blogs available on the internet where my opinion that a positive sandwich can be misleading is supported, but given that the credibility of the people who were posting on them remained uncertain, their ideas were not used to support my own assumptions based on my observations of the positive sandwich approach. Rather I would suggest that for me the positive sandwich approach to feedback may become a topic for future study.

Contrary to my anecdotal thinking, there was evidence of participant support for the positive sandwich with the comment being put forward in relation to influence of feedback on confidence levels that:

"Yes the positive sandwich. You start with a positive, give criticism, end with a positive and I think that is a very important skill. If you go to someone and say this is wrong and that is wrong you'll just lower their confidence." (William, 3)

Murphy (1999) supports what William suggests however indicates that this situation is more likely to occur when criterion are subjective rather than objective.

Participants expressed concern that objectivity sometimes translated itself as tick box type feedback. Jemima recognised that any feedback form should not simply be a

tick list but should have comments that could then be discussed. William said in response to Jemima that:

> *"I think that when you do peer-review there should be really strict*
> *guidelines on what you are wanting, what you are commenting on rather*
> *than just say 'go and watch that.'* (William, 3)

Again Murphy (1999) concurs with William that feedback requires objectivity; it requires criterion against which performance can be measured. The opinion put forward by Murphy (1999: 125) is that 'Even the giving of praise can be harmful if it is not linked to objective feedback'. Rowntree (1987) supports Jemima's opinion that discussion is important and suggests that feedback only begins to be of use to a learner when it includes verbal comments. Nicol (2010b) concurs with this idea.

Were the participants' conceptions of peer review and self-assessment reflected on the feedback forms that they created? The text that follows outlines the process of construction of the forms.

The pilot group spoke at length about what information should be contained within the introduction to the peer review feedback form. Consensus of opinion was that the introduction should read as:

> *The following review by your peer is provided in the spirit of honesty and*
> *sensitivity to assist you in realising your strengths and weaknesses and*
> *thus develop your skills (also in order that you will be in the best position*
> *to grasp opportunities that come your way and minimise threats you may*
> *encounter)* (pilot group, 3)

This introduction to the peer review feedback form was developed therefore in such a way that it reflected the group idea that for peer review to be valuable it required to be honestly but sensitively communicated. There were then 6 boxes that commenced with the statement 'What aspects of the peer performance…'

1. Might a patient appreciate?
2. Might make a patient anxious?
3. Might a mentor/Senior nurse consider as good practice?
4. Might make a mentor/senior nurse concerned?

5. Might indicate to a lecturer that a theory to practice link has been made?

6. Might be something that I would have done differently?

This does indeed reflect William's and Stephanie's desire for 'the positive sandwich', although it was more like a triple rather than two slice sandwich, and the year 3 pilot focus group expressed their consensus and satisfaction with the form. This pilot group also decided there should be a concluding section of the form that would be a suggested action plan for the peer in light of written comments contained within the feedback and subsequent discussion of them. The pilot group template is shown, on a smaller scale than in reality, in table 24:

Peer review feedback form
The following review by your peer is provided in the spirit of honesty and sensitivity to assist you in realising your strengths and weaknesses and thus develop your skills (also in order that you will be in the best position to grasp opportunities that come your way and minimise threats you may encounter)
What aspects of the peer performance
Might a patient appreciate?
Might make a patient anxious?
Might a mentor/senior nurse consider as good practice?
Might a mentor/senior nurse concerned?
Might indicate to a lecturer that a theory to practice link has been made?
Might be something that I would have done differently?
Suggested action plan for the peer in light of written comments above and subsequent discussion of them Short term: Long term:

Table 24: Pilot group peer review feedback form

However, when the form was utilised the students found that this concluding section of the form was not used effectively. This was due to recognition that goals are something that an individual sets and not something that should be set by their peers. As Ainsley said in relation to the final part of the form:

> *"...too much writing involved and not all boxes used or relevant to student's performance."* (Ainsley, 3)

In specific relation to the content of the form the fact that the form asked the student nurse to consider things from the patient point of view was considered to be a positive aspect of it, with Jemima saying:

"I liked the part that made me think from the patient angle…to see

yourself as others see you." (Jemima, 3)

Jenna thought after using the form that perhaps the box that asked about what might make a patient anxious might be better written as 'might make a patient more comfortable' and she suggested that the peer review feedback form could prove to be:

"An important learning tool." (Jenna, 3)

The feedback form becomes an important learning tool in terms of its potential to highlight what particular strengths and weaknesses are that may not have been self-identified. As far back as 1964 Robert Birney recognised that feedback needs to be in a language that is understood by learners (Birney, 1964) therefore the idea that student nurses should develop a feedback tool, specifically to be used by student nurses in a common language understood by the people it is intended for, was perhaps a timely endeavour. Rowntree (1987) argues that feedback should contribute to the learner's growth through informing him/her on areas of achievement, areas that still require improvement and ideas on how these areas could possibly be improved on.

At the commencement of my research study I had thought that two separate feedback form were required but my pilot group indicated to me that in fact the criteria against which the peer reviews does replicate the criteria against which self-assessment takes place.

The only aspects of the self-assessment form that the pilot group created that differed from the peer review form they had created were the introduction, which on the self-assessment reflected the replication of the criteria against which performance could be judged. The introduction on the self-assessment form was worded:

These self-assessment questions replicate those of the peer review form,

in order to provide you with the opportunity to consider the same aspects

of your performance as your peer commented on

The part that said 'what aspects of peer performance', on the self-assessment form was reworded to 'what aspects of my performance'

Following the use of these self-assessment forms the participants were asked how well their self-assessment feedback matched with their peers' feedback. For all but one of the pilot group participants there was a matching of peer review and self-assessment feedback. The participant who found that the peer review and self-assessment feedback differed said:

> *"I think my own assessment was positive on my professional and clinical*
> *skills. I think my peers thought this was negative. Perhaps I need to spend*
> *time reflecting on my peers thoughts."* (Jenna, 3).

Analysis of Jenna's peer review feedback forms indicated that two of her peers did make reference to her professionalism under the issue of 'what might make a patient anxious?' One of her reviewers suggested that she was 'very professional' and that the clip board she carried created a barrier. This reviewer and another suggested she 'gave too much information'. One peer suggested she 'relax' whilst the other suggested that the giving of too much information can confuse a patient. Jenna recognised the role play aspect of the practical task had perhaps exerted influence on her behaviour and suggested that in practice she would hope to be rather less formal than she had been during the task.

The title of my study 'To see oursels as ithers see us' was designed in such a way as to encompass the idea of people seeing things differently. Robinson (2006) in a keynote speech argues that the differences in the way things are seen by people emerge from the dynamic nature of intelligence. Intelligence itself is a matter of debate within the academic literature (Robinson, 2006) with Gardner's (1983) ideas of multiple intelligences impacting on thinking and practice in education. However, in relation to my own research study intelligence itself, although a factor relating to how people may see things differently, was not the main focus of the study and was therefore identified as being an underpinning element rather than a topic for further exploration. The information did permit me to assume that the way in which we see ourselves can potentially be very different from how other people see us and therefore designing the

study in such a way that peer review preceded self-assessment allowed for exploration of this. Indeed, Jenna in the example provided considered that she was being 'professional' yet her peers thought this professionalism was actually 'stand-offish' and may negatively impact on her provision of patient care.

Blumer (1969) in his work on symbolic interactionism recognised that people act on things according to the meaning they place on such things, therefore the tool required to be such that the meaning placed on it would be positive, with the tool regarded by the student nurses as something that would prove helpful during the peer review/self-assessment process. As one participant in the year 1 focus group wrote, on an NGT post-it note, engagement with the peer review process 'should give constructive feedback to help not hinder others learning'. The identity of the particular participant is not known as the individual was one of seven participants who made a response to the post-it note that said 'The purpose of peer review is to…'.

Not having the actual identity of the participants on the post-it notes data may be viewed by other researchers as a limitation of this NGT method. However, my intention was to gain data about participant conceptions rather than data on who provided the information. This said, on reflection, obtaining this information may have perhaps increased the trustworthiness of the study in so much as an actual participant pseudonym could have been placed next to a direct quotation within the text.

Blumer (1969) further recognised that during social interaction discussion of the meaning placed on things takes place and as a result of this social interaction the meaning placed on things can be amended (Am), abandoned (Ab) or confirmed (C) as illustrated in Table 26. This was clearly seen in the process of design of the feedback tool from the pilot group version to the end product as shown, smaller for illustration purposes, in Table 25. Due to the minimal differences between what would have been a peer review form and what would have been a self-assessment form, the forms were combined.

