Clinical nursing education: constructing a teaching model from processes and practice.

RHONDA MARRIOTT
RMHN, RN, RM, MSc Nsg, PG Dip Mid, BAppSc Nsg, DipAppSc Nsg, Cert MHN

This thesis is presented for the degree of

Doctor of Philosophy

School of Education

MURDOCH UNIVERSITY

2005
DECLARATION

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

RHONDA MARRIOTT

RMHN, RN, RM, MSc Nsg, PG Dip Mid, BAppSc Nsg, DipAppSc Nsg, Cert MHN
ACKNOWLEDGEMENTS

There are many people to thank and they have all played an important part in my completion of this thesis. My thanks are not given in any specific order of importance.

I would like to acknowledge the thoughtful and reflective contributions from the clinical educators and to thank them for so willingly providing their time in order for this construction of a teaching model for clinical nursing education to emerge.

The process of supervision has taught me much about the reality and significance of “life-long” learning. Thank you Irene (Associate Professor Irene Styles) and David (Professor David Andrich) for your tutelage.

I wish to say a very big thank you to my family for their unfailing support, loving encouragement and endless pride in my achievements. Thanks Graham, Wayne, Kristy, Mum, Dad, MM, MD, Wendy, Greg, John, Joy, Bennet, Hanna and Jordan. I also like to think that my grandparents would have felt proud of me. My dear friends and cherished colleagues also reminded me that I could do this and that there would be an end to the process. Thanks Nita, Jenny, Irene, Lorrie, Shirley, Anthony and Christina.

Finally, Graham, my very precious and wonderful husband for 35 years: Thank you for so often being my agent saboteur and reminding me I had a life other than that of the PhD and work.
CONTENTS

ACKNOWLEDGEMENTS ........................................................................................................ III

LIST OF TABLES ................................................................................................................ IX

LIST OF FIGURES ............................................................................................................. X

ABSTRACT ........................................................................................................................ XI

CHAPTER ONE .................................................................................................................. 1

Introduction .................................................................................................................... 1

Purpose .............................................................................................................................. 2

Significance of the Study ................................................................................................. 4

Benefit to Clinical Education ......................................................................................... 4

Outcomes for Further Research ..................................................................................... 5

Overview of the Thesis ..................................................................................................... 5

CHAPTER TWO ................................................................................................................ 7

Review of Literature ........................................................................................................ 7

Clinical Educators – Preparation and Requirements for their Teaching Practice ............. 8

The Meaning of Learning in the Clinical Setting ......................................................... 14

Clinical Education Milieu ............................................................................................... 17

Clinical Evaluation of Students’ Critical Thinking ....................................................... 20

Clinical Evaluation of Students’ Reflective Practice ..................................................... 23

A Priori Conceptual Models: Relationship amongst Clinical Educator, Student and Learning Milieu (Clinical Setting) ................................................................. 26

Intellectual Acts of Teaching ......................................................................................... 29

Strategic Acts of Teaching ............................................................................................. 31

Moral Acts of Teaching .................................................................................................. 32

Chapter Summary .......................................................................................................... 33

CHAPTER THREE ............................................................................................................ 34

Method ............................................................................................................................. 34
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Aims and Objectives</td>
<td>34</td>
</tr>
<tr>
<td>Context / Setting</td>
<td>37</td>
</tr>
<tr>
<td>Sampling Strategies</td>
<td>38</td>
</tr>
<tr>
<td>Sample Selection</td>
<td>38</td>
</tr>
<tr>
<td>Changes to Sample</td>
<td>39</td>
</tr>
<tr>
<td>Case Study Data Collection</td>
<td>43</td>
</tr>
<tr>
<td>Data Collection Strategies</td>
<td>48</td>
</tr>
<tr>
<td>Data Collection</td>
<td>49</td>
</tr>
<tr>
<td>Assessment</td>
<td>49</td>
</tr>
<tr>
<td>Intervention Specific to Case 1 Clinical Educators</td>
<td>59</td>
</tr>
<tr>
<td>Intervention and Assessment of Progress for Case 1 Clinical Educators</td>
<td>60</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>64</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>67</td>
</tr>
<tr>
<td>Limitations</td>
<td>68</td>
</tr>
<tr>
<td>Ethical Considerations</td>
<td>68</td>
</tr>
<tr>
<td>CHAPTER FOUR</td>
<td>71</td>
</tr>
<tr>
<td>Results: The Processes and Practice of Clinical Education</td>
<td>71</td>
</tr>
<tr>
<td>Chapter Outline</td>
<td>72</td>
</tr>
<tr>
<td>Contextual Data</td>
<td>72</td>
</tr>
<tr>
<td>Clinical Educator Defined</td>
<td>76</td>
</tr>
<tr>
<td>Clinical Educators’ Views of Teaching</td>
<td>77</td>
</tr>
<tr>
<td>Teaching and Facilitating</td>
<td>77</td>
</tr>
<tr>
<td>Philosophy and Style of Teaching</td>
<td>83</td>
</tr>
<tr>
<td>Template for Iterative Data Analyses</td>
<td>83</td>
</tr>
<tr>
<td>Analyses of Clinical Educators Style and Philosophy of Teaching</td>
<td>85</td>
</tr>
<tr>
<td>Personal and Professional Attributes Important to a Clinical Educator</td>
<td>89</td>
</tr>
</tbody>
</table>
Role and Importance of Evaluating Attributes................................. 94

Perceptions of Primary Responsibilities for Teaching, Learning and Evaluating ............................................................................. 96

Teaching Responsibilities ............................................................... 97
Learning Responsibilities ................................................................. 100
Evaluation Responsibilities .............................................................. 102

Acts of Teaching ............................................................................ 105

Changes in Views of Teaching Approach ........................................ 109

Chapter Summary .......................................................................... 110

CHAPTER FIVE .............................................................................. 112

Processes of Critical Thinking and Reflective Practice for the Clinical Educators ................................................................. 112

Analysis of Clinical Educators’ Critical Thinking ......................... 113
Clinical Educators’ Critical Thinking Skills .................................... 117
Critical Thinking Definitions and Essential Characteristics of a Critical Thinking Nurse ................................................................. 118

Reflective Practice ........................................................................ 124

Overlap of Critical Thinking and Reflective Practice ................. 132

How Critical Thinking and Reflective Practice was Enabled in Students ...................................................................................... 136

Factors That Enhance or Hinder Development of Students’ Critical Thinking and Reflective Practice in Clinical Setting ......................... 144

Changes in View of Critical Thinking and Reflective Practice .......... 148

Chapter Summary .......................................................................... 149

CHAPTER SIX .............................................................................. 151

Theorising Clinical Teaching and Discussion ..................................... 151

Clinical Teaching Practice ................................................................. 152

Construction of a Clinical Teaching Model ....................................... 152

Clinical Teaching Model ................................................................. 154
Application of the Clinical Teaching Model ........................................ 159
Discussion ........................................................................................................ 161
Recommendations .............................................................................................. 166
Areas for Future Research ............................................................................. 168
REFERENCES .................................................................................................. 169
APPENDICES .................................................................................................. 183
APPENDIX 1 ...................................................................................................... 183
Letters and Correspondence ........................................................................... 183
APPENDIX 2 ...................................................................................................... 195
Survey, Questionnaires .................................................................................... 195
APPENDIX 3 ...................................................................................................... 223
Sample of Field Notes ...................................................................................... 223
APPENDIX 4 ...................................................................................................... 225
Pedagogy and Andragogy .............................................................................. 225
APPENDIX 5 ...................................................................................................... 226
Clinical Educators’ Philosophy and Style of Teaching of Teaching: From Transcription of Survey Responses ........ 226
APPENDIX 6 ...................................................................................................... 228
Clinical Educators’ Views of Teaching and Facilitating: From Transcription of Interview Responses ...................... 228
APPENDIX 8 ...................................................................................................... 234
Clinical Educators’ Views of Evaluating Responsibilities: From Transcription of Interview Responses ...................... 234
Critical Thinking Defined: Transcribed from Survey and Interview Responses ......................................................... 237
APPENDIX 10 .................................................................................................... 240
Clinical Educators’ Definitions of Reflective Practice and Essential Characteristics ....................................................... 240
APPENDIX 11 .................................................................................................... 244
Reflective Journal Transcripts ................................................................. 244

APPENDIX 12 .............................................................................................. 256

Remaining Models of Overlap between Critical Thinking and Reflective Practice ................................................................. 256
LIST OF TABLES

Chapter Three
Table 3.1 Case 1 Clinical Educators’ Study Participation
Table 3.2 Case 2 Clinical Educators’ Study Participation
Table 3.3 Case 3 Clinical Educators’ Study Participation
Table 3.4 Research Design and Data Collection Strategies
Table 3.5 Relationship of Critical Thinking Sub-scales with Critical Thinking Sub-skills

Chapter Four
Table 4.1 Contextual Data for Case 1 Clinical Educators
Table 4.2 Contextual Data for Case 2 Clinical Educators
Table 4.3 Contextual Data for Case 3 Clinical Educators
Table 4.4 Location of Clinical Experiences for Clinical Educators
Table 4.5 Teaching and Facilitating Similar (Source: Survey)
Table 4.6 Teaching and Facilitating Different (Source: Survey)
Table 4.7 Teaching and Facilitating Different (Source: Survey/Interview)
Table 4.8 Teaching and Facilitating No Difference (Source: Interview)
Table 4.9 Teaching and Facilitating Continuum (Source: Interview)
Table 4.10 Template for Iterative Data Analyses
Table 4.11 Clinical Educators Espoused Philosophy with Style of Teaching with Overlay of Clinical Teaching Acts (Source: Survey)
Table 4.12 Attributes for Clinical Teaching (Source: Survey/Interview)
Table 4.13 Clinical Educator Strategies to Apply Attributes to Role
Table 4.14 Attributes for Evaluating with Frequency of Responses in Parenthesis
Table 4.15 Teaching Responsibility
Table 4.16 Learning Responsibility
Table 4.17 Primary Evaluation Responsibilities (Source: Interview)
Table 4.18 Acts of Teaching from Reflective Journals and Reflective Groups

Chapter Five
Table 5.1 Profile of Means and Ranges of CCTST Sub-scale Scores for the Three Cases of Clinical Educators Combined
Table 5.2 Critical Thinking Defined and Characterised by Case 1 Clinical Educators
Table 5.3 Critical Thinking Defined and Characterised by Case 2 Clinical Educators
Table 5.4 Critical Thinking Defined and Characterised by Case 3 Clinical Educators
Table 5.5 Elements of Clinical Educators’ Definitions of Reflective Practice
Table 5.6 Clinical Acts of Teaching Strategies to Enable Reflective Practice
Table 5.7 Clinical Acts of Teaching Strategies to Enable Critical Thinking
Table 5.8 Critical Thinking and Reflective Practice Enhancers and Hindrances

Chapter Six
Table 6.1 Relationship between Acts of Teaching, Styles and Philosophies and Regard
LIST OF FIGURES

Chapter Two:
Figure 2.1 Relationships among Clinical Educator, Student and Learning Milieu
Figure 2.2 Intellectual Acts of Teaching
Figure 2.3 Strategic Acts of Teaching
Figure 2.4 Moral Acts of Teaching

Chapter Three
Figure 3.1 Analysis Relationship: Researcher and Text
Figure 3.2 Template Analysis Style

Chapter Five
Figure 5.1 Profile of Mean Scores and Ranges of CCTDI Scores for Each of the Seven Aspects of the Three Cases of Clinical Educators Combined
Figure 5.2 Coding of Clinical Educators’ Levels of Reflection
Figure 5.3 Critical Thinking & Reflective Practice Overlap: Relationship 1
Figure 5.4 Critical Thinking & Reflective Practice Overlap: Relationship 2
Figure 5.5 Critical Thinking & Reflective Practice Overlap: Relationship 3
Figure 5.6 Critical Thinking & Reflective Practice Overlap: Relationship 4

Chapter Six
Figure 6.1 Clinical Teaching Model
Figure 6.2 Situating Acts of Teaching - Clinical Teaching Model
Figure 6.3 Graduations of Regard - Clinical Teaching Model
Figure 6.4 Placement of Case 1 Clinical Educators - Clinical Teaching Model

Appendix 11
Figure 11.1 Critical Thinking & Reflective Practice Overlap: Relationship 5
Figure 11.2 Critical Thinking & Reflective Practice Overlap: Relationship 6
Figure 11.3 Critical Thinking & Reflective Practice Overlap: Relationship 7
Figure 11.4 Critical Thinking & Reflective Practice Overlap: Relationship 8a
Figure 11.5 Critical Thinking & Reflective Practice Overlap: Relationship 8b
Figure 11.6 Critical Thinking & Reflective Practice Overlap: Relationship 9
Figure 11.7 Critical Thinking & Reflective Practice Overlap: Relationship 10
ABSTRACT

The current complexity of client care can only benefit from teaching approaches that foster critical reflection and independence of learning in nursing students in actual health care settings. There is value to the nursing profession in understanding the balance between intellectual, strategic and moral acts of teaching within a humanistic, authoritarian or liberal teaching style that stimulates, supports and develops clinical competence and self-direction of learning in students within a nurturing learning environment.

In order to further understand the concept of clinical education, a naturalistic, case study inquiry was undertaken in Western Australia. The purposes of the study were first, to construct an understanding of clinical education, the complexities of the clinical educator’s role and responsibilities within the context of the clinical milieu. Second, the researcher aimed to theorise about the context and processes of clinical educators’ teaching and learning interactions with students in the clinical milieu that resulted from the three clinical educator cases.

A particular focus in this study was to further understand the ways clinical educators guided aspects of students' learning that required critical thinking and reflective practice. In doing so, this dissertation explains the processes of clinical teaching as described by the participants and observed by the researcher. Clinical educators in pre-registration, undergraduate nursing programmes from two Western Australian universities were identified as major stakeholders in clinical nursing education and were invited to participate. The understanding of clinical education that resulted from the case study is developed and explained in this dissertation.
Recent developments within clinical nursing education are marked by increasing complexity within a context of raised client expectations, cultural diversity, technological advances, and fiscal constraint. Within such a learning milieu, clinical educators develop plans for teaching based on knowledge of the curriculum and experience in clinical teaching. They respond to students’ expectations and needs, act as advocates for student initiated client care, and make professional judgements about students’ cognitive, psychomotor and affective competencies.

The researcher applied a constructivist approach to create a contextual understanding of clinical educators’ role, responsibilities and processes of clinical teaching. Activities of teaching were identified as being intellectual and strategic (Green, 1971; Hellgren, 1985) and moral (Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993). For the purpose of this dissertation, the intellectual, strategic and moral acts have been adopted for application to the findings on clinical teaching. Those findings were reconstructed in a model developed by the researcher which situates activities of clinical teaching within styles of teaching. The activities of clinical teaching referred to in this dissertation are intellectual, strategic and moral acts of teaching. The styles of teaching referred to in this dissertation are humanistic, authoritarian, liberal and misanthropic and were derived from the literature on Invitational Teaching (Purkey & Novak, 1984; Ripley, 1986). The researcher hypothesises about the regard for student learning that might arise from the various relationships in the model.
This thesis adds to the practice of clinical education by suggesting the value of identifying clinical educators’ styles and strategies as a means to nurturing independent life-long learning in students. The benefit of self-direction is a professional who can effectively function regardless of the unpredictable circumstances inherent in the clinical setting and negotiate his/her own learning.

Recommendations for further study include the need to validate the constructed model of clinical practice teaching and to determine if the model is predictive of effective clinical learning outcomes that can be validated against various levels of students. Also, there is a need to determine transferability and application of the clinical practice teaching theory to other countries with similar undergraduate academic preparation of Registered Nurses.
CHAPTER ONE

Introduction

*The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.* William Arthur Ward

With the intention of situating the dissertation and the value of the findings, it is important to recognise clinical educators’ historical teaching practices. In the past, these focussed primarily on developing and assessing students’ psychomotor skills for interventions in client care, however there have been many recent changes. Contemporary health care problems have increased in complexity, as a reflection of changes in society, travel, work, family and lifestyle differences between now and those of twenty years ago, to identify a few. Health care provision needs to consider those changes along with cultural diversity, technological advances and client expectations (Cheek & Jones, 2003; Oermann, 2004). Further, the health care system has become more specialised and fiscal accountability has seen the introduction of complex measures of patient outcomes. In this context, clinical educators have a crucial role in teaching, facilitating and evaluating students’ progress and competence in making critically reflective and competent decisions for quality patient care and outcomes (Chang & Daly, 2001; Lunday, Winer, & Batchelor, 1999; Manuel & Sorenson, 1995; Myrick & Yonge, 2004).

Recent developments within clinical nursing education are marked by increasing complexity within a context of raised client expectations, cultural diversity, technological advances, and fiscal constraint. Within such a learning milieu, clinical educators develop plans for teaching based on knowledge of the curriculum and
experience in clinical teaching. They respond to students’ expectations and needs, act as advocates for student initiated client care, and make professional judgements about students’ cognitive, psychomotor and affective competencies.

The imperative that students need to develop a degree of independence in their practice and then apply that in their role transition to that of registered nurses is an important reason for the changing emphasis in clinical teaching practice. Clinical educators’ success in contributing to developing students’ independence depends largely on the way they apply their beliefs and values about the process of clinical teaching.

Clinical educators are acknowledged as having the expert clinical knowledge and practice required for their clinical setting and some research has categorised teaching styles of nurse academics (Manuel & Sorenson, 1995). However, little is known of clinical educators’ educational preparation (Australia, 2002; Australian Nursing Council, 2002; Napthine, 1996), the educational paradigms to which they ascribe, the philosophies which support their teaching strategies (Opacich, 1995), or their most effective methods for enabling and evaluating nursing students’ critical thinking skills and reflective practices for competent patient care (Oermann, 2004). These issues were of central concern to this research study.

**Purpose**

In order to further understand contemporary clinical education in nursing, a naturalistic case study inquiry was undertaken in the metropolitan area of Perth, Western Australia. There were two purposes for the study. First, the researcher aimed to construct an understanding of clinical education, the complexities of the clinical
educator’s role and responsibilities within the context of the clinical milieu. Second, the researcher aimed to theorise about the context and processes of clinical educators’ teaching and learning interactions with students in the clinical milieu that resulted from the three clinical educator cases. A particular focus in this study was to further understand the ways clinical educators guided aspects of students' learning that required critical thinking and reflective practice. In doing so, this dissertation explains the processes of clinical teaching as described by the participants and observed by the researcher.

As a result of this study, the researcher expected to develop theoretical models that would explain the relationships between the clinical educator, clinical teaching philosophies, styles and processes, and possible student learning outcomes. A process of interpretive data analysis of clinical teaching was used in the methodology to develop the theoretical models. The researcher acknowledges that clinical educators were not selected on the basis of any criteria that defined best practice but rather on convenience and willingness to be involved. The model that evolved, with the exception of the aspect of misanthropy, is based on what actually happened in the practice of the educators who had a range of teaching experiences and nursing backgrounds.

The researcher invited clinical educators in pre-registration, undergraduate programmes from two Western Australian universities to participate in a naturalistic case study inquiry. These clinical educators were identified as major stakeholders in nursing education. The main aim was to examine the practice and beliefs of clinical educators and thence to develop a theoretical model to depict the clinical teaching process from their understandings of clinical education. Such a model, grounded in the
literature and informed by the practice of clinical educators, may benefit contemporary clinical teaching and, hence, adds to the development of learners.

**Significance of the Study**

This study is of significance to nursing education and the practice of clinical education in particular as the researcher has constructed a clinical teaching model which situates acts of teaching (Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Sirontik, 1990; Stewart, 1993) within styles of teaching, derived from the literature on student-centred learning (Hase & Kenyon, 2000; Knowles, 1985; McAllister, Lincoln, McLeod, & Malaoney, 1997; Paris & Byrnes, 1989; Reilly & Perrin, 1999; D.A. Schon, 1991; Sokol & Cranton, 1998) and, invitational teaching (Purkey & Novak, 1984; Russell, Purkey, & Siegel, 1982). The literature on invitational teaching (Purkey, 1984; Purkey & Novak, 1984) draws from the theories of self-concept and the perceptual tradition and refers to two themes of teaching behaviours, being identified by Purkey (1984) as *inviting* and *disinviting*. These two themes infer that an educator would display a positive regard for a student if they are *inviting* in their teaching behaviours and a negative regard if they are *disinviting*. Thus, from the student-centred teaching literature and the invitational teaching literature, the researcher developed four categories which, for the purpose of this thesis, are called *humanistic, authoritarian, liberal* and *misanthropic*. The model explains clinical educators’ teaching philosophy and style and the regard for learners that might arise from the relationships between these.

**Benefit to Clinical Education**

There is benefit to the nursing education in understanding the balance between intellectual, strategic and moral acts of teaching within a humanistic, authoritarian or
liberal teaching style that stimulates, supports and develops clinical competence and self-direction of learning in students within a nurturing learning environment. In particular, the researcher argues that the current complexity of client care can only benefit from supportive teaching approaches that foster and invite students to be critically reflective and independent in their learning in health care settings.

**Outcomes for Further Research**

This study raised a number a questions for further research. These include validation of the robustness of the clinical teaching model in other clinical education nursing settings in Australia; determining the value of the model to predict effective learning outcomes for various groups of students; and finally, the transferability and application of the clinical practice teaching theory to other countries with similar undergraduate academic preparation of Registered Nurses.

**Overview of the Thesis**

This thesis is presented in six chapters. Chapter One has provided an introduction to the research, and outlined the purpose and significance of the research to the nursing profession. Chapter Two situates the research in relation to the current and relevant literature and develops the argument which underpins this dissertation. Also, *a priori* models developed from the literature and the researchers’ experience will be presented. Chapter Three will outline the methodological approach taken by the researcher and detail the research aims and objectives, the data collection strategies and data analyses. Chapter Four will detail the findings in relation to the study purpose of constructing an understanding of clinical teaching. Chapter Five details the clinical educators’ perceptions of critical thinking and reflective practice
in relation to their role. Chapter Six is the final chapter in this thesis and details the
construction of a model of clinical teaching to elucidate and theorise the relationships
between clinical educators’ clinical teaching philosophies, and styles and acts of
teaching and learners. Then, the findings will be discussed and recommendations
from the research study will be presented.
CHAPTER TWO

Review of Literature

The best teacher is the one who suggests rather than dogmatizes, and inspires his listener with the wish to teach himself. Edward Bulwer-Lytton

In this chapter, literature is reviewed to provide an understanding of the issues significant to the research aims which underpin this dissertation. The literature to be explored will focus on clinical educators and the preparation and requirements for their teaching practice; paradigms for adult learning; the meaning of learning in the clinical setting; and then, the clinical education milieu, as an essential factor of clinical education, will be explored. Then, literature on clinical evaluation of students’ critical thinking and reflective practice and the relationship between these and students’ self-directed learning will be examined. Finally in this chapter, a priori models depicting views of clinical education are presented. These models are further developed later in the thesis after the findings presented in Chapters Four and Five where analyses from the three cases add another dimension.

The literature on clinical education to be discussed in this chapter points to the importance of an educator, who is knowledgeable and proficient in adult learning principles, has an academic background adequate for understanding the curriculum requirements for students in the clinical setting and possesses strong clinical expertise. Also, inconsistencies in the preparation and expectations of clinical educators regarding fundamental issues of their practice with students will be explored as they impact on the central issues in this study. In particular, the literature on critical thinking and reflective practice abounds with the importance of both of these concepts for effective, thoughtful
and insightful professional practice, yet there has been little research into how educators in professional fields such as nursing, law and education actually develop these ways of thinking and working in their students.

**Clinical Educators – Preparation and Requirements for their Teaching Practice**

An Australian report (Commonwealth Department of Human Services and Health, 1994) makes specific comment on the employment status of clinical educators. In the main, universities temporarily employ these staff on a casual (or sessional) basis from outside the faculty and on the strength of their clinical expertise. A background in general adult learning principles or education is, unfortunately, not a requirement for employment (Napthine, 1996).

Clinical educators bring to the teaching/learning situation their life and vocational experiences. Implicit in this will be experiences of the way their own learning, in the clinical milieu, was facilitated, precepted or mentored. In the researcher’s personal experience as a senior academic, some clinical educators will be graduates of tertiary programmes and therefore familiar with the educational and clinical settings’ expectations of student nurses. Others will be graduates of hospital diploma programmes and, while, they may not have the same awareness of what level of student performance to expect, they will have knowledge of the clinical settings’ expectations. Some will have undertaken further studies since their initial qualification and these may have been short, specific courses or formal programmes of study, which may or may not be oriented to nursing or principles of education. In all cases, there is no guarantee the educational preparation will have addressed and
provided the opportunity for the clinical educators’ development of the necessary skills to facilitate students’ learning and practice.

The role of the clinical nurse educator in relation to enhancing student learning for clinical practice leaves unresolved the question of preparation. Duke, (1996) in a study into clinical education at one Australian university, reported a link between a lack of educational qualifications and difficulties with teaching practice. This author reports “they (the clinical educators) were often unprepared for the complexities of the teaching role” (Duke, 1996, p.410). Other authors (McLeod, Meagher, Steinert, Schuwirth, & McLeod, 2004) argue that methods, such as reflective practice, “stimulate the learning of concepts” and the importance of “encouraging both tacit and formal knowledge acquisition” (p. 25) for the role. These authors found that medical educators, regardless of advanced training in education, were able to identify pedagogic principles required for teaching and postulated that the tacit knowledge was acquired with experience. Yet other authors (Bedward & Daniels, 2005) report on a process of formal clinical supervision as an effective mechanism to support teachers who feel isolated from others by the nature of their practice in clinical settings. The reviewed literature is contradictory in the requirements for effective practice and the mechanisms to achieve this. This thesis seeks to address this contradiction.

A typical clinical educator in nursing in Western Australia is likely to have been prepared with a three to three and a half year Baccalaureate degree in Nursing or Health Science (Nursing) and have consolidated their educational preparation with further clinical practice. To the researcher’s knowledge, it is unusual that a requisite for employment is that a clinical educator will have postgraduate studies in nursing
education or even the generic principles of adult education. Postgraduate studies, if undertaken, are more likely to have been selected with the aim of increasing clinical specialisation. Moreover, clinical educators’ knowledge of theories such as ways of knowing and patterns of knowledge (Carper, 1978; Van Manen, 1977), interpretive teaching (Tripp, 1991), transference of theory to practice (D.A. Schon, 1991), and practice theories (Jarvis, 1992b) also can be assumed to be limited or non-existent. This thesis will seek to describe the clinical educators’ conceptions and espoused practices of their teaching role and determine if they “match” or are in line with principles of adult education.

Producing graduates for the nursing profession who are clinically competent and critically reflective is a primary goal of nursing education (Commonwealth Department of Human Services and Health, 1994; Commonwealth of Australia, 2002; N. C. Facione, 1995; Lubin, 1985) and remains a focal responsibility of clinical education. Safe, competent and holistic patient care is dependent on nursing graduates’ ability to make empathic, effective and valid judgements (Commonwealth Department of Human Services and Health, 1994). This requires graduates to draw on their processes of critical thinking (Cotton, 2001; N. C. Facione, 1995) and reflection on their practice (Pearson, 1994). The corollary to this is the need for clinical educators not only to possess clinical competence and clinical decision-making but, also, to possess and effectively use critical thinking and reflective practice processes for modelling, teaching and evaluating students’ development. The role of clinical educators’ understandings of critical thinking and reflective practice will be addressed in this thesis.
Paradigms for Adult Learning: Pedagogy, Andragogy and Heutagogy

The researcher was interested in understanding if relationships between further education and professional development and clinical educators’ teaching and evaluation of students’ clinical practice could be identified; and how these might align with paradigms such as andragogy (Knowles, 1978) and heutagogy (Hase & Kenyon, 2000). Andragogy, is postulated by Knowles (1978) to encourage self-directed learning. Heutagogy, as described by Hase and Kenyon (2000) develops self-determined learning and a capacity for recognising learning opportunities from real-life experiences that are unplanned, difficult to define and require a capacity for reflection.

Malcolm Knowles (1985) explained the differences between the assumptions and the process elements of pedagogy and andragogy. The body of theory and practice on which teacher-directed learning is based is often given the label “pedagogy”, from the Greek words paed (meaning child) and agogus (meaning guide or leader) - thus being defined as the art and science of teaching and guiding the learning of children. The body of theory and practice on which the concept of student centred or self-directed learning is based is coming to be labelled “andragogy”, from the Greek word aner (meaning adult) - thus being defined as the art and science of teaching adults or, even better, maturing human beings (Candy, 1991).

The differences between the two paradigms of pedagogy and andragogy do not necessarily represent bad/good or child/adult dichotomies, but rather, can be viewed as a continuum of assumptions in terms of how appropriate they are for individual learners in particular situations (See Appendix 4 for details of Knowles’
assumptions). Further, pedagogy for children has been critiqued many times in many ways and has been replaced by student-centred learning (which is similar to andragogy). If a pedagogical assumption is realistic for a particular situation, then pedagogical strategies are considered appropriate. For example, if a learner is entering a totally new content area, he or she will be dependent on a teacher until enough content has been acquired to enable student-centred or self-directed inquiry. This distinction is particularly important for the clinical setting where students often find themselves in experiences that are new to them and in contexts that are beyond their existing knowledge base. In those situations, teacher-centred or directive teaching would be considered appropriate regardless of the maturity and age of the student. The value of pedagogy and andragogy to learning in the clinical setting is not based on a simple age distinction, but one based on the type of learning task, the context and the learners’ ability to engage in self-directed activities comparative to their existing knowledge (Working at Teaching Committee, 1998). A flexible application of pedagogy and andragogy by clinical educators would be most appropriate given the breadth of contextual differences to be found in clinical settings.

The parallel between the theories on children’s learning and those on adult’s learning, in this thesis, focuses on the teaching of adult students in a professional program within clinical settings. Evidence in the literature discussed earlier shows similarities between the theories on educating children and adults in that the knowledge, experience and preparation of the student, regardless of age, along with the context in which the learning takes place require a teacher to adjust their teaching approach.
Heutagogy is the study of self-determined learning (Hase & Kenyon, 2000) and is seen an extension of andragogy. In assisting learners, teachers need to be flexible in providing resources. Learners then make choices about what to use in their own learning endeavours and the relevance of the resources to their learning. Heutagogy has been described in vocational education and training learning (Kenyon & Hase, 2003) and in research into managerial styles and work based learning (Hase, October 2nd 2002). While research has not been reported into using heutagogy in learning for professionals in practice settings, it would seem to be logical that application of this paradigm to learners in such settings would have similar outcomes to those investigating andragogy, given the similarity of the two paradigms.