Peer review/Self-assessment feedback form			
Peer review: The following review by your peer is provided in the spirit of honesty and sensitivity to assist you in realising your strengths and weaknesses and thus develop your skills.			
Self-assessment: Consider the same aspects of your performance that your peer commented on. Peer/Self performance: Tick boxes below (P) when peer reviewing and (S) when self-assessing			
Patient perspective/viewpoint (tick box if demonstrated) P S			
Polite			Peer/Self Comment:
Informative			
Professional			
Kind			
Responsive			
Confident			
Strengths and weaknesses through the eyes of a mentor/senior nurse (tick box if demonstrated)			
Communication Caring and Compassion			Peer/Self Comment:
Task performance			Peer/Self Comment:
Has theory been linked to practice? If so, how? (Tick box if demonstrated)			
Communication			Peer/Self Comment:
Task performance			
Prevention and control of infection			
Team working			
Documentation			
What could have been done differently, if anything?			
Peer: Action plan suggestions/Aspects of peer performance that might be adopted in the future: Self: Action plan in light of written comments above/Short term and longer term goals:			

Table 25: End product Peer review/Self-assessment feedback form

9.3: Sequence of events - the pilot feedback form through to the end product

9.3.1: The creation of a feedback tool: student nurses' template design for peer review

The feedback forms as designed by the pilot group were made available to each of the three other focus groups so that the content and structure could be commented upon and changed if thought to be necessary. Blumer (1969) recognised that during social interaction discussion of the meaning placed on things takes place and as a result of this social interaction the meaning placed on things can be amended (Am), abandoned (Ab) or confirmed (C). This was clearly seen in the process of design of the feedback tool from the pilot group version to the end product as illustrated Table 25. Certain amendments were made (Am), certain ideas were abandoned (Ab) and certain aspects of the form designed by the pilot group participants were confirmed (C) as essential and to be retained. The codes Am, Ab and C indicate points at which the feedback forms altered throughout the design process as illustrated in Table 26 overleaf.

Pilot group design ideas: Amended (Am), Abandoned (Ab) or Confirmed (C)
Feedback form introductory paragraph
The introductory paragraph on the peer review feedback form was:
    'The following review by your peer is provided in the spirit of honesty and
    sensitivity to assist you in realising your strengths and weaknesses and thus
    develop your skills (also in order that you will be in the best position to grasp
    opportunities that come your way and minimise threats you may encounter)'
(Pilot focus group participants).
 	
And on the self-assessment form the introductory comments from the pilot group were:
    'These self-assessment questions replicate those of the peer review form, in order
    to provide you with the opportunity to consider the same aspects of your
    performance as your peer commented on.' (Pilot focus group participants)	

Year 1 Participants were satisfied with the wording of the introductory paragraph on both of the feedback forms and nothing was changed	C
Year 2 Participants thought that the introductory paragraph was too long on the peer review feedback form, with the comments being made that: *'It is a bit wordy.'* (Judith, 2) *'Not very succinct.'* (Sophie, 2) *'...anything more than 6 lines at the start of a form people stop reading.'* (David, 2) *'I just jumped to the boxes.'* (Mula, 2) *'You could maybe miss out the last paragraph that is in the brackets.'* (Sophie, 2) Participants were satisfied with the introductory paragraph on the self-assessment form therefore no changes were made to the wording	**Am** **C**
Year 3 Interestingly, the first comment made in relation to the introductory paragraph by a member of this particular group reflects the comment made by Sophie, 2 that perhaps the information contained within the brackets could be removed. This first comment was: *'Do you really need the bit in the brackets?'* (Elizabeth, 3) The other participants agreed that the information contained within the brackets was unnecessary and should be removed Although the introductory paragraph on the self-assessment form had remained unchanged by the previous focus group participants, this particular year 3 group recommended changes based on comments that included: *'The first paragraph is gobbledygook.'* (Elizabeth, 3) *'Can we just take the entire top out and say in your opinion?'* (Lucy, 3) On agreement from everyone within the group the wording was changed	**Am** **Am**

Table 26: Amendment, abandonment or confirmation of concepts

The year 2 group discussed the length of the introductory paragraph and because it was just within David's suggested six sentence limits the group decided that perhaps shortening it would help prevent its dismissal by those reading it in future. Following agreement from all that the bracketed information could be removed the introductory paragraph was thus shortened to:

> *'The following review by your peer is provided in the spirit of honesty*
> *and sensitivity to assist you in realising your strengths and weaknesses*
> *and thus develop your skills.'*

David made the comment:

> *'I might actually have read it if it was three lines [laughed].'* (David, 2)

The year 3 group participants reached the same conclusion that the bracketed information could be removed and the peer review form was amended identical to the year 2 participant suggestions that this paragraph should read as:

> *'The following review by your peer is provided in the spirit of honesty*
> *and sensitivity to assist you in realising your strengths and weaknesses*
> *and thus develop your skills.'*

The self-assessment introductory paragraph was amended to read as:

> *My performance in my opinion* (Year 3 focus group participants).

This proved to be far more succinct to the participants and they were satisfied that student nurses would know what they needed to do with just these five words being written as an introduction to the feedback form.

9.3.2: Feedback form content

The pilot focus group designed the peer review feedback form in such a way that the aspects of the peer performance could be measured against the following criteria:

What a patient might appreciate

What a patient might feel anxious about

What a mentor/senior nurse might consider as good practice

What a mentor/senior nurse might be concerned about

What would indicate to a lecturer that a theory to practice link had been made

What might be done differently

Suggested action plan for the peer in light of written comments above and subsequent discussion of them: Short term: Long term

These criteria were evaluated by the subsequent focus groups and once again Blumer's (1969) notion of symbolic interactionism was brought to life as these

particular criteria were amended (Am), abandoned (Ab) or confirmed (C) as essential following social interaction.

9.3.2.1: Year 1 focus group participants

Consensus was that the content of the form was relevant (C) with the exception of the goal setting at the final part of the form which the group thought was a difficult thing to do. The group suggested that this text 'Suggested action plan for the peer in light of written comments above and subsequent discussion of them: Short term: Long term' should be amended to read as: 'What aspects of my peer's performance could be adopted in the future?' This, the group considered, would provide information that could be used during self-assessment to inform their action plan. At the same time the group members thought that a question such as this would raise self-esteem with the idea that someone watched you and thought that your performance was such that they would actually replicate aspects of it in future.

9.3.2.2: Year 2 focus group participants

Consensus was that a further question be added to the form that encouraged the adoption of good practice which was worded by the group as: 'Which aspects of my peer's performance could be adopted in the future?' (Am). The adding of this question by the group may support Vygotsky's idea that watching others potentially promotes learning. The participant group consensus on the final part of the peer review form 'Suggested action plan for the peer in light of written comments above and subsequent discussion of them: Short term: Long term' was that it should be abandoned as following a period of silence when asked their thoughts on this aspect of the form comments included:

> *'I am not sure about it. I mean I like the rest of it but I'm not sure about that bit because before that you are obviously making criticisms or pointing things out and as a peer you get to the point of in the future how they do this or that [pause] I don't think I'd be happy filling this in as I would with the rest of them as the rest of it should give the student what they need to know.'*
> (David, 2)

David's point was expanded on with the comment:

'I think that goals are quite personal and you can't make goals for someone else.' (Judith, 2)

9.3.2.3: Year 3 focus group participants

Consensus was that amendments be made to the wording of the content throughout the feedback tool. The first two areas for feedback, that of 'What a patient might appreciate' and 'What a patient might feel anxious about' were combined to read as 'Patient perspective/viewpoint'. There was discussion around whether it was possible to answer about the peer's performance from a patient's perspective/viewpoint, however after a great deal of deliberation it was decided that empathy was a desirable attribute within nurses and to encourage student nurses to see things from a patient's point of view feedback on this was regarded as an essential component of the form (Am).

Deliberation took place in relation to the next two components of 'What a mentor/senior nurse might consider as good practice' and 'What a mentor/senior nurse might be concerned about' and again the consensus was that a combined statement could be 'Strengths and weaknesses through the eyes of a mentor/senior nurse' (Am). The integration of questions perhaps indicates a degree of understanding and professional development status associated with being in the 3rd year of the nursing course. The statement on 'What would indicate to a lecturer that a theory to practice link had been made' was also amended to read as 'Has theory been linked to practice? If so: how?'(Am) Similarly, there was agreement that 'What I might do differently' should be reworded to 'What could have been done differently, if anything?' (Am) and a final feedback criteria of 'Action plan suggestions' so that during self-assessment consideration of suggestions put forward by peers could be incorporated into an action plan.

9.3.3: The creation of a feedback tool: student nurses' template design for self-assessment

The pilot focus group designed the self-assessment feedback form in such a way that the aspects of the peer performance could be measured against the same criteria as on the peer review feedback form. However, the final part of the form included a section related to the following criteria:

Did peer review affect my self-assessment? Yes/No

How did it affect my self-assessment?

Suggested action plan in light of written comments above: Short term: Long term

9.3.3.1: Year 1 focus group participants

Consensus was that all content was satisfactory and did not require changing (C).

9.3.3.2: Year 2 focus group participants

Consensus was that all content was satisfactory and did not require changing (C).

9.3.3.3: Year 3 focus group participants

Consensus was that all content was satisfactory and did not require changing (C).

Each group now had redesigned the forms that the pilot group participants had created. Certain aspects of the pilot group creation had been abandoned completely, other aspects had been amended and some confirmed as essential. Although the wording of the criterion changed, the essence of the information the different participant groups included within the new feedback form remained constant, in relation to its patient centred focus. From the pilot group form through to the end product criteria included patient perspective and mentor perspective, theory to practice linkage and indication of what could be done differently. The forms were used during the practical task that took place for each group within two weeks of the focus group discussion having taken place. Although the new feedback form was used by participants within the context of a practical task, during its creation the setting in which it would be applied was not actually a factor that influenced its design.

9.4: Practical Task

The practical task involved student nurses working in pairs to undertake the monitoring and recording of each other's temperature, pulse rate and respiratory rate (TPR) and to document the readings. Two small rooms known as communication rooms due to them having an observation window between them were utilised for the task. Whilst two participants were undertaking the task the other participants observed the performance through the observation window between the two rooms. A SMOTS system camera also permitted display of the room, in which the participants were involved in the practical task, to be shown on a computer screen within the observation

room, so participants' observing the performance could clearly see and hear the pair involved in the task and the performance was recorded by the system. Documented on the new peer review feedback form were peer comments on the peer performance. When a pair were actually undertaking the task it would be impossible for them to complete the peer review documentation for each other therefore their performance was video recorded in order that the recording could be viewed and peer review on each other made possible at a later point.

Once all members of the group had monitored and recorded the TPR the group viewed the video recording together. Those who had already watched the performance at an earlier point were able to confirm their earlier documentation of the peer performance as they watched and listened for a second time. Of the pair who had been performing one was the person being peer reviewed and the other was playing the role of a patient for the purpose of the exercise. Therefore one of the pair completed a peer review form whilst the other completed a self-assessment form. Initially the idea was that self-assessment would take place two weeks after the peer review had taken place. However, my pilot study had identified that the participant schedule was such that this in reality would prove difficult. Additionally, the opportunity to self-assess whilst the video recorded performance was being viewed by others for the purpose of peer review seemed to the participants as being too good an opportunity to miss.

The forms were collated following the practical activity and participants were provided with a photocopy of the forms to inform their learning at a later date. Following the practical stage of the data collection process further information was gained on what the participants thought of the forms once they had actually used them. To capture this data the participants were asked the question:

'Did the forms do what you thought they might do?'

9.4.1: Using the new feedback form

> *"Forms were useful although I wrote too much although that is just me. I find it difficult to be succinct. Feedback I gave and got was sensitive and I think honest.'* (Elpi, 1)

> *"...gave me confidence for going out into practice."* (Robert, 1)

"...great feedback from my peers, which has helped build my confidence for going on placement." (Mary, 1)

As perhaps might be expected, the professional development status from the 1ˢᵗ year participants differed from that of the 3ʳᵈ year participants and this was reflected in a greater emphasis of the alignment between the criteria on the feedback form and professional body requirements. For example Jemima had appreciated feedback on:

"... how I performed in relation to ESCs." (Jemima, 3)

William had found his feedback from peers included commentary on

"…my management skills, documentation and organisation." (William, 3)

Proficiency in ESCs, of which management skills, documentation and organisation are incorporated, is a requirement by the point of entry to the professional register (NMC, 2008). The participants who were closer to the point of professional registration were better able, than the junior participants, to make evaluative judgements on the performance of peers/themselves and subsequently they could explain these judgements; thus exhibiting the characteristics associated with being a self-regulated practitioner. In relation to preparing students within disciplines other than nursing for future workplace integration, Kearney (2012) recognised, in relation to pre-service teachers, that the educational and pedagogical contexts that students will work in upon entry to a particular profession require cultivation during the pre-registration period.

Natalia during individual interview spoke about difficulty when it came to her using the form. On observing the peer review forms that Natalia had completed it was evident that she tended not to use the boxes within which each aspect of the peer review/self-assessment criteria was placed but rather she wrote comments out with the boxes. She said:

'I found it difficult you know trying to put in my thoughts and where to put them. I felt as if I needed more time...I didn't go with the boxes I was just kind of writing on them [forms].' (Natalia, 1)

Natalia expressed the watching of the video recording and dialogue with her peers was easier for her than using the form. However, as previously discussed, within chapter 6.4, Natalia, as a direct result of having been a participant in my study, sought the

enabling support that until participation she had not appreciated the need for. A diagnosis of dyslexia resulted in mechanisms of support being established for Natalia that resulted in her changing her mind about withdrawing from the pre-registration nursing course that until the point of diagnosis she said that she had been struggling with.

Elpi stated that:

I enjoyed the practical session and took great positivity from all the feedback given. I felt that peer review was definitely given in the spirit of honesty and fairness and sensitivity. I think that the fact that all comments were positive as well as critical was beneficial and sensitive."

(Elpi, 1)

During individual interview, Scott indicated that the conceptions of the purpose and value of peer review that emerged from his focus group had been reflected during implementation. He said:

"I felt that my review was honest and fair as a reflection of my clinical skills." (Scott, 1)

Simpson (2006) recognises that peer review has the potential to secure motivated learners whose increasing metacognition can result in improved ability to manage and control self-learning. This is exactly what the Nursing and Midwifery Council (2010) demand of their qualified practitioners and supports the undertaking of this study into student nurses' conceptions and implementation of peer review and self-assessment.

9.5: Comparison of new feedback form to previously published peer review and self-assessment forms

The new feedback form shares the formative focus of Falchikov's (2003) Peer Feedback Marking (PFM) scheme. Both feedback tools require students to identify positive features of performance when undertaking a practical task. The new form asks that certain positive attributes are ticked and commented upon if demonstrated, whilst the PFM requires students to identify 'a particularly good feature in an oral presentation….' (Falchikov, 2003: 106). According to Falchikov (2003), boosting student confidence through the provision of complimentary feedback increases student

receptiveness to constructive criticism thereafter. Other aspects of similarity include the provision of written feedback that includes advice on improvement. This written feedback is given to the reviewed student immediately after the performance/presentation takes place so that feedback is provided at the time it is most useful to the student and can be kept by the student for future use. To be most effective, feedback requires to be provided shortly after an assessment has taken place (Rowe and Wood, 2008; Nicol, 2010). These aspects of the new form potentially mean that it would be applicable within disciplines other than nursing. In contrast to PFM, the new feedback form was created by the study participants. Sambell (2011) is clear that students should be equipped to be able to independently undertake learning and assessment on completion of a course of study within the higher education setting. Devolving the responsibility for criteria development to participants resulted in an active partnership in, and ownership of, the learning process of peer review and self-assessment feedback form creation.

Previously published peer review and self-assessment feedback forms, against which the new feedback form was compared and contrasted, included the web-based Calibrated Peer Review (CPR) system (The Regents of the University of California, 2012). Kuri (2004) identified CPR use, not merely with written assignments, as illustrated in the web tutorial (The Regents of the University of California, 2012), but with BSc and MSc students of biological sciences (n=not provided) undertaking practical and poster display assignments. Similar to the new feedback form, CPR requires that students engage with peer review and then with self-assessment using the same criteria through which to determine performance. In contrast to the mix of objectivity and subjectivity of the new feedback form, CPR retains objectivity through the use of a yes/no rubric, which Walvoord et al (2008) recognise as impacting negatively on student satisfaction with feedback obtained. Walvoord et al (2008) argue that having a subjective component of rating would be a preferable option. CPR and Falchikov's PFM are similar in relation to both incorporating instructor written criteria. This is in contrast to the new feedback form where the criteria were not instructor written, but developed by the student nurse participants.

9.6: Artefact mediating tool: the video recording

Video recording was used for two main reasons. Firstly as a means through which the participants could view their performance for the purpose of self-assessing and secondly as a means of being a mediating artefact to bring to the surface the participants tacit knowledge. During individual interview and in relation to watching herself on camera, Lucy said:

> *"Oh I hated self-assessing myself…just watching myself on camera. Don't get me wrong I did see some things that I thought 'that is good' and I'll carry that on. And my manner with the patient and building up a good relationship, make them feel at ease and things like that I did like that. But I do tend to cringe when I see myself."* (Lucy, 3).

Barnett (2012) suggests that the human qualities such as Lucy's manner with the patient will prove useful to her as she functions within the ever increasingly complex world of nursing.

This said Lucy continued:

> *"It was a good wee reinforcement to see yes you are doing good…because I was reviewing myself and picking up what I was doing good and bad it made it easier for me to pick up on other people and say 'that is good, 'that could improve' and things like that because I was doing it to myself."* (Lucy, 3)

Being able to critically evaluate their work, and the work of their peers, is essential to the development of self-regulation (Nicol, 2010; Sadler, 2010; Boud, 2007). It would seem that Lucy was exhibiting evidence of self-regulatory capability. Participants who were closer to the point of professional registration appeared to be better able to make evaluative judgements on the performance of peers/themselves and subsequently they could explain these judgements. Sadler (2010) recognises that the ability to self-regulate is wider than just assessing one's self but rather emerges through student acquisition of complex appraisal skills and that this involves assessing others; through evaluating the work of peers, learners can acquire objectivity towards their own work.

Lucy's idea that self-assessment and peer review share some of the same skills base is borne out within the literature, with Liu and Carless (2006) through their large scale survey having found that skills of critical reflection, listening to and acting on feedback, and sensitively assessing the work and providing feedback are common to both peer and self-assessment. Although Lucy relates her self-assessment to her potential improved ability to peer review, Liu and Carless (2006) consider that the fact that commonality in the aforementioned skills also means that peer review can enable students to better assess themselves. Boud (1995) recognises that, in order to self-assess, judgements must be made about what has been learnt and he argues that peers can provide rich information for subsequent use by the learner during the self-assessment process.