University submissions to a significant national review of nursing and nursing education in Australia (Commonwealth of Australia, 2002) identified the importance of preparing nurses to be life long learners and to adapt to the ever changing and dynamic world of health care in a context of increasing technology, knowledge and consumer awareness. Unfortunately, education occurs in a context of diminishing available money for universities to effectively support the process of education generally and especially clinical education in the context of the actual world of clinical practice. In the researcher’s personal experience, time has been cut from the role of the clinical educator. This can potentially force the clinical educator to respond to students’ practice in a reactive rather than proactive way in the need to assess students and deem them to be clinically competent in that learning setting and for their level of experience. None of this is ideal for the clinical educator whose intent is to respond flexibly to learners using
appropriate paradigms for teaching which, may be drawn from pedagogy, andragogy and heutagogy as appropriate to the learning needs of those students.

The Meaning of Learning in the Clinical Setting.

One of the intents of the nursing curriculum is for meaningful learning to occur for the students when they are in the clinical practice setting. This is the *raison d'être* for the presence of clinical educators in these areas. Outcomes of learning may include any or all of the types of learning such as knowledge of facts, skills, the patient care context, and understandings of patients’ experiences to name a few. While it is tempting to debate cause and effect between acts of teaching and student learning, the very essence of such a debate is difficult as the teaching and learning context has many complex components. Issues arising from these have long been the subject of discourse in literature on education. This thesis will build knowledge of the strategies clinical educators use to facilitate students’ learning and to evaluate that learning has taken place within three overarching categories of acts of teaching (Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Sirontik, 1990; Stewart, 1993) that will be elaborated further in this chapter.

One influential view that supports meaningful learning in practice settings subscribes to a constructivist epistemology (Paris & Byrnes, 1989). Two adult education theorists within this paradigm are Jonassen and Candy. Firstly, Jonassen’s (1991; 1994) principles for learning focus on how context and content together contribute to the construction of students’ knowledge. Real and contextualised tasks provide experiences for the learner and foster reflective practice. These would seem to be transferable to clinical education; and, do not require the clinical educator to
have a complex preparation in education to be able to implement those for effective
student learning. Secondly, Candy (1991) expresses the educator’s role as being one
which assists students to recognise incorrect, prejudiced, or dysfunctional beliefs
through meaning construction with the purpose of facilitating changes in these
beliefs. Learning, from Candy’s view is an active interaction between the learner and
the teacher that develops self-direction in the student. Reflection and self-direction
are aspects of learning that are highlighted in the constructivist paradigm. This thesis
will add to the notion of how self-direction is developed in learners in clinical
settings and will explore the relationship between clinical educators’ philosophies for
teaching and their strategies to enhance students’ self-direction.

While the literature on constructivism is instructive in its theoretical relevance
to nursing education, and other practice disciplines, the researcher was keen to
explore the use of a variety of strategies, specific to clinical educators’ practice, to
achieve learning in students. This thesis uses a formulation of three distinct acts of
teaching: these being intellectual and strategic (Green, 1971; Hellgren, 1985) and
moral (Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993). While in the changing
reality of a clinical setting it may not, if ever, be possible to view these acts as
independent of one another, it is useful, for the purpose of this dissertation, to view
them separately. The three acts of teaching are now described.

The intellectual acts of teaching include those strategies commonly linked with
the idea of teaching. These are described as explaining, justifying, demonstrating,
comparing, questioning, probing, inferring, concluding, interpreting, illustrating,
proving, assessing and evaluating (Green, 1971; Hellgren, 1985) cited in Stewart
In the case of nursing, clinical educators are able to steer the direction for students’ learning by the application of constructivist principles, previously described, along with intellectual strategies to assist the student in constructing meaning from their clinical practice. Using techniques such as guided practice used in scaffolding (Rosenshine, 1979), for example, clinical educators assist students to link meaning from what they already know (theoretical knowledge) from the classroom to that which is little known in the clinical practice setting and, thus, on to other clinical experiences. Bruner’s (1986) perspective on scaffolding is particularly useful when clinical educators’ consider teaching behaviours that engage students in learning that is beyond their current level of knowledge or scope of competence: a situation that can be anticipated in a dynamic and changeable clinical setting.

The strategic acts of teaching are necessary to support what Hellgren (1985) described as the main acts of teaching (i.e. intellectual acts) and include facilitating, motivating, planning, encouraging, guiding, counselling and disciplining students (cited in Stewart, 1993, p. 4). These acts aid the intent of teaching, which is student learning, by creating a supportive and inviting milieu, thereby improving the context in which learning takes place (Stewart, 1993, p.5) so it becomes more likely the student will achieve learning. This critical aspect of clinical educators’ practice is often overlooked and yet a number of clinical educators commented to the researcher, in her role as a senior nurse educator, that these strategies occupied much of their role and time in the clinical setting.

The moral acts of teaching require the teacher to be honest and fair in the process of bringing about learning in students (Fenstermacher, 1990; Sirontik, 1990;
Stewart, 1993). The teacher needs to be considerate of others’ views while remaining objective about the issues of truth, evidence and argument. In addition, the teacher in professional practice education situations, such as in nursing, demonstrates standards of the nursing profession, and role models to students. Together, these strategies may be viewed as aspects of role modelling and professional socialisation. There is much more, though, than the moral acts of teaching, as those who ascribe to the humanistic philosophy of teaching will attest. The very essence of the humanistic philosophy of teaching is the moral tenets it allows the teacher to bring to the teaching-learning interaction such as respect for others (Purkey, 1984), caring for one another (Watson, 1985), building trust (Sessanna, 2004) and interpersonal sensitivity and advocacy (Minicucci, Schmitt, Dombeck, & Williams, 2003). The researcher, using the acts of teaching (Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Sirontik, 1990; Stewart, 1993), will add to the understanding of how clinical educators, in their role, aim to bring about learning in students.

**Clinical Education Milieu**

No matter what teaching paradigm clinical educators may apply in their practice with students, the clinical setting remains an integral and critical factor in students’ learning. The capacity for this influence has undergone significant changes since prior to 1994 when Australian nursing education focused on training which, largely, occurred in the workplace (hospitals, in the main). The clinical instructor approach, which dominated nurse education in hospital based programmes during the 1970s and 1980s, focussed on task orientation and perpetuated the perception of nurses as a useful service group to other health professionals, such as the medical profession (Bates & Linder-Pelz, 1990). Even though nurses implemented direct
patient care, such as attending to activities of daily living, their process of care could be described as reactive rather than pro-active (Bates & Linder-Pelz, 1990). In such a situation, doctors remained the primary clinical decision-makers (Ryan & McKenna, 1994) and students in nursing occupied the lowest rung of the professional hierarchy.

In 1995, the final transfer of nursing education in Australia from hospitals to centres for higher education was completed. In Western Australia, the transfer had taken place prior to this date. The clinical practice component then for nursing students was required to take place primarily in hospital and community health care settings which, fundamentally, are bureaucratic. The scope of nursing practice within these settings is often governed by protocols which do little to foster the independence of nursing decision-making and tend, rather, to perpetuate traditional roles and hierarchical structures (McCoppin & Gardner, 1994; Nolan, 1995).

Furthermore, some members of the nursing profession itself are ambivalent about the nursing profession’s right to independence of practice (Kermode, 1993). More recently, other authors (Gray & Greenwood, 2001) encourage professional development in nursing to move beyond independence to interdependence and professionals working together. Further, some health professionals are concerned that to not embrace interprofessional practice is to impede the provision of health care offered to some sectors of the population, in particular, the rural sector (Wells, 2005).

Ambivalence towards independence and collaboration with other health professionals, if not challenged by a role model or a clinical educator, can potentially impede students’ realisation of independent characteristics such as reflecting on nursing decisions based on a careful review of circumstances, on the facts of the
case, and on other evidence which impact on the decision or outcomes for patient care. This could retard or prevent students acting responsibly on decisions clearly within the scope of their practice (Ellis, 1994; Nolan, 1995; Willis, 1993).

Furthermore, a conflict can be created in students who have been exposed to the structured decision-making frameworks now being rolled out in various states in Australia, such as the Scope of Nursing Practice Decision Making Framework (Nurses Board of Western Australia, 2002). In order to incorporate the concepts embedded in the framework into their developing practice, students need to apply critical thinking and reflective practice skills to assist them to define their scope of practice within the complexities of the clinical practice setting.

While there is potential for professional development for students in the clinical placements in which they test out their clinical competence, clinical settings may not always function as a *milieu* that encourages student learning and welcomes clinical educators. Paterson’s (1997) research explained that the clinical setting can be viewed as a culture, and that the welcome of clinical educators into that culture is not guaranteed to be warm. Further, in Paterson’s study, clinical educators felt alienated and their “skills … (were) frequently viewed as pointless by nursing staff in the clinical area” (1997, p. 197). Such cultural behaviours are potentially distracting and undermining to the effectiveness of clinical educators in their endeavours to support and to teach students. What is more, the *clinical milieu* represents a potential challenge to clinical educators who may themselves intend to provide an *inviting* stance (Purkey, 1984) in teaching students, while encouraging staff in the clinical setting to similar teaching behaviours.
The concept of invitational teaching (Purkey & Novak, 1984; Russell et al., 1982) draws from the theories of self-concept and the perceptual tradition and the literature on invitational teaching refers to two themes of teaching behaviours - *inviting* and *disinviting*. These infer that a clinical educator would display a positive regard for the student if they are *inviting* in their teaching behaviours and a negative regard if they are *disinviting*. In this study, the researcher was interested in finding if the theoretical assumptions of these teaching behaviours would be espoused by participating clinical educators. Also, this thesis describes the clinical educators’ perceptions of the clinical milieu in relation to it enhancing students’ learning and thus, whether it could be considered as *inviting*.

**Clinical Evaluation of Students’ Critical Thinking**

The literature provides a range of definitions for the concept of critical thinking. Although varied, they reflect the concept’s complexity. The literature reports a summary of the American Philosophical Association’s (P.A Facione, 1990) definition of critical thinking in which it is seen as an often, non-linear process of purposeful judgement relying on self-regulation, and giving reasoned consideration to evidence, contexts, methods, and criteria. Other theorists have described critical thinking as encompassing cognitive processes and problem solving (Kurfiss, 1988), professional or clinical decision-making (Johnson & Webber, 2001), and characteristics of reflective thinking (Glen, 1995).

An accreditation mandate (National League for Nursing, 1990) requires North American clinical educators to evaluate students’ competencies in critical thinking. In contrast, Australia has no such regulatory requirement other than to assess problem
solving (Australian Nursing Council, 2000), and its implied critical thinking process, in
the clinical setting through student’s application of the nursing process to patient care.

Wilkinson (1991), however, cautions against considering critical thinking as
synonymous with problem solving and confusion has been reported in a sample of
Deans and Heads of Schools of Nursing in defining critical thinking (Jones & Brown,
1991) where the predominant description was of critical thinking as a problem solving
activity. Another study (Marriott & Lapsley, 1996) reported 82% (n=21) of the study
sample of clinical educators as defining critical thinking as a problem solving activity.

In the mid 1980’s, widespread implementation of the nursing process as a
method of considering interventions by nurses in the care of their patients, shaped a
significant change in the focus of nursing care to become more pro-active and
patient-centred. At this time, Hollingworth (1986) described the nursing process as a
mode of delivering patient care in a way that required nurses to deliberate and plan.
Although this emphasis on holistic, patient-centred care was, and is, significant for
nursing education, there is no guarantee the nursing process significantly impacts on
the development of independence in practice, and in particular, the development of
critical thinking (Wilkinson, 1991). To the contrary, Fonteyn and Cooper (1994) and
O’Connell (1997) warn there is a danger that nursing care plans contribute to the
formation of ritualistic, habitual nursing practice.

Further, although the nursing process is a method of identifying a problem
and then planning solutions, critical thinking extends to situations which do not
always require solutions, such as those where the nurse forms conceptions,
rationalises, or makes fair and reasonable judgements. In particular, these aspects of
critical thinking are becoming even more important to the contemporary registered nurse given the increasing scope of nursing practice and the complexity of the nursing care context.

Clinical practice units of study in Australian, undergraduate, pre-registration nursing programmes, provide opportunity for clinical educators’ assessment of the nursing process as a central requirement (Australian Nursing Council, 2002) to identifying students’ transference of academically derived knowledge (theory) to their process of patient care. This is also taken as an indication of actual student care provided. A supposition, inherent in the curriculum, is that clinical educators are able to discriminate between students’ problem solving and critical thinking (J. Roberts, While, & Fitzpatrick, 1993; Wilkinson, 1991) in the reviewing of the students’ written process of care. Additionally, clinical educators’ may assess documentation skills more than critical thinking skills. This brings into question the extent to which the written plan of care can be viewed as a reliable indicator of students’ problem solving, let alone critical thinking skills (Fonteyn & Cooper, 1994; Marriott, 1994).

An educational dilemma exists, therefore, if many clinical educators restrict evaluation of students’ critical thinking to the care plans produced (Marks-Maram, 1996). This practice could, firstly, portray problem solving as the only available method for clinical decision-making and, secondly, serve to restrict students’ critical thinking abilities to a linear process of arriving at decisions. This latter issue could be reinforced through the very nature of the systematic, step-by-step assessment, diagnosis and interventions approach of the nursing process.
The educational dilemma is further compounded if clinical educators do not fully understand the elements of critical thinking and the many ways in which students’ critical thinking can be realised and evaluated in the clinical setting. So, what this dissertation does in relation to this dilemma is to explore clinical educators’ understandings of critical thinking and how they incorporate teaching it in practice.

**Clinical Evaluation of Students’ Reflective Practice**

The literature provides much discussion on the general processes of reflection (Atkins & Murphy, 1993; Boud, Keogh, & Walker, 1985; Carr & Kemmis, 1986; Newell, 1992; D. A. Schon, 1983; D.A. Schon, 1991) but this study focuses on issues of reflection which impact on clinical education, in particular.

Reflective practice has been described as the process of revisiting one’s practice experience in order to learn about it (Atkins & Murphy, 1993). Reflective practice can also include reflection on current actions and lead to incorporation of this reflection to future actions. Thus, reflective practice addresses past, present and future practice and assists personal regulation of learning; a particularly useful technique for clinical settings. Another theorist’s view regarding reflective practice is that knowledge of the probable outcomes of clinical practice can lead to the development of practice theories (Jarvis, 1992b). Others (Habermas, 1971; Kolb, 1984; D. A. Schon, 1983), describe the learning resulting from the practice experience as a mechanism of monitoring (self-regulation) and realising that the outcome of the action is close to what was predicted by the practice theory and the previous experience combined.
Paris and Byrnes (1989) described self-regulation of learning as a process where learners use higher order learning, such as synthesis to arrive at an understanding of their practice which will serve them in future practice decisions. The application of such higher order thinking during the clinical practice situation (reflection in practice) assumes that for it to occur there is a certain degree of comfort and confidence with one’s psychomotor skills and clinical decision-making. While some authors (Atkins & Murphy, 1993; Jarvis, 1992a) maintain that the outcome of reflection for the student is more meaningful practice and the refinement of clinical decision-making, this will only occur through an awareness of their thoughts and feelings surrounding their actions and decisions. Thus, reflection on practice is as important as critical thinking for clinical educators to develop in students if nursing education is to meet its goal of nurturing lifelong learning and professional development.

The process of self-regulation is more expressly described by Schon (1983) in regard to when reflection takes place. Schon describes reflection in practice (during the practice situation) and reflection on practice (after the practice situation). The impact on clinical education is that students’ nursing practice takes place within a context of uncertainty of the outcome owing to the impact of the clinical milieu on the learning situation (Jarvis, 1992a) The clinical educator needs to be sensitive to the student’s responses and then assist the student to critically reflect on his/her practice (after the practice situation) to maximise learning (Boud et al., 1985). Students may ignore any reflection invoked during the practice activity because their focus will tend to be on the specific steps of the task at hand.
A useful categorisation of reflective practice is that developed by Kember et al., (1999). The authors derived their schema from Jack Mezirow’s (1981) extensive work on reflection. The categories provide a robust means for expressing a number of levels of reflective practice. The levels of reflection in Kember et al.’s. (1999) descriptions range from non-reflective actions, described as habitual, thoughtful and introspective actions; to higher order reflective actions, described as content, process and premise reflection. Kember et al. (1999, p. 23) explain that these higher order reflective actions require the reflective practitioner to be aware of the source for reflection in a conscious manner. At the content level, reflection is focussed on what we perceive about an experience. In particular, how we thought, felt or acted in relation to that experience. At the process level, reflection focuses on the method or the way in which we think. This may be triggered by, but does not focus on the event, rather on the thinking processes that have been triggered. At the premise level, reflection moves us to a higher level of becoming aware of why we perceive, think, feel or act in the way that we do. The premise level leads to a transformation as a result of considering our beliefs and values and how they impact on our perceptions. A level of transparency of reflection by clinical educators’ in their teaching practice at the content, process and premise levels may enhance their ability to stimulate students to a level of awareness about their own learning which, may lead to further refinement of self-regulation of their learning.

In line with the goal of nurturing lifelong learning and professional development, it is timely that Australian nurse regulatory authorities require the beginning registered nurse to demonstrate competence in reflective practice (Australian Nursing Council, 2000). Even though reflective practice is important for clinical decision making, few Australian tertiary nursing programmes are reported
(Mallik, 1995) as actively incorporating reflective practice, despite Malik identifying it as a learning strategy in many of the undergraduate and postgraduate curricula she reviewed. Unfortunately, Mallik’s report has no discussion of the possible reasons for a lack of integration of reflective practice in clinical or theory units of the reviewed nursing programmes. Neither does the literature reveal strategies, other than students maintaining reflective journals as a way to enhance the process of reflection during clinical and academic units of study (Newell, 1992; Peterson, 1995; Powell, 1989; Richardson & Maltby, 1995; Sedlak, 1992). There is a paucity of knowledge about either specific clinical teaching strategies or the clinical educator attributes necessary to make obvious the links between reflective practice, critical thinking and clinical practice in students. This thesis seeks to address this lack.

Before moving to the methodology for this study, two a priori models are explained.

**A Priori Conceptual Models: Relationship amongst Clinical Educator, Student and Learning Milieu (Clinical Setting)**

In the final section of this chapter, the researcher proposes two models which were developed a priori to represent the relationships between clinical educators, students and the clinical setting or learning milieu. These models are based on the researcher’s understanding of the literature (Adams, 2002; Carper, 1978; Clare, Brown, Edwards, & van Loon, 2003; Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Kuypers, 1986; Marriott & Lapsley, 1996; M. Miller & Malcolm, 1990; Papp, Markkanen, & von Bonsdorff, 2003; Paris & Byrnes, 1989; Sironnik, 1990; Stewart, 1993) and her personal experiences as a clinical educator and senior nurse academic. Thorne, Kirkham, & O'Flynn-Magee (2004) caution that such a priori models may
not cover all the possible interpretations and constructions that participants, clinical educators in the case of this study, might contribute to the data.

The teaching/learning relationships among the clinical educator, the student and the clinical milieu are presented in Figure 2.1. The researcher identified that there is likely more to the relationships than a simplistic interaction, because students, clinical educators and staff working in clinical settings come to the process of students’ learning with their own potentials and assumptions. Figure 2.1 also presents the details of the potentials for teaching and learning in addition to expanding the place for the three acts of teaching from Fenstermacher (1990), Green (1971), Hellgren (1985), Srontik (1990) and Stewart (1993) and focuses on specific aspects the various players bring to the teaching-learning interaction.

The clinical nurse educator brings to the teaching situation his/her interpersonal skills, teaching experience, knowledge of principles of teaching and learning, knowledge of principles of evaluation, clinical expertise, knowledge of the curriculum and critical thinking and reflective practice ability. The aspects the student brings are interpersonal skills, experiences from his/her own life and previous clinical placements, knowledge derived from the academic curriculum, his/her developing clinical and decision-making competence, and critical thinking and reflective practice ability. The teaching-learning interaction between student and educator takes place within the context of the clinical milieu which may enhance or inhibit the interaction. The clinical milieu comprises the environment itself (hospital, community setting etc), patients, patients’ significant others and other staff (registered nurses; other students - from nursing, physiotherapy and medicine;
doctors; physiotherapists; other allied health professionals; support staff such as domestics, orderlies etc). The clinical milieu provides the forum for students to demonstrate clinical competence and decision-making (Clare et al., 2003; Papp et al., 2003).

Figure 2.1.

Relationships among Clinical Educator, Student and Learning Milieu.

In order to further expand the examination and description of the relationship between the clinical educator, the student and the acts of teaching, Figures 2.2, 2.3 and 2.4 which focus on each of the acts in turn, were also developed a priori. These
show the researcher’s placement of the acts of teaching (Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Sironnik, 1990; Stewart, 1993) in the teaching/learning relationship.

**Intellectual Acts of Teaching**

The intellectual acts of teaching (Figure 2.2) are adopted from those described by Green (1971), Hellgren (1985) and Stewart (1993) as being commonly linked with the concept of teaching. These acts include explaining, justifying, demonstrating, comparing, questioning, probing, inferring, concluding, interpreting, illustrating, and proving as intellectual acts. In the clinical setting, the intellectual acts of teaching are aimed at posing the theory/practise issues to the student in order for meaningful and theoretically supported clinical learning to occur (Clare et al., 2003; Lee, Cholowski, & Williams, 2002).

The intellectual acts of teaching are congruent with the constructivist’s view of teaching as the clinical educators assist students to recognise incorrect, subjective, or dysfunctional beliefs/perceptions of what is occurring in the clinical setting in comparison with the views of expert practitioners with the purpose of facilitating changes in these beliefs in the student (Bruner, 1966, 1996; Hase & Kenyon, 2000). Further, if the clinical educator also applies a constructivist approach to coaching students and, for example, scaffold (Jonassen, 1991) students’ learning using the various intellectual teaching strategies, it may be possible for the student and teacher to enter into a partnership in constructing meaning from the clinical experiences found in the clinical milieu.
For students, understanding the links between *knowing and understanding* in terms of problem solving can be key to linking theory to practice. Aspects of metacognition in problem solving are similar to those used in scaffolding and have been discussed by Perkins and Solomon (1989). Thus, this thesis seeks to explore if clinical educators assist students in their learning by applying strategies, such as scaffolding, in examples of intellectual acts of clinical educators’ teaching practice. Perkins & Solomon (1989) point out the importance of prior knowledge in self-regulation for the learning to move from *knowing to understanding* in order to meet new tasks successfully.

Figure 2.2.
Intellectual Acts of Teaching.
**Strategic Acts of Teaching**

The strategic acts of teaching (Figure 2.3) are necessary to support the main acts of teaching (i.e. intellectual ones). They include facilitating, motivating, planning, encouraging, guiding, counselling, and disciplining. These acts aid the intent of teaching, which is student learning, by creating a milieu. Hellgren (1990) cited in Stewart (1993, p.4) describes the distinctiveness of the strategic acts as “improving the external practical conditions” so it becomes more likely the student will achieve learning. Improvement of the context of learning extends from behaviours such as motivating students to those where the clinical educator actively encourages and facilitates, for example, staff from the clinical setting to contribute to students’ learning (Lunday et al., 1999; Rinomhota, 1998). Facilitation enables students to achieve their goals and involves elements of the task, the needs of the learner and the teaching skills of the clinical educator (Beckett & Wall, 1985; Myrick & Yonge, 2004). As a result, student’s knowledge is transformed into effective practise behaviour (Cheek & Jones, 2003; Egan, 1998) within, one anticipates, a supportive clinical milieu (Craddock, 1993; Paterson, 1997).

Figure 2.3.
Strategic Acts of Teaching.
**Moral Acts of Teaching**

The moral acts of teaching (Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993) (Figure 2.4) require the Clinical Educator to be honest and fair in the process of bringing about learning in students; being considerate of others’ views while remaining objective about the issues of truth, evidence and argument; and showing an active consideration for the standards of the nursing profession. The moral acts of teaching may be viewed as aspects of role modelling and professional socialisation (Lenberg, 1999), and applying a constructivist approach within a humanistic philosophy of teaching (Purkey & Siegel, 2003). In particular, the process of evaluation that requires predetermined criteria which define acceptable or unacceptable performance (Lunday et al., 1999; Wellard, Williams, & Bethune, 2000) through a progressive assessment of students’ behaviours lends itself to moral acts of teaching.

Figure 2.4.
Moral Acts of Teaching.
Chapter Summary

This chapter has presented a review of the relevant literature and identified gaps. The researcher has designed a naturalistic inquiry with the purpose of exploring a number of questions that remained unanswered in relation to three major aspects: the processes and practice of clinical education; the presence of critical thinking and reflective practice in clinical educators’ practice; and models that theorise the process of clinical teaching and education. The more detailed research aims and objectives follow in the next chapter.
CHAPTER THREE

Method

*I cannot teach anybody anything, I can only make them think.*  Socrates

This chapter details the research methodology of the study. The research aims and objectives, research design, data collection, data analysis, trustworthiness, limitations and ethical considerations of the study are presented.

As major stakeholders in nursing education, clinical educators in pre-registration, undergraduate programmes from two Western Australian universities were invited to participate in a naturalistic, case study inquiry with the purpose of characterising the clinical educators’ role and beliefs about teaching, and thereby developing theory regarding the teaching and learning relationships within the processes of clinical teaching.

**Research Aims and Objectives**

This study had four major aims to explicate its overall purpose and each of these consisted of a series of objectives. The aims were, first, to construct an understanding of the processes and practice of clinical education. In particular, the researcher was interested in identifying clinical educators’ perceptions of their role and responsibilities in relation to teaching, learning and evaluation.

Secondly, the study aimed to examine the processes of critical thinking and reflective practice used by the clinical educators within their own practice of
teaching. Of particular interest were the ways clinical educators enabled aspects of students' learning that required critical thinking and reflective practice.

Thirdly, the study aimed to identify clinical educators’ understandings of the concepts of critical thinking and reflective practice and any changes that occurred as a result of their participation in the study. Lastly, the study aimed to develop a model to theorise the relationship between clinical teaching philosophies and styles and acts of teaching, and the likely associated student learning outcomes.

To clarify the study aims, the researcher developed eight specific objectives related to each of the four major aims. These are now presented as they relate to the research aims.

**Aim 1: Construct an understanding of the processes and practice of clinical education.**

**Objectives:**

1. Characterise the clinical educators’ teaching role in relation to personal attributes philosophy, and teaching style;
2. Describe clinical educators’ beliefs of the primary responsibility for teaching and evaluating students in the clinical setting and their reasons for these;
3. Exemplify how clinical educators’ enabled and evaluated students’ learning with acts of teaching.
Aim 2: Examine the processes of critical thinking and reflective practice for the clinical educators.

Objectives:

4. Construct the clinical educators’ views on critical thinking and reflective practice and how the clinical educator would recognise essential characteristics of these in the student;

5. Exemplify clinical educators’ processes of critical thinking and reflective practice and how they enabled and evaluated students’ critical thinking and reflective practice in the clinical setting.

Aim 3: Identify any changes in clinical educators’ teaching approach and in their understandings of critical thinking and reflective practice that occurred as a result of their participation in the study.

Objective:

6. Determine if the study’s infusion assessments and interventions led to changes in clinical educators’ understanding of their role and clinical teaching processes.
Aim 4: Construct a model of clinical teaching to theorise the relationship between clinical educator’s clinical teaching philosophies and styles and acts of teaching that may affect student learning outcomes and interpret findings in relation to this model.

Objectives:

7. Confirm the application of a model from the literature, researcher’s experiences and the findings in explaining the relationship between the clinical educator, student, clinical milieu and clinical acts of teaching;

8. Develop a model to elucidate clinical educators’ teaching philosophies, styles and clinical acts of teaching and theorise on the relationship of these on learner outcomes.

RESEARCH DESIGN

Context / Setting

The study was undertaken in Western Australia where, at the time of data collection, two universities were providing pre-registration undergraduate programmes in nursing education – one of them for more than 20 years. Graduates received a Bachelor Degree either in Nursing or in Science (Nursing). One programme comprised three years or six academic semesters of study, and the other, three and a half years or seven academic semesters of study. The graduates from both programmes register to practice with the nursing regulation authority for the State as Comprehensive Registered Nurses (a recognised professional qualification for nursing) enabling graduates to be employed in either general or mental health settings and, thus provide nursing care for patients across all age groups.
In both programmes of study, students undertake specified clinical nursing experiences as part of their enrolment in nursing units of study. The experiences are in various public and private hospitals that, in the main, are in city or metropolitan locations. Students are directly supervised by university-employed clinical educators who are Registered Nurses and employed permanently or casually by the universities. In addition, hospital employed Registered Nurses, acting as preceptors or buddies (a local, parochial term identifying that the clinical supervision relationship with the student would most likely last for one rostered shift of clinical time) support student activities.

The case study participants were 15 clinical educators from the two selected universities. The clinical educators were either permanent university staff or people employed on a casual basis to supervise students (in a ratio of one clinical educator to eight students) for a specific time frame in one of the clinical units of study. The latter “casual” group of clinical educators were employed in the fifth academic semester (Semester Five) of one or the other of the two programmes to develop students’ specific general or mental health nursing competencies in adult or paediatric hospital settings or community settings.

**Sampling Strategies**

**Sample Selection**

Typical case sampling (Patton, 1990), was applied. Patton (1990, p.173) suggests that this process of purposive sampling permits the researcher to “describe and illustrate what is typical” about the concepts under investigation.
The participants, a total of 15 clinical educators were recruited from the two previously described Western Australian university Schools of Nursing. Information schedules detailing the various aspects of data collection for the study were provided (see Appendix 1) to potential participants who were requested to indicate their willingness to be involved in the study (see Appendix 1). The participants were intermittently involved in the study over the sixteen weeks period of data collection. The researcher purposefully defined the sample into three defined cases, named Cases 1, 2 and 3. The assignment into Cases by the researcher was based on the clinical educator’s level of their participation in the number of study assessments, and also on their mode of employment in the nursing programmes. The researcher anticipated that there would be differences in mode of employment and level of participation in the study. The details of the cases are outlined further in this chapter.

Changes to Sample

Two clinical educators, identified earlier in this chapter, had differing levels of participation in the study assessments. In addition, some of their data were missing for a number of their assessments. These factors meant, therefore, that these two clinical educators did not fit the criteria for any of the three cases and the researcher made a post data collection decision to exclude their data from the analyses. Thus, 13 clinical educators formed the final sample.