When Natalia watched herself on video she realised that the feedback her peers had provided her with had been accurate. Her peers had picked up on the fact that she kept touching her hair and prior to this experience she had not been conscious of doing this. She said during individual interview:

> *I was quite annoyed with myself because I didn't realise. Well I now know not to do it...make sure I have got that bit of hair pinned up...yes obviously infection control and things like that so definitely."* (Natalia, 1)

Hattie and Timperley (2007) recognise the potential of feedback to result in acceptance and this acceptance has initiated further action on Natalia's part. Natalia had also been told by her peers that she was a happy, chatty nurse and when she viewed the video recording she did indeed see this happy, chatty nurse who she added had good hand hygiene technique. However, as indicated by the quote above, Natalia had highlighted to me the weakness in her performance before expressing her strengths. Even when she spoke about her strengths related to a good hand washing technique she continued by saying:

> *"...good hand washing technique but obviously the thing with touching the hair it goes right out of the window then."* (Natalia, 1)

In relation to why the weakness in her performance was intimated before her strengths, Natalia's response was that this was due to the fact that this was something

that must change and that she had the power to action this change. What she actually said was:

> *"I think because you want to be good at everything. You don't want to have any bad bits so. I don't know. Maybe because that's something you can change, that needs to change…but other stuff was good. I know myself that I am happy and I am chatty but I didn't know obviously that I was doing that with the hair."* (Natalia, 1)

As Blumer (1969) suggests people act on information according to the meaning that is placed on this information. Through engaging with the peer review and subsequent self-assessment process Natalia seems to have internalised the information gained in relation to her touching her hair. This according to Vygotskian theory would indicate that there has been movement through Natalia's ZPD and with the assistance of her peers and subsequent internalisation of the information provided she can control the situation in the future.

Natalia also expressed her gratitude that her peers had in fact been honest with her and advised her of this weakness in her performance. She said:

> *"…it was good they noticed…I am glad they were honest…made me more aware of what I am doing."* (Natalia, 1)

What drove and directed the activity during my research study was the peer review and self-assessment engagement. Data was searched for indication of motive in relation to participation in the study. Motives that were illustrated included the desire to help in the process of research, to gain practice in skills that had already been learned and to gain more knowledge and experience. This was evidenced in statements made by Natalia and Scott who said during individual interviews:

> *"…just to help out. I know a lot of people who don't volunteer so I just went for it."* (Natalia, 1)

> *"…it gave me the opportunity to practice skills I had learned and just to gain more knowledge and experience in the university. It was something that I had never done before, probably never had the opportunity before."* (Scott, 1)

Both of these participants indicated that having taken part in my research study they would volunteer to be participants in future research studies. Scott said:

> *"...it was all in the [participant information] letter. We all carried that out and there was nothing new added in...I would certainly participate again. I don't know how I would go about doing it myself mind you [laugh] but I would certainly be willing to help anyone doing it. I enjoyed it and I took a few things out of it for myself. So if I am learning something new out of it as well I find it enjoyable."* (Scott, 1)

> *"...it was all very well organised...I would do it again definitely. I enjoyed it."* (Natalia, 1)

Brew (2012) indicates that a sharing of research between academics and students should be actively encouraged and my study sought to do this. Through disseminating, to the study participants, the steps of the research process that I travelled and discussing the rationale behind each of these steps my intention was that the reality of research and the excitement of it might be shared. Underpinning my decisions was the Vygotskian theory that I may be for these novice nurses the 'more capable other' who can assist them through their ZPDs towards reaching their full potential as a registered nurse, scholar and researcher.

Understanding of the common goal of the research study was expressed as:

> *"I thought it was a programme that you had put together to come up with certain forms that could be used throughout nursing by students for them to look at how they could possibly improve their practice...where they could help their colleagues to improve their practice and try and refine everybody's practice."* (Scott, 1)

This was indeed something that the study hoped to achieve information about. It seemed to have taken Sophie, a year 2 student nurse participant a little longer to consolidate the information that had been provided on the participant information sheet as she said:

"To be quite honest I wasn't really sure in the beginning. I knew it was about your peers assessing you sort of a thing but I wasn't really sure...but it was good." (Sophie, 2)

The role play aspect of the participation in the research study was something that the participants commented on, for example:

"...I find it quite hard to do you know. Whereas when you are out on placement you just chat away and people are talking to you and it's totally natural and totally calm...but like in this it's like an exam condition." (Sophie, 2)

However, for Natalia the fact that she could not see the peers who were reviewing her as they were behind an observation mirror within a separate room the experience was positive as indicated by her comment:

"I think because you couldn't really see them it wasn't so bad...I enjoyed it. I thought it was good. I like getting put on the spot like that...it makes you kind of build up a bit more confidence." (Natalie, 1)

For Scott there was also indication that his confidence had increased as a result of engaging with the concrete experience of peer review and self-assessment as evidenced in his comment:

"...helps build your confidence as well. Well other people who are the same as me think that I am doing a good job there." (Scott, 1)

Nicol (2010b) is clear that learners require to be given the opportunity for regular exposure to peer review and self-assessment, although this in itself is not sufficient to develop capability for self-regulation. Students also require the ability to critically evaluate their own and their peers' work/performance. Sadler (2010) suggests that this capability can develop through the student making evaluative judgements and then explaining these judgements; however he does suggest that students prefer to be reviewed rather than review due to the perceived responsibilities associated with peer review. Nicol (2011) suggests that it is the assessment aspect of peer review that proves challenging and Cassidy (2006) confirms this suggestion with the argument that it is

inexperience that exerts influence on the preference to being assessed over assessing a peer.

9.7: Concluding comments

The intention of this chapter was to provide an overview of the creation and utility of a feedback form for peer review and self-assessment purposes. The process of creation of the form was clarified. Blumer's theory of symbolic interactionism was applied to the data and illuminated the influence that social interaction exerted on the meaning that participants held of peer review and self-assessment. The utility of the forms were investigated and overall the participants were satisfied with this particular tool. What appeared to be of significant benefit, however, was the opportunity for the participants to see themselves on video for the first time. For some participants, as Eraut (2006) suggests, the video as a mediating artefact raised awareness of the more tacit knowledge.

One of my research study questions was 'How do student nurses' think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value?' Through designing the study as I did I was able to provide an answer to this research question. Through participants having been provided with the opportunity to develop the feedback forms, their conceptions of the purpose and values of peer review and self-assessment became integral components within the forms. Thus, during engagement with peer review and self-assessment those conceptions were reflected during implementation. Participant quotes throughout various chapters of the thesis substantiate this assertion.

What has become increasingly significant to me, as I have progressed through my EdD studies, is that as a teacher who prepares student nurses for the unknown future that lies ahead of them I have a responsibility to equip these learners with tools that can assist them. This tool, designed specifically by student nurses to be used by student nurses during engagement with peer review and self-assessment, specifically asks the evaluator to judge human qualities as well as skills and knowledge. Francis (2013) in his recent report about failings within the health sector highlighted such human qualities as compassion as being missing during patient care delivery. The fact that participants

perceived 'kindness' and 'compassion' to be criteria against which performance could be measured means that a form such as the one created during this study could potentially be useful not only within the University setting but also in the workplace with other disciplines as well as nurses. As highlighted within the contemporary literature (Barnett, 2012; Austin, 2012) it may well be human qualities, in addition to skills and knowledge that will sustain my learners to perform within the complex and ever changing and increasingly demanding world of nursing.

CHAPTER 10: CONCLUSION

10.1: Introduction

This research study was undertaken in part-fulfilment of the Doctor of Education degree. The personal, professional and academic reasons for undertaking the study, as outlined within the thesis introduction, remained consistent throughout the duration of the study and it was with a sense of achievement and fulfilment that this conclusion was written.

The study was underpinned by literature evidence (Nicol, 2010; Sadler, 2010; Boud, 2007) that engagement with peer review and self-assessment potentially influences the development of self-regulatory capability. Self-regulatory capability is required to be demonstrated at the point of professional registration (NMC, 2010). The study was entered into, therefore, with the assumption that if peer review and self-assessment engagement has the potential to influence self-regulatory capability then it could be beneficial to student nurses. However, further literature indicated that engagement with peer review was not always experienced positively for learners and that negative peer review experience could result in loss of confidence, decreased self-esteem and withdrawal from the learning process (Ecclestone and Pryor, 2003; Duers and Brown, 2009). The study has illustrated participant examples of both positive and negative peer review experience, which at times confirms and at other times challenges the literature evidence.

The aim of the study was to explore student nurses' conceptions and implementation of peer review and self-assessment with five research questions set to assist in the achievement of this aim. Within this concluding chapter the extent to which these questions were answered, and the study aim achieved, is clarified.

My study generated an account of student nurses' conceptualisation and implementation of peer review and self-assessment, thereby providing empirical evidence to fill the gap in the literature base that Rout and Roberts (2007) and Yates, Martin and Ash (2008) indicated as being present. The contribution of empirical evidence of student nurses' conceptions and implementation of peer review and self-assessment was identified as being timely and important, particularly when such eminent

scholars as Nicol, Sadler and Boud, recognise the potential for peer review and self-assessment to develop self-regulatory capability. Professional requirements are such that peer review and self-assessment engagement are necessary components of being a self-regulated practitioner (NMC, 2010), with peer review being recognised as an intrinsic component of clinical governance (Royal College of Nursing, 2003). Nicol (2012) recognises that professional status, which the participant group strive towards, involves not only being a consumer of feedback but also being a producer of feedback.

A principal product of the study was a new peer review and self-assessment feedback form. Literature support for involvement of learners in the setting of criteria against which performance may be evaluated was provided by Nicol (2010b) and Lui and Carless (2006) who suggested that engaging learners in thinking about achieving outcomes to a certain agreed standard is a learning process in itself. Generated by the participants following focus group discussion, and used by the participants (n=25) during the implementation stage of the data collection process, this new feedback form was subsequently compared to previously published peer review and self-assessment forms so that its distinctiveness could be illuminated and its applicability to different disciplines tentatively asserted. These assertions are outlined within chapter 10.3.

Hattie and Timperley (2007) argue that closure of a gap between what is understood and what requires to be understood can be reduced through feedback provision on affective and cognitive processes but to be 'powerful in its effect' (p 82) the feedback requires a learning context within which it is addressed. My study provided a learning context that permitted such feedback provision.

Some examples to support the idea that feedback itself does not necessarily initiate action (Hattie and Timperley, 2007) were provided by my study participants. David (2) reported that he had decided that he did not wish to self-assess, although feedback he had received previously had indicated that he should. Feedback was accepted by Natalia (1) who responded to peer commentary about how touching her hair breached infection control protocol. Lucy (3) spoke of how she had modified her practice of MEWS documentation in response to feedback she had received from a mentor within the practice placement setting; subsequently re-modifying her practice to

reflect once again the more accurate information provided within the University on documentation of MEWS charts. Lucy's professional development status perhaps influenced her capability in modifying her practice. Her self-regulatory capability was such that she was able to identify what was right and what was important in relation to documentation (NMC, 2010). Lucy verbalised how she had thought through the consequences of entering into conflict during her placement experience and decided against such action, preferring to temporarily modify her practice. The ability of a practitioner to think through the consequences of action and to be self-reliant is integral to self-regulation (NMC, 2010).

Also, within this concluding chapter, I acknowledge the idea that my study will be open to various interpretations. Other scholars and researchers may argue with the constructivist ontological and interpretivist epistemological orientation that directed me towards adoption of certain assumptions and the subsequent qualitative approach to my study, particularly those proponents of an objectivist ontology and positivist epistemology, who recognise Randomised Control Trials as the gold standard for research studies (Bryman, 2008). However, the transparency of my pre-suppositions and assumptions throughout the thesis should also provide reassurance of my desire to provide a trustworthy and accurate account of the data gathered from participants.

The thesis began with the analogy of a candle flame and provided an overview of the personal, professional and academic influences that provided the oxygen, heat and fuel supply that kept my research project alive for its duration. This final chapter brings the project to a close with a brief reflective account of the impact that undertaking this study has had on me as a person, professional and academic. Six recommendations for future research and practice, drawn from the findings of my study, are put forward

The chapter begins with an evaluation of the extent to which the aim of my study was achieved.

10.2: To what extent was the aim of my research study achieved?

10.2.1: Context

My research study was undertaken within the context of the pre-registration nursing programme and within the Higher Education setting. Through situating the study

within the Higher Education setting and selecting participants who were student nurses and had experience of peer review and self-assessment I successfully captured the group of people relevant to the achievement of my aim. Participants were all enrolled on a 3 year BSc course in nursing and were at various stages in their course.

Five assumptions drawn from literature review underpinned my research design. These assumptions, derived from the theories of Vygotsky and Blumer and drawn from literature review, influenced the design of my study in relation to the methods used to collect data and the analytical lens through which an account of the data was generated.

Participant conceptions were explored initially during four separate focus group discussions, then during 25 practical sessions and again during individual interview (n=6). Identification of participant thoughts on the purpose and value of peer review and self-assessment and components of good peer review and good self-assessment was achieved. To explore student nurses' implementation of peer review and self-assessment a practical task was incorporated into the research design. All but one participant grasped this opportunity. One participant wished to withdraw from the study prior to the practical sessions. Another participant was recruited from the reserve list that had been drawn up in the event of such an occurrence so 25 participants did engage with the practical task, although one was not an original participant in my study.

10.2.2: Research questions

Research questions one and two 'What do student nurses' think that the purpose/value of peer review is?' and 'What do student nurses' think that the purpose/value of self-assessment is?' were answered and the information was captured within Chapter 7. Peer review was conceptualised by the student nurse participants as serving four main purposes, namely that of assessment; improvement; encouraging a thinking process to happen that ultimately facilitated insight into one's own performance and identification of knowledge gaps. Similarly, the purpose of self-assessment was conceptualised as serving four main purposes that were the same as those for peer review with the inclusion of reflection as an aspect of the assessment purpose identified by participants. Participant perceptions of the purpose and value of peer review and self-

assessment reflect the topic literature (ASKe, 2012; Boud & Associates, 2010; Nicol, 2009; Sambell, 2011).

The insight that developed from peer review was thought by the participants to potentially lead to improvement and development. The value of peer review was conceptualised in relation to its potential to aid learning and development, in particular in relation to increasing confidence through a realisation that peers are often in the same position and at times may be better or worse than each other when performing a task. The insight into how peers perceive each other was deemed by the participants as being particularly valuable. The idea that peers could potentially see participants in the role of the nurse in the same way as patients could see them and the idea that having such insight could prove useful to participants within the workplace perhaps illustrates the distinctiveness of student nurses from other learners. This idea of 'seeing through the eyes of another person' reflects well with the title of the study. Through participating in the research study the opportunity arose for student nurses to see themselves as others see them.

Chapter 8 provided evidence of the answering of research questions 'What do student nurses' think good peer review is?' and 'What do student nurses' think good self-assessment is?' Good peer review was conceptualised by participants as the process of providing or receiving feedback on performance that was honest, sensitive and diplomatic in nature and communicated clearly. Nicol (2012) supports these participant perceptions, indicating that for peer review to be effective there must be an atmosphere of respect and mutual trust. For participants, feedback from peers should indicate not only areas of strength but also areas of weakness and integral to this was the idea that peers should offer suggestions on how to improve. These participant perceptions are supported by the views of Boud & Associates (2010) and Sadler (2010), who argue that feedback should develop student capacity to make such evaluative judgements. Good peer review, according to the participants would involve not simply completing a feedback form but also entering into dialogue with peers. Nicol (2012) supports such perception and suggests that opportunities for dialogue should be embedded in the peer review process. However, participants identified that factors such as relationships,

unwillingness/inability to engage, inability to provide/accept criticism and time were potential barriers to peer-review being a useful, effective and worthwhile learning activity.

Good self-assessment was conceptualised by participants as an honest reflection of status at a given point in time. This perception is supported by Boud (2007), who argues that realistic determination of personal, professional and academic status should take place during self-assessment. Participants identified time management as an integral component of good self-assessment. To reflect on their development in relation to skills and knowledge the participants expressed that for self-assessment to be good then time must be set aside for it. Sambell (2011) supports this assertion.

Good self-assessment also, according to participants, required the ability to be self-critical, an aspect highlighted by Nicol and MacFarlane Dick (2006) and Nicol (2009). Vygotskian theory would indicate that for this development the process of internalisation, or the process of knowing, must take place. Participant quotes indicated that internalisation, through watching and learning from others and their sharing of thoughts and beliefs with others, both within the university setting and with mentors in practice, facilitated the process of knowing.

Chapter 9 provided evidence of the answering of research question 5 which was 'How do student nurses' think that their implementation of peer review and self-assessment reflects their conceptions of its purpose and value?' Sambell (2011) outlined peer review and self-assessment feedback strategies that had been used by CETL lecturers in a range of disciplinary contexts and various types of pedagogical activity. All of the strategies shared a common concern with permitting students to obtain feedback on their knowledge, understanding and skills as these were developing. Within my study, participants created a new feedback form that incorporated their conceptions of peer review and self -assessment, as generated through focus group discussion. Providing the participants with the opportunity to develop criteria, against which performance could be measured, embraces the idea of teaching and learning in the 21st Century, with emphasis being afforded to student inclusivity and resultant shift in power balance from the educator to the learner (Birnbaums, 2007; Barnett, 2012). Additionally,

through inviting participants to be part of the process of developing the new feedback form, the educative experience became apparent to the participants and engagement in discourse took place. This educational activity reflects what Boud and Associates (2010: 1) propose as integral to the renewing and rethinking of assessment practices within a 'rapidly evolving global context'. During engagement with a practical task the conceptions that emerged from focus group discussion came to life for participants and were reflected in real life practice, thereby providing for the participants what Kearney (2012: 14) refers to as 'authentic manifestation of their course with regards to the world outside the classroom'.

In relation to the professional development status of the participants, the 3rd year participants were succinct in the setting of criteria for the new feedback form. Elements of criteria were combined so that the essence of the aspect of performance being commented upon remained, whilst the wording of specific criteria was reduced. 3rd year participants also emphasised the importance of the feedback commentary including information on what might have been done differently. The scope of nursing practice is such that there is often more than one correct way to approach patient care delivery whilst adhering to the NMC (2008) code and these senior participants recognised this. The requirement for the constructive criticism from peers throughout professional life was recognised by 3rd year participants, more so than the 1st and 2nd year participants, as necessary for patients to be kept safe and for nursing care to be delivered effectively and efficiently.