Other sampling considerations, such as including adequate numbers to provide sufficient information about the concepts, yet not so large as to prohibit the depth of analysis required, are often problematic in studies using a mixed methodology, such as
this (Sandelowski, 1995). The resulting volume of data from the surveys, interviews, reflective group discussions and reflective diaries led the researcher to make a post data collection and analysis decision to enable sufficiently manageable data to triangulate and address the core purpose of the research. As a consequence, the research aims and objectives were redeveloped to exclude those data concerning a micro examination of critical thinking and reflective practice which had become peripheral to the research purpose. These data and analyses will now be reported in a journal article, separate from this thesis. Critical thinking and reflective practice objectives relevant to the activities of teaching students were retained. This effectively resulted in a reduction of the overall volume of data.

Case 1

Case 1 comprised five clinical educators who were employed for a fixed time frame on a casual basis as sessional staff in the Semester Five clinical units of study in one of the two nursing programmes. The time employed covered the duration of the specific university determined Semester Five clinical experiences in the clinical setting. These five clinical educators agreed to participate in all of the study assessments, interventions and assessments of change. Table 3.1 describes the Case 1 Clinical Educators and their participation in the assessments, interventions and assessment of change.
### Case 1 Clinical Educators’ Study Participation.

<table>
<thead>
<tr>
<th>Participants</th>
<th>CCTDI</th>
<th>CCTST</th>
<th>Week 16 Interview</th>
<th>Field Observations</th>
<th>Reflective Group 1, 2 &amp; 3</th>
<th>Reflective Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>#</td>
<td>#</td>
<td></td>
<td>#</td>
</tr>
<tr>
<td>Anne</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>1 ✓, 2 ✓, ✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bennet</td>
<td>✓</td>
<td>✓ ⊘</td>
<td>✓</td>
<td>✓</td>
<td>1 ✓, 2 ✓, ✓ ⊘</td>
<td>✓</td>
</tr>
<tr>
<td>Claire</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>1 ✓, 2 ✓, ✓</td>
<td>✓</td>
</tr>
<tr>
<td>David</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>1 ✓, 2 x, ✓ ⊘</td>
<td>✓</td>
</tr>
<tr>
<td>Erin</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>1 x, 2 x, ✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

CCTDI – California Critical Thinking Disposition Inventory (N. C. Facione, Facione, & Sanchez, 1994)
CCTST - California Critical Thinking Skills Test (N. C. Facione & Facione, 1994)

Key: * indicates quantitative data
# indicates qualitative data
 subsidiates the clinical educator undertook the assessment or intervention but the record or part thereof is missing
✓ indicates participation
x indicates the clinical educator did not attend the session

Note: The clinical educators’ real names were substituted with pseudonyms to preserve confidentiality.

### Case 2

Case 2 comprised five clinical educators who were permanent staff members employed in one of the two nursing programmes and who had teaching responsibilities in the Semester Five clinical unit. These five clinical educators were invited to participate in the assessments for clinical educators (see Table 3.2 for detail), but not in the interventions or assessment of change.
Table 3.2
Case 2 Clinical Educators’ Study Participation.

<table>
<thead>
<tr>
<th>Participants</th>
<th>CCTDI</th>
<th>CCTST</th>
<th>Week 16 Survey 1</th>
<th>Field Interview</th>
<th>Field Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiona</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Graham</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Hanna</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Ingrid</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Jordan</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

CCTDI – California Critical Thinking Disposition Inventory (N. C. Facione et al., 1994)
CCTST - California Critical Thinking Skills Test (N. C. Facione & Facione, 1994)
Key: * indicates quantitative data
# indicates qualitative data
✓ indicates participation
Note: The clinical educators’ real names were substituted with pseudonyms to preserve their confidentiality.

Case 3
Case 3 comprised three clinical educators who were employed for a fixed time frame on a casual basis as sessional staff in the Semester Five clinical units of study.
The time employed covered the duration of the specific university determined Semester Five clinical experiences in the clinical setting. One university employed one clinical educator and the other employed two. The three clinical educators were invited to participate in the assessments for clinical educators (see Table 3.3 for detail), but not in the interventions or assessment of change.
Table 3.3
Case 3 Clinical Educators’ Study Participation.

<table>
<thead>
<tr>
<th>Participants</th>
<th>CCTDI</th>
<th>Week 16</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CCTST</td>
<td>Interview</td>
<td>Observations</td>
</tr>
<tr>
<td></td>
<td>Survey 1</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Kendra</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Lyall</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Monique</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

CCTDI – California Critical Thinking Disposition Inventory (N. C. Facione et al., 1994)
CCTST - California Critical Thinking Skills Test (N. C. Facione & Facione, 1994)
Key: * indicates quantitative data
# indicates qualitative data

It is important to note that of the two universities; only one had a large number of its permanent staff involved in supervising students in the clinical setting. An incidental effect of the selection process resulted in the participants who were permanent staff being drawn from only one of the two universities. These participants were assigned to Case 2. The sessional staff were drawn from both universities and are represented in Cases 1 and 3.

**Case Study Data Collection**

The researcher selected a collective case study approach (Sharp, 1998; Stake, 1994) to explore the research aims and objectives, as it allowed the researcher to investigate the concepts under inquiry from the perspective of the groups of clinical educators forming three separate cases, distinguished by the clinical educators’ type and place of employment. Stake (1994) acknowledges the value of studying a number of cases jointly (a collective case study) in that the understanding that arises will extend the opportunity to theorise and thus, enhance understanding of other, similar, cases. The 15 clinical educators were teaching in the Semester Five clinical nursing units of study.
and they formed Cases 1, 2 and 3. (The details of the cases and the structures are described later in the chapter). Table 3.4 outlines the research design and data collection strategies.

Table 3.4

Research Design and Data Collection Strategies

<table>
<thead>
<tr>
<th></th>
<th>Start of Data Collection</th>
<th>End of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 1</strong></td>
<td><strong>Week 8</strong></td>
<td><strong>Week 16</strong></td>
</tr>
<tr>
<td>Of Academic Semester</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ASSESSMENTS**

*All Clinical Educators (Cases 1, 2 and 3):*

- CCTDI
- CCTST
- Clinical Educator (CE) Survey

**INTERVENTION**

*Case 1 Clinical Educator’s only:*

Teaching Package (given immediately following CE Survey)

**INTERVENTION AND ASSESSMENT OF CHANGE**

*Case 1 Clinical Educator’s only:*

- Reflective journal
  - Commenced
  - Completed

CCTDI: California Critical Thinking Disposition Inventory (N. C. Facione & Facione, 1994)
CCTST: California Critical Thinking Skills Test (N. C. Facione et al., 1994)
The data collection strategies from Table 3.1 are now explained in more detail. An infusion design (Brown, 1992; Design-based research collective, 2003) was selected to assist the researcher with the case study strategy of inquiry. The term infusion design is used in this study to indicate that the entire process of data collection can be seen to have an impact on the study participants and so influence outcomes in ways not easily determined. The individual data collection aspects of the infusion design took place over one academic semester (16 weeks) and these aspects were categorised as assessment, intervention or intervention and assessment of change (as shown in Table 3.4). Each aspect of data collection could lead to reflection and therefore, in some way, act to facilitate a process of change in the participants.

The interviews, three surveys, reflective group discussions and journals served, first, to provide evidence of the participants’ knowledge, attitudes, opinions and abilities regarding the study objectives. Second, they served to educate the participants. Education was intentional for Case 1 through the use of a teaching package intervention. The researcher anticipated the Case 1 Clinical Educators’ constructions to be more informed and complex than those of the other two cases of clinical educators. Lastly, the research design was in keeping with identifying changes in perception of the study concepts (teaching style, teaching strategies, critical thinking and reflective practice) as a result of the clinical educators’ participation in the study. The interventions of specifically timed reflective groups and reflective journals were chosen for Case 1 Clinical Educators to identify any changes over time. The researcher expected greater qualitative changes to be noted in those clinical educators who had participated in more than one aspect of the data collection.
Constructivism was chosen as the interpretive paradigm for the analysis of study data because it acknowledges the affinity of a person and their world and embraces their cultural, historical and social contexts (Beanland, Schneider, LoBiondo-Wood, & Haber, 1999; Huberman & Miles, 1994). This analytic approach was in keeping with the case study design as it allowed acknowledgement of the importance of each participant in bringing their own individual experiences and knowledge of clinical education to the study assessments and interventions. Constructivism, also described as naturalistic or in the natural world inquiry by Lincoln and Guba (1985), enabled an integration of the researcher’s and the participants’ views as the researcher juxtaposed her understanding of clinical education with those of the participants.

Lincoln and Guba, (1985) view the ontology of constructivism as having multiple realities which are based in the individual’s social experiences, and thus, reliant on the individual maintaining and adjusting their constructions. Given this, the researcher was reminded that the constructions were true for the individual participants and reflective of how simply or complexly they viewed the concepts of the study.

The epistemology of constructivism is viewed as subjectivist and transactional by Lincoln and Guba (1985) with the researcher and the participants creating understandings as the research unfolds. The second interview, in particular, provided an opportunity for clinical educators to continue constructing their understanding of the contextual issues and processes of their teaching role with the researcher.
The research design included three “reflective groups” to provide Case 1 Clinical Educators additional opportunities for lengthy discussions of the contexts and processes of their teaching role with one another. Techniques of guided reflection (Johns, 1995) were incorporated in the reflective groups to facilitate the emerging constructions to be developed into a refined consensus (Lincoln & Guba, 1985). The interpretive nature of the constructivist analysis enabled the researcher’s views to be put side by side with the clinical educators’ perceptions of the contexts and processes of teaching. The researcher’s primary academic responsibilities and experiences were in nursing education and, at the time of the data collection and analyses, the researcher had ten years of academic and clinical education experience in a university setting with pre-registration, undergraduate nursing students. Thus, the researcher was in a strong position for the process of juxtaposition of her knowledge and experience with that of the participants during the phase of data analyses. This juxtaposing of researcher understanding with that of participants’ understanding is supported by Beanland et al. (1999).

The study design was strengthened through incorporating different sets of data to be compared and allowed for three processes to occur. These processes were, first, to investigate and clarify the varied perspectives of participants (Flick, 1992); second, to support emerging theoretical explanations (Patton, 1990); and, third, to provide opportunities to confirm issues arising from the data (Begley, 1996). In keeping with the study design, triangulation of both quantitative and qualitative approaches of data collection and analyses were applied. The data allow for an in-depth exploration and understanding of how the three cases constructed and applied the various concepts researched. For the Case 1 Clinical Educators, the explorations allowed for an
understanding of how these constructions remained stable or transformed over time and especially if the interventions were effective.

**Data Collection Strategies**

Quantitative and qualitative data were collected from the 15 clinical educators. The varied approaches were selected to be the most appropriate for gathering data to construct understandings of the study concepts while taking into account individual perspectives.

The quantitative data collection comprised responses to three questionnaires - a researcher-developed survey and two, commercially available, critical thinking instruments: The California Critical Thinking Disposition Inventory (CCTDI) (N. C. Facione & Facione, 1994) and the California Critical Thinking Skills Test (CCTST) (N. C. Facione et al., 1994). The CCTDI was used to assess the critical thinking *dispositions* of the clinical educators and the CCTST was used to assess their critical thinking *skills*. All three instruments were administered once, at the beginning of the study – that is, at Week One of the data collection time.

The qualitative data for the three cases of clinical educators comprised responses to open-ended questions in the Clinical Educator Survey, questions to clarify the field observations undertaken midway in the data collection time frame, and finally, structured interview questions in Week 16. For Case 1 Clinical Educators, qualitative data included transcriptions of three reflective group discussions, based on the intellectual and strategic acts of teaching (Green, 1971; Hellgren, 1985) and the moral acts of teaching (Sirontik, 1990; Stewart, 1993), and the transcriptions of clinical
educator-completed reflective journals. The latter centred on three entries of experiences with students in clinical settings and focussed on examples of intellectual, strategic and moral acts of teaching. Thus, the transcriptions served to exemplify the three reflective group discussions. All qualitative data were transcribed to provide evidence of possible transformation of understandings and practice of the clinical educators. The researcher presupposed that this would be more noticeable for Case 1.

The researcher made some decisions following data collection and analyses to omit reporting on certain data. For example, significant data were missing for assessments in which two clinical educators had participated and thus compromised comparisons of these clinical educators with their colleagues in the data analyses. Although the exclusion of these clinical educators reduced the number of participants to 13, there were sufficient data for those remaining for the researcher to achieve data completeness and for specific themes to emerge in the process of analysis.

Data Collection

In order to achieve the research aims, described earlier in this Chapter, the data collection processes were categorised as assessment, intervention, or intervention and assessment of change. The data collection varied according to the cases (as previously identified in Tables of 3.1, 3.2 and 3.3). The categories detailing the data collection are now presented.

Assessment

Three survey tools were used in this study to assess the participants. Two were commercially available critical thinking tools: The California Critical Thinking
Disposition Inventory (CCTDI) (N. C. Facione et al., 1994) and the California Critical Thinking Skills Test (CCTST) (N. C. Facione & Facione, 1994). The CCTDI was used to assess the critical thinking dispositions of the clinical educators and the CCTST was used to assess their critical thinking skills.

The third tool was a researcher-developed survey used in this study to assess the participants’ knowledge, attitudes, opinions and abilities regarding the specific study objectives. The details and the research objectives they addressed are now presented.

**Critical Thinking Assessment**

Two tests addressed the first research objective. The California Critical Thinking Disposition Inventory (CCTDI) (N. C. Facione et al., 1994) and the California Critical Thinking Skills Test (CCTST) (N. C. Facione & Facione, 1994) were administered to assess critical thinking once only to all Case 1, 2 and 3 clinical educators at week one of data collection.

The CCTDI was used to assess the clinical educators’ potential critical thinking dispositions through Likert-style attitudinal prompts. Facione, Facione and Sanchez (1994), caution against using the CCTDI as a direct measure of a person’s critical thinking ability or skill rather, the CCTDI scale is an indicator of how a person is disposed to the concept.

The CCTDI was administered once at the commencement of the study and, in keeping with the scale authors’ instructions, was administered prior to the CCTST (N. C. Facione & Facione, 1994). The purpose for the order of administration of the tests
was to “reduce the likelihood of giving a cue to respondents as to the socially desirable responses to the CCTDI” (N. C. Facione et al., 1994, p.19). The CCTDI consists of 75 items in a 6-point agree-disagree response format, and reports eight scores: a score on each of the seven scales of inquisitiveness, open-mindedness, systematicity, analyticity, truth-seeking, critical thinking self-confidence, and maturity, and, an overall score of critical thinking disposition (derived from mathematically equal contributions from each scale) (P. A. Facione, Sanchez, Facione, & Gainen, 1995). Overall, the CCTDI scale reliability was reported with a Cronbach’s alpha coefficient of 0.90, with scale scores ranging from 0.72-0.80 (N. C. Facione & Facione, 1994) and was accepted as reliable for the instrument to be used in this research study.

For each of the seven scales a person’s score on the CCTDI may range from a minimum of 10 points to a maximum of 60 points (P. A. Facione et al., 1995). Scores are interpreted utilizing the following guidelines. A score of 40 points or higher indicates a positive inclination or affirmation of the characteristic; a score of 30 or less indicates opposition, disinclination or hostility toward that same characteristic. A score in the range of 31-39 points indicates ambiguity or ambivalence toward the characteristic. An overall score on the CCTDI can be computed by summing the seven scale scores. Overall CCTDI scores may range from a minimum of 70 points to a maximum of 420 points. Similar interpretative guidelines are used when looking at overall CCTDI scores: A total score of 280 points or higher indicates a positive overall disposition toward critical thinking, whereas a total score of 210 or lower indicates the negative disposition towards critical thinking.
Cronbach’s alpha internal reliability indices of the seven scales that make up the CCTDI range from 0.71 to 0.80. Alphas in this range are acceptable and have been reported to have been replicated in Critical Thinking Dispositions in numerous samples with this tool (P. A. Facione, Facione, & Giancarlo, 1998). A stability coefficient of $r = 0.561$ for the overall CCTDI scale was obtained from an aggregate sample of 276 undergraduate nursing students (P. A. Facione, 1998).

The CCTST was used to assess the clinical educators’ critical thinking skills and was administered once at the commencement of the study. The CCTST scale comprises 34 items (a mix of short problem statements and scenarios) in a multiple-choice format and reports on six scores: The overall critical thinking skills score has a maximum possible total of 34. There are five sub-scale scores and these individual score totals are shown in Table 3.5. The sub-scales are analysis, evaluation, inference, deductive reasoning and inductive reasoning. Each sub-scale has a set of sub-skills and the relationships of these to one another are also depicted in Table 3.5.
Table 3.5
Relationship of Critical Thinking Sub-scales with Critical Thinking Sub-skills

<table>
<thead>
<tr>
<th>Critical Thinking Skills and Sub-skills</th>
<th>Analysis</th>
<th>Evaluation</th>
<th>Deductive Reasoning</th>
<th>Inductive Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANALYSIS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total sub-scale score out of 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpretation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Categorisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding sentences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarifying meaning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examing ideas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying arguments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysing arguments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EVALUATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total sub-scale score out of 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessing claims</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessing arguments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stating results</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Justifying procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenting arguments</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inference</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total sub-scale score out of 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inference</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Querying evidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conjecturing alternatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing conclusions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-regulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self examination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self correction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DEDUCTIVE REASONING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total sub-scale score out of 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>These traditional skills of CT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comprise elements of all the above</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sub-skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INDUCTIVE REASONING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total sub-scale score out of 14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: CT = critical thinking

The CCTST scale authors (N. C. Facione et al., 1994) explain inference and deduction as they apply to the CCTST scale in the following:

Inference as used on the CCTST means “to identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses, to consider relevant information and to educe the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation,” which includes the sub-skills of querying evidence, conjecturing alternatives, and drawing conclusions (N. C. Facione et al., 1994, p. 5).

Deductive Reasoning as used in the CCTST sub-scale means the assumed truth of the premises purportedly necessitates the truth of conclusion. Not only do traditional syllogisms fall within this category, but algebraic, geometric, and set-theoretical proofs in mathematics (including “mathematical induction”) also represent paradigm examples of deductive reasoning.
reasoning. Instantiation of universalized propositions is deductive, as are inferences based principles such as transitivity, reflexivity and identity. For valid deductive arguments, it is not logically possible for the conclusion to be false and all the premises true (N. C. Facione et al., 1994, p. 5)

The scale’s authors have developed the CCTST to be discipline neutral. Scale validity is reported at KR-20 $\alpha = .70-.71$ (N. C. Facione & Facione, 1994) and accepted as reliable.

**Researcher-developed Clinical Educator Survey**

The researcher-developed Clinical Educator Survey (hereto after mentioned as survey) was designed to address research objectives comprising those on the “Clinical Educators’ Role and Responsibility” and “Contextual Issues and Processes of Clinical Teaching”. Specifically, the survey assessed the clinical educators’ perceptions of role, activities and preferred teaching strategy; characteristics and application of clinical teaching and facilitation; primary responsibility for teaching, facilitating and learning; teaching philosophy; and how they enabled critical thinking and reflective practice in students. These issues were drawn from the researcher’s *a priori* knowledge and experience of the clinical educators’ role and from the literature. Following an item review by an expert panel (as explained in the following section), the survey was administered once at Week 1 to the clinical educators.

The survey consisted of three sections. Participants were asked to respond to all the items in sections A and B, while the items in Section C were optional. (See Appendix 2 for a copy of the survey).
Section A obtained demographic information, important for the context of the study and to develop a profile of the clinical educators. Although the clinical educators were asked to identify themselves by name to assist in collating different sets of data, they were assured that their name would be kept confidential and known only to the researcher. Each clinical educator was assigned a pseudonym to maintain confidentiality for reporting of data.

Section B comprised open-ended questions with the purpose to obtain the clinical educators’ perceptions of aspects of their role. The clinical educators were asked to define terms relevant to their role, and were asked questions about teaching and evaluating students in the clinical setting. Additional items asked clinical educators to firstly identify who was responsible for students’ learning in the clinical setting and then to provide the reasons for their answer.

Section C offered clinical educators the opportunity to make further comments on clinical education or related issues which were not addressed in the survey.

**Content validity of researcher-developed clinical educator survey.**

An expert review of the researcher-developed Clinical Educator Survey was established in order to evaluate clarity, apparent internal consistency and content validity using a methodology described by Lynn (1986) for instrument development, refinement and preliminary testing. Using Lynn’s method of deciding the number of panel members needed to determine content validity (Lynn, 1986), nine experts were chosen to review the survey. These experts were selected on the basis of their
experience in nursing education. Four senior nurse educators, three nurse educators with clinical educator experience and two nurses employed in hospital nursing staff development settings were invited to participate as members of the expert panel. The experts all had more than five years experience in education in the clinical setting.

According to Lynn (1986) the minimum number of experts required to be in agreement is obtained by calculating the proportion of the number of experts who might agree out of the total number planned for use, and then setting the standard error of the proportion to identify the cut-off for chance versus real agreement. This process allows the researcher to establish a necessary level of percentage agreement at a 0.05 level of significance. In this study, a seventy eight percent agreement (seven of the nine experts) was the criterion for final acceptance of an item.

To aid the process of review, a copy of the proposal that included the research questions and the two conceptual models guiding the study were provided to the expert panel. This provided an outline of the content domain being investigated and assisted them in rating the items. The experts rated each item on a four-option scale for relevance to the study’s conceptual framework where 1 = not relevant; 2 = unable to assess relevance without item revision; 3 = relevant needs minor alteration; 4 = very relevant and succinct to achieve a content validity index for the survey (Lynn, 1986). A 78% agreement on any item meant the item was retained for the final survey. Below this percentage, the item was discarded or rewritten, taking the expert’s comments into account.
Besides rating each item, the experts were invited to comment on the overall instrument in relation to the following: Clarity of introductory instructions for the completion of the survey; the numbering system applied to the questions; size of font for questions; amount of space provided for responses to questions; logical development of the survey; overall appearance of the survey; areas that may have been omitted from the instrument; and any additional comments or suggestions they believed needed to be considered. Any item that was revised or rewritten was then validated using the same initial content validity process with 4 of the experts and the researcher’s Ph. D supervisors.

*Structured interview for Clinical Educators (Week 16).*

The researcher interviewed all Case 1 Clinical Educators using a structured interview format based on the Clinical Educator Survey questions (see Appendix 2) with the addition of questions that might allow the researcher to note if any changes had occurred for the participants at the end of the intervention period.

The researcher judged that an interview technique was preferable to a written survey response as the clinical educators would be more likely to enrich their responses with examples from their teaching. Additionally, clarifying questions could be used, particularly in relation to the questions asking if any change had occurred in the clinical educators’ perceptions between the time they entered the study to that point, which was 16 weeks later.
The interview provided data for triangulation with data from the Clinical Educator Survey to address the research objectives in relation to the clinical educators’ role and responsibility and, contextual issues and processes of clinical teaching.

The interview occurred at Week 16, was voice tape-recorded, occurred in a nominated place of convenience, and lasted between one and two and a half hours. While there was a structure for the interview, many clinical educators took the opportunity to elaborate on issues relevant and significant to them.

Field Observations and Follow-up Interview.

All Case 1 Clinical Educators were observed in their role in the clinical setting (non-participant field observations) during the period of the Intervention. The researcher arranged to spend between two and four hours with each clinical educator when they were in the clinical area and supervising one of their student groups. The researcher followed the clinical educators and took field notes of interactions and teaching behaviours (see Appendix 3 for an example). The notes served as a reminder for her and to highlight points for further clarification in the follow-up interview, which took place prior to the researcher leaving the clinical area. The non-participant field observation and follow-up interview provided data for triangulation for research objectives relating to contextual issues and processes of clinical teaching.

At the request of the researcher, the clinical educators informed students of the observation process and explained to the students they could indicate if they did not wish to be involved in the observation process prior to the researcher arriving in the clinical area. The clinical educators explained that researcher was interested only in the
interaction between them and the clinical educator and not them and their clinical performance. On this basis, the students all agreed to be part of the process.

A conversational technique with minimal prompts and structure (K. Roberts & Taylor, 2002) was employed during the follow-up interviews as clinical educators recalled the processes of the observed interactions. There was no need to further prompt the clinical educators to recall previous significant situations as the observed situations provided sufficient triggers for their self-explorations. Additionally, all of these follow-up interviews occurred no more than two hours from the completion of the observation time-frame.

**Intervention Specific to Case 1 Clinical Educators**

*Teaching package*

The five Case 1 Clinical Educators were given a package of written material on teaching strategies (see Appendix 2). The contents built on the results of a previous study by the researcher and a colleague (Marriott & Lapsley, 1996) and formed one aspect of the infusion interventions for Case 1. The teaching package, therefore, provided specific information for Case 1 participants to be in a position for the researcher to address objectives related to contextual issues and processes of clinical teaching, in particular, those of change.

The package provided information on teaching and learning principles, learning in the clinical setting, specific teaching strategies and performance evaluation. The teaching and learning principles included intellectual and strategic acts of teaching (Green, 1971; Hellgren, 1985) and moral acts of teaching
(Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993). The researcher considered these to be important concepts for the clinical educators to consider in their teaching practise.

**Intervention and Assessment of Progress for Case 1 Clinical Educators.**

**Reflective Journal**

The five Case 1 Clinical Educators maintained a reflective journal for a self-determined time frame during their involvement in the study. The journals served the purpose of obtaining evidence of transformation or otherwise in thinking as the study progressed and were also considered to be an intervention. Atkins and Murphy (1993) are among many authors who point to journal writing as having the potential to increase learning from experiences. Others, such as Paterson (1995), support this and add a caution regarding some problems that can be expected with the completion of such a tool. As with the teaching package, the reflective journals provided opportunities for learning from experiences, and strengthened the position of the researcher to address objectives related to the process of teaching and changes that may occur in understandings and practice.

The clinical educators were provided with an exercise book and journal writing guidelines for the purpose of completing three separate journal entries (see Appendix 2 for the details). Instructions were also provided to ensure they did not write students’ or their own name anywhere in the entries. Furthermore, they were assured that, if this did accidentally occur, the entry would be changed during the transcription to retain everyone’s confidentiality. The intent was to encourage clinical educators to be open and honest in their reflections.
A minimum of three journal entries that required two sequential phases were to be recorded. In the first phase, clinical educators recorded clinical situations that were examples of a Semester 5 student’s clinical practice that highlighted critical thinking, reflective practice or clinical decision-making. Additionally, the clinical educators were requested to organise the three entries, to separately reflect intellectual and strategic acts of teaching (Green, 1971; Hellgren, 1985) and moral acts of teaching (Fenstermacher, 1990; Sironik, 1990; Stewart, 1993), as outlined in the teaching package.

In the second phase of journal writing, the clinical educators reflected on the teaching and facilitation processes of their recorded examples. Clinical educators were instructed that the described teaching situation might have included one or more teaching acts. They were to consider teaching situations with their Semester Five students and were given an illustration of how they could identify intellectual acts of teaching (such as demonstrating, questioning, probing or any other strategy). The illustration prompted them to consider when they might have been supervising a student during a procedure and, then recounting how they were able to elicit the student’s knowledge of the principles behind the procedure.

Not all Case 1 Clinical Educators returned their diaries. One was concerned with an issue of trust and expressed concern to the researcher that she may break the students’ trust in her by sharing what had been written. Thus, she chose not to give her diary to the researcher, nor did she believe she could discuss the issues written. Another clinical educator revealed that her diary had been inadvertently discarded and she didn’t feel she could recreate the contents. Thus, the researcher received three completed diaries.
Reflective Groups

Case 1 Clinical Educators were invited to attend three reflective focus group sessions, timed to occur at roughly equal intervals over the academic semester. The content of the sessions focussed on applications of intellectual and strategic acts of teaching (Green, 1971; Hellgren, 1985) and moral acts of teaching (Fenstermacher, 1990; Sizontik, 1990; Stewart, 1993) (one per session) in clinical education practice. As with the reflective journals, the reflective groups provided Case 1 participants opportunities for learning and reinforcement of the contents of the teaching package. The discussions provided the clinical educators an opportunity to reflect on their own and others’ experiences in terms of the three acts of teaching. The resulting data from the transcripts were triangulated with other data from surveys and interviews on aspects of teaching. The process of triangulation strengthened the position of the researcher to address objectives related to contextual issues and processes of clinical teaching as well as theorising about the study concepts.

The technique of reflective group discussions has been identified in the literature (Greenwood, 1993; Johns, 1995) as useful to draw out perceptions and assist participants in (re)constructing phenomenon and the context in which these occurred. The three reflective group discussions were led by an invited facilitator, “Joseph”, with the researcher being present but participating minimally. Joseph had more than five years experience in university nursing education and had conducted focus groups with nurses on a number of occasions using the guided reflection technique, as identified by Johns (1993). Joseph’s experiences were considered important for two reasons. He had a nursing education background and was, therefore, familiar with nursing jargon and the
context of the discussions. In addition, the style of facilitation required was guided reflection, in which he had considerable experience. The researcher had minimal experience with this technique.

The first reflective focus group lasted for two hours while focus groups two and three lasted for one and a half hours each. As an introduction to the first session, the researcher explained the content of the teaching package and each clinical educator was provided with a copy of the teaching package (see Appendix 2). Following a short break, Joseph conducted an audio-taped, reflective group with the topic being strategic teaching acts and how the clinical educators applied these in the clinical setting with students. The second and third sessions followed the same format as the first, without the introductory teaching package information. Session two covered the intellectual teaching acts and session three covered the moral teaching acts. The order for the reflective group topics was deliberate and intended to provide the clinical educators with, firstly, a topic they would be most comfortable with discussing (intellectual teaching acts) through to the final topic (moral teaching acts) that might have proved to be the most difficult for them to choose examples to discuss.

Not all Case 1 Clinical Educators were able to participate in the reflective groups (see Table 3.1). One missed the first group and two missed the second. In particular, the researcher met individually with the clinical educator who missed the first group to provide the teaching package, outline the aspects of participation and to respond to questions.
Data Analysis

Data were analysed according to their quantitative or qualitative nature and in keeping with the research design and objectives.

As previously explained in the section on Sampling considerations, the researcher made a post data analysis decision to ensure the results were sufficiently manageable to triangulate and address the core research purpose of theorising the context and processes of a clinical educator’s teaching and learning interactions with students in the clinical milieu.

Quantitative data from the CCTDI and CCTST scales were analysed in keeping with appropriate descriptive statistical procedures and according to the instructions supplied by the scales’ authors. The descriptive analysis provided scores and means for the clinical educators from the CCTDI and CCTST scales. Demographic data from the researcher-developed survey were quantified.

The qualitative data were analysed in keeping with both the constructivist interpretive paradigm and case study analysis. Figure 3.2 presents an adaptation of Miller and Crabtree’s (1992) representation of the relationship between the researcher, as the analyst, and the text (Denzin & Lincoln, 1994). In this approach to analysis, the researcher considers the “analysis space” is bounded by a horizontal and a vertical continuum. The horizontal continuum is the distance the researcher (analyst) is from the text and a vertical continuum that represents the researcher’s use of either an open or a defined perceptual approach to the data being analysed. The researcher’s style of data analysis changed from being open and intimate, represented by the letter ‘A’, to a
template analysis style, represented by the letter ‘B’. The researcher also applied an adaptation of Miller and Crabtree’s (1992) quasi-statistical analysis style for further verification during triangulation of the text with clinical educators’ CCTST and CCTDI results and this is represented by the letter ‘C’.

Figure 3.2
Analysis Relationship: Researcher and Text

Adapted from (Denzin & Lincoln, 1994)

In this study, where constructivism was an aspect of the methodology, the researcher was open to emerging data and moved from an open perceptual filter to a more defined perception as the study and process of data collection/analysis iteratively progressed. The style of data analysis also changed from being open and intimate to that of a template style (Denzin & Lincoln, 1994). (See Figure 3.3).
In keeping with case study analysis, as described by Huberman and Miles (1994), within-case and cross-case analyses were applied to the qualitative data and required a complex series of steps. Huberman and Miles (1994) describe three, sub-linked processes: reduction of data; display of data; and the drawing of conclusions and verification of those. The processes of drawing conclusions include understanding causality, to not only know that something happened and could be explained in a diagrammatic/model representation, but also to explain why it happened. This approach of analysis was incorporated into the template analysis style. Further discussion and presentation of the template is to be found in Chapter Four and Figures 4.1, 4.2 and 4.3. Raw data, data reduction and data display were managed with the QSR Nud*ist Version 4 software package (Qualitative Solutions Research, 1997).

A within-case analysis process (Huberman & Miles, 1994), using the following questions, was applied to Cases 1, 2 and 3 (with “X” being the concepts of interest in this study):

What are the conditions under which X appear?
What facilitates [their] occurrence?
What are the circumstances in which [they are] likely to occur?
In the presence of what conditions [are they] likely to become an outcome[s]?  
Upon what factors do variation in [them] depend?  
Under what conditions [are they] present and under what conditions [are they] absent?  
((Lofland & Lofland, 1984) as cited in (Huberman & Miles, 1994).

The purpose of cross-case analyses was to examine the study objectives from the triangulated perspectives of the three cases. The outcome of this process was theoretical generalisation (Sharp, 1998), data completeness and confirmation of explanatory models (Begley, 1996) to support the emerging models of clinical teaching.

**Trustworthiness**

The data for this study were derived from both quantitative and qualitative approaches. The accepted reliability and validity of the instruments used for quantitative data collection have been described previously. The criteria for judging the quality of the naturalistic, constructivist aspects of case study data analysis are now presented. In keeping with Guba and Lincoln’s (1994) guidelines for case study analysis, two sets of appropriate criteria were applied. These were the distinctive criteria of trustworthiness and authenticity. Specifically, the criteria Guba and Lincoln adopted in this study to ensure trustworthiness were: “credibility (paralleling internal validity), and transferability (paralleling external validity, dependability (paralleling reliability) and confirmability (paralleling objectivity)” (1994, p.114). The criteria adopted in this study to ensure authenticity were: “fairness, ontological authenticity (enlarges personal constructions), educative authenticity (leads to improved understanding of construction of others), catalytic authenticity (stimulates to action), and tactical authenticity (empowers action)” (1994, p.114).
Limitations

The researcher acknowledges the paradigm differences that arise when a research design is selected. The main concern, as often seen expressed in the literature, is the “subjectivity” of qualitative research designs resulting in a perceived problem with the validity of the results. Thus, the decision to use a naturalistic approach could be considered to be less robust than a positivist research design. However, the choice is supported when the depth of the data derived from the cases is considered in relation to the depth limitations of a purely positivist design, which can provide more breadth. Furthermore, triangulation of data collection and analyses provided for completeness and confirmation of data and strengthened the results and confidence in the emerging models. The processes of trustworthiness and authenticity assist other researchers’ confidence in the outcomes.

Ethical Considerations

The researcher acknowledged a potential risk of personal role confusion as some participants were to be invited from those employed at the University in which the researcher was employed at the time of data collection. To this end, the researcher invited clinical educators who were teaching in a final year semester in which the researcher did not normally have any direct contact in her role as an academic. Furthermore, the researcher took study leave when the data-collection phase occurred and was, thus, absented from normal academic responsibilities and formal contact with the clinical educators.
Access to the study sample was sought after ethical approval was granted from the participating universities’ Schools of Nursing. An information schedule detailing the various aspects of data collection for the study was provided to the potential participants (see Appendix 1). Participants were requested to indicate their willingness to be involved in the study as, depending on the Case they were in, their participation would be intermittent over the period of data collection (one academic semester). The schedule clearly indicated that confidentiality would be maintained.

Clinical educators were assured that neither their participation in the study, nor data outcomes, would positively or negatively affect any employment within the participating university undergraduate programmes.

On receipt of the information sheet, consent forms were provided to potential study participants (see Appendix 1). The consent forms were required to be signed and returned before the participant was included in the study. Participants were informed they were free to withdraw from the study at any time and, if this occurred, their data would not be included. None chose to withdraw, so the only data not used in the analysis resulted from strategic researcher decisions (as previously described).

The researcher did not believe there would be any professional dilemmas for the participants arising from their involvement in the study. However, the researcher had established a process whereby any participant, wishing to discuss an issue arising from their participation in the study, would have been advised to seek support from key staff nominated by the two university Schools of Nursing for this purpose. This process did not have to be used as no participant expressed any need for support.
Confidentiality was maintained from all except the researcher. Respondents’ names were required on the completed researcher-developed surveys. For ease of data reporting, the clinical educators’ real names were replaced with pseudonyms. No names were required on the reflective journals. No names were transcribed from reflective journals, taped follow-up interviews; researcher maintained participant observations’ notes, or the three taped reflective group sessions. Also, data on the clinical educators’ place of clinical teaching were organised into generic types of clinical experience (eg. adult nursing, mental health nursing). Data for the CCTDI and CCTST responses were reported as aggregated Case data.

Data management added to maintenance of confidentiality as the use of the SPSS and NUD*IST (Qualitative Solutions Research, 1997) software programmes meant access to the data was only available to the researcher and PhD supervisors and required an assigned code. Taped interviews and focus group sessions were available only to the researcher and PhD supervisors for the duration of the study. On completion of the Dissertation, the tapes and hard copies of the transcripts were destroyed. A read only CD copy of the raw data generated from the transcriptions along with the NUD*IST (Qualitative Solutions Research, 1997) data outputs will be kept in a secure place until completion of the examination process of the Dissertation and then destroyed as in keeping with NHMRC Guidelines (Commonwealth of Australia, 1999).
CHAPTER FOUR

Results: The Processes and Practice of Clinical Education

To teach is to learn twice. Joseph Joubert

This is the first of two chapters that detail the findings in relation to the study purpose of constructing an understanding of clinical teaching, in particular, understanding the processes and practice of clinical education. The results presented in this chapter are specifically those of the clinical educators’ perceptions of their role and responsibilities, their definitions of the study concepts relating to clinical education and their application of the acts of teaching.

Thus, the findings presented in this Chapter address to the following research aims 1 and 2 and the objectives associated with each of these:

Aim 1: Construct an understanding of the processes and practice of clinical education

Objectives:

1. Characterise the clinical educators’ teaching role in relation to personal attributes philosophy, and teaching style;
2. Describe clinical educators’ beliefs of the primary responsibility for teaching and evaluating students in the clinical setting and their reasons for these;
3. Exemplify how clinical educators’ enabled and evaluated students’ learning with acts of teaching.
Aim 3: Identify any changes in clinical educators’ teaching approach and in their understandings of critical thinking and reflective practice that occurred as a result of their participation in the study.

Objective:

6. Determine if the study’s infusion assessments and interventions led to changes in clinical educators’ understanding of their role and clinical teaching processes.

Chapter Outline

The context in which clinical education occurred and clinical educators’ practised is presented followed by a definition of a clinical educator. Then, the clinical educators’ views of teaching are presented. Next, clinical educators’ perceptions of personal and professional attributes important for their role and the process of clinical education are presented. Then, the clinical educators’ views and rationales regarding teaching, learning and evaluation responsibilities are described. Detail from Case 1 Clinical Educators on the acts of teaching is presented. Finally, changes in clinical educators’ views of their teaching as a result of being involved in the study are presented.

Contextual Data

The contextual data for the three Clinical Educator Cases are reported in Tables 4.1, 4.2 and 4.3. Table 4.4 details where the 13 clinical educators were practising in the clinical setting at the time of the study. With the exception of one clinical educator, all had more than five years experience as a Registered Nurse, while seven had less than five years experience as a clinical educator. All had an academic degree ranging from Bachelor to Masters’ level of study. Four clinical educators reported having had some
prior education in strategies for clinical teaching. Only one had formal learning as part of a Postgraduate Degree in Nursing in a unit of study that had 100 hours of content on the topic. The remaining three had between four and 24 hours of professional development in specific strategies. Only one clinical educator identified having any study in preceptorship and expressed that the eight hours were beneficial for the process of assessment and providing feedback to students.

Table 4.1

Contextual Data for Case 1 Clinical Educators.

<table>
<thead>
<tr>
<th>Clinical education setting</th>
<th>Anne</th>
<th>Bennet</th>
<th>Claire</th>
<th>David</th>
<th>Erin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health Public Hospital</td>
<td></td>
<td>Medical/Surgical wards Public Hospital</td>
<td>Medical and Surgical wards Public Hospital</td>
<td>Paediatrics Medical/Surgical Public Hospital</td>
<td>Paediatrics Medical/Surgical Public Hospital</td>
</tr>
<tr>
<td>Number of students</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Time per day with each student</td>
<td>30 minutes</td>
<td>Varied according to students’ needs</td>
<td>45 minutes</td>
<td>30 minutes</td>
<td>60 minutes</td>
</tr>
<tr>
<td>Years as RN</td>
<td>&gt; 20</td>
<td>&gt; 5</td>
<td>&gt; 20</td>
<td>&gt; 10</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>Years as CE</td>
<td>&gt; 5</td>
<td>&lt; 5</td>
<td>&gt; 5</td>
<td>&lt; 5</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Highest Academic qualifications</td>
<td>BN</td>
<td>BN</td>
<td>BN</td>
<td>Ba (other than Nsg)</td>
<td>MN</td>
</tr>
</tbody>
</table>
Table 4.2

Contextual Data for Case 2 Clinical Educators.

<table>
<thead>
<tr>
<th>Clinical education setting</th>
<th>Fiona</th>
<th>Graham</th>
<th>Hanna</th>
<th>Ingrid</th>
<th>Jordan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Specialties, Medical and Surgical wards Private Hospital</td>
<td>Medical and Surgical wards Public Hospital</td>
<td>Specialties Public Hospital</td>
<td>Mental Health Public Hospital</td>
<td>Medical and Surgical wards Public Hospital</td>
</tr>
<tr>
<td>Number of students</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Time per day with each student</td>
<td>20 minutes</td>
<td>Not identified</td>
<td>60 minutes</td>
<td>60 minutes</td>
<td>60 minutes</td>
</tr>
<tr>
<td>Years as RN</td>
<td>&gt; 20</td>
<td>&gt; 10</td>
<td>&gt; 10</td>
<td>&gt; 20</td>
<td>&gt; 10</td>
</tr>
<tr>
<td>Years as CE</td>
<td>&gt; 10</td>
<td>&gt; 10</td>
<td>&lt; 5</td>
<td>&gt; 10</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Highest Academic qualifications</td>
<td>Post-graduate Diploma (other than Nsg) (Completing MN)</td>
<td>Post-graduate Diploma Nsg (Completing MN)</td>
<td>MN</td>
<td>Ma (Other than Nsg)</td>
<td>MN</td>
</tr>
</tbody>
</table>

Table 4.3

Contextual Data for Case 3 Clinical Educators.

<table>
<thead>
<tr>
<th>Clinical education setting</th>
<th>Kendra</th>
<th>Lyall</th>
<th>Monique</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paediatrics Medical and Surgical wards Public Hospital</td>
<td>Mental Health Public Hospital</td>
<td>Specialties Medical and Surgical wards Public Hospital</td>
</tr>
<tr>
<td>Number of students</td>
<td>7</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Time per day with each student</td>
<td>40 minutes</td>
<td>30 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Years as RN</td>
<td>&lt; 5</td>
<td>&gt; 5</td>
<td>&gt; 5</td>
</tr>
<tr>
<td>Years as CE</td>
<td>&lt; 5</td>
<td>&lt; 5</td>
<td>&gt; 5</td>
</tr>
<tr>
<td>Highest Academic qualifications</td>
<td>Post-graduate Diploma Nsg</td>
<td>BA (Completing Ma other than Nsg)</td>
<td>Post-graduate Diploma (other than Nsg)</td>
</tr>
</tbody>
</table>
There were a variety of clinical settings where students, from the participating universities in which the clinical educators worked, could have been placed for clinical experiences. Not all of the possible settings were represented by the 13 clinical educators participating in the study (see Table 4.4). Also, it is important to note that while students will have remained in one clinical setting for the duration of the scheduled time for clinical experience, the participating clinical educators could be required to supervise students across a number of clinical settings and clinical experiences during the scheduled time. In fact, of the 13 clinical educators, only four exclusively supervised students in one type of clinical experience. Three of these clinical educators were in a mental health setting.

Table 4.4

Location of Clinical Experiences for Clinical Educators

<table>
<thead>
<tr>
<th>POSSIBLE CLINICAL EXPERIENCES</th>
<th>CLINICAL EDUCATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatric Specialities:</td>
<td>Three CEs covered supervision of students in all of these specialty settings</td>
</tr>
<tr>
<td>Paediatric Intensive Care Unit (ICU)</td>
<td></td>
</tr>
<tr>
<td>Neonatal ICU</td>
<td></td>
</tr>
<tr>
<td>Emergency Dept (ED)</td>
<td></td>
</tr>
<tr>
<td>Operating Room (OR)</td>
<td></td>
</tr>
<tr>
<td>General Paediatric settings:</td>
<td>None of the study CEs covered students in all of these clinical settings</td>
</tr>
<tr>
<td>Medical</td>
<td></td>
</tr>
<tr>
<td>Surgical</td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
</tr>
<tr>
<td>Adult Specialties:</td>
<td>One CE covered students in an Adult ICU</td>
</tr>
<tr>
<td>ICU</td>
<td></td>
</tr>
<tr>
<td>ED</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Oncology</td>
<td></td>
</tr>
<tr>
<td>General Adult Settings:</td>
<td>Four CEs covered students in surgical and medical settings</td>
</tr>
<tr>
<td>Surgical</td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td>Two CEs supervised students in Adult Specialties and General Adult Settings</td>
</tr>
<tr>
<td>Mental Health</td>
<td>Three CEs covered students in mental health settings</td>
</tr>
<tr>
<td>Community</td>
<td>None of the study CEs covered students in community settings</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13 CEs</td>
</tr>
</tbody>
</table>
Clinical Educator Defined

The results in this section outline the clinical educators’ perceptions of their role and responsibilities and their definitions of the study concepts of teaching. These findings apply to:

Aim 1: Construct an understanding of the processes and practice of clinical education;

Objective

1. Characterise the clinical educators’ teaching role in relation to personal attributes philosophy, and teaching style.

The participants were all asked to define the term “Clinical Educator” in the Researcher Developed Survey. The analysis provided a range of definitions with minimal consensus. Four clinical educators’ emphasised facilitation and acting as a resource for learning. Three emphasised the role of bringing together theory and practice for students. Three emphasised that the clinical educator needed extensive specialised knowledge and experience. Three described the role as supervising, educating and guiding students in the clinical setting. Other comments were mentioned once only. A composite definition of a clinical educator is constructed from comments made by more than three clinical educators. The second part of the definition refers to the specific characteristics required. Thus, the definition “Clinical Educator” for the participants is:

One who facilitates students’ learning and acts as a resource to assist students to bring together theory and practice within the clinical
context. The clinical educator has extensive specialised experience and supervises, educates and guides students in the clinical setting. The clinical educator applies appropriate clinical skills and experience, knowledge of the curriculum, good communication skills, a desire and skills to teach, and a positive attitude to the explication of their role. The clinical educator both mentors and role models to students, organises their learning opportunities in the clinical setting and provides feedback and evaluation.

This definition would seem to be in keeping with the literature and encompasses two of the three acts of (clinical) teaching, that is, intellectual and strategic acts of teaching (Green, 1971; Hellgren, 1985). What seems to be missing from the definition is any reference to the moral aspects of the teaching role (Sirontik, 1990; Stewart, 1993), though it cannot be interpreted that this was not considered as important by the clinical educators. It may simply be that characteristics indicative of moral aspects of teaching were not in the foreground of the clinical educators’ thinking when asked to define the term “Clinical Educator”.

Clinical Educators’ Views of Teaching

Teaching and Facilitating

Teaching and facilitating were central concepts of interest and are intrinsically linked to one’s philosophy of teaching and learning. Clinical educators were asked if they perceived differences between teaching and facilitating and this question was posed in both the survey and interview. Survey data is presented first in Table 4.5. Tables 4.6 and 4.7 present data from the survey and interview. Table 4.8
presents data from the interview only. Clinical educators within all the three cases varied in seeing similarities or differences between teaching and facilitating. From the survey data, four clinical educators categorized teaching and facilitating as *similar* and representations of their comments are presented in Table 4.5.

Table 4.5

Teaching and Facilitating *Similar* (Source: Survey)

<table>
<thead>
<tr>
<th>Teaching</th>
<th>Facilitating</th>
</tr>
</thead>
<tbody>
<tr>
<td>◦ Dependent on students’ readiness for learning</td>
<td>◦ Supporting learning</td>
</tr>
<tr>
<td>◦ Dependent on the teacher being active</td>
<td>◦ Reinforcing students’ knowledge and confidence</td>
</tr>
<tr>
<td>◦ Guiding students to learn for themselves</td>
<td></td>
</tr>
<tr>
<td>◦ Facilitating students’ learning needs</td>
<td></td>
</tr>
</tbody>
</table>

Also, from the survey data, nine clinical educators (Claire, David, Graham, Hanna, Ingrid, Jordan, Kendra, Lyall and Monique) considered teaching and facilitating as *different* and representations of their comments are presented in Table 4.6. *Green* font is used in Tables 4.6 and 4.7 for the purpose of identifying phrases/words mentioned by clinical educators in the survey and repeated in the interview.
### Table 4.6

<table>
<thead>
<tr>
<th>Teaching</th>
<th>Facilitating</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Directed activity</td>
<td>o Enabling learning through experience and providing opportunities for students to practice</td>
</tr>
<tr>
<td>o Structured and formal instruction to pass on knowledge and skills</td>
<td>o Student-centred learning</td>
</tr>
<tr>
<td>o Didactic and seen as “Spoon-feeding”</td>
<td>o Directing and encouraging students to explore learning</td>
</tr>
<tr>
<td>o An act of educating</td>
<td>o Assisting learning to occur by working with students</td>
</tr>
<tr>
<td>o Role modelling</td>
<td>o Applying a “Socratic” approach to learning</td>
</tr>
</tbody>
</table>

Survey data in black font
Interview data in [green font](#)

The interview data collection process provided the clinical educators the opportunity to revisit and clarify their perceptions of teaching and facilitating.

The nine clinical educators who considered a difference between teaching and facilitating in their survey responses also acknowledged *differences* in the interview. Table 4.7 lists these.
Table 4.7

Teaching and Facilitating *Different* (Source: Survey/Interview)

<table>
<thead>
<tr>
<th>Teaching</th>
<th>Facilitating</th>
</tr>
</thead>
<tbody>
<tr>
<td>o  Not equalling learning</td>
<td>o  Allowing a student to try again with support from teacher and learn from experience</td>
</tr>
<tr>
<td>o  Theoretical and research based</td>
<td>o  Teacher provides ways and means for student to access information and become independent</td>
</tr>
<tr>
<td>o  Teacher providing information to student who is a passive recipient</td>
<td>o  Teacher applies variety of strategies to assist student learning to match varying learning contexts</td>
</tr>
<tr>
<td>o  Didactic</td>
<td>o  A public relations exercise to encourage ward staff to be involved in students’ learning</td>
</tr>
<tr>
<td>o  Allows for standardisation of principles across classroom and clinical setting</td>
<td>o  “Harder” to do than “teaching”</td>
</tr>
<tr>
<td>o  Required for specific clinical procedures</td>
<td>o  Provides students with resources to be self-directive and achieve mastery or to find the answer on their own</td>
</tr>
<tr>
<td>o  Formal and structured</td>
<td>o  Success for the student is dependent on his/her motivation to learn</td>
</tr>
<tr>
<td>o  One-sided with teacher active and students passive</td>
<td>o  Teacher shares knowledge and interacts with students to increase their knowledge</td>
</tr>
<tr>
<td>o  Role of teacher and student clearly defined</td>
<td>o  Role of teacher and student less defined and allows for collaboration between them for learning outcome</td>
</tr>
<tr>
<td></td>
<td>o  Teacher has a mentoring role</td>
</tr>
</tbody>
</table>

Survey data in black font
Interview data in green font

Talking to the researcher about their perceptions allowed the clinical educators the opportunity to expand and elaborate their survey comments. Comments, such as “becoming a public relations exercise to encourage ward staff to be involved in students’ learning” (in the column on facilitating in Table 4.7) appear to resonate with the concept of strategic acts of teaching and provide for an explanation that is different to those others in Table 4.7 which appear to centre on the clinical educator being more directly involved in student learning.
The following composites from the data are provided as two examples of the range of differences in the descriptions (selected randomly by the researcher). For a more complete picture of the clinical educators’ descriptions, please see the remaining composites in Appendix 6 as those presented are not considered by the researcher to be representative.

Two examples of differences between teaching and facilitating are from Graham and Ingrid. First, Graham described teaching as a didactic approach of getting information across to the student and then checking to see if the student understood. He described facilitation as a process of assisting the student to come to an answer or conclusion on their own but added that if the learning experience was new, the teacher should apply a didactic approach in order to enhance learning. Graham used cues to assist students to arrive at conclusions on their own and would intervene if the student was floundering so that learning could occur. Graham also saw this as important in order to maintain safety for the student and the patient within the clinical setting.

Second, Ingrid, saw the differences between teaching and facilitating in another way. For her, the clinical educator was practising in a clinical area where she was not necessarily seen to be a clinical expert and thus needed to use a process of public relations as a means of facilitating and enhancing student learning. Ingrid indicated another benefit from this process - that of acknowledging the expertise of the staff in the clinical area, both to themselves and to the student. She expressed that direct teaching would occur in specific circumstances such as students doing an
injection, administering medications, or communicating with particularly difficult patients in circumstances where the communication required was beyond their ability.

Two clinical educators (Fiona and Erin) said there was no difference. Table 4.8 presents these.

Table 4.8

<table>
<thead>
<tr>
<th>Teaching/Facilitating (Fiona)</th>
<th>Teaching/Facilitating (Erin)</th>
</tr>
</thead>
</table>
| o Make use of what ever teaching situation presents  
| o A process of facilitation needed for teaching to be effective  
| o Teacher can’t have structured mindset about teaching or would not be effective  
| o Learner needs to be free to express ideas | o Teacher supports learner through process of facilitation in clinical area  
| | o Teacher gives feedback on application of theory to practice |

Two other clinical educators (Anne and Bennet) described teaching and facilitating as interchangeable and being on a continuum. Their comments are combined in Table 4.9 and the comments are categorised to show their descriptions of the two ends of the continuum.
Table 4.9

Teaching and Facilitating Continuum *(Source: Interview)*

<table>
<thead>
<tr>
<th>Teaching</th>
<th>Facilitating</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Teacher reactive and responsive to learning opportunities</td>
<td>o Teacher less “visible”</td>
</tr>
<tr>
<td>o Teacher cognisant of students’ abilities</td>
<td>o Students more independent as learners when opportunities present</td>
</tr>
<tr>
<td>o Teacher is “guardian” of student learning and engages with him/her in</td>
<td>o Learning experience reinforces and confirms students’ knowledge-base</td>
</tr>
<tr>
<td>the process</td>
<td></td>
</tr>
<tr>
<td>o Teaching is influenced by students’ attentiveness and understanding</td>
<td></td>
</tr>
</tbody>
</table>

**Philosophy and Style of Teaching**

*Template for Iterative Data Analyses*

In keeping with process of analysis outlined in Figure 3.3 (in Chapter Three), the researcher moved from an *open and intimate* relationship with the data to a *defined template* relationship. The template applied by the researcher comprised seven categories (drawn from the literature reviewed in Chapter Two). The template is depicted in Table 4.10. The seven categories served as a template during the next stage of data analysis which was iterative in nature and focussed on the clinical educators’ views of teaching, learning and evaluation. The seven categories, the literature from which they are drawn, and how they are organised within the template are now explained.

Four of the seven categories define teaching philosophy and style. These categories were drawn from the literature on student-centred teaching (Hase & Kenyon, 2000; Knowles, 1985; McAllister et al., 1997; Paris & Byrnes, 1989; Reilly & Perrin, 1999; D.A. Schon, 1991; Sokol & Cranton, 1998) and, from literature on
the concept of invitational teaching (Purkey & Novak, 1984; Russell et al., 1982).

The literature on invitational teaching draws from the theories of self-concept and the perceptual tradition and refers to two themes of teaching behaviours – those that are considered to be *inviting* to learners and those considered to be *disinviting*. The behaviours infer that a teacher or, in the case of this thesis, a clinical educator, would display a supportive and positive regard for the student if they are *inviting* in their teaching behaviours and a directive and negative regard if they are *disinviting*. Thus, the researcher developed four categories of teaching philosophy and style which, for the purpose of this thesis and in keeping with those reported in the previously identified literature, are called *humanistic, authoritarian, liberal* and *misanthropic*. These categories are presented in Table 4.10.

The remaining three categories define the acts of teaching: being intellectual and strategic (Green, 1971; Hellgren, 1985) and moral (Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993). These acts of teaching and have been earlier described in this thesis (Chapter Two) and are also integrated into half of the horizontal axis in Table 4.10 which illustrates how these added further to the iterative analysis of the data.

Within these Table 4.10 was lastly organised with a vertical axis with four representations: *student centred, supportive and inviting learning; teacher centred, directive and potentially inviting or disinviting learning; student centred, supportive and potentially inviting or disinviting learning; and teacher centres directive and disinviting learning.*
Table 4.10

Template for Iterative Data Analyses

<table>
<thead>
<tr>
<th>Philosophy &amp; Style of Teaching with Clinical Teaching Acts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Centred, Supportive and Inviting</td>
</tr>
<tr>
<td>Humanistic</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Strategic Acts</td>
</tr>
</tbody>
</table>

Analyses of Clinical Educators Style and Philosophy of Teaching

The clinical educators’ style of teaching and philosophy was of central interest to the thesis and, to further understand this, the researcher conducted iterative analysis of the clinical educators’ survey descriptions with the template described in Table 4.10. The results of the analysis are portrayed further in this chapter in Table 4.11.

The template with the seven categories (Table 4.10) assisted in the construction of the participants’ behaviours into those that are supportive and, thus seen as student-centred; and directive which are seen as teacher-centred. The researcher notes that misanthropy was unrepresented in the clinical educators’ data and that this is not surprising given that participants in the study were self-selecting.
and agreed to the methodology for data collection which exposed them to a critical review. The category is included as it adds a dimension for the reader to situate the concept within the researchers’ interpretation. The term misanthropic describes behaviours indicative of a person who dislikes or distrusts people in general (Krebbs, 1989) and whose teaching style would be disinviting (Purkey, 1984) of students’ learning attempts. The researcher’s prior experience of working as an academic with students indicates that misanthropy is a real dimension in the clinical learning experiences of some students. For a few of those students, the experience of a preceptor or a clinical educator who displays misanthropic behaviours can be devastating and seriously undermine their self-confidence.

In addition to the researcher applying the four categories to the data, the clinical educators’ comments on their philosophy and style of teaching were further analysed and reconstructed to reflect how they fitted within the acts of teaching: intellectual and strategic (Green, 1971; Hellgren, 1985) and moral (Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993).

The researcher acknowledges that such an interpretation may be seen as categorising the clinical educators’ philosophies of teaching to the extent that they are seen to be neatly separated. Rather, in the reality of clinical teaching, they may represent the varied dimensions from which clinical educators’ respond to students who have different levels of theoretical preparation, undertake different learning activities and that the process of teaching and learning is taking place in varied and dynamic clinical contexts. The purpose of categorising the data in this thesis is to clarify theory and understand separately, and then integrate.
Table 4.11 indicates that the majority of the clinical educators’ comments about their philosophy and style of teaching were placed within the humanistic dimension, followed by the authoritarian and liberal dimensions; with none falling within the misanthropic dimension. When the three acts of teaching (intellectual, strategic and moral) were applied to the data, not all were represented. The themes derived from the data are presented now.

**Style and Philosophy of Teaching – Themes**

The themes present in the humanistic dimension for intellectual acts were ‘encouraging’ and ‘believing’; for strategic acts were ‘encouraging’, ‘supporting and positive’ and ‘guiding’; for moral acts were ‘honest’, ‘constructive criticism’ ‘non-threatening learning environment’ ‘value of the individual’, ‘no one is perfect’, ‘allowing space to make mistakes’, being kind’ and ‘not terrifying or intimidating’.

The themes present in the authoritarian dimension for intellectual acts were ‘challenging’ and ‘structuring and scaffolding’; for strategic acts was ‘encouraging’; and none were evident for the moral acts.

No themes were present for intellectual acts in the liberal dimension; however, ‘nursing can be fun and enjoyable’ was present for strategic acts. None were evident for the moral acts.