The qualitative nature of my study means that generalisation of findings remains tentative; however the potential cross-discipline applicability of this new form is reasonably speculated. Kearney (2012) recognised, in relation to pre-service teachers, that the educational and pedagogical contexts that students will work in upon entry to a particular profession require cultivation during the pre-registration period. The new feedback form embodies this idea and although created by student nurses for use by student nurses it may equally be useful to the pre-service teachers through its focus on authentic criteria. Through seeing others' performance and using the new feedback form, containing criteria that was understood to them, participants found that they were better

able to gauge their own performance. The human qualities, such as confidence and responsiveness that the study participants identified as necessary criteria for the feedback form are not specific to nursing. Barnett (2012) argues that all learners within the higher education setting should be equipped to be able to demonstrate such human qualities in order to function within the complex 21st century workplaces to which they will find themselves on completion of studies

Based on the evidence provided within the thesis I am satisfied that the aim of my research was achieved and empirical evidence has been obtained on student nurses' conceptions and implementation of peer review and self-assessment. However, I acknowledge certain limitations within my study.

10.2.3: Limitations

Through employing a qualitative research design I was able to probe beneath the surface of the topic and generate an account of what can and might be possible in relation to peer review and self-assessment within the pre-registration nursing curriculum. The main limitation associated with my adoption of a qualitative research approach is in relation to the claims that I can make, or rather not make, in relation to the findings of my study. During literature review I agreed with Paley (2005a:112) who asserted that through my adoption of a qualitative approach I permitted myself to make *'tentative assertions as to how things seem'* to this group of student nurses (n=25). Cousin (2012b) also provided the cautionary note that, given my small participant numbers, even by sub-dividing my sample in the manner I did to provide maximum variation, the likelihood of capturing entirely the variation within the population to which my study related remained minimal. The small participant group (n=25) means that the created feedback forms may, or may not, be what the wider body of nursing students would find useful. A recommendation of the study is therefore that wider distribution and utilisation of the feedback form takes place and a wider evaluation of its worth undertaken.

In recognition of the aforementioned limitations an attempt was made to provide reasonable speculation of the potential worth of the new feedback form to other disciplines, academic work and the workplace, through comparison of the new form to

previously published peer review and self-assessment forms (The Regents of the University of California, 2012; Falchikov, 2003). This process was detailed within chapter 9 and conclusions drawn are presented within chapter 10.3.

My data collection chapter provided an overview of challenges that were encountered during my study and these may be interpreted as limitations. However, the challenges that were encountered during my pilot study did not recur during the main study due to strategies being put in place to prevent any recurrence.

Although the new feedback form was used by participants within the context of a practical task, during its creation the setting in which it would be applied was not actually a factor that influenced its design. Rather, the criteria that participants incorporated into the feedback form were derived from focus group discussion on the purpose and value of peer review and self-assessment and from those components identified by participants as influencing good peer review and good self-assessment. Thus the new feedback form should potentially be equally applicable to academic work. The scope of the study was such that this was not tested, as the research design incorporated participant engagement with a practical task and not an academic writing task, and is thereby perceived as a limitation of my study. In order to correct this perceived limitation it is recommended that the new feedback form be utilised by students for practical and academic work tasks and subsequently evaluated.

There were no exemplars available to participants as the study was being undertaken and the new feedback form developed. Pilot group feedback form design was shared with the participants; however no calibrated exemplars of the forms once completed by the pilot group participants were made available to the other participant groups. Exemplars could potentially have been helpful to participants, particularly during the implementation stage of the study. The use of calibrated exemplars of peer review and self-assessment feedback reportedly assists the student in becoming competent at peer review (Kuri, 2004; Walvoord et al, 2008). Merry and Orsmond (2004) and Sambell (2011) recognise that higher quality learning outcomes, such as reflection, are achieved through the use of exemplars. The ability to critically reflect is necessary for self-regulation capability to develop (Sadler, 2010). Obtaining exemplars

of completed new feedback forms to inform students on the differing styles and quality of feedback provided by previous student cohorts would thus be a recommendation of my study.

Another limitation of my study at this time is that the full contribution of my study has yet to be realised. Although my study findings have been presented at International Conferences, namely the Society for Research into Higher Education (SHRE), Scottish Educational Research Association (SERA) and Enhancing Nursing Through Educational Research (ENTER), wider publishing within the academic literature has still to take place. This is in part due to having been acting Senior Lecturer with line management responsibilities for eight months and subsequent promotion to the position of Academic and Professional Lead within the past year. In addition to the conference presentations stated I have also presented my study at the Department of Education PhD/EdD annual conference and networking event on three occasions and to colleagues within my work environment who were undertaking the Effective Research Supervisors course.

10.3: Study Contributions

As outlined previously within my methodology chapter, SERA (2005) are clear that any research being carried out requires that it makes a worthwhile contribution to the quality of education. I believe that my research study has potentially done this, perhaps not on a grand scale as such, given that it remains unpublished at this time, but rather in relation to my study participant group and colleagues. Within my data analysis chapters there are numerous quotes that provide evidence of participant acquisition of knowledge and skills during engagement with my study. Sambell (2011) supports this idea of permitting participants to obtain feedback on their knowledge, understanding and skills as these are developing.

My work has been shared with colleagues and peers during research supervision sessions and the knowledge and skills that I have gained during the period of doctoral level study has equipped me to contribute with increased confidence to the supervision of my personal Master level students who are undertaking the Master of Nursing degree and the Master of Nursing with Professional registration degree currently.

A principle product of my study was the new feedback form. Although created by participants specifically for use by student nurses during engagement with the peer review and self-assessment process, the potential for this new feedback tool to be applicable to other disciplines perhaps lies in its participant-driven creation and its embodiment of pedagogical ideals (ASKe, 2012; Sambell, 2011; Boud & Associates, 2010). The distinctiveness of the new form from the web-based Calibrated Peer Review (CPR) system (The Regents of the University of California, 2012) and Falchikov's (2003) Peer Feedback Marking (PFM) scheme is that it is inclusive of both a checklist and a commentary section, where the provision/receipt of feedback on performance is based on how the performance might be perceived by a patient and a mentor/senior nurse. This aspect of inclusion perhaps indicates the distinctiveness of student nurses as participants. It may perhaps be reasonably speculated that where the participants thought that a student nurse would benefit from identification of a 'patient perspective ' on his/her performance, a pre-service teacher may similarly benefit from a 'pupil perspective', a social work student may benefit from a 'client perspective' and a business student may benefit from a 'consumer perspective'. Where on the new form participants have identified the requirement for 'mentor perspective', within other disciplines the term might alter to 'supervisor', 'preceptor' or some other terminology that replaces the term mentor as used by the student nurse participants. Another distinguishing feature of the new feedback form is that it specifies that feedback should be honestly and sensitively provided. Arguably the ability to provide feedback in the spirit of honesty and sensitivity crosses disciplines (Nicol, 2012). A recommendation of the study would thus be for cross-disciplinary presentation of the new form.

The creation of this form by participants aligns well to Nicol's (2011) claim that if students are involved in the setting of the criteria against which performance is measured then greater learning takes place. Participants used the new feedback form during the practical task and said that it had been a useful tool because it provided feedback on the areas that for them were important, such as performance as seen through the eyes of the patient/client, mentor and lecturer. Perhaps illustrating the distinctiveness of student nurses from other learners, the idea of providing feedback through empathy

with these people was viewed by participants as being an effective way of seeing themselves in the role of the nurse and focussing on the human qualities that can distinguish nursing from other jobs where technical skills and knowledge are all that are necessary. Participants were keen to gain comments on such qualities rather than the previous tick box like feedback on technical skills that was more familiar to them.

While Nicol (2011) argues that involving students in the setting of the criteria against which performance is measured potentially results in greater learning taking place, this study provides information that substantiates this argument, as the participants speak about the learning that emerged from the creation and subsequent use the new feedback form during engagement with the study. Data analysis indicated that the participants who were closer to the point of professional registration were better able to make evaluative judgements on the performance of peers/themselves and subsequently they could explain these judgements, thus exhibiting the characteristics associated with being a self-regulated practitioner.

Nicol (2009; 2012), Boud and Associates (2010), and Sambell (2011) argue that good assessment should promote positive motivational beliefs and self-esteem, interaction and dialogue. My study embodies such principles of good assessment as transferred into authentic practice during participant engagement with peer review and self-assessment and in the creation and utilisation of a feedback form. Participants' perceptions of good peer review and self-assessment, as incorporated into the new feedback form, reflected those indicators of what is actually good, according to the available literature, as cited throughout the thesis. Adding to Nicol's (2009) principles of good assessment are the principles of integrity and sensitivity that participants within my study recognised as components of good peer review and good self-assessment. This information supports the work of Barnett (2012), who identified such components as being integral to effective functioning within the ever complex world of the 21st Century.