No themes were present for the misanthropic dimension.
Table 4.11

Clinical Educators Espoused Philosophy with Style of Teaching with Overlay of Clinical Teaching Acts (Source: Survey)

<table>
<thead>
<tr>
<th>Philosophy &amp; Style of Teaching with Clinical Teaching Acts</th>
<th>Student-centred and Inviting</th>
<th>Teacher-centred and Potentially Inviting (Inv) or Disinviting (Dis)</th>
<th>Student-centred and Potentially Inviting (Inv) or Disinviting (Dis)</th>
<th>Teacher-centred and Disinviting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humanistic</strong></td>
<td><strong>Intellectual Acts</strong></td>
<td><strong>Moral Acts</strong></td>
<td><strong>Authoritarian</strong></td>
<td><strong>Liberal</strong></td>
</tr>
<tr>
<td><strong>Encouraging:</strong></td>
<td>Being honest</td>
<td>Challenging students to determine how much is understood (Inv).</td>
<td>None evident in the data.</td>
<td>None evident in the data.</td>
</tr>
<tr>
<td><strong>Believing:</strong></td>
<td>Maintaining confidentiality.</td>
<td>Structuring/ scaffolding students’ learning to be competent in the clinical setting (Inv).</td>
<td>None evident in the data.</td>
<td>None evident in the data.</td>
</tr>
<tr>
<td><strong>Providing constructive criticism in a non-threatening way to develop students.</strong></td>
<td>Believing in the value of the individual student.</td>
<td>Encouraging students to focus on what they are doing and not on who is watching them (Inv).</td>
<td>None evident in the data.</td>
<td>None evident in the data.</td>
</tr>
<tr>
<td><strong>Encouraging a non-threatening learning environment.</strong></td>
<td>Acknowledging no one is perfect and allowing space to make mistakes.</td>
<td>Morals Acts</td>
<td>None evident in the data.</td>
<td>None evident in the data.</td>
</tr>
<tr>
<td><strong>Believing:</strong></td>
<td>Being kind and not terrifying or intimidating students.</td>
<td>None evident in the data.</td>
<td>None evident in the data.</td>
<td>None evident in the data.</td>
</tr>
</tbody>
</table>

**Intellectual Acts**

None evident in the data.
Personal and Professional Attributes Important to a Clinical Educator

Given the constructed understanding of the clinical educators’ teaching philosophy and how they viewed teaching and facilitating, it was important to identify their views of the attributes required for teaching and if they believed they possessed these or not. This question was posed in question 17 in the Survey, see Appendix 7, and in question 3 in the Interview, see Appendix 7. The clinical educators’ descriptors of the attributes for teaching are presented in Table 4.12. These have been categorised to reflect those responses that indicated personal or professional attributes, and frequencies of responses are noted. Seven of the personal attributes and three of the professional ones were mentioned on 20 occasions and can also be categorised as *humanistic* in nature.
Table 4.12

Attributes for Clinical Teaching (Source: Survey/Interview) with Frequency of Responses in Parenthesis.

<table>
<thead>
<tr>
<th>Attributes for Teaching</th>
<th>Personal</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being supportive</td>
<td>(20)</td>
<td>Fairness (20)</td>
</tr>
<tr>
<td>Being able to think</td>
<td>(3)</td>
<td>Consistency (20)</td>
</tr>
<tr>
<td>being critically</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caring (20)</td>
<td></td>
<td>Being competent</td>
</tr>
<tr>
<td>Having problem</td>
<td>(3)</td>
<td>as a teacher and</td>
</tr>
<tr>
<td>solving skills</td>
<td></td>
<td>nurse (10)</td>
</tr>
<tr>
<td>Expressing concern</td>
<td>(20)</td>
<td>Being</td>
</tr>
<tr>
<td>Being reflective in</td>
<td>(3)</td>
<td>knowledgeable</td>
</tr>
<tr>
<td>ones practice (3)</td>
<td></td>
<td>(10)</td>
</tr>
<tr>
<td>Kindness (20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy (20)</td>
<td></td>
<td>Behaving</td>
</tr>
<tr>
<td>Developing a</td>
<td></td>
<td>professionally (5)</td>
</tr>
<tr>
<td>rapport (20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being non-</td>
<td></td>
<td>Sowing</td>
</tr>
<tr>
<td>judgemental (20)</td>
<td></td>
<td>commitment to</td>
</tr>
<tr>
<td>Having a sense of</td>
<td></td>
<td>nursing education</td>
</tr>
<tr>
<td>enjoyment (1)</td>
<td></td>
<td>and teaching (1)</td>
</tr>
<tr>
<td>Having a sense of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>humour (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The researcher constructed a summary of the clinical educators’ perceptions of the personal and professional attributes required for the role from the findings, as follows:

Being humanistic, having effective communication skills, having a good knowledge base and competence, behaving professionally, showing a sense of enjoyment and humour, having critical thinking, reflective practice and problem solving skills, having a team approach, and being open to new ideas.
The clinical educators were also asked in the survey if they believed that they possessed the attributes they individually described and, if so, how these would be applied to their role. Eight, being just over half, agreed that they possessed their described attributes, while two indicated having some of them and two not having any of them. One clinical educator did not respond to the question. The clinical educators also listed strategies that exemplified how they would apply the attributes to their role.

The strategies were analysed iteratively with the previously described template (Table 4.10) using the categories of a philosophy and style of teaching – *humanistic, authoritarian, liberal* and *misanthropic*; and acts of teaching – *intellectual, strategic* and *moral*. These researcher categorised strategies are presented in Table 4.13. The themes derived from the iterative data analysis are presented now.

**Strategies to Apply Attributes to Role – Themes**

No themes were evident in the *humanistic* dimension for *intellectual acts*. The themes present in the *humanistic* dimension for *strategic acts* were ‘encouraging’, ‘supporting’ and ‘facilitating’; for *moral acts* were ‘positive role modelling’, ‘vigilance in importance of role’ and ‘respecting’.

No themes were evident in the *authoritarian* dimension for *intellectual acts*. The themes present in the *authoritarian* dimension for *strategic acts* were ‘setting expectations’; and none were evident for the *moral acts*. 

91
No themes were present for intellectual acts in the liberal dimension; and no themes were present for the misanthropic dimension.
<table>
<thead>
<tr>
<th></th>
<th>Clinical Educator Strategies to Apply Attributes to Role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student-centred, Supportive and Inviting</strong></td>
<td><strong>Teacher-centred, Directive and Potentially Inviting or Disinviting</strong></td>
</tr>
<tr>
<td><strong>Humanistic</strong></td>
<td><strong>Humanistic continued</strong></td>
</tr>
<tr>
<td>None evident in the data.</td>
<td>Positive role modelling</td>
</tr>
<tr>
<td></td>
<td>Treating each student as an individual with different learning needs.</td>
</tr>
<tr>
<td></td>
<td>Talking to patients.</td>
</tr>
<tr>
<td></td>
<td>Making ones-self available and approachable.</td>
</tr>
<tr>
<td></td>
<td>Vigilance in importance of role: Conducting ones-self professionally as a nurse/clinical educator.</td>
</tr>
<tr>
<td></td>
<td>Respecting: Privacy and needs of the patients and significant others when in the clinical setting.</td>
</tr>
<tr>
<td></td>
<td>Being aware and reminding ones-self not to overstep the line.</td>
</tr>
<tr>
<td></td>
<td>Stepping back and taking a different approach if the student’s upset or tired and reminding ones-self of what it is like to be a student.</td>
</tr>
<tr>
<td>Strategic Acts</td>
<td>Encouraging: Providing an environment conducive to teaching.</td>
</tr>
<tr>
<td>Supporting: Students in their clinical practice by working alongside them.</td>
<td></td>
</tr>
<tr>
<td>Students when they are in a different learning environment.</td>
<td></td>
</tr>
<tr>
<td>Facilitating: Students teamwork.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Role and Importance of Evaluating Attributes

Understanding clinical educators’ views of the attributes required for evaluation was important to the broader understanding of how they see their role. The literature, reviewed in Chapter Two, supports an understanding that feedback to students is important to their learning and clinical development. The researcher was also interested in seeing if the clinical educators believed if they possessed the attributes they described as important. Additionally, if, they did, the researcher was interested in understanding how they applied these in their role. In Table 4.1, the clinical educators’ descriptors are synthesised and organised according to first, how they relate to being either personal or professional attributes; second, whether they are indicative of the intellectual, strategic or moral acts of teaching; and third, the frequency with which they were mentioned.
Table 4.14

Attributes for Evaluating with Frequency of Responses in Parenthesis.

<table>
<thead>
<tr>
<th>Personal</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intellectual</strong></td>
<td><strong>Moral</strong></td>
</tr>
<tr>
<td>None identified</td>
<td>Understanding (19)</td>
</tr>
<tr>
<td>Encouraging students (6)</td>
<td>Being honest (7)</td>
</tr>
<tr>
<td>Being approachable (4)</td>
<td>Being non-judgemental (3)</td>
</tr>
<tr>
<td>Establishing a rapport (3)</td>
<td></td>
</tr>
<tr>
<td>Being kind (3)</td>
<td></td>
</tr>
<tr>
<td>Being prepared to guide (2)</td>
<td>Knowledge of curriculum (4)</td>
</tr>
<tr>
<td>Competence as practitioner (2)</td>
<td>Being clear with requirements (4)</td>
</tr>
<tr>
<td>Remaining calm (1)</td>
<td>Having good observational skills (4)</td>
</tr>
<tr>
<td>Having a sense of humour and being consistent (1)</td>
<td>Having sound, effective documentation (3)</td>
</tr>
<tr>
<td>Being tactful (1)</td>
<td>Appraising (2)</td>
</tr>
</tbody>
</table>

The researcher constructed a summary of the clinical educators’ perceptions of the personal and professional attributes required for evaluating students from the findings shown in Table 4.14 as follows:

The clinical educator needs to be understanding, a positive role model, have a good knowledge-base, and demonstrate fairness in providing feedback. These attributes are all important for evaluating. Additionally, it is essential the clinical educator has an awareness of what is happening in the clinical setting.
and is honest in their interactions with the student. It is also important that they are encouraging, questioning, realistic, objective and reflective, and apply principles to the process. Finally, in order to be unbiased and objective, the clinical educator needs the ability to be constructive and aware of the student’s level of learning and the curriculum and clinical requirements.

Perceptions of Primary Responsibilities for Teaching, Learning and Evaluating

The results in this section relate to the clinical educators’ perceptions of their responsibilities and the findings presented connect to the following aim and objective:

Aim 1: Construct an understanding of the processes and practice of clinical education

Objective 2: Describe clinical educators’ beliefs of the primary responsibility for teaching and evaluating students in the clinical setting and their reasons for these.

The literature reviewed reveals that teaching, learning and evaluating students are central features of the students’ experience in the clinical setting and this was presented in Chapter Two. Other staff, who may be Registered or Enrolled Nurses, also feature in the clinical milieu in which students’ practice and learning takes place. These staff often work with a student for the duration of a shift (usually 7.5 to 8 hours) and the student undertakes to perform part of the patient care workload commensurate with their abilities. The staff are known as “buddy” or a “preceptor” to the student during that time. The researcher was interested in identifying who the clinical educators’ perceived as responsible for the teaching, learning and evaluating students in the clinical setting. The data presented for teaching and learning are
drawn from the survey responses to Questions 18, 19 and 20 and this was the only occasion in which these questions were posed. The data presented for evaluating are drawn from both the survey and the interview responses at week 16. The clinical educators’ responses at week 16 demonstrated some minor changes.

**Teaching Responsibilities**

Two clinical educators documented a combination of themselves, staff from the University, nurses in the clinical setting and the students as having responsibility for teaching students. Three clinical educators identified the responsibility for teaching the students would be solely theirs. Four clinical educators identified the responsibility for teaching would belong to a combined role of themselves and the buddy or preceptor. One clinical educator identified the university staff as having teaching responsibilities for the students in the clinical setting; one identified the responsibility as belonging to a combination of both themselves and students; and one identified the responsibility being with hospital management and students.

The reasons given for the clinical educators’ responses to the question on primary responsibility for clinical teaching were varied. Features acknowledged in the responses are presented in Table 4.15. (The key points from the interview data are presented in Appendix 6.) The researcher notes that the key issues for identifying the clinical educator only were related to their independence of the clinical setting, their knowledge of what is required, especially for specific clinical activities and, that they are best placed to assist students to synthesise their learning. These key issues were categorised under two themes: ‘link theory to practice’ and ‘develop students’ competence’.

97
Two key issues for identifying the clinical educator and the preceptor together are extrapolated. Firstly, acknowledging the reality of time available to clinical educators to spend with each student whereas, preceptors have the students working with them for an entire shift. Secondly, the nature of snapshot teaching was mentioned which, for clinical educators, becomes more focussed compared to the uninterrupted time preceptors can offer students. Additionally, preceptors have more learning opportunities to offer to students by the very nature of their patient care responsibilities. The key issues were categorised under two themes: ‘impact of time’ and ‘link theory to practice’.

The key issues for identifying the clinical educator, university staff, preceptor and student seem to be related to a building of knowledge over the nursing course leading to competency. The key issues were categorised under ‘link theory to practice’, ‘locus of learning’, and ‘organisational considerations’.
Table 4.15  Teaching Responsibility

<table>
<thead>
<tr>
<th>Clinical Educator, University Staff, Preceptor and Students (n=2)</th>
<th>Clinical Educator only (n=3)</th>
<th>Clinical Educator and Preceptor (n=4)</th>
<th>University Staff (n=1)</th>
<th>Clinical Educator and Students (n=1)</th>
<th>Hospital Management and Students (n=1)</th>
<th>Clinical Educator and University Staff (n=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Link theory and practice</strong></td>
<td><strong>Link theory and practice</strong></td>
<td><strong>Impact of time</strong></td>
<td><strong>Link theory and practice</strong></td>
<td><strong>Locus of learning</strong></td>
<td><strong>Organisational considerations</strong></td>
<td><strong>Link theory and practice</strong></td>
</tr>
<tr>
<td>Follow up on clinical procedures taught in early semesters, and build on in the clinical areas</td>
<td>Clinical educator is liaison between hospital and school of nursing – can stand back from the ward and see whole situation – do not have primary responsibility to clients that preceptor does</td>
<td>Preceptor spends approximately five to six hours with student and results in a teacher/student relationship. Clinical educator spends a limited amount of time with each student and a different type of learning relationship is established to enhance application of theory to practice</td>
<td>Theory, basic knowledge and skills are classroom taught. The clinical setting provides opportunity to practice in &quot;reality&quot;</td>
<td>Learning is from a dual relationship and cannot take place without both being responsible</td>
<td>Management sets the guidelines within which clinical experience for the student can occur</td>
<td>Clinical educator and university staff are able to relate theory to practice and can update students’ knowledge and skills</td>
</tr>
<tr>
<td><strong>Develop students’ competence</strong></td>
<td>University staff too distant to have any input into students learning. Nursing staff sometimes have impact but without being able to analyse all that they observe. Students would not be able to synthesise their experiences into learning in the short time available to them without assistance</td>
<td>Clinical educator can’t be with the students all the time – depends heavily on registered nurses. Student needs clinical educator for guidance and to focus on activities that need specific help</td>
<td>Clinical educator provides the academic aspect of clinical learning environment. Students working closely with a preceptor who can offer many opportunities for teaching</td>
<td>Student is the only one who can bridge the gap between theory and practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supported students desire to become an effective, efficient practitioner</td>
<td>Clinical educator is aware of theoretical components of program and what is required from clinical setting to enable students to meet required competencies</td>
<td>Clinical educator’s role is to facilitate students learning and they may utilise staff &amp; students’ experience to teach</td>
<td>Clinical educators’ role is to facilitate students learning and they may utilise staff &amp; students’ experience to teach</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Learning Responsibilities.

The data from the survey responses showed that seven clinical educators perceived students as having the primary responsibility for their learning. The majority of their comments fit the theme ‘self-directed learning seeking behaviours’ and key words such as *self-motivated, self-directed* and *seeking out* featured.

Four clinical educators’ identified themselves and the student as sharing the learning responsibility. Their comments reflect a partnership approach to learning supported by the clinical educator using activities that are more *strategic* in nature to develop self-direction in the student, saw themselves and the students as having the responsibility. The themes for these clinical educators’ comments are ‘self-directed learning seeking behaviours’, ‘learning facilitated with strategic acts’ and ‘learning is a partnership’.

One clinical educator identified themselves and the preceptor as sharing the learning responsibility and the theme for the comments is ‘link theory to practice’.

The comments are presented now in Table 4.16 and key points from the interview data are presented in Appendix 6.
Table 4.16

<table>
<thead>
<tr>
<th>Learning Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students Only</td>
</tr>
<tr>
<td>Clinical Educators (n=7)</td>
</tr>
<tr>
<td>Clinical Educators (n=2)</td>
</tr>
<tr>
<td>Clinical Educators (n=4)</td>
</tr>
</tbody>
</table>

**Self-directed learning seeking behaviours**

Students need to seek out experiences and be aware of their own learning deficits. They need to be self-motivated to gain from learning experiences. Students need to internalise their learning needs. Students must be available to make most of their clinical experiences. Being self-directed and proactive are essential characteristics for tertiary studies. Students need to be self-motivated and if they establish this pattern at an early stage they’ll continue to refine their learning throughout the career. Students are adult learners, should be self-directed and motivated in their learning. It is their responsibility to identify their objectives and to use appropriate people and physical resources in order to meet their learning needs.

**Link theory and practice**

Preceptors anticipate the students learning and the clinical educator provides a balance between the “real” and the “ideal” world.

**Self-directed learning seeking behaviours**

Through self-evaluation the student identifies areas of need and potential opportunities and the clinical educator facilitates these and assists the student to identify learning opportunities. Student has a responsibility to attend to their own learning, to take initiative and to seek personal learning objectives. The students will determine how much they learn.

**Learning facilitated with strategic acts**

Clinical educator creates an environment that enhances learning opportunities as they have the authority to do this. Learning may be enhanced by the clinical educator stimulating, facilitating, encouraging and providing opportunities.

**Learning is a partnership**

A successful approach to learning requires a two-pronged approach – student and clinical educator.
Evaluation Responsibilities.

The data from the survey responses and the interview at week 16 indicated that eight clinical educators (more than half) identified themselves as having responsibility for evaluating students. Two of these clinical educators changed their opinion between the survey and the time of the interview. Key points from the interview data for those who considered the clinical educator to have primary responsibility are presented in Table 4.17 (and in Appendix 8).

The themes for the eight clinical educators who identified that they had the primary responsibility for evaluation are ‘input from preceptors sought’, ‘risk for flawed input from preceptors’, ‘issues that impact students’ self-evaluation’, ‘understanding of curriculum’ and ‘ultimate judgement’.

Where the clinical educator and the preceptor are both identified as having the responsibility for evaluation, the themes are ‘input from preceptors sought’, ‘risk for flawed input from preceptors’, ‘issues of time’, and ‘decisions on specific competency’.

Where the clinical educator, the preceptor and the student are all identified as having the responsibility for evaluation, the themes are ‘decisions on progress’ and ‘ultimate judgement’.

Where the clinical educator and the student have the responsibility for evaluation, the themes are ‘decisions on progress’ ‘issues that impact students’ self-evaluation’, and ‘issues of self-direction’ and ‘process of feedback’.
Table 4.17  Primary Evaluation Responsibilities (Source: Interview)

<table>
<thead>
<tr>
<th>Clinical Educator (n 8)</th>
<th>Clinical Educator and Preceptor (n 2)</th>
<th>Clinical Educator, Preceptor, and Student (n 1)</th>
<th>Clinical Educator and Student (n 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input from preceptors sought</strong></td>
<td>Clinical educators have responsibility though the preceptors are encouraged to write anecdotal comments, provide constructive feedback to the students and to discuss any problems they feel are important. Preceptors widen the perspective of the students and this is critical to final evaluations. Preceptors write anecdotal notes at the end of each shift for additional perspectives for the final evaluation. <strong>Risk for flawed input from preceptors</strong></td>
<td>Clinical educator has a daily responsibility to determine the progress of students and information from the staff is vital in adding to clinical educators’ objective assessments. <strong>Ultimate judgement</strong></td>
<td>Clinical educators’ have an important role in assisting the student to reach an understanding of their competence. Everyone needs to be clear about what is being evaluated. <strong>Issues that impact students’ self-evaluation</strong></td>
</tr>
<tr>
<td>Clinical educator needs to actively seek out the preceptors to obtain their feedback about students’ daily performance. Input from the preceptors important to the overall process. Reliance on feedback from the preceptor at the end of each shift to formulate evaluation. Clinical educator needs to work hard to obtain this by talking individually with each staff member and making a note of their comments. Clinical educator relies on students and preceptors to contribute to the final evaluation where the responsibility of writing this resides with the clinical educator. There is a problem with getting registered nurses in the clinical setting to contribute to students’ evaluations. Other health professionals take on the responsibility of sharing their knowledge and evaluating their students whereas, nurses fail to do this. <strong>Risk for flawed input from preceptors</strong> Their understanding of the documentation is inadequate and diminishes their contributions. Preceptors can have different set of standards for their evaluations of students and as a result, incorrectly fail a student through not understanding the curriculum and the development of the students throughout the program. Comments from the staff are included in the final evaluation though staff don’t always provide specific comments. Seem more comfortable with generalised ones such as “they’re doing very well”. <strong>Issues that impact students’ self-evaluation</strong> It is important for clinical educator to develop a reflective ability in the students for them to effectively self-evaluate. Clinical educator spends a great deal of time coaching and developing the students in their ability to fully understand the process of evaluation and the documentation surrounding it. Students should self-evaluate daily through reflective practice journals as a form of evaluation. <strong>Understanding of curriculum</strong> Importance of the clinical educator having an understanding of the university requirements. Problem with staff seconded from the clinical settings as their expectations often unrealistic, especially if they are specialist nurses.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| Decision on progress | Clinical educator has a daily responsibility to determine the progress of students and information from the staff is vital in adding to clinical educators’ objective assessments. <strong>Ultimate judgement</strong> The final responsibility for writing the evaluation is the clinical educators’ and is the culmination of everyone’s input | Clinical educators’ have an important role in assisting the student to reach an understanding of their competence. Everyone needs to be clear about what is being evaluated. <strong>Issues that impact students’ self-evaluation</strong> The assessment tool used by the university is cumbersome, the students don’t feel a sense of ownership of the contents and what is recorded, and they can easily become distanced from understanding their progressive development in the clinical setting. <strong>Issues of self-direction</strong> Students have a responsibility to seek out learning experiences; the clinical educator has the responsibility for making sure learning opportunities are available. | | | |</p>
<table>
<thead>
<tr>
<th><strong>Ultimate judgement</strong></th>
<th><strong>Decisions on specific competency</strong></th>
<th><strong>Process for feedback</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical educator decides if students are passing or failing and has a responsibility to the university to inform them of students’ competence. This is a prime responsibility of the role. Clinical educator has final say. Clinical educator determines if the student has passed or failed. The clinical educator knows what he was looking for and has the skills required for evaluation.</td>
<td>The clinical educator is often called on to supervise students with specific tasks and this results in frustration in not being able to develop a sense of the students’ ongoing competencies throughout the day.</td>
<td>Clinical educators give students verbal feedback and write daily comments on students’ activities. Documentation is important, particularly if problems arise with a students’ performance.</td>
</tr>
</tbody>
</table>
Acts of Teaching

Iterative analysis of Case 1 Clinical Educators three reflective focus groups and reflective journals transcriptions provide an understanding of the acts of teaching – intellectual, strategic and moral. Case 2 and 3 Clinical Educators were not provided with any information about these Acts of Teaching and therefore, were not posed the question.

The reflective journal writings were based on examples of students’ clinical practice that highlighted critical thinking, reflective practice and the three acts of teaching. Three clinical educators provided their completed reflective journals and the transcripts of two of these (Anne and Erin) are to be found in Appendix 10. The discussions in the three reflective groups were based on clinical educators’ applications of intellectual and strategic (Green, 1971; Hellgren, 1985) and moral (Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993) acts of teaching (one per session) in the course of their practise.

The comments from the reflective groups and the diaries were analysed iteratively with the template described in Table 4.10 (philosophy & style of teaching with clinical teaching acts) and contrasted with the results depicted in Table 4.11. The iterative analyses are presented in Table 4.18. Similarities in comments are noted in the table by use of a red tick next to the strategy. Additional strategies not previously detected from the initial analysis of survey and interview data are listed in red font. The additions for the humanistic dimension are now listed.
Intellectual Acts

Engaging students to link theory to practice by explaining and demonstrating.

Setting clear expectations by explaining scope of role and boundaries.

Thinking aloud and modelling rationales for patient care.

Use mirroring techniques and paraphrase to enhance critical thinking.

Use visual props to assist students to explore thinking out loud to solve problems

Strategic Acts

Intervening to include student and actively involving them in staff discussions about patient care.

Initiating the process of critical thinking with students.

Instilling confidence in students.

Consciously facilitating students’ learning opportunities.

Support students in dealing with the uncertainty of clinical practice.

Moral Acts

Showing delight and support when students’ engage constructively in actions to improve their performance.

Awareness of risk that student will detect frustration in response to students’ lack of competence and consciously reflecting the reasons. These frustrations need to be managed out of student’s presence – clinical educators must not confront student with this.

Respect need for privacy when discussing clinical performance
Providing immediate feedback and praise students’ achievements.

The additions for the authoritarian dimension now follow. It was possible that these strategies could have been inviting or disinventing of students’ learning, however, these were obviously inviting behaviours and this is indicated in Table 4.18 with the letters ‘Inv’ in parenthesis:

**Intellectual Acts**

Challenging students to determine how much is understood through group discussion.

**Strategic Acts**

Supporting students to tackle new experiences.

**Moral Acts**

Facilitating students to constructively develop a moral argument to its conclusion in a non-threatening way to develop students.

Being clear and objective about telling students they may fail and the reasons behind this.

Maximise potential to engage student in learning activity by dynamically responding to student’s anxieties.

Dispassionately discussing differences between professional and personal responses to patients.
## Table 4.18

 Acts of Teaching from Reflective Journals and Reflective Groups

<table>
<thead>
<tr>
<th>Acts of Teaching</th>
<th>Student-centred and Inviting</th>
<th>Teacher-centred and Potentially Inviting (Inv) or Disinviting (Dis)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humanistic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Intellectual Acts</em></td>
<td>Guiding students to maximise motivation. ✓</td>
<td>Challenging students to determine how much is understood (Inv) through group discussion. (Inv)</td>
</tr>
<tr>
<td>Encouraging: Students to question. ✓</td>
<td>Intervening to include student and actively involving them in staff discussions about patient care.</td>
<td>Structuring/ Scaffolding students’ learning to be competent in the clinical setting (Inv).</td>
</tr>
<tr>
<td>Believing:</td>
<td>Initiating the process of critical thinking with students.</td>
<td>Encouraging students to focus on what they are doing and not on who is watching them (Inv).</td>
</tr>
<tr>
<td>That the student is an adult learner. ✓</td>
<td>Instilling confidence in students.</td>
<td>And supporting students to tackle new experiences (Inv)</td>
</tr>
<tr>
<td>Engaging students to link theory to practice by explaining and demonstrating.</td>
<td>Consciously facilitating students’ learning opportunities.</td>
<td><strong>Moral Acts</strong></td>
</tr>
<tr>
<td>Setting clear expectations by explaining scope of role and boundaries.</td>
<td>Support students in dealing with the uncertainty of clinical practice.</td>
<td>Facilitating students to constructively develop a moral argument to its conclusion in a non-threatening way to develop students (Inv)</td>
</tr>
<tr>
<td>Thinking aloud and modelling rationales for patient care.</td>
<td><strong>Strategic Acts continued</strong></td>
<td>Being clear and objective about telling students they may fail and the reasons behind this (Inv).</td>
</tr>
<tr>
<td>Use mirroring techniques and paraphrase to enhance critical thinking.</td>
<td>Encouraging a non-threatening learning environment. ✓</td>
<td><strong>Moral Acts continued</strong></td>
</tr>
<tr>
<td>Use visual props to assist students to explore thinking out loud to solve problems</td>
<td>Believing in the value of the individual student ✓</td>
<td>Maximise potential to engage student in learning activity by dynamically responding to student’s anxieties (Inv).</td>
</tr>
<tr>
<td><strong>Strategic Acts</strong></td>
<td>Acknowledging no one is perfect and allowing space to make mistakes. ✓</td>
<td>Dispassionately discussing differences between professional and personal responses to patients.</td>
</tr>
<tr>
<td>Encouraging: Student to seek out experiences. ✓</td>
<td>Being kind and not terrifying or intimidating students. ✓</td>
<td></td>
</tr>
<tr>
<td>Students to find out information for themselves. ✓</td>
<td>Showing delight and support when students’ engage constructively in actions to improve their performance.</td>
<td></td>
</tr>
<tr>
<td>Students to feel comfortable in their role and in the setting. ✓</td>
<td>Awareness of risk that student will detect frustration in response to students’ lack of competence and consciously reflecting the reasons.</td>
<td></td>
</tr>
<tr>
<td>Supporting and Positive: Students in new learning experiences. ✓</td>
<td>These frustrations need to be managed out of student’s presence – clinical educators must not confront student with this.</td>
<td></td>
</tr>
<tr>
<td>Students to feel proud and motivated by their successes. ✓</td>
<td>Respect need for privacy when discussing clinical performance</td>
<td></td>
</tr>
<tr>
<td>Working together with students. ✓</td>
<td>Providing immediate feedback and praise students’ achievements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Authoritarian</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximise potential to engage student in learning activity by dynamically responding to student’s anxieties (Inv).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dispassionately discussing differences between professional and personal responses to patients.</td>
</tr>
</tbody>
</table>
Changes in Views of Teaching Approach

The results presented in this section of the chapter report on the following aim and objective:

**Aim 3: Identify any changes in clinical educators’ teaching approach and in their understandings of critical thinking and reflective practice that occurred as a result of their participation in the study.**

**Objective:**

6. Determine if the study’s infusion assessments and interventions led to changes in clinical educators’ understanding of their role and clinical teaching processes.

The researcher was interested in identifying if participating in the assessments and interventions made a difference to clinical educators’ perceptions of the study concepts. Not all clinical educators expressed that they had changed in their views of their teaching approach. However, the data for Case 1 Clinical Educators suggests this to be an outcome for them. In the week 16 interview, all Case 1 Clinical Educators related that a change had taken place. This was linked with being involved in the reflective groups and being able to talk and think more about the importance of the concepts of teaching, critical thinking and reflective practice, that was afforded as a participant in the study. Nonetheless, more evidence beyond this study is needed to verify the efficacy of such an intervention in developing clinical educators in their role.

Three of the five Case 2 Clinical Educators saw some differences in their perceptions of the study concepts and linked those directly to the students.
Specifically, to changes and development in the students’ level of confidence and their growing experiences as they moved through their clinical rotations. Those Case 2 Clinical Educators adjusted their teaching style to match the students’ changes.

None of the Case 3 Clinical Educators identified any difference in the way they approached their teaching. Two of the three though, commented on being more aware of the students and the importance of being sensitive to the students’ needs for learning. One of these two clinical educators linked that change to further personal tertiary studies, and the other to thinking and learning more about critical thinking and reflective practice – prompted so by being involved in the study.

**Chapter Summary**

This chapter has reported on the data and analyses that detail an understanding of how the clinical educators perceived aspects of clinical teaching, in particular, their role and responsibilities, their definitions of the study concepts relating to clinical education and their application of the acts of teaching.