As a direct result of participation in my study, Natalia, a first year student nurse, sought professional opinion on what she now knows to be dyslexia. Within my data analysis chapter Natalia's situation was explained. Diagnosis for Natalia has resulted in

enabling support mechanisms being put in place. Natalia during individual interview spoke of her struggle with the academic element of the course prior to her diagnosis. She said during interview that she had even thought of withdrawing from the course. Had my research not involved the practical task using the documentation as it did, Natalia may have remained undiagnosed and continued to struggle with the academic demands of the nursing course. This example would perhaps substantiate a contribution made by my research, albeit to one individual. I would argue however that this one individual could potentially become Chief Nurse one day and tell the tale of a time when she almost withdrew from her nursing course.

My study was undertaken so that information could be gained on an area that was under-researched and of professional significance; that of student nurses' conceptions and implementation of peer review and self-assessment. The contribution of the study to the educational and nursing communities therefore lies in the illumination of student nurses' conceptions and implementation of peer review and self-assessment that previously had been unknown. The readiness of the School of Health, Nursing and Midwifery and other related disciplines to adopt the new feedback form is anecdotal at this present time, with colleagues from within the School and from within the School of Education requesting further information and discussion on it. The recent Francis Report (Francis, 2013) may well expedite the adoption of the new form, with its emphasis on the human qualities that appear to have been lacking in the tragic cases of failings within the health sector.

10.4: Recommendations that emerged from my study

The main recommendations emerging from my study are that:

Recommendation 1: Within the Higher Education establishment in which the study was set, cross-disciplinary presentation of the new peer review and self-assessment feedback form.

Recommendation 2: Within the Higher Education establishment in which the study was set, distribution of the new peer review and self-assessment feedback form and its subsequent student utilisation and evaluation for both practical and academic work tasks.

Recommendation 3: Discussion of the requirements of each section of the new peer review and self-assessment forms so that all students are placed in the best position of using them irrespective of any enabling support requirements, such as dyslexia. Set aside an appropriate length of time for completion of the forms during engagement with peer review and self-assessment exercises.

Recommendation 4: Appropriate allocation of time for debriefing following student nurse engagement with the process of peer review.

Recommendation 5: Exemplars of completed new peer review and self-assessment forms be obtained and used to inform students on the differing styles and quality of feedback provided by previous student cohorts.

Recommendation 6: Future research to explore the potential for the new peer review and self-assessment form to be used by mentors and student nurses within the practice placement setting.

10.5: Impact of undertaking the study

10.5.1: Personally

As a person I feel that I now have closure to an aspect of previous research that proved troublesome to me; that of student nurses feeling 'torn to shreds' during peer review engagement. I am now, as a result of undertaking my study, in receipt of information about what student nurses' think that the purpose and the value of peer review and self-assessment are. My study also revealed components of good peer review and good self-assessment and these components were taken forward by my study

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participants as they created the feedback form; a document created by my student nurse participants for use specifically by student nurses during peer review and self-assessment. The content of the form included human qualities such as confidence, honesty and sensitivity, highlighted by Barnett (2012) as being essential for functioning within the increasingly complex world within which student nurses will be expected to provide nursing care. My hope is that by student nurses using these new feedback forms in the future the potential for anyone to feel 'torn to shreds' may be prevented or at least minimised.

10.5.2: Professionally

As a professional I now have conceptual and practical tools that I did not possess prior to undertaking this study. The conceptual tools I have obtained are those derived from Vygotsky's and Blumer's theories of ZPD and Symbolic Interactionism respectively. The practical tools include experience of utilising NGT during focus group discussion. Having these tools at my disposal can potentially assist me as I educate the student nurses towards becoming the self-regulated practitioners that the NMC (2010) requires them to be at the point of professional registration.

10.5.3: Academically

Through the undertaking of literature search and review at a doctoral level, I am better equipped academically than ever before. Having utilised the Bootle and Beile (2005) Literature Review Scoring Rubric and the rubric designed by Cailli, Ray and Mill (2003), the literature review process differed from any I had undertaken previously. The difference was in relation to the aspects of the review such as determining the theoretical positioning of the researcher(s) and the analytic lens through which the researcher(s) had analysed the data being reported on. Previously the congruence between methodology and methods and the researcher(s) strategies to establish rigour had been of greater focus to me during literature review. The significance of the literature being reviewed was also more highly focussed upon, particularly in relation to both its practical and scholarly worth, than it had been during previous study, when the practical significance of the literature was given precedence. Applying this advanced learning to my study resulted in an explicit, rather than implicit, account of the underpinning theoretical influences of

Vygotsky and Blumer on the study. The concepts derived from these theories provided the analytical lens through which my collected data was reduced. To overcome that potential limitation of concept-driven analysis in minimising the emergence of new material directly from the data, the Miles and Huberman (2004) 3 stage analysis model was also utilised. The reduced data was reconstructed so that the information being presented within my thesis had a logical flow to it and distinctly answered the research questions that had been set with the intention of achieving my study aim.

Although I hold a Master level degree in Nursing and Applied Education, prior to undertaking this Doctoral level study, had anyone entered into conversation about ontological and epistemological assumptions with me I doubt that the conversation would have lasted long. Now I find that I enjoy such conversations and can provide real life examples to support the assumptions that I hold at this time. However, I recognise that these assumptions that I hold now are open to change. At this time I hold the view that this change will happen through increased social interaction, aligned to Vygotsky's and Blumer's theories, with academic colleagues who hold more objectivist and positivist assumptions and through the participation in future quantitative, qualitative and mixed method research. This social interaction I believe will influence confirmation, abandonment or amendment to my epistemological stance. However, to change my ontological stance may take rather more convincing than any social interaction to date has provided.

As a result of undertaking this doctoral study I am acutely aware of the pre-suppositions and assumptions I hold. Prior to now I was unaware of the extent to which these could influence any research I undertook. Now I can make explicit my pre-suppositions and assumptions so that other scholars and researchers can review my literature with a clear understanding that I have taken a particular stance and from this these people can make decisions as to the academic confidence that is placed on my work. As an academic I now feel highly motivated and well equipped, through engaging in doctoral level study, to enter more fully into the academic community discussions on how best to engage learners in the 21st Century in the learning and assessment process.

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APPENDIX 1

Summary table of the inventory of peer assessment diversity.

Cluster	Variable	Dimensions and range of variation
Cluster I: decisions concerning the use of peer assessment	(1) Setting	Educational or non-educational use, curriculum area/subject, formal or informal learning, level of education, characteristics of participants, class size?
	(2) Object	Artefact or observed behaviour? (e.g. test, report, presentation, group work skills)Type of performance expected of learner? (e.g. reproduction, reflection)Information taken into account? (e.g. outcome, approach)Draft or final version?
	(3) Frequency and experience	Once, sporadically or more frequently?Novel or familiar?
	(4) Objectives (goal)	Tool for social control, assessment, learning, learning-how-to-assess or active participation? Or a combination?
	(5) Function	Summative or formative?
Cluster II: link between peer assessment and other elements in the learning environment	(6) Alignment	Degree of alignment with curriculum, learning goals and teaching?
	(7) Relationship to other assessments	Other assessments?(Partially) substitutional or supplementary?Re-marking possible?If supplementary: before, simultaneous with or after staff assessment? Knowledge of other's judgement?
	(8) Scope of involvement	Aspects of involvement (e.g. definition of desired learning outcomes, design of assessment tasks, development of assessment criteria and standards, development of assessment procedures, judgements, decision taking, providing of knowledge of results/feedback, monitoring/guiding of a peer's progress)Extent of involvement (e.g. informed, discussed, participate or responsibility)
Cluster III: interaction between peers	(9) Output	Nature of information: quantitative and/or qualitative?Extent of 'condensation': at level of single criteria or global/holistic?Feedback2stance: authoritative, interpretive, probing or collaborative?
	(10) Directionality	Unidirectional, reciprocal or mutual?
	(11) Privacy	Anonymity of assessor/assessee?Teacher present?Output confidential or public?
	(12) Contact	In the presence of the assessee or at distance?Output face to face, in online discussion, or in writing? One-way or interactively?Time and place?
	(13) Role of assessee	Passive or active?Examples of active role: request, questions, preferences, immediate response, revision, reply.
Cluster IV: composition of assessment groups	(14) Matching	Principle for matching? (e.g. random, year, ability, subject, friendship)Responsibility for matching? (e.g. teacher, students)Consistency of match? (e.g. fixed or variable)
	(15) Constellation of assessors and assessees	Assessor unit? (e.g. individual, pair or group)Assessee unit? (e.g. individual, pair or group)Number of assessors per unit of assessee? (e.g. one, two, more, or all)Number of assessees per unit of assessor? (e.g. one, two, more, or all)
Cluster V: management of the assessment procedure	(16) Format	Freestyle, guidelines or fixed format?
	(17) Requirement	Compulsory or voluntary for assessor/assessee?
	(18) Reward	Course credit, other incentive or reinforcement for participation to assessor/assessee?
	(19) Training/guidance	Extent of training and guidance for assessor/assessee?
	(20) Quality control	Presence of proactive or reactive quality control?

Source: Geilen, S., Dochy, F., & Onghena, P. (2010). An inventory of peer assessment diversity. *Assessment & Evaluation in Higher Education,* 1 (19), pp. 1-19.