The context in which clinical education occurred and clinical educators’ practised has been described and a composite definition of a clinical educator was presented. The clinical educators’ views of teaching were offered along with their perceptions of personal and professional attributes important for their role and the process of clinical education. Clinical educators’ views and rationales regarding teaching, learning and evaluation responsibilities have been described. Detail from Case 1 Clinical Educators on the acts of teaching was presented. Finally, changes in clinical
educators’ views of their teaching as a result of having been involved in the study were presented.
CHAPTER FIVE

Processes of Critical Thinking and Reflective Practice for the Clinical Educators

*It is a miracle that curiosity survives formal education.*  Albert Einstein

The results in this, the second of two chapters to explicate the findings, detail how the clinical educators perceived both critical thinking and reflective practice in relation to their role and relate to the following research aims and objectives:

**Aim 2: Processes of Critical Thinking and Reflective Practice for the Clinical Educators.**

**Objectives:**

4. Construct the clinical educators’ views on critical thinking and reflective practice and how they would recognise essential characteristics of these in the student;

5. Exemplify clinical educators’ processes of critical thinking and reflective practice and how they enabled and evaluated students’ critical thinking and reflective practice in the clinical setting.

**Aim 3: Identify any changes in clinical educators’ teaching approach and in their understandings of critical thinking and reflective practice that occurred as a result of their participation in the study.**

**Objective:**

6. Determine if the study’s infusion assessments and interventions led to changes in clinical educators’ understanding of their role and clinical teaching processes.
The results for critical thinking are presented first, with the quantitative descriptive data from the CCTDI and CCTST, followed by qualitative data explaining how clinical educators perceived critical thinking. A section presenting reflective practice follows this and, finally, the overlap between both concepts is presented. The literature in Chapter Two supports the importance of both critical thinking and reflective practice concepts in clinical education for two reasons. Firstly, critical thinking goes beyond problem solving in the clinical setting as nurses embrace clinical decision making and, thereby enhances patient care. To accomplish the development of this in students, clinical educators also need to demonstrate dispositions and skills in relation to critical thinking, model these for their students, and apply critical thinking skills in their practice and interactions with students. Secondly, reflective practice develops self-regulation of students’ learning and thus there is the need to move students’ abilities in reflection beyond the habitual level described by Kember et al., (1999) to those of reflective action. To accomplish this, clinical educators need to demonstrate and model reflective action, apply this to their practice and role model this in their interactions with students.

**Analysis of Clinical Educators’ Critical Thinking**

Prior to constructing the clinical educators’ understandings of critical thinking, the researcher sought to assess clinical educators’ critical thinking in order to gain some insight into the extent to which the clinical educators themselves were capable of critical thinking. At the beginning of the data collection stage, clinical educators completed the survey where they were asked to explain their understanding of the concept of critical thinking. Following this, their critical thinking dispositions
and skills were assessed using Facione, Facione and Sanchez’s (1994) CCTDI instrument and Facione and Facione’s (1994) CCTST instrument. The scoring process for each of the two instruments has been previously explained in Chapter Three. The relevant data from the analyses of these responses are now presented.

**Clinical Educators’ Critical Thinking Dispositions.**

The CCTDI descriptive statistics were calculated and, in keeping with the methodology and ethical considerations for the three cases, the data have been aggregated. Two scores were calculated. First, a mean of the overall total raw score was derived. Second, the range and means of each of the seven sub-scores (aspects) of critical thinking disposition were derived. Giancarlo and Facione’s (2001) research on the CCTDI scale explains that:

An overall (total) score of less than 210 shows serious overall deficiency in the disposition toward critical thinking. An overall score of 280 or more is a solid indication of across the board strength in the disposition toward critical thinking. (p. 8)

A mean for the CCTDI raw scores or all the clinical educators was calculated at 320.30. This mean indicates that the clinical educators, as a group, demonstrate strength in their disposition towards critical thinking. It should be noted that the range of total CCTDI scores for the 13 clinical educators was from 287 to 355 placing the lowest raw score within the solid indication of disposition to critical thinking mentioned above. As no clinical educator was less than 287, all were regarded as having an across the board strength in the disposition toward critical thinking.
The range of scores and the means for the seven aspects of critical thinking disposition separately, (truth-seeking, open-mindedness, analyticity, systematicity, critical thinking self-confidence, inquisitiveness and maturity of critical thinking) gives an indication of the dispositional strength or weakness of each aspect. A score of 50 or more, indicates the respondent has a consistent dispositional strength in that aspect; and conversely, a score of less than 40 indicates the respondent has a consistent dispositional weakness in that aspect (N. C. Facione et al., 1994).

The ranges for seven aspects of CCTDI scores for all members of the three Cases combined are now presented in Figure 5.1.

Figure 5.1
Profile of Mean Scores and Ranges of CCTDI Scores for Each of the Seven Aspects of the Three Cases of Clinical Educators Combined

<table>
<thead>
<tr>
<th>T</th>
<th>O</th>
<th>A</th>
<th>S</th>
<th>C</th>
<th>I</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>45</td>
<td>45</td>
<td>43</td>
<td>48</td>
<td>52</td>
<td>46</td>
</tr>
</tbody>
</table>

Key:
T = Truth-seeking  S = Systematicity  M = Maturity of CT
O = Open-mindedness C = CT self-confidence
A = Analyticity     I = Inquisitiveness
It should be noted that while none of the mean scores are less than 40, thus, on average, the clinical educators are not weak, some of the individual clinical educators scored between 30 and 39 on at least one of their individual aspects. Thus, some are considered weak in those aspects. Also, it should be noted that the mean score for *inquisitiveness* is the only one to score above 50 (with a mean of 52). While the range of scores for *inquisitiveness* placed some of the clinical educators at 39, others scored up to 60. Only the scores for *critical thinking self-confidence* and *maturity of critical thinking* placed all clinical educators above the 40 mark. Finally, the subscale of truth-seeking has the lowest mean score of 41 and the lowest range of scores from 30 to 48. Truth-seeking behaviours are defined by Facione, Facione and Sanchez (1994) as follows:

… being eager to seek the truth, courageous about asking questions, and honest about pursuing inquiry even if the findings do not support one’s interests or one’s preconceived opinions. The truth-seeker would rather pursue the truth than win the argument. (p.2).

Inquisitiveness behaviours are defined by Facione, Facione and Sanchez (1994) as the person who “values being well-informed, wants to know how things work, and values learning even if the immediate payoff is not directly evident.” (p. 3).

It is unclear as to why *truth-seeking* and *inquisitiveness* scored in the way they did and the researcher was not able to further elucidate reasons from the qualitative data.
Clinical Educators’ Critical Thinking Skills.

The descriptive statistics for the CCTST were calculated and, in keeping with the methodology and ethical considerations, the data the three cases are combined for presentation in Table 5.1. The scores ranges and means are reported in the red font.

Table 5.1

Profile of Means and Ranges of CCTST Sub-scale Scores for the Three Cases of Clinical Educators Combined

<table>
<thead>
<tr>
<th>Critical Thinking Skills Sub-scales and Sub-skills</th>
<th>Sub-scales</th>
<th>Sub-skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANALYSIS</strong></td>
<td>interpretation</td>
<td>Categorisation</td>
</tr>
<tr>
<td>Scores ranged from 0 to 7.</td>
<td>Analysis</td>
<td>Examining ideas</td>
</tr>
<tr>
<td>Mean sub-scale score of 4 out of possible 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EVALUATION</strong></td>
<td>Evaluation</td>
<td>Assessing claims</td>
</tr>
<tr>
<td>Scores ranged from 3 to 11.</td>
<td>Explanation</td>
<td>Stating results</td>
</tr>
<tr>
<td>Mean sub-scale score of 7 out of possible 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inference</strong></td>
<td></td>
<td>Querying evidence</td>
</tr>
<tr>
<td>Scores ranged from 0 to 11.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean sub-scale score of 5 out of possible 11.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Self-regulation</strong></td>
<td></td>
<td>Self examination</td>
</tr>
<tr>
<td><strong>DEDUCTIVE REASONING</strong></td>
<td></td>
<td>These traditional skills of CT comprise elements of all the above sub-skills.</td>
</tr>
<tr>
<td>Scores ranged from 1 to 14.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean sub-scale score of 7 out of possible 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INDUCTIVE REASONING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scores ranged from 4 to 12.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean sub-scale score of 7 out of possible 14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The CCTST scores reported in Table 5.1 are for the sub-scales analysis, evaluation, inference, deductive reasoning and inductive reasoning. The mean for the three Cases of Clinical Educators combined for each sub-scale analysis, inference and deductive reasoning is less than half the mean of the possible ranges for each.

Given the range of sub-scale scores for the CCTST, the reader is cautioned to consider the following. The data are aggregated to provide a mean for the total CCTST scores from the range of clinical educators’ total scores from 7 to 28. As to be expected, given the means reported in Table 5.1, around half of the clinical educators’ total scores are less than the mean of 17. While there is interest in reporting on the CCTST data, the meaning of this in the overall picture may be questionable, given the small number of clinical educators. (A larger sample would have had more statistical power, and therefore, more meaning.)

*Critical Thinking Definitions and Essential Characteristics of a Critical Thinking Nurse.*

The clinical educators were asked to define critical thinking and to describe essential characteristics of a critical thinking nurse. The question was posed in the survey in Week 1 of data collection and repeated in the interview in Week 16 of the study. While there were many similarities in the responses defining critical thinking and the essential characteristics of the critical thinking nurse, clinical educators also differed somewhat in their descriptions. These differences will be explained further in the chapter.
The data, derived from the survey and interview responses are separately reported for each of the three Cases in Tables 5.2, 5.3 and 5.4. (The definitions for the clinical educators are to be found in Appendix 9.) The highlighted words illustrate those responses which aligned with Facione and Facione’s (1994) descriptions of the dispositions for critical thinking (represented in the colour red) and skills for critical thinking (represented in the colour green). The dispositions and skills for critical thinking defined by Facione and Facione (1994), are well represented in the clinical educators’ definitions and the characteristics of a critical thinking nurse.
Table 5.2
Critical Thinking Defined and Characterised by Case 1 Clinical Educators

<table>
<thead>
<tr>
<th>CE</th>
<th>DEFINITION of CT</th>
<th>CHARACTERISTICS of CT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNE</td>
<td>Think beyond the obvious and examine issues in an unbiased, objective way.</td>
<td>Objectivity&lt;br&gt;Adaptability&lt;br&gt;Non-judgemental&lt;br&gt;Curiosity&lt;br&gt;Persistence.</td>
</tr>
<tr>
<td></td>
<td>Develop a capacity to learn.</td>
<td>Processes alert</td>
</tr>
<tr>
<td>BENNET</td>
<td>Look at things/situations critically and analytically from all angles.</td>
<td>Attentive. Draw on previous experience and knowledge at any given moment. Recognise</td>
</tr>
<tr>
<td></td>
<td>Sound understanding/knowledge and skills base.</td>
<td>when situation is “out of one’s depth” and utilise basic principles previously</td>
</tr>
<tr>
<td></td>
<td>Application of our various senses and power of reasoning.</td>
<td>learned to problem solve.</td>
</tr>
<tr>
<td></td>
<td>Previous experience and learning Self-confidence.</td>
<td>Look at any given situation from all angles.</td>
</tr>
<tr>
<td></td>
<td>Acuteness of a person’s awareness at the time.</td>
<td>Further challenge self to look for further angles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflect on how one performed, how it might have been done better or differently –</td>
</tr>
<tr>
<td></td>
<td></td>
<td>for self and to critically analyse how others have performed.</td>
</tr>
<tr>
<td>CLAIRE</td>
<td>Skilful judgement to get at the truth or merit of a discussion, passage etc.</td>
<td>Reads &amp; analyses relevant data. listens to all sides of an argument. Seeks more</td>
</tr>
<tr>
<td></td>
<td>Using logical and analytic thought processes.</td>
<td>information.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thinks logically through problems and able to consider other alternatives.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Considers strategies to overcome problems.</td>
</tr>
<tr>
<td>DAVID</td>
<td>Process data/information logically and in a systematic way.</td>
<td>Think critically. Assess, analyse and incorporate data in a systematic way.</td>
</tr>
<tr>
<td></td>
<td>Look at all avenues before deciding on a particular approach.</td>
<td></td>
</tr>
<tr>
<td>ERIN</td>
<td>Reason and question. Understand and form your own conclusions.</td>
<td>Reason. Understand and form your own conclusions based on what you know or have</td>
</tr>
<tr>
<td></td>
<td></td>
<td>researched.</td>
</tr>
</tbody>
</table>

Key: Critical thinking **dispositions** that align with key words from Facione et al. (1994) are presented in **red font**. Critical thinking **skills** that align with key words from Facione et al. (1994) are presented in **green font**.
Bennet’s comments are provided as an example of Case 1 clinical educators definitions. He defined critical thinking as the ability to look at things or situations critically and analytically from all angles. For him, critical thinking incorporates a sound understanding, knowledge base and skills based on our various senses and power of reasoning. Hence it is affected by previous experience and learning, self-confidence and acuteness of a person’s awareness at the time. He saw essential characteristics of a critical thinking nurse as being processes alert and attentive, having the ability to draw on previous experience and knowledge at any given moment and recognising when the situation is “out of one’s depth”: that is, it is beyond one’s previous experience and knowledge base. Hence, the critically thinking nurse can utilise basic principles, previously learned, to problem solve and look at any given situation from all angles – further challenging one’s self to look for further aspects. Then after the event, the nurse will reflect on how one performed and how it might have been done better or differently; not only for one’s self but also to critically analyse how others have performed.
Table 5.3.
Critical Thinking Defined and Characterised by Case 2 Clinical Educators

<table>
<thead>
<tr>
<th>CE</th>
<th>DEFINITION of CT</th>
<th>CHARACTERISTICS of CT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIONA</td>
<td>Curious about life&lt;br&gt;Open-minded&lt;br&gt;objective&lt;br&gt;Flexible and unbiased&lt;br&gt;Don’t give up that easily&lt;br&gt;Can embrace an illogical argument – particularly one with an emotional component</td>
<td>Sense of humour&lt;br&gt;Adapt to change at short notice&lt;br&gt;Open-minded&lt;br&gt;Flexible&lt;br&gt;Healthy cynicism&lt;br&gt;Resilient&lt;br&gt;Politically active&lt;br&gt;Committed to patient empowerment.</td>
</tr>
<tr>
<td>GRAHAM</td>
<td>Examination of all intellectual processes – ideas, assumptions, Reasoning etc&lt;br&gt;Utilise all forms of reasoning, analyse language to identify problems, and assumptions. Judge, evaluate, conclude – to have an outcome, strategy, action.</td>
<td>Analyse language&lt;br&gt;Identify and formulate problems&lt;br&gt;Analyse argument&lt;br&gt;form conclusions&lt;br&gt;Examine assumptions&lt;br&gt;Formulate &amp; clarify Document&lt;br&gt;Evaluate.</td>
</tr>
<tr>
<td>HANNA</td>
<td>Conceptualisation&lt;br&gt;Reflective practice&lt;br&gt;Rational and autonomous thinking&lt;br&gt;Creative thinking.</td>
<td>Patterns of knowing – Scientific, empirical, personal, ethical and aesthetic Knowledge&lt;br&gt;Reflective thinking&lt;br&gt;Autonomous thinking&lt;br&gt;Creativeness&lt;br&gt;Rationality&lt;br&gt;Conceptualisation.</td>
</tr>
<tr>
<td>INGRID</td>
<td>Logically reason&lt;br&gt;Outcomes based on emotional/cognitive and educational principles</td>
<td>Good knowledge base/education&lt;br&gt;Common sense&lt;br&gt;Assertive&lt;br&gt;Research&lt;br&gt;Questioning curiosity&lt;br&gt;Good clinical skills expertise</td>
</tr>
<tr>
<td>JORDAN</td>
<td>Examine the situation in depth&lt;br&gt;Consider all data available&lt;br&gt;Determine decision based on your own Background/knowledge/experience.</td>
<td>Look at all data&lt;br&gt;Open to all alternatives&lt;br&gt;Does not jump at first possible answer to a problem&lt;br&gt;Intelligent&lt;br&gt;Experienced</td>
</tr>
</tbody>
</table>

Key: Critical thinking dispositions that align with key words from Facione et al. (1994) are presented in red font. Critical thinking skills that align with key words from Facione et al. (1994) are presented in green font.
Jordan’s comments are provided as an example of Case 2 Clinical Educators’ definitions. He defined critical thinking as examining the situation in depth, considering all data available and determining a decision based on your own background, knowledge and experience. He identified the essential characteristics of a critical thinking nurse as being one who looks at all data, is open to all alternatives, does not jump at the first possible answer to a problem, and is intelligent and experienced. Furthermore, Jordan identified it would be hard to achieve all this without experience.

Table 5.4.

Critical Thinking Defined and Characterised by Case 3 Clinical Educators

<table>
<thead>
<tr>
<th>CE</th>
<th>DEFINITION of CT</th>
<th>CHARACTERISTICS of CT</th>
</tr>
</thead>
<tbody>
<tr>
<td>KENDRA</td>
<td>Method developed with experience Assess a situation or circumstance Consider it from all aspects Draw inferences which may be the basis for decision making or action/change.</td>
<td>Good knowledge base and access to resources Open minded Unbiased Rapport with other staff members in an area where change may be considered as a result of critical thinking and an understanding or awareness of personal values, beliefs &amp; philosophies.</td>
</tr>
<tr>
<td>LYALL</td>
<td>Identify &amp; define a problem Reflect on it Consider alternative approaches Act appropriately Learn from the experience.</td>
<td>Considers the whole picture, ie. Is holistic – sees beyond immediate approach Problems as learning Experiences Aware of her limitations Uses other resources/persons when needed Self-aware Uses experience &amp; wide knowledge base effectively.</td>
</tr>
<tr>
<td>MONIQUE</td>
<td>Analysing a situation or theory utilising the powers of experience, scientific knowledge Comparing and contrasting with other relevant theories or research Asking many questions to ascertain the efficacy of a given situation, theory or practice.</td>
<td>Seeking ongoing education Keeping up to date with professional and ethical issues, research (particularly in own area of work). Participating in research projects Open minded Scientific approach to problem solving.</td>
</tr>
</tbody>
</table>

Key: Critical thinking **dispositions** that align with key words from Facione et al. (1994) are presented in **red font**. Critical thinking **skills** that align with key words from Facione et al. (1994) are presented in **green font**.
Kendra’s comments are provided as an example of Case 3 Clinical Educators’ definitions. She saw critical thinking as a method developed with experience, of assessing a situation or circumstance, considering it from all aspects, and drawing inferences which may be the basis for decision making, action or change. Kendra saw the essential characteristics of a critical thinking nurse as a good knowledge base and access to resources, open minded and unbiased, a rapport with other staff members in an area where change may be considered as a result of critical thinking and an understanding or awareness of personal values, beliefs and philosophies.

Reflective Practice.

The results in this section are the clinical educators’ definitions of reflective practice and what they saw as the essential characteristics for nurses and clinical educators. The findings presented relate to the objective stated at the beginning of this chapter.

As with critical thinking, reflective practice was one of the central concepts of importance for this dissertation. The data are derived from the survey responses and the interview in order to present a clear understanding of how the clinical educators defined reflective practice.

The definitions were analysed with a template based on how each one aligned with Kember et al’s., (1999) levels of reflection which range from non-reflective actions (habitual, thoughtful and introspective actions) to reflective actions (content, process and premise reflection). Those authors derived their schema from Jack
Mezirow’s (1981) work and the relevance of a schema for reflection to the thesis has been discussed in Chapter Two. A diagrammatic representation of the hierarchical levels of reflection is presented in Figure 5.2. Habitual action is shown in this figure at the lowest level and premise reflection is shown at the highest level and includes the placement of the clinical educators within this schema according to their definition of reflective practice. It is of interest to note that no clinical educators are represented in the content level of reflection. Three clinical educators from Cases 1 and 2 (Bennet, Hanna and Ingrid) are represented at the process level of reflection. Eight clinical educators from all three cases (Anne, David, Fiona, Graham, Erin, Jordan, Lyall and Monique) are represented at the content/process level of reflection. Two clinical educators from Cases 1 and 3 (Claire and Kendra) are represented at the premise level of reflection (the highest level). Also, of interest, is that there is no relationship between length of time as a registered nurse or as a clinical educator to be seen in the representations.
A composite of the elements of the clinical educators’ definitions of reflective practice according to Kember et al.’s (1999) coding levels for reflection are presented in Table 5.5. (The transcriptions from which these categorisations are derived are in Appendix 10.) The elements present indicate the clinical educators are reflecting at the higher order level of reflective actions required for them to be aware of the source for reflection in a conscious manner. Kember et al. indicate that at the content level, reflection is focussed on what we perceive about an experience. In

---

**Figure 5.2** Coding of Clinical Educators’ Levels of Reflection

<table>
<thead>
<tr>
<th>Reflective action</th>
<th>Non-reflective action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Premise Reflection</strong>&lt;br&gt;Claire, and Kendra.</td>
<td><strong>Content Reflection</strong>&lt;br&gt;Bennet, Hanna, and Ingrid</td>
</tr>
<tr>
<td><strong>Content and Process Reflection</strong>&lt;br&gt;Anne, David, Erin, Fiona, Graham Jordan, Monique and Lyall</td>
<td><strong>Habitual Action</strong></td>
</tr>
<tr>
<td><strong>Introspection</strong></td>
<td><strong>Thoughtful Action</strong></td>
</tr>
</tbody>
</table>

**Key:** *Red* font = Case 1 Clinical Educator; *green* font = Case 2 Clinical Educator; *violet* font = Case 3 Clinical Educators

Adapted from Kember et.al. (1999)
particular, how we thought, felt or acted in relation to that experience. No clinical educator was placed at this level of reflection.

Three clinical educators were placed at the process level, where Kember et al. indicate that reflection focuses on the method or the way in which we think. The reflection may be triggered by an event but does not focus on the event, rather on the thinking processes that have been triggered by that event. These distinguishing characteristics were to be seen in Bennet, Hanna and Ingrid’s definitions. In particular, Hanna’s definition describes reflective practice as a process of thinking back over a particular situation or event, exploring the factors that influence the handling of such a situation, analysing the situation and evaluating it.

Eight clinical educators were placed at the content/process level, where Kember et al. indicate that reflection combines both the content (what we perceive about an experience, how we thought, felt or acted in relation to that experience) and the process levels (the method or the way in which we think which may be triggered by an event but does not focus on the event, rather on the thinking processes that have been triggered by that event). These distinguishing characteristics were to be seen in Anne, David, Erin, Fiona, Graham Jordan, Monique and Lyall’s definitions. In particular, Lyall’s definition describes reflective practice as being based on awareness and requires a person to observe their thoughts and feelings, ask questions about them and learn from the answers that emerge. Lyall also sees reflective practice requiring one to look at what he/she did and why it was done; the motives, and how one would evaluate what was actually done – not what one planned to do. Further, should the experience fall short of the expectation, one would look at ways
of improving: thus use a process of continually self-evaluating and setting goals for improvement.

At the *premise* level, reflection moves us to a higher level of becoming aware of why we perceive, think, feel or act in the way that we do, The premise level leads to a transformation as a result of considering our beliefs and values and how they impact on our perceptions. These distinguishing characteristics were to be seen in Claire and Kendra’s definitions. In particular, Kendra’s definition describes reflective practice as a continual process of assessing actions, reactions and methods that one may use. Kendra sees this as allowing evaluation and changes in personal practice. She also identified that reflective practice encourages philosophy and development of a theory based practice. Additionally, reflective practice might be a process of critical thinking: reflecting on your thoughts and feelings and what you’ve done, thinking critically about them in a different light or how they may have changed.

A level of transparency of reflection gained at the content, process and premise levels would seem be in keeping with that which is required for clinical educators’ teaching practice and ability to stimulate students to a level of awareness about their own learning. Further, such encouragement in reflection is likely to lead to refinement of self-regulation in respect of theirs and students’ learning and analysis of practice. Strategies to enable reflective practices in students by the clinical educators are presented later in this chapter.
<table>
<thead>
<tr>
<th>Reflective Practice Defined</th>
<th>Process Level of Reflection (n=3)</th>
<th>Content/ Process Level of Reflection (n=8)</th>
<th>Premise Level of Reflection (n=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looking back to self-evaluate/make judgement on performance (Bennet)</td>
<td>Consider in retrospect actions and events; Honesty in recall to focus issues, behaviours and feelings to improve (Anne)</td>
<td>Think back on experiences to analyse decisions and to see if any difference made to practice and how in future performance can be changed (Claire)</td>
<td></td>
</tr>
<tr>
<td>Thinking back on event, exploring factors that influenced handling of event, analyse and evaluate event (Hanna)</td>
<td>Learn about what can be done differently and analyse if a difference was made by looking back over one’s experiences to ask what, how and why (David)</td>
<td>Draw on past experiences as sources, frames of reference, information and possible solutions to problems.</td>
<td></td>
</tr>
<tr>
<td>Reflect on practice issues to determine strengths and weaknesses (Ingrid)</td>
<td>Ability to self-assess and critically evaluate what can be kept and what is to be changed as there is always room for improvement (Erin)</td>
<td>Continual process to assess actions, reactions and methods used to change one’s practice. Encourages philosophy and development of theory based practice. Could be a process of critical thinking (Kendra)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reflective actions are dynamic, changing and interactive to achieve a favourable outcome (Fiona)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ability to critique one’s practice. Circular process to think about practice, look at strengths and weaknesses, feelings and how to use strengths to improve the situation. This can be undertaken with another as one’s memory of what occurred can be distorted (Graham)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Look back on own and other’s practice to identify what and why, to modify or change outcomes next time, and to appreciate one’s abilities (Jordan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continually self-evaluating by asking questions of what, how and why, observing one’s thoughts and feelings to learn from answers (Lyall)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thinking about what was performed and why, effect and outcome to look at need for change/improvement (Monique)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essential Reflective Characteristics of a Nurse</td>
<td>Process Level of Reflection (n=3)</td>
<td>Content/ Process Level of Reflection (n=8)</td>
<td>Premise Level of Reflection (n=2)</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>----------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Asks “why… could there be other ways”?</td>
<td>Asks “why… could there be other ways”?</td>
<td>Honesty, clarity and realism (Anne)</td>
<td>Acknowledgment of deficits and desire to improve, learn and to do better (Claire)</td>
</tr>
<tr>
<td>Observant, learning from success/failure, recognise deficits and reframe objectives (Bennet)</td>
<td>Observant, learning from success/failure, recognise deficits and reframe objectives (Bennet)</td>
<td>Recognition of one’s own abilities and level of professional competence (David)</td>
<td>Being open to new ideas and change, able to critically consider one’s actions and a desire to learn from others (Kendra)</td>
</tr>
<tr>
<td>Self-awareness, critical analysis of feelings and knowledge, synthesis, sharing knowledge and networking (Hanna)</td>
<td>Self-awareness, critical analysis of feelings and knowledge, synthesis, sharing knowledge and networking (Hanna)</td>
<td>Self-assessment of positive and negative outcomes (Erin)</td>
<td></td>
</tr>
<tr>
<td>Look at practice issues to discuss impact of these and determine how to deal with outcomes (Ingrid)</td>
<td>Look at practice issues to discuss impact of these and determine how to deal with outcomes (Ingrid)</td>
<td>Confidence in situations and validating previous experiences (Fiona)</td>
<td></td>
</tr>
<tr>
<td>Honest, clarity and realism (Anne)</td>
<td>Honest, clarity and realism (Anne)</td>
<td>Ability to identify and conceptualise an experience (Graham)</td>
<td></td>
</tr>
<tr>
<td>Recognition of one’s own abilities and level of professional competence (David)</td>
<td>Recognition of one’s own abilities and level of professional competence (David)</td>
<td>Critical evaluation of one’s performance and that of peers (Jordan)</td>
<td></td>
</tr>
<tr>
<td>Self-assessment of positive and negative outcomes (Erin)</td>
<td>Self-assessment of positive and negative outcomes (Erin)</td>
<td>Self-awareness, awareness of others, an open attitude to learning, ability to accept one’s mistakes and move on, valuing learning, caring for others and respecting ones-self (Lyall)</td>
<td></td>
</tr>
<tr>
<td>Confidence in situations and validating previous experiences (Fiona)</td>
<td>Confidence in situations and validating previous experiences (Fiona)</td>
<td>Self-directed, proactive, striving for excellence, exemplary professional conduct, understands policies/protocols, self-evaluates, uses resources to improve patient care (Monique)</td>
<td></td>
</tr>
<tr>
<td>Ability to identify and conceptualise an experience (Graham)</td>
<td>Ability to identify and conceptualise an experience (Graham)</td>
<td>Self-awareness, awareness of others, an open attitude to learning, ability to accept one’s mistakes and move on, valuing learning, caring for others and respecting ones-self (Lyall)</td>
<td></td>
</tr>
<tr>
<td>Critical evaluation of one’s performance and that of peers (Jordan)</td>
<td>Critical evaluation of one’s performance and that of peers (Jordan)</td>
<td>Self-directed, proactive, striving for excellence, exemplary professional conduct, understands policies/protocols, self-evaluates, uses resources to improve patient care (Monique)</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5.5 continued

<table>
<thead>
<tr>
<th>Essential Reflective Characteristics of a Clinical Educator</th>
<th>Process Level of Reflection (n=3)</th>
<th>Content/ Process Level of Reflection (n=8)</th>
<th>Premise Level of Reflection (n=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assist students to make judgements and self-evaluate practice, undertake self-evaluation on teaching to facilitate students’ learning (Bennet)</td>
<td>Adaptable, continuing to develop in a changing world, integrity of practice from honesty (Anne)</td>
<td>Enhancing own worth of performance and analysing feelings and inadequacies to plan how to provide more enlightened, workable teaching relationship. For students, provide good insight for their standard of practice (Claire)</td>
</tr>
<tr>
<td></td>
<td>Sharing of experiences, stories and role modelling good care to students (Hanna)</td>
<td>Creating a learning environment for students to think about their actions, consider consequences and learn from experiences (David)</td>
<td>Applying methods of reflective practice to improves own abilities in role and to stimulate students’ reflective practice (Kendra)</td>
</tr>
<tr>
<td></td>
<td>Plan students experiences, look at teaching strategies, develop rapport and role model effective practice to students, consider effectiveness of self as leader (Ingrid)</td>
<td>Self-assessment of strengths and weaknesses and to take appropriate steps to correct these (Erin)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Providing confidence in situations and reinforcing prior knowledge and the validation of previous experiences (Fiona)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facilitating one’s teaching strategies with students and assisting students to become competent in their reflective practice (Graham)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assisting students to appreciate how much they have achieved and to gain further confidence. Use reflective practice to enable students to learn from good and poor practices of other nurses (Jordan)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improving practice by reworking according to students’ responses and own sense of effectiveness. Provides clarity to role (Lyall)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Foster students’ professional development towards safe practitioners, reduce tendencies of students to see experiences as task oriented (Monique)</td>
<td></td>
</tr>
</tbody>
</table>
Overlap of Critical Thinking and Reflective Practice

Understanding the interaction between critical thinking and reflective practice and any overlap was useful in that this information added to understanding how the clinical educators might consider these concepts in the clinical setting and therefore enable the processes in students. A connection or overlap may also be a reality in clinical educators’ teaching practise where it is difficult to neatly separate the two concepts.

In the final interview, clinical educators were asked to give consideration to their view of the similarities or differences between critical thinking and reflective practice. While there was some consensus, clinical educators viewed relationships between the two concepts in a number of ways, from them being distinctly different to being interlinked, from having no outcome to having outcomes. Nine relationships were described and a number of these were similar. Four of the nine relationships are now presented with summaries and the clinical educators’ explanations. The remaining five are to be found in Appendix 11.

In the first described relationship between critical thinking (CT) and reflective practice (RP) these two remain separate from one another. The outcome of learning brings the two together in a relationship. This relationship is depicted in Figure 5.3.
Jordan described the relationship thus:

Reflective practice is about growing based on what’s happened to you in the past. If you were drawing a schematic diagram of what critical thinking was, it'd have to be based on your understanding of what’s happening in the situation and knowledge. One of the things contributing to that knowledge would be reflective practice. If you had drawn a diagram of what reflective practice was, the way you develop reflective practice would be to critically think about what you’ve done previously. It’s all a circle. So they’re both related to each other. I think they certainly have a strong relationship: I think one’s fundamental to the other.

In the second described relationship, the processes of Critical Thinking and Reflective Practice act together to improve actions and for a better outcome next time. This relationship is depicted in Figure 5.4.
Ingrid described this relationship thus:

Critical thinking is the process leading to a person’s action and reflective practice is looking at those actions and deciding whether they could have been done better, or whether they were really good, or what other factors came on board. How can I then go back to my critical thinking to enhance that? For example, you design a new car through critical thinking, that you believe is better than any other car and then you reflect on that car in the trials and make some evaluation of the outcomes and go back to the board and use critical thinking to turn out a better motorcar next time.

In the third described relationship, critical thinking and reflective practice are similar – if you can do one you can do the other. The common element for critical thinking and reflective practice is “problem solving” with reflective practice providing an awareness of one’s skills and limits. This relationship is depicted in Figure 5.5.

Figure 5.5

Critical Thinking and Reflective Practice Overlap: Relationship 3

Leanne described this relationship thus:

They’re similar in that I think they both involve problem-solving techniques. Reflective practice has more of you in it: You look more critically at exactly what part you played. Whereas in critical thinking, you can put a problem out there and really nut it out without being too much involved. With reflective practice, even things like how much energy you have got – did you do it at the right time of day are questions you ask. I really encourage the students to care for themselves and to use RP for this. So it’s looking at what you can handle, what you can’t, what your skills and limits are – that sort of thing. You need to know those as well when you look at
a problem critically. I see the difference in where you do that work but I think they’re both essential.

In the fourth described relationship, reflective practice is reflecting on a situation and your feelings about it, while critical thinking analyses and evaluates what you did in the situation. Both are necessary for effectiveness in the role. Both critical thinking and reflective practice are necessary for professional effectiveness. This relationship is depicted in Figure 5.6.

Figure 5.6

Critical Thinking and Reflective Practice Overlap: Relationship 4

Monique described this relationship thus:

They go together. Reflective practice is looking back and thinking how the situation was and how you felt about it. Critical thinking is analysing how the situation was, what you did etc. So they’re different in that respect but I see that they go together. You can’t have one without the other if you want to do your job properly. The similarity is in the way of looking at something, evaluating, thinking something through. Reflective practice leads into critical thinking – how you feel about something. Then you start discussing it and you can start thinking about how you want to change something or develop something further. You need them both if you’re going to do a thorough job professionally.
How Critical Thinking and Reflective Practice was Enabled in Students

Clinical educators were asked about how they enabled critical thinking and reflective practice in students whilst in the clinical setting, at two points in the data collection phase – in the Survey and during the Week 16 Interview. Not all clinical educators recollected an actual example, though they were able to say what strategies they would use and to contextualise those. The strategies have been interpreted by the researcher into categories. Reflective practice strategies are presented in Table 5.6 and the critical thinking strategies in Table 5.7.

The researcher has applied the earlier described template, in Table 4.10, Chapter Four, for iterative analysis. It is noteworthy that no strategies emerged for any category other than for those for the category of Student Centred, Inviting and Humanistic. Also noteworthy is that ‘role modelling’ is the only constant theme for the three acts of teaching in the enabling strategies for reflective practice, as well as for critical thinking. Additionally, it is worth mentioning that the theme ‘scaffolding’ was present for the three acts of teaching in the strategies enabling reflective practice.

The researcher also triangulated the themes from the clinical educators’ responses of espoused strategies with the researcher’s observations of the clinical educators in the clinical practice settings and confirmed that espoused strategies were present in actual strategies observed.

The themes to arise from the analysis of the strategies clinical educators apply to enable reflective practice (Table 5.6) are similar for the three acts of
teaching. These are ‘questioning’, ‘applying expectations and feedback’, ‘role modelling’ and ‘scaffolding’ for the intellectual acts. The themes for strategic acts are ‘role modelling’ and ‘scaffolding’; and for the moral acts are ‘role modelling’, ‘applying expectations and feedback’ and ‘scaffolding’.

The themes to arise from the analysis of the strategies clinical educators apply to enable critical thinking (Table 5.7) are similar for the three acts of teaching and one theme is constant to all three – this being ‘role modelling’. The themes, then, are ‘challenging’, ‘questioning’, ‘role modelling’, ‘scaffolding’ and ‘encouraging’ for the intellectual acts. The themes for strategic acts are ‘role modelling’, ‘scaffolding’, ‘facilitating’ and ‘encouraging’; and for the moral acts are ‘supporting’ and ‘role modelling’.

Reflective practice strategies are now presented in Table 5.6, followed by the critical thinking strategies in Table 5.7.
Table 5.6 Clinical Acts of Teaching Strategies for Reflective Practice

<table>
<thead>
<tr>
<th>Strategies To Enable Reflective Practice and Clinical Acts of Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanistic, Student-centred and Inviting</td>
</tr>
<tr>
<td>Intellectual Acts</td>
</tr>
<tr>
<td><strong>Questioning:</strong></td>
</tr>
<tr>
<td>Students about why they are doing what they are doing to help them define the limits of their practice and to further their learning.</td>
</tr>
<tr>
<td>Aspects of students’ practice to assist them with identifying what they may have missed in order for them to develop good habits in their practice.</td>
</tr>
<tr>
<td>Prompting and questioning to enable students to reflect at a deeper and more insightful level.</td>
</tr>
<tr>
<td><strong>Applying Expectations and Feedback</strong></td>
</tr>
<tr>
<td>Expecting students to self-identify their needs in meeting objectives.</td>
</tr>
<tr>
<td><strong>Role Modelling:</strong></td>
</tr>
<tr>
<td>Thinking out loud when preparing for clinical procedures.</td>
</tr>
<tr>
<td>Working with negative examples of practice that students’ observe and assist student to think aloud different ways of doing these for a better outcome.</td>
</tr>
<tr>
<td>Actively coaching students in ways to approach patients and assist them to practice to achieve better outcomes.</td>
</tr>
<tr>
<td><strong>Scaffolding</strong></td>
</tr>
<tr>
<td>Prompting students following clinical procedures with questions on how they felt, were they happy with their performance, what planning they had undertaken to ensure their performance was okay, and, what they would do differently the next time. (2 clinical educators).</td>
</tr>
<tr>
<td>Structuring students’ preparation for specific clinical experiences and encouraging them to reflect on how they will approach the experience and procedure.</td>
</tr>
</tbody>
</table>

**Strategic Acts**

**Role Modelling**

Sharing clinical anecdotes to illustrate how to do procedure/provide care.

Guiding students in spending a minimum of 5 minutes being reflective and using the word to reinforce the process.

Prompting the student to identify any errors they have made and to think through aloud specifically how they will do it differently the next time.

Encouraging students in their reflection in order for them to reach for excellence in their practice.

Discussing students’ reflective diary entries to assist them to see their personal development especially in the mental health setting.

Encouraging students to talk about clinical situations and their associated feelings, the outcomes and future interventions.

**Scaffolding**

Guiding the group in tutorials to reflect on their experiences and their clinical decisions about care.
Table 5.6 Clinical Acts of Teaching Strategies for Reflective Practice Continued

<table>
<thead>
<tr>
<th>Moral Acts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Role Modelling</strong></td>
</tr>
<tr>
<td>Leading by example.</td>
</tr>
<tr>
<td><strong>Applying Expectations and Feedback</strong></td>
</tr>
<tr>
<td>Providing positive feedback to contrast sometimes negative feedback from Preceptor.</td>
</tr>
<tr>
<td><strong>Scaffolding</strong></td>
</tr>
<tr>
<td>Guiding students in their reflection to assist them to honestly own any mistakes made and to address these and incorporate them into learning.</td>
</tr>
<tr>
<td>Using reflective questioning with students who are having difficulty in seeing that they are doing anything wrong as a means to step them through and to see the problem.</td>
</tr>
</tbody>
</table>
Table 5.7 Clinical Acts of Teaching Strategies for Critical Thinking

<table>
<thead>
<tr>
<th>Strategies To Enable Critical Thinking and Clinical Acts of Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanistic, Student-centred and Inviting</td>
</tr>
</tbody>
</table>

**Intellectual Acts**

**Challenging**
Challenge students to consider options in management of patients and to explore any conflicting role aspects.

**Questioning**
Pose systematic questions to assist students in using a logical process – assessment, planning, interventions and evaluation.

**Role Modelling:**
Use the nursing process continually with the students to role model and reinforce a logical approach.

**Scaffolding**
Step student through physiological processes to assist them to construct what was happening in the patient in response to interventions of care. Provide hypothetical situations to trigger students to analyse and think logically through responses to sift the most appropriate and correct ones.

**Encouraging**
Stimulate students to critically analyse situations that they identify as different to what they have been taught and assist them to work out an appropriate answer rather than condemn the observed practice without further thought. Encourage students to persist in questioning techniques to get at the truth of issues when patients responses appear to be superficial and evasive.

**Strategic Acts**

**Role Modelling**
Encourage students to verbalise their care to one another in order for them to coach one another to see erroneous care or ideas.

**Scaffolding**
Assist students to consider all aspects, including those that are legal in nature when they are faced with working through events that are traumatic and uncover poor risk management practices. Prompt the student through the process of making the theory/practice links so they can continue to develop independence in this process.
Table 5.7 Clinical Acts of Teaching Strategies for Critical Thinking Continued

Strategic Acts Continued

Facilitating
Take a step back and allow the student to logically work through prioritising patient care when they are taking on patients with complex problems for the first time and facilitate being a safety net to assist them if they ask for help and when they don’t arrive at correct solutions in a critical situation.

Encouraging
Praise students and compliment them when they are able to analyse situations and then follow through with the why or why not they should be doing “X” in order to reinforce this as excellent clinical behaviour.

Praise students for noticing and stating the obvious that more experienced registered nurses tend to ignore.

Moral Acts
Supporting
Consciously approach questioning students and assist them to explore their clinical experiences in a flexible way that lets them drive the process and define their own standard for their practice rather than impose one on them prematurely.

Use humour and sensitivity to defuse situations and preserve students’ sense of self where students’ poor practice needs to be immediately dealt with/corrected and they are still providing care to the patient.

Role Modelling
Use examples to illustrate best practice and to provide students with clues to effective and logical responses to crises as this is something that they won’t be responsible for acting on alone when they are students.
While the clinical educators were not asked to comment on personal or professional attributes that may feature as important in the enabling of critical thinking and reflective practice in students, it is useful to contrast the definitions presented in Chapter Four with the themes reported in Tables 5.6 and 5.7. These definitions were on first, the personal and professional attributes required for the role, second, for evaluating students, and last, their definition of a Clinical Educator. Similarities are noted in the attributes and definitions previously presented in Chapter Four. These are re-presented here as follows:

The personal and professional attributes required for the role as a clinical educator (deduced from the data) are:

- Being humanistic, having effective communication skills, having a good knowledge base and competence, behaving professionally,
- showing a sense of enjoyment and humour, having critical thinking,
- reflective practice and problem solving skills, having a team approach, and being open to new ideas.

The definition “Clinical Educator” from the data is:

One who facilitates students’ learning and acts as a resource to assist students to bring together theory and practice within the clinical context. The clinical educator has extensive specialised experience and supervises, educates and guides students in the clinical setting. The clinical educator applies appropriate clinical skills and experience, knowledge of the curriculum, good communication skills, a desire and skills to teach, and a positive attitude to the explication of
their role. The clinical educator both mentors and role models to students, organises their learning opportunities in the clinical setting and provides feedback and evaluation.

The personal and professional attributes for evaluating were seen as:

The clinical educator needs to be understanding, a positive role model, have a good knowledge-base, and demonstrate fairness in providing feedback. These attributes are all important for evaluating. Additionally, it is essential the clinical educator has an awareness of what is happening in the clinical setting and is honest in their interactions with the student. It is also important that they are encouraging, questioning, realistic, objective and reflective and apply principles to the process. Finally, in order to be unbiased and objective, the clinical educator needs the ability to be constructive and aware of the student’s level of learning and the curriculum and clinical requirements.

It is worthy to note that the theme ‘role modelling’ is present in the reflective practice and critical thinking enabling strategies as well as being mentioned in the definition of a clinical educator and in the personal and professional attributes for evaluating students.
Factors That Enhance or Hinder Development of Students’ Critical Thinking and Reflective Practice in Clinical Setting

The clinical educators were given the opportunity to explore the question of what factors enhance or hinder the transfer from university to practical learning of students’ critical thinking and reflective practice in their interview at week 16. Five clinical educators commented that they had insufficient knowledge of the curriculum to be able to effectively remark on the question, though they did add interesting comments that have been included. One clinical educator particularly expressed her frustration with not only feeling that she did not know enough about what the students were learning in their units at the university but also that her attempts to find out more had met with no response – so she had given up trying to find out the information.

The comment about awareness of the curriculum is particularly noteworthy in that this was identified earlier as one of the professional attributes for evaluating – a point not to be overlooked. Other clinical educators’ comments serve to support the existence of a divide between theory and practice in the curriculum.

Moreover, a strong message from the comments in relation to the concept of time refers to two factors which have a potentially negative impact on students’ developing their reflective practice and critical thinking. These are the amount of time available devoted in the curriculum for students to spend in clinical settings to practice and become clinically competent, and the time available to clinical educators to focus on students learning.
The themes to emerge from the analysis for curriculum enhancers are ‘structure’ and ‘expected outcomes’. The theme for the clinical setting enhancer is ‘opportunities for synthesis – theory and practice reality’. The themes for curriculum inhibitors are ‘structure/process’, ‘time’, ‘expectations for synthesis – theory/practice’, ‘expectations for synthesis – theory/practice reality divide’ and ‘keeping the curriculum a secret’. The themes for the clinical setting inhibitors are ‘time’, ‘structure of the milieu’ and ‘performance/evaluation’. The comments and themes are presented in Table 5.8.

The latter comment about awareness of the curriculum is particularly noteworthy in that a lack of knowledge of the curriculum was given as a reason for not being able to effectively comment on the issue. Also no other comments in those offered in Table 5.7 allude to other previously identified attributes.
Table 5.8 Critical Thinking and Reflective Practice Enhancers and Hindrances

<table>
<thead>
<tr>
<th>Curriculum – Enhancers</th>
<th>Curriculum – Hindrances</th>
<th>Clinical Setting – Enhancers</th>
<th>Clinical Setting – Hindrances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td><strong>Structure/Process</strong></td>
<td><strong>Opportunities for Synthesis – Theory/Practice Reality</strong></td>
<td><strong>Time</strong></td>
</tr>
<tr>
<td>Reflective practice part of clinical evaluation tool.</td>
<td>Teaching of reflective practice not formally followed through curriculum (once only teaching).</td>
<td>Patients are a valuable resource for students to develop these concepts in a “real” setting.</td>
<td>Time in practice setting too fragmented for students to develop true reflective practice and critical thinking (7 clinical educators commented on this issue).</td>
</tr>
<tr>
<td>Curriculum is holistic and promotes student to think about everything in relation to the patient.</td>
<td>Imbalance between clinical and theory component mean differing standards are applied (higher in theory units).</td>
<td>Connection of theory to practice.</td>
<td>Insufficient time for students to become clinically competent in a “real” sense before they move on to another rotation and therefore cannot become effective in reflective practice (4 clinical educators commented on this).</td>
</tr>
<tr>
<td>Curriculum structure enforces strategies to promote critical thinking and reflective practice.</td>
<td>Time</td>
<td>Students can draw from “real” experiences and their process of reflection can constructed around those.</td>
<td>The pressure of time and shortages of staff means it is hard for RNs to reflect, let alone students.</td>
</tr>
<tr>
<td><strong>Expected Outcomes</strong></td>
<td><strong>Time</strong></td>
<td>Clinical tutorials promote opportunity to reflect on real clinical experiences and thus cement learning for the group in a “safe” way.</td>
<td>Time in the day that clinical educators have to spend with students is too minimal to be able to develop critical thinking and reflective practice.</td>
</tr>
<tr>
<td>Competency based outcomes have potential to foster critical thinking and reflection as long as matching time in clinical setting is available.</td>
<td></td>
<td></td>
<td>Student learning in mental health experiences requires time for critical thinking and reflective practice to transform students’ initial feelings of being scared into feeling safe and confident. They don’t get enough time.</td>
</tr>
<tr>
<td><strong>Expected Outcomes</strong></td>
<td><strong>Time</strong></td>
<td></td>
<td>The students are all placed in different</td>
</tr>
<tr>
<td>Students are taught science, pathophysiology and pharmacology by different staff from different departments and those staff are not nurses. Nurse academics are expected to tie it all together in the nursing units and can’t reteach previous information because of a lack of time and money.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theory practice gap in the curriculum leads to problems of confusion for students.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td><strong>Time</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 5.8 Continued

<table>
<thead>
<tr>
<th><strong>Expectations for Synthesis – Theory/Practice Reality Divide</strong></th>
<th>wards and the clinical educator has to run all over the place – no time to teach let alone develop critical thinking and reflective practice.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The curriculum seems to have stopped growing and changing and isn’t keeping up with the “real” world.</td>
<td><strong>Structure of Milieu</strong> Issues of “reality” of setting make “privacy” for students’ reflective learning difficult.</td>
</tr>
<tr>
<td>Preparation for mental health is disjointed and leads to students being unprepared and scared of what they might be faced with.</td>
<td><strong>Performance/Evaluation</strong> Clinical evaluation tool – serves too many purposes and students are fearful of being openly reflective.</td>
</tr>
<tr>
<td><strong>Keeping the curriculum a secret</strong> Faculty staff not responsive to a clinical educator’s request for information about what is taught.</td>
<td>Focus of preceptors can too often be on number of times student does a procedure and not on how or why (the rationales for care).</td>
</tr>
<tr>
<td>wards and the clinical educator has to run all over the place – no time to teach let alone develop critical thinking and reflective practice.</td>
<td>Focus is more on performance and less on process.</td>
</tr>
<tr>
<td>wards and the clinical educator has to run all over the place – no time to teach let alone develop critical thinking and reflective practice.</td>
<td>Reliance on preceptors to evaluate and no quality control to determine if they encourage students to reflect or think critically about their practice.</td>
</tr>
</tbody>
</table>
Changes in View of Critical Thinking and Reflective Practice

Every participating clinical educator stated they had changed in some way in how they viewed the concepts of critical thinking and reflective practice by the completion of their participation in the study. While the comments from the Case 2 and 3 Clinical Educators focussed more on their heightened awareness of the concepts, the Case 1 Clinical Educators were more explicit in the way they viewed they had changed. They said that they saw differences in themselves and the way they approached their practice as a result of their participation in the reflective groups. Further, they were more able to talk to other clinical educators about specifics of their practice and how they respond to issues. In particular, some expressed that the reflective questions and prompts from the group facilitator, Joseph, about practice issues were very helpful triggers to reflect on after the groups when on their own. Three clinical educators further considered the reflective discussion on moral acts of teaching to have been the most instructive as these were issues they had not consciously fore grounded in their role, but could see the value of being more aware.

Some strategies that were adopted included changing the approach to group discussions with students. One clinical educator was able to come to an agreed approach for the end of day tutorials with her students. Her new approach was to focus the discussions on the patients the students had cared for and to encourage everyone to contribute to suggestions for care rather than have general discussions that were global overviews of the day or lists of tasks.
Chapter Summary

The critical thinking and reflective practice results were presented in this chapter, with the CCTDI and CCTST, followed by an explanation of how clinical educators perceived critical thinking. In this, it was clear that the disposition to critical thinking was a strength for the clinical educators, while the analysis of their critical thinking skills was less conclusive.

Then reflective practice was presented with the clinical educators’ definitions being categorised into Kember et al.’s., (1999) levels of reflective practice. Next, an overlap of critical thinking and reflective practice, as described by the clinical educators was presented. The analysis seems to support that, for these clinical educators, the application of the two concepts in the actual practice settings comprises an overlap of the two; a not surprising outcome.

The examples of enabling critical thinking and reflective practice in students in the clinical setting allowed for themes to be compared with earlier definitions of the role of the clinical educator and of attributes for this role. A synergy in relation to role modelling was observed.

Next, factors that inhibit or enhance development of students’ critical thinking and reflective practice were explored. Two emerging themes that are noteworthy were those of time and the synthesis of theory and practice as both being a hindrance in the curriculum and clinical setting.
Finally, the researcher reported on the changes in the view of critical thinking and reflective practice that were more noteworthy for the Case 1 Clinical Educators, but not so for the other two cases.
CHAPTER SIX
Theorising Clinical Teaching and Discussion

_The teacher who is indeed wise does not bid you to enter the house of his wisdom but rather leads you to the threshold of your mind._  Kahlil Gibran

In this final chapter, the construction of a model of clinical teaching is presented to elucidate the relationships between clinical educators’ teaching philosophies and styles, and acts of teaching and theorise the relationship of these to learners. Following this construction, the study findings are discussed and recommendations are presented. Thus, the following aim is explicated in this chapter:

**Aim 4: Construct a model of clinical teaching to theorise the relationship between clinical educator’s teaching philosophies and styles and acts of teaching that may affect student learning outcomes and interpret findings in relation to this model.**

**Objectives:**

7. Confirm the application of a model from the literature, researcher’s experiences and the findings in explaining the relationship between the clinical educator, student, clinical milieu and clinical acts of teaching;

8. Develop a model to elucidate clinical educators’ teaching philosophies, styles and clinical acts of teaching and theorise on the relationship of these on learner outcomes.
Clinical Teaching Practice

Construction of a Clinical Teaching Model

In the first part of this chapter, the clinical educators’ teaching processes are presented in Table 6.1. These were reconstructed from the data through a combination of frameworks to derive clinical relationships in practice theory and a model. Figure 6.1 represents the concepts that may usefully contribute to further model and theory development and testing. The process of model development was in keeping with those suggested by Walker and Avant (2005) and Roberts and Taylor (2002; 2005).

In the developmental stage of this research study, the researcher assembled a priori models to represent the relationships between clinical educators, students and the clinical setting or learning milieu that were based on her conceptualisation of the literature and the foregrounding of her personal experiences as a clinical educator and nurse academic. The a priori models were presented in Chapter Two.

The researcher’s next step in model development, following data collection and analyses, was to determine if this data substantiated the existence of the research concepts. The styles of clinical teaching - authoritarian, liberal, humanistic and misanthropic, were earlier described in Chapter Four. The researcher paired the styles to represent opposites in teacher regard and these are presented in Table 6.1. In this table, authoritarian style is paired with liberal and humanistic style is paired with misanthropic. These are pairs were then further categorised as being teacher-directed or student-centred. The elaboration of the paired styles of clinical teaching in Table 6.1 makes obvious the confluence of teaching behaviours being inviting or disinviting and
the regard for the learner as being positive or negative. This notion is supported by the literature reported in Chapter Two (Purkey & Siegel, 2003). In clinical practice settings where the learner’s knowledge and experience may be variable, the behaviours of clinical educators to be more directive or encouraging of student-centeredness, a notion supported in the literature (Jonassen, 1991), along with positive regard and support are essential. In these situations, the clinical educator intentionally facilitates students’ in their learning. This was evident in the data presented in Tables 4.11, 4.17 and 4.18.

Table 6.1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Centred</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritarian / Humanistic</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>+ve</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Liberal / Humanistic</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>+ve</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Teacher Centred</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritarian / Misanthropic</td>
<td>✓</td>
<td></td>
<td></td>
<td>-ve</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Liberal / Misanthropic</td>
<td></td>
<td></td>
<td></td>
<td>-ve</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Clinical Teaching Model

The end point construction of the model of clinical teaching from this study is presented in Figure 6.1. The model will then be deconstructed to elaborate the components in Figures 6.2 and 6.3.

The four categories of clinical educators’ teaching philosophy and style are juxtaposed with the acts of teaching and regard for learners to provide a model representative of clinical teaching practice (Figure 6.1).

Figure 6.1

Clinical Teaching Model

<table>
<thead>
<tr>
<th>Authoritarian</th>
<th>Liberal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning constructed by CE. No invitation for student input. CE has -ve regard</td>
<td>Learning constructed by CE. Guiding, partnership. CE has +ve regard</td>
</tr>
<tr>
<td>No learning constructed by CE. No interest if student learns = Stasis/laissez faire. CE has -ve regard</td>
<td>No learning constructed by CE. Learning is student directed. CE is supportive. CE has +ve regard</td>
</tr>
</tbody>
</table>

The model suggests that intellectual, strategic and moral acts of teaching are applied by clinical educators throughout the model with varying emphasis as influenced by the diverse teaching styles of humanistic, authoritarian and liberal. These styles were evident in the data presented in Tables 4.11 and 4.13 in Chapter Four. These two tables make obvious the positive regard and show how clinical
educators portrayed this in their teaching, learning and evaluating responsibilities. Examples of how they enabled critical thinking (Table 5.6) and reflective practice (Table 5.7) in students further supports a picture of positive regard in this case study research.

While misanthropy was not represented in the data, the very nature of this concept indicates a negative regard towards students as the logical outcome for the clinical educator who adopts this style. Furthermore, the researcher deduces that this would hold whether they were also authoritarian or liberal in their inclination. The value of including misanthropy is in developing a coherent model for use beyond this immediate research project.

*First Deconstruction of the Clinical Teaching Model*

The acts of teaching, being intellectual, strategic and moral has been well evidenced as present in the data (see Tables 4.11, 4.13, 4.14 and 4.18) and these form the second aspect of the model. These are evident in Figure 6.2 as the first deconstruction of the clinical teaching model. The data in the tables earlier mentioned, confirm these acts as tools in the clinical educators repertoire of clinical teaching. It is telling that there were no reports of moral acts of teaching in the data for the clinical educator category of an authoritarian/misanthropic approach. Moral refers to the personal interactions one has with others, and that is not valued by these approaches. What’s more, it is unlikely that any of the three acts of teaching would be evident in clinical educators who ascribe to the misanthropic/liberal approach to teaching, given the nature of liberalism. The acts of teaching are situated in this first deconstruction of the model to establish its components, in Figure 6.2.
Second Deconstruction of the Clinical Teaching Model

The second and final aspect of the model development was the consideration of the gradations of teacher regard for learners that may occur as a result of the four theoretical formulations. This aspect is shown in Figure 6.3, as the second deconstruction of the clinical teaching model.

The researcher conjectures that each quadrant of the clinical teaching model reflects variations of regard which may be negative or positive from a neutral regard, situated centrally in the model, and gradations of regard permeating outwards through each quadrant to the corners where this is high. The researcher also hypothesises that the more positive the teachers’ regard for the learners, the more likelihood of learning outcomes being achieved by students. The gradations of regard are presented in Figure 6.3 and are then explained.
It was clear from the literature and the data that learning associated with the authoritarian/humanistic (HA/HH) domain is likely to be constructed by the clinical educator with a positive regard to student learning, thus inviting their input. Students and clinical educators would form a learning partnership with the clinical educator directing the process. This domain is most helpful when learners are new to clinical experiences or in situations where the knowledge and competence required for patient safety precludes them from being self-directed. This concept is supported in the literature presented in Chapter Two on paradigms for adult learning (Candy, 1991; Hase & Kenyon, 2000; Jonassen, 1991; Kenyon & Hase, 2003; Knowles, 1978).
The learning associated with the humanistic/liberal (HH/HL) domain is more likely to be constructed by students, and with them driving the process of learning, with support from clinical educators. The partnership that develops here is one built on trust, students’ objective insight about their knowledge and level of competence and, the clinical educators’ assessment that this is indeed correct and that there will be no compromise to patient safety. Thus, the clinical educator commits to support the students’ self-direction in learning.

The learning associated with the authoritarian/misanthropic (HA/HM) domain is likely to be constructed by clinical educators with no invitation for input from students. Further, there would be no consideration or regard for students’ within the process of learning. This domain is considered by the researcher to be the one to potentially cause the most harm to student learning – especially with the vulnerable and unsure learner. The more confidence the learner has, the less likely they are to be affected by the toxic behaviours and attitude of this educator.

The learning associated with the liberal domain is likely to be student-directed and supported by the clinical educator. Some clinical educators may adopt a laissez faire attitude which will enable those students who are internally motivated to self-direction in learning. On the other hand, students who lack internal motivation, or find themselves in circumstances beyond their capacity, may not progress in their learning and this may result in stasis of their learning.

While the researcher did not identify the presence of the misanthropic domain within the data, indeed hopes that this does not exist within the realms of clinical
teaching, she is also aware from her professional experiences that such behaviour exists. Thus, the researcher comments on the possible outcomes of teaching from such a position are theoretical.

**Application of the Clinical Teaching Model**

Of the three cases, the researcher had the most data from Case 1 Clinical Educators. Thus, she was in a stronger position to make judgements about the application of the clinical teaching model to them and, to decide where they might be placed in the model. Contextual considerations in determining placement included the clinical educators’ espoused teaching style, regard for the students and their beliefs on learning, teaching and evaluation responsibilities. Also, other contextual influences considered to be important in the determination were the stage of the students in their course of study, their confidence in their competence and, the amount of time the clinical educator had to spend with the students. The researcher’s academic experiences gave her an awareness of the level of expectations from the curriculum for that particular semester of students in each course.