APPENDIX 2

TWELVE PRINCIPLES OF GOOD ASSESSMENT (Nicol, 2009)

Good assessment and feedback practice should:

1 Help to clarify what good performance is (goals, criteria, standards)

2 Encourage 'time and effort' on challenging learning tasks

3 Deliver high-quality feedback information that helps learners to self-correct

4 Provide opportunities to act on feedback (to close any gap between current

  and desired performance)

5 Ensure that summative assessment has a positive impact on learning

6 Encourage interaction and dialogue around learning (peer and teacher-student)

7 Facilitate the development of self-assessment and reflection in learning

8 Give choice in the topic, method, criteria, weighting or timing of assessments

9 Involve students in decision-making about assessment policy and practice

10 Support the development of learning groups and communities

11 Encourage positive motivational beliefs and self-esteem

12 Provide information to teachers that can be used to help shape their teaching

Source: http://dera.ioe.ac.uk/11605/1/First_Year_Transforming_Assess.pdf (accessed on 13th January 2013).

APPENDIX 3: ETHICAL COMMITTEE APPROVAL/COMMENDATION

University of
Strathclyde
Glasgow

Lorraine Duers
School of Health, Nursing and Midwifery
University of the West of Scotland
Hamilton Campus
Almada Street
Hamilton
ML3 0JB

13 July 2011

Dear Lorraine

This is to confirm my email message of today that I am now happy to take Chair's Action for our Departmental Ethics Committee and sign off your amended and augmented Ethics Form for your PhD Study "An exploration of student nurses' conceptions and implementation of peer-review and self-assessment, within the context of Higher Education".

I wish you every success with this research. The Committee commended you on your thorough approach to the stages of the research.

Yours sincerely

Christine Sinclair

Dr Christine Sinclair
Lecturer

APPENDIX 4

PARTICIPANT INFORMATION LETTER

Study Title – An exploration of student nurses' conceptions and implementation of peer-review and self-assessment, within the context of Higher Education.

> "O wad some Power the giftie gie us
>
> To see oursels as ithers see us!" (Burns, 1785)

Dear…………

My name is Lorraine Duers. I am undertaking a small research study on student nurses' thoughts on and engagement with peer-review and self-assessment, as part of my Doctorate of Education degree studies. As part of this study I hope to recruit 18 student nurses, 6 from 1st year, 6 from 2nd year and 6 from 3rd year. You are being invited to participate in the study to assist me in exploring the topic. It is through understanding of what you regard as being beneficial to you (and also what you view as being less beneficial!), that improvement to the current system of peer-review and self-assessment can be argued for.

The purpose of the study therefore, is to obtain information about what you think of peer-review and self-assessment. What is its purpose? What is its value? What is good? What could be better? Does being good at one necessarily mean being good at both?

It is intended that you will meet with me, as a member of a focus group to discuss the aforementioned. There will be no more than 5 of your peers within the group. This discussion will take no longer than one hour and thirty minutes of your time. We will meet in a comfortable room, within the University, at a time that is suitable to you and the other members of the group. Refreshments in the form of tea/coffee will be available. If you feel at all uncomfortable during discussions please advise me and the discussion will be stopped.

The information gained from our focus group discussion will allow for the creation of a form with a checklist of purposes of peer-review and self-assessment, their value and the characteristics of good peer-review and good self-assessment. The forms will be called the 'Good peer-review criteria form' and the 'Good self-assessment criteria form'. There is a scarcity of literature regarding the aforementioned so

you will be part of development of new theory and can enhance your own personal and professional development at the same time.

At no time will your identity be divulged to others out-with this group. Even though you are asked to sign the consent form to participate in my study, your details will be coded, that is you will be given a pseudonym (you can choose this at the start of your participation in the study). Your consent form will be stored securely and separately from all other notes. All information gained during this study will be secured safely and destroyed no later than three years after the study is complete. This is for publishing purposes. Some of what you actually say may appear within the study as direct quotations, but your identity will not be revealed at any time.

Following the discussions I would ask that you participate in a peer-review and self-assessment task. The venue will be within a skills lab. There is continuous video-recording within the skills labs and it is this video recording that you will view in order to peer-review and self-assess performance. In pairs, you would monitor the temperature, pulse and respiratory rate of a peer. This will take approximately ten minutes of your time. Following this the 6 people from your focus group would view the video recording and peer-review each other using the 'Good peer-review criteria form'. This will take no more than one hour of your time. I will ask your permission to photocopy your completed form so that I can analyse all of the data whilst you retain the original for your own learning and development.

Approximately 2 weeks later, I would ask that you view the video on your own and complete the 'Good self-assessment criteria form'. Again I would seek permission from you to photocopy this form for the same reasons as before and again you would retain the original for your own learning and development. Following your completion of the form I will speak with you in relation to your observations of both peer-review and self-assessment. This should take approximately thirty minutes of your time. All previous rules apply in relation to your participation in so much as that at no time should you feel uncomfortable and if you do the task will be stopped.

My final intention as regards data collection for my research study is to undertake individual interviews and I may ask you to be interviewed. The purpose of this interview is to allow me to gain a deeper understanding of what you think good peer-review and good self-assessment is and your thoughts on the tasks you have engaged in during this research study. This interview is not anticipated to last for more than one hour. We will meet in a comfortable room, within the University, at a time that is suitable to you. Refreshments in the form of tea/coffee will be available.

I anticipate that the total involvement time for you will be no more than three hours and ten minutes to four hours and ten minutes if you participate in the final individual interview, over a period of approximately twelve weeks. If you do decide to participate I would ask that you sign and date the consent form provided with this information sheet. Please remember that even if you do consent to participate in this study, you may refuse to answer questions and remove your consent at any point without any prejudice to future relations.

Please do not hesitate in contacting me if I can provide further information in relation to my research study. I can be contacted on 01698 283100 ext. 8678 or by email at lorraine.duers@uws.ac.uk

Yours sincerely,

Lorraine Duers (EdD student).

APPENDIX 5 CONSENT FORM

Consent form

Study Title – An exploration of student nurses' conceptions and implementation of peer-review and self-assessment, within the context of Higher Education.

> "O wad some Power the giftie gie us
> To see oursels as ithers see us!" (Burns, 1785)

I am willing to participate in this study exploring student nurses' thoughts on and engagement with peer-review and self-assessment.

I have read and understood the participant information sheet.

I understand that my identity will be protected through the allocation of a pseudonym, with only the other members of the Focus group having privilege to my identity. I understand that any data in relation to this study will be stored safely and securely and will be destroyed no later than three years after the study has been completed. This is for the purpose of publishing the work.

I agree to the use of audio-taping of the focus group discussion and the use of audio-visual equipment for the recording of the peer-review and self-assessment task and discussion. I understand that this is necessary for the data collection and data analysis stages of the research process.

I understand that my participation would be for a time scale of no more than three hours and ten minutes to four hours and ten minutes if I participate in the final individual interview, over a period of approximately twelve weeks.

I understand that my participation in this study is voluntary and at any time I can refuse to answer questions. I also understand that I am free to withdraw from this study at any time, without giving any reason, without any repercussion.

Understanding this, I agree to participate in this study.

Student nurse signature……………………………

Date………………

APPENDIX 6

MODIFIED EARLY WARNING SCORING (MEWS)

Observation/MEWS Chart					
MEWS Key — 0 1 2 3	**Pain Score** ☺ 0 = No pain ☺ 1 = Mild pain ☹ 2 = Moderate pain ☹ 3 = Severe pain ☹ 4 = Excruciating/Worst pain imaginable	Surname: .... First name: .... Unit No.: .... Consultant: .... Date of Birth: .... Ward No.:			

Frequency	Date																	
	Time																	
Resp. Rate (value)	>30																	>30
	21-29																	21-29
	15-20																	15-20
	9-14																	9-14
	<8																	<8
Sa02	%																	%
Inspired 02%																		
Temp	39°																	39°
	38.5°																	38.5°
	38°																	38°
	37.5°																	37.5°
	37°																	37°
	36°																	36°
	35°																	35°
	34°																	34°
MEWS SCORE uses Systolic BP	200																	200
	190																	190
	180																	180
	170																	170
	160																	160
	150																	150
	140																	140
	130																	130
	120																	120
	110																	110
Blood Pressure	100																	100
	90																	90
	80																	80
	70																	70
	60																	60
	50																	50
	170																	170
	160																	160
	150																	150
	140																	140
	130																	130
	120																	120
	110																	110
Heart Rate	100																	100
	90																	90
	80																	80
	70																	70
	60																	60
	50																	50
	40																	40
Neuro Response	Alert																	
	Voice																	
	Pain																	
	Unresp																	
BM:																		
Urine output - *NIL																		
	<30mls/hr																	
	<60mls/hr																	
	>150ml/hr																	
CVP																		
Pain Score 0 - 4																		
Wound site																		
Bowels																		
CSM																		
Drain 1 + 2																		
MEWS Score (total)																		

MEWS Score with all observations

APPENDIX 7

PARTICIPANT PSEUDONYMS

The pseudonyms chosen by my study participants were:

Pilot group

George
Ainsley
William
Jenna
Jemima
Holly

Year 1 group

Robert
Scott
Archie
Sultan
Elpi
Mary
Natalia

Year 2 group

Stephanie
David
Judith
Louise
Sophie
Mula who was replaced by Lynn between stage 1 and stage 2 of data collection

Year 3 group

Anthony
Lucy
Elizabeth
Andrew
Morgan
Dawn