From the considerations mentioned, the researcher hypothesised that the clinical educators were likely to be either acting with an authoritarian/humanistic regard, and thus be more teacher-directed in the construction of learning; or acting with a humanistic/liberal regard, and thus promote student-centred learning.

The hypothesised placement of the clinical educators is presented in Figure 6.4 where the authoritarian/humanistic and the humanistic/liberal quadrants reflect a positive regard for students. The main difference being that in the former, the
emphasis is on teacher-direction for construction of learning while, the latter emphasises student-direction. This emphasis was resonant within the data for the Case 1 Clinical Educators.

Figure 6.4

Placement of Case 1 Clinical Educators

Clinical Teaching Model

Authoritarian

Learning constructed by CE. No invitation for student input. CE has -ve regard

Learning constructed by CE. Regard for student input = Guiding, partnership. CE has +ve regard

Misanthropic

No learning constructed by CE. No interest if student learns = Stasis/laissez faire. CE has -ve regard

No learning constructed by CE. Learning is student directed. CE is supportive. CE has +ve regard

Liberal

Key: A = Anne, B = Bennet, C = Claire, D = David, E = Erin
Discussion

In this thesis, the researcher has addressed the following aims and these will frame the discussion:

*Aim 1: Construct an understanding of the processes and practice of clinical education.*

*Objectives:*

1. Characterise the clinical educators’ teaching role in relation to personal attributes philosophy, and teaching style;
2. Describe clinical educators’ beliefs of the primary responsibility for teaching and evaluating students in the clinical setting and their reasons for these;
3. Exemplify how clinical educators’ enabled and evaluated students’ learning with acts of teaching.

*Aim 2: Examine the processes of critical thinking and reflective practice for the clinical educators.*

*Objectives:*

4. Construct the clinical educators’ views on critical thinking and reflective practice and how the clinical educator would recognise essential characteristics of these in the student;
5. Exemplify clinical educators’ processes of critical thinking and reflective practice and how they enabled and evaluated students’ critical thinking and reflective practice in the clinical setting.
Aim 3: Identify any changes in clinical educators’ teaching approach and in their understandings of critical thinking and reflective practice that occurred as a result of their participation in the study.

Objective:

6. Determine if the study’s infusion assessments and interventions led to changes in clinical educators’ understanding of their role and clinical teaching processes.

Aim 4: Construct a model of clinical teaching to theorise the relationship between clinical educator’s clinical teaching philosophies and styles and acts of teaching that may affect student learning outcomes and interpret findings in relation to this model.

Objectives:

7. Confirm the application of a model from the literature, researcher’s experiences and the findings in explaining the relationship between the clinical educator, student, clinical milieu and clinical acts of teaching;

8. Develop a model to elucidate clinical educators’ teaching philosophies, styles and clinical acts of teaching and theorise on the relationship of these on learner outcomes.

In this thesis, the researcher has developed a model of Clinical Teaching that has facilitated examination of categories of teaching style dealing with interactional/dispositional attitudes (humanistic versus misanthropic and authoritarian versus liberal); and with actual teaching acts, which clinical educators may show in pure form or in combination. Derived from the literature and personal experience, theoretical formulations according to these two major criteria would
seem to be Humanistic/Authoritarian, Humanistic/Liberal, Misanthropic/Authoritarian, and Misanthropic/Liberal and these have the greatest potential for positive or negative impact on student learning (although the last formulation may be not possible given the nature of misanthropy).

This thesis adds to the practice of clinical education by suggesting the value of identifying clinical educators’ styles and strategies as a means to nurturing independent life-long learning in students. The benefit of self-direction in a professional is that he/she can effectively function regardless of the unpredictable circumstances inherent in the clinical setting and negotiate his/her own learning. Furthermore, from this study, it appears that integrating a humanistic teaching style (and either an authoritarian or liberal style) with intellectual, strategic and moral acts of teaching might be the approach that is most supportive of students while stimulating them to become critically reflective, clinically independent practitioners. The researcher cautions however, that the clinical teaching model that has evolved from this case study research requires further testing in order for other researchers to have confidence in its applicability to their own particular questions about clinical educators and their teaching practice.

Case 1 Clinical Educators expressed many benefits from being engaged in the guided reflection discussions that took place in the three focus groups. The groups provided opportunity for them to clarify and validate aspects of their teaching styles and strategies and they gained more understanding of the meaning behind their teaching approach when deconstructing it through the framework of the three acts of teaching.
A Number of Case 2 and Case 3 Clinical Educators also expressed that they appreciated the opportunity to discuss their clinical teaching experiences in the field observation interviews and also the final week 16 interview. These clinical educators were not participants in the reflective groups in the same way that the Case 1 Clinical Educators were but there was some evidence that the chance for them to talk about their role and clinical teaching activities was a useful exercise. The experience did not lead them to view any of the concepts any differently, however, the effect was poignant and served to highlight to the researcher the sense of isolation experienced by even some of the most experienced academics and clinical educator participants.

The success of the reflective groups points to a potential opportunity for tertiary educators in general and for clinical nurse educators, in particular, to engage in critically reflective learning of information that has been shared informally. This has implications for tertiary educators to consider the creation of formal, mandatory opportunities for knowledge deconstruction and reconstruction (sharing) through guided reflection and continuing education of their staff.

The study outcomes have shown that in the relationship between the clinical educators and the students, the potential for teaching and learning relies on clinical educators’ clinical knowledge, teaching repertoire, style, philosophy, their use of critical thinking and reflective practice, and an understanding of different student learning needs and styles. The effective management of this relationship would seem to require all clinical educators to be aware of and appropriately apply the three acts of teaching, these being intellectual and strategic (Green, 1971; Hellgren, 1985) and
moral (Fenstermacher, 1990; Sirontik, 1990; Stewart, 1993). These acts give clinical educators “tools” to make the most of the teaching and learning milieu.

The researcher reminds the reader that the clinical educators were not selected on the basis of any criteria that defined best practice but rather on convenience and willingness to be involved so, the model is based on what actually happened in the practice of educators with a range of experience and background. That said, this study has demonstrated that in the relationship between the clinical educator and the clinical learning milieu, the potential for teaching and learning relies on clinical educators’ cognisance of the variety of clinical opportunities and clinical educators’ ability to link the student with these using the strategic acts of teaching. This action may be the trigger to facilitate support for student learning from clinical setting staff and turn potential hindrances that might be experienced in the clinical setting into learning enhancers for the students, and for them. Finally, clinical educators need to act with an awareness of what students bring to the clinical learning milieu: a potential for learning based on their receptivity to learning opportunities, clinical competence, decision-making skills, and application of their own critical thinking and reflective practice.
The models developed from this study and the findings from participants’ experiences suggest a number of practice implications. These specifically relate to the current supervision models in the clinical setting, the clinical educator to student ratio, and the curriculum expectations for student learning outcomes.

The processes for staff selection within faculties of nursing currently focus on establishing if clinical educators meet the professional requirements for the role. While the level of proficiency for Clinical Teaching is a consideration, in the main the focus has not been on identification of clinical educators’ teaching styles and strategies. While this study demonstrated the importance of these, future research should focus on the development of tools to assess teaching styles and strategies for a range of learners and clinical settings.

Education of nurses for the profession is currently being conducted in times of fiscal constraint and a significant global shortage of nurses who are actively practicing. The current, and most unfortunate situation, is that the urgency of having any available clinical educator often precludes other considerations, such as preparation for the role and approach to teaching. University departments and health care facilities are also short of funds and there is a tension around the distribution of resources; with clinical education being seen as a high cost. The data emanating from this study provides strong evidence for better allocation of scarce resources to the clinical and university sectors if we are to invest in the effective educational preparation of future health professionals.
The dilemma facing nursing academia is one of balancing immediate pressures from the profession with ensuring the longer term goal of nurturing abilities for independent life-long learning, leading to a professional who can effectively function regardless of the unpredictable circumstances inherent in the clinical setting. Academe and associated clinical settings need to increase their awareness that clinical educators and students move within a *seamless curriculum* that crosses the theory presented in the university context and the practice experience in the clinical settings. Recognition of the value of this *seamless curriculum* for maximum flexibility in developing future professionals, ready to negotiate his/her own learning is imperative.

This study highlights the responsibility of academe to prepare clinical educators, selected by them, and to invest in the concept of an orientation that does more than give clinical educators information that could be considered to be “good housekeeping”. Additionally, this study has shown that university nursing leaders cannot afford to be short-sighted in the economical investment in continuing education for clinical educators, even though they may only be on temporary working contracts.

This thesis adds to the practice of clinical education by suggesting the value of identifying clinical educators’ styles and strategies as a means to nurturing independent life-long learning in students. The benefit of self-direction is a professional who can effectively function regardless of the unpredictable circumstances inherent in the clinical setting and negotiate his/her own learning.
Areas for Future Research.

This study suggests a number of areas for future research. Firstly, a model explaining clinical teaching has been constructed for the practice of clinical educators, as a result of this study. There is a need to validate the robustness of this in other clinical education nursing settings in Australia with larger numbers and a cross gendered sample.

Secondly, the model demonstrates relationships between a clinical educator’s philosophies of teaching, attributes for teaching, and strategies for teaching. There is a need to determine if this model is predictive of effective clinical learning outcomes that can be validated against various levels of students from entry into undergraduate pre-registration nursing programmes to those in transition to the role of Registered Nurse.

Finally, there is a need to determine transferability and application of the clinical teaching model to other countries with similar undergraduate academic preparation of Registered Nurses such as the United Kingdom, the United States of America and Canada. These countries have minimal differences in the structure of their undergraduate pre-registration nursing programmes compared to those offered in Australia and, thus, it would be possible to check the applicability of this theory to those countries.
REFERENCES


Australian Nursing Council. (2002). *Principles for the assessment of competence*. Dickson, ACT: ANMC.


Flick, U. (1992). Triangulation revisited: Strategy of validation or alter native?


regulated learning and academic achievement: Theory, research and practice (pp. 171-200). New York: Springer-Verlag.


APPENDICES

APPENDIX 1

Letters and Correspondence

CORRESPONDENCE, CONSENT AND RESEARCH STUDY INFORMATION FOR PARTICIPANTS.

A. 1 Initial contact letter – for Case 1 Clinical Educators.

MURDOCH UNIVERSITY
SCHOOL OF EDUCATION


Dear _______,

I am writing to seek your participation in my PhD research study titled “What is the significance of clinical nurse educators’ critical thinking and reflective practice in teaching, facilitating and evaluating undergraduate, pre-registration students’ clinical decision-making?” I will be conducting the data collection phase of this research study during the first semester of 1997.

The research study will be finalised in 1998 and information regarding the study will be disseminated soon after through journal articles and conference reports.

Please find attached the research study plan and a consent form. If you agree to participate, please sign and return the consent form to Rhonda Marriott in the attached stamped, addressed envelope. The consent form needs to be returned by Wednesday, 29th January, 1997. Please keep the research study plan as it will be a reminder of your agreed participation.

Should you have any questions, please contact either Rhonda Marriott on (09) 3981692 (home) or (09) 2738610 (office where a message can be left); or Dr Irene Styles (Principle PhD supervisor) on (09) 3602613.

Yours sincerely

Rhonda Marriott, RN, RMHN, RM, PhD Candidate.
WHAT IS THE SIGNIFICANCE OF CLINICAL NURSE EDUCATORS’ CRITICAL THINKING AND REFLECTIVE PRACTICE IN TEACHING, FACILITATING AND EVALUATING UNDERGRADUATE, PRE-REGISTRATION STUDENTS’ CLINICAL DECISION-MAKING?

RESEARCHER: Rhonda Marriott, RN, RMHN, RM, PhD Candidate (Murdoch University School of Education).

Background Information
The clinical nurse educators’ role is multifaceted and the knowledge gained from this study will demonstrate the clinical nurse educators’ relationship between their primary role of teaching and evaluating students’ clinical practice and the resources of the clinical milieu (staff, clients and organisational culture).

Secondly, the study will provide knowledge on the ways in which clinical nurse educators may best facilitate students’ transfer of critical thinking and reflection strategies from tertiary to applied settings, and will enable an understanding of the process of clinical nurse educators’ own critical thinking and reflective practice on the development and evaluation of students’ critical thinking and reflective practice.

Thirdly, this study will test researcher-developed models which may explain relationships between clinical nurse educators’ critical thinking, reflective practice and professional judgement as applied to the teaching/learning interaction with students in the clinical milieu.

A quasi-experimental infusion design has been chosen to guide this study and will involve yourself, other clinical nurse educators from Edith Cowan’s University School of Nursing and groups from other university Schools of Nursing to participate in a different number of activities.

Access to potential study participants has been approval by the appropriate university committees and Mrs Bronwyn Jones, Head of School.

Research Study Plan
All clinical nurse educators from Semester 5 are invited to volunteer, as participants, in the study. The final study sample from Edith Cowan University School of Nursing will be obtained by a purposeful selection process.

Participation in the study requires each consenting clinical nurse educator to participate in each of the following activities:

1. Complete (i) a researcher developed survey consisting of demographic data and open-ended questions. This survey will be administered twice – once in February, 1997 and again in June, 1997; (ii) the California Critical Thinking Skills Test questionnaire; and (iii) the California Critical Thinking Disposition Inventory questionnaire.
2. Complete a clinical teaching strategies package on issues of adult teaching and learning specific for the clinical milieu.

3. Attend an information session on maintaining a reflective journal.

4. Maintain a reflective journal for thirty clinical practice days of semester one, 1997. On completion, this reflective journal will be delivered to the researcher for transcription.

5. A sub-group of clinical nurse educators will be observed in the practice of their role (in the clinical setting). There will be an immediate follow-up taped interview to clarify the observed interactions and teaching strategies.

6. Attend three (3) focus group sessions (to be scheduled once every fifth week of the fifteen week semester). These sessions will be audio-taped and transcribed. The sessions are expected to last for one (1) hour each and will provide an opportunity for clinical nurse educators to both share their reflected experiences with one another and raise an awareness of one another’s’ clinical teaching strategies.

Confidentiality
Confidentiality will be maintained from all except the researcher, Rhonda Marriott. Names will be required on the completed researcher-developed survey and questionnaires. No names will be required on reflective journals. No names will be transcribed from reflective journals, follow-up interviews from participant observations, or focus group sessions. A code will be assigned to allow organisation of the data into two groups (from the three different university Schools of Nursing’ participating clinical nurse educators) and generic types of clinical experience (eg. Adult nursing, mental health nursing). Data are to be reported as grouped experimental or control clinical educator and student data.

The data are to be managed by the use of the NU*DIST programme and access will be through an assigned code known only to the researcher and PhD supervisors.

The transcripts of the taped interviews and focus group sessions of the selected sub-group participants, and journal transcripts will only be available to the researcher and PhD supervisors for the duration of the study. On the study completion the completed researcher developed surveys, completed CCTST and CCTDI questionnaires, the tapes and hard copies of the transcripts will be destroyed. A PC diskette copy of the transcripts, completed researcher developed surveys, completed CCTST and CCTDI questionnaires will be kept in a secure place for a period of five years and then destroyed.

Ethical Considerations
The researcher (Rhonda Marriott) acknowledges a risk of bias as some of the study participants are from Edith Cowan’s University School of Nursing. To this end, clinical nurse educators who are teaching in Semester 5 (where the researcher does not normally have any direct contact in her role as a unit co-ordinator) are invited to participate. The researcher, also, will undertake study leave (leave from normal unit co-ordinator responsibilities) for the semester in which the main study data collection phase occurs. This may minimise the potential issue of researcher bias.
Neither participation in the research study, nor data outcomes, will influence (positively or negatively) your employment within the Semester 5 Nursing Practice unit of study or any other.

The researcher does not believe there will be any professional dilemmas for you arising from participation in the study. However, should you wish to discuss an issue, you will find support from Bronwyn Jones and Lorrie Gray.

**Research Study Dates:**
Should you consent to participate in the research study, you are, also, making a commitment, firstly, to attend a meeting on **Wednesday, 12th February, 1997 at 1400 hours in the School of Nursing in NU 40**. The purpose of this session is for you to complete a second questionnaire on critical thinking and for the researcher to provide information on writing a reflective journal.

If you are selected for further involvement in the study, you are, also, making a commitment to attend **THREE (3), One (1) hour focus group sessions:**

- **Wednesday 5th March, 1997 at 1000 hours in NU 40**
- **Wednesday 9th April, 1997 at 1000 hours in NU 40**
- **Wednesday 13th May, 1997 at 1000 hours in NU 40**

Please note the times for the above sessions will be negotiable and a consensus will confirm/reschedule the times at the first meeting on 12th February.

**Field Observation**
If you are selected for participant observation in the clinical setting, you will be contacted to arrange a date and time convenient to yourself and the researcher.

If you choose to volunteer in the research study, please keep this research study plan and return the signed consent form in the stamped, addressed envelope provided as soon as possible.

Thankyou

Rhonda Marriott, RN, RMHN, RM, PhD Candidate.
A 3 Consent form for Case 1 Clinical Educators.

MURDOCH UNIVERSITY
SCHOOL OF EDUCATION

PhD Research Study: What is the significance of clinical nurse educators’ critical thinking and reflective practice in teaching, facilitating and evaluating undergraduate, pre-registration students’ clinical decision-making?

CONSENT

I have read the information provided regarding the above named research study and I understand how the data resulting from the researcher developed surveys (clinical nurse educators and students), California Critical Thinking Skills Test questionnaires, California Critical Thinking Disposition Inventory questionnaires, reflective journals, transcripts from the focus group sessions, transcripts from field observations and immediate follow-up interviews will be utilised.

I agree to attend the information session on reflective journalising and the three (3) focus group sessions.

I have been given the invitation to contact the researcher and her principle PhD supervisor to ask questions related to the research study. Any questions asked have been answered to my satisfaction.

I understand I may, without prejudice, withdraw my participation in this study at any stage or may withdraw my consent for the use of all or part of the information obtained through my participation.

I understand that my participation in the project and the outcomes from the study will not in any way, positively or negatively, affect my employment within Edith Cowan’s University School of Nursing undergraduate programme.

I agree that research data gathered for the study may be published provided my name or other identifying information is not used.

I agree to participate in this study, subject to the above conditions.

Participant’s signature (Please print name after signing).

____________________________________________________ Date________

Researcher’s signature (Rhonda Marriott) ______________________

Date________

Principle PhD supervisors signature (Dr Irene Styles) ______________________
29 January, 1997

Dear _______,

Thank you for agreeing to participate in my PhD research study titled “What is the significance of clinical nurse educators’ critical thinking and reflective practice in teaching, facilitating and evaluating undergraduate, pre-registration students’ clinical decision-making?”

A researcher-developed survey and a critical thinking questionnaire (attached) partly fulfil the first of the research study steps. The survey and questionnaire need to be returned (completed) in the supplied, stamped, addressed envelope by 7th February, 1997. You will be asked to complete the researcher-developed survey a second time at the end of semester one, 1997.

A session will be held in the School of Nursing on Wednesday, 12th February, 1997 at 1400 hours in the School of Nursing in NU 40. The purpose of this session is for you to complete a second questionnaire on critical thinking (thus completing the first of the research steps) and for the researcher to provide information on writing a reflective journal.

Your further involvement in the study, apart from the second completion of the researcher-developed survey, will be determined by a method of purposeful sampling and you will be notified in writing of the outcome of this by Monday, 17th February.

Recognising unforeseen circumstances occur, please let me know if you are unable to attend this session or continue to participate in the research study.

Yours sincerely

Rhonda Marriott RN, RMHN, RM, PhD Candidate.
Friday, 14 February, 1997

Dear ______,

You have been selected to further participate in my PhD study titled “What is the significance of clinical nurse educators’ critical thinking and reflective practice in teaching, facilitating and evaluating undergraduate, pre-registration students’ clinical decision-making?”

There are 3 steps involved for your continued participation. These are to:

Work through a teaching strategies package (attached). If you have any questions regarding the package, do not hesitate to contact me on 3981692 or 2738610.

Maintain a reflective diary, weekly, for the fifteen clinical practice weeks of semester one, 1997. Attached are three exercise books for this purpose. As explained at the meeting on February 12, the completed diaries will form an important source of information for answering the research questions. A box will be available in the School of Nursing for you to return the diaries as they are completed. You may contact me at any time if you have any questions regarding the diaries or if you wish to discuss anything arising from the content of the diaries.

Attend three (3) focus group sessions in the School of Nursing (NU 40) at 1000 hours on Wednesday 5 March, Wednesday 9 April and Wednesday 13 May.

Again, recognising unforeseen circumstances occur, please let me know if you are unable to continue to participate in the research study.

Yours sincerely

Rhonda Marriott RN, RMHN, RM, PhD Candidate.

Dear ________,

I am writing to seek your participation in my PhD research study titled “What is the significance of clinical nurse educators’ critical thinking and reflective practice in teaching, facilitating and evaluating undergraduate, pre-registration students’ clinical decision-making?” I will be conducting the data collection phase of this research study during the first semester of 1997.

The research study will be finalised in 1998 and information regarding the study will be disseminated soon after through journal and conference reports.

Please find attached the research study plan and a consent form. If you agree to participate, please sign and return the consent form to Rhonda Marriott in the attached stamped, addressed envelope. The consent form needs to be returned by Monday, 3\textsuperscript{rd} February, 1997. Please keep the research study plan as it will be a reminder of your agreed participation.

Should you have any questions, please contact either Rhonda Marriott on (09) 3981692 (home) or (09) 2738610 (office where a message can be left); or Dr Irene Styles (Principle PhD supervisor) on (09) 3602613.

Yours sincerely

Rhonda Marriott, RN, RMHN, RM, PhD Candidate.
WHAT IS THE SIGNIFICANCE OF CLINICAL NURSE EDUCATORS’ CRITICAL THINKING AND REFLECTIVE PRACTICE IN TEACHING, FACILITATING AND EVALUATING UNDERGRADUATE, PRE-REGISTRATION STUDENTS’ CLINICAL DECISION-MAKING?

RESEARCHER: Rhonda Marriott, RN, RMHN, RM, PhD Candidate

Background Information
The clinical nurse educators’ role is multifaceted and the knowledge gained from this study will demonstrate the clinical nurse educators’ relationship between their primary role of teaching and evaluating students’ clinical practice and the resources of the clinical milieu (staff, clients and organisational culture).

Secondly, the study will provide knowledge on the ways in which clinical nurse educators may best facilitate the students’ transfer of critical thinking and reflection strategies from tertiary to applied settings and will enable an understanding of the process of clinical nurse educators’ own critical thinking and reflective practice on the development and evaluation of students’ critical thinking and reflective practice.

Thirdly, this study will test researcher-developed models which may explain relationships between clinical nurse educators’ critical thinking, reflective practice and professional judgement as applied to the teaching/learning interaction with students in the clinical milieu.

A quasi-experimental infusion design has been chosen to guide this study and will involve yourself, other clinical nurse educators from [Curtin’s] [Edith Cowan’s] University School of Nursing and groups from other university Schools of Nursing to participate in a different number of activities.

Access to potential study participants has been approval by the appropriate university committees and [Dr Angelica Orb], [Bronwyn Jones] [Head] of School.

Research Study Plan
All clinical nurse educators from Semester 5 are invited to volunteer, as participants, in the study. The final study sample from [Curtin’s] [Edith Cowan’s] University School of Nursing will be obtained by a purposeful selection process.

Participation in the study requires each consenting clinical nurse educator to participate in each of the following activities:

1. Complete (i) a researcher developed survey consisting of demographic data and open-ended questions. This survey will be administered twice – once in February, 1997 and again in June, 1997; (ii) the California Critical Thinking Skills Test questionnaire; and (iii) the California Critical Thinking Disposition Inventory questionnaire.
2. A sub-group of clinical nurse educators will be observed in the practice of their role (in the clinical setting). There will be an immediate follow-up taped interview to clarify the observed interactions and teaching strategies.

Confidentiality
Confidentiality will be maintained from all except the researcher, Rhonda Marriott. Names will be required on the completed researcher-developed survey and questionnaires. No names will be required on reflective journals. No names will be transcribed from reflective journals, follow-up interviews from participant observations, or focus group sessions. A code will be assigned to allow organisation of the data into two groups (from the three different university Schools of Nursing’ participating clinical nurse educators) and generic types of clinical experience (eg. Adult nursing, mental health nursing). Data are to be reported as grouped experimental or control clinical nurse educator and student data.

The data are to be managed by the use of the NU*DIST programme and access will be through an assigned code known only to the researcher and PhD supervisors.

The selected sub-group participants taped interview transcripts will only be available to the researcher and PhD supervisors for the duration of the study. On the study completion the completed researcher developed surveys, completed CCTST and CCTDI questionnaires, tapes and hard copies of the transcripts will be destroyed. A PC diskette copy of the transcripts, completed researcher developed surveys, completed CCTST and CCTDI questionnaires will be kept in a secure place for a period of five years and then destroyed.

Ethical Considerations
Neither participation in the research study, nor data outcomes, will influence (positively or negatively) your employment in the Semester 5 Nursing Practice unit of study.

The researcher does not believe there will be any professional dilemmas arising from participation in the study. However, should you wish to discuss any issue, you will find support from [Dr Angelica Orb and Pauline Slater] [Bronwyn Jones and Lorrie Gray].

Field Observation
If you are selected for observation in the clinical setting, you will be contacted to arrange a time convenient to yourself and the researcher.

If you choose to volunteer in the research study, please keep this research study plan and return the signed consent form in the stamped, addressed envelope provided as soon as possible.

Thankyou

Rhonda Marriott, RN, RMHN, RM, PhD Candidate.
B 3 Consent form for Case 2 and 3 Clinical Educators.

MURDOCH UNIVERSITY
SCHOOL OF EDUCATION

PhD Research Study: What is the significance of clinical nurse educators’ critical thinking and reflective practice in teaching, facilitating and evaluating undergraduate, pre-registration students’ clinical decision-making?

CONSENT

I have read the information provided regarding the above named research study and I understand how the data resulting from the researcher developed surveys (clinical nurse educators and students), the California Critical Thinking Skills Test questionnaires, the California Critical Thinking Disposition Inventory questionnaires, the field observations and immediate follow-up interviews will be utilised.

I have been given the invitation to contact the researcher and her principle PhD supervisor to ask questions related to the research study. Any questions asked have been answered to my satisfaction.

I understand I may, without prejudice, withdraw my participation in this study at any stage or may withdraw my consent for the use of all or part of the information obtained through my participation.

I understand that my participation in the project and the outcomes from the study will not in any way, positively or negatively, effect my Semester 5 (in 1/97) clinical practice evaluation within (Curtin) (Edith Cowan) University School of Nursing undergraduate programme.

I agree that research data gathered for the study may be published provided my name or other identifying information is not used.

I agree to participate in this study, subject to the above conditions.

Participant’s signature (Please print name after signing).

_____________________________ Date________________

Researcher’s signature (Rhonda Marriott) __________________
Date________________

Principle PhD supervisors signature (Dr Irene Styles) _________________________
B 4 Second contact letter – for Case 2 and 3 Clinical Educators.

MURDOCH UNIVERSITY
SCHOOL OF EDUCATION

5th February, 1997

Dear ________,

Thankyou for volunteering to participate in my PhD research study titled “What is the significance of clinical educators’ critical thinking and reflective practice in teaching, facilitating and evaluating undergraduate, pre-registration students’ clinical decision-making?”

A brief researcher-developed survey and critical thinking questionnaire (attached) partly fulfil the first of the research study steps. The completed survey and questionnaire need to be returned by February 19, 1997 in the supplied, stamped, addressed envelope.

You will be asked to complete the researcher-developed survey a second time at the end of semester one, 1997. I have arranged with (Lorrie Gray) (Pauline Slater) for (identified academic) (me) to administer this questionnaire in the School of Nursing in (venue) on (date and time). If you unable to attend this session please contact (Lorrie Gray) (Pauline Slater) to arrange an alternative time.

You may, further, be selected to participate in the study with participant observations in the clinical setting. Should this be the case, you will be contacted to arrange a time and date convenient to both yourself and my research schedule.

Recognising unforseen circumstances occur, please let me know if you are unable to continue with participation in this study.

Yours sincerely

Rhonda Marriott, RN, RMHN, RM, PhD Candidate.
APPENDIX 2

Survey, Questionnaires

Monday, 20 January 1997

Hi (name)

Thank you for agreeing to review the attached Clinical Educators’ survey for me. As I aim to have the survey out to participants in the second week of February, I would appreciate you returning your survey rating and comments by 31 January, 1997.

To aid your process of review, I have attached a copy of the proposal that includes the research questions (p.9) and the 2 models that guide the study (pp. 11-12). These should place the survey questions in perspective of the content domain being investigated.

According to Lynn’s (1986) guidelines to achieve a content validity index for the survey, I have included a table for your rating of each question. The table reflects a 4-option rating scale where 1 = not relevant; 2 = unable to assess relevance without item revision; 3 = relevant needs minor alteration; 4 = very relevant and succinct.

Besides rating each question, I would appreciate your comments of the overall instrument considering the following:

- Clarity of introductory instructions for the completion of the survey:
- The numbering system applied to the questions:
- Size of font for questions:
- Amount of space provided for responses to questions:
- Logical development of the survey:
- Overall appearance of the survey:
- Are there areas that have been omitted from the instrument?
- Any additional comments or suggestions you believe I need to consider.

Thanks

Rhonda Marriott  RN, RM, RMHN, MSc (Nsg), PhD Candidate (Murdoch)

46 Windsor Drive
GOSNELLs  6110
Tel: (H) 09 398 1692,  (O) 09 273 8610
Fax : 09 273 8699
E-Mail : R.Marriott@cowan.edu.au
CLINICAL EDUCATORS’ SURVEY RATING

Please rate each of the survey questions with a tick in the appropriate box according to the following 4 option rating scale:

1 = not relevant  
2 = unable to assess relevance without item revision  
3 = relevant needs minor alteration  
4 = very relevant and succinct.

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1.2</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1.3</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1.4</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1.5</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1.6</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1.7</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1.8</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Section B</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.2.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.2.2</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.3</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.4</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.5.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.5.2</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.6</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.7</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.8</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.9</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.10</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.11</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.12.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.12.2</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.13</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.14</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.15.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.15.2</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.16</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.17</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.18.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.18.2</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.19.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.19.2</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.20</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.21</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Section 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
CLINICAL EDUCATOR’S
SURVEY

FEBRUARY, 1997

Rhonda Marriott RN, RMHN, RM, MSc (Nsg)
PhD Candidate – Murdoch University.
Dear Colleague,

Thank you for taking the time to complete this survey. The clinical educators’ role is multifaceted and your perceptions of aspects of the role are very important for the outcomes of my PhD study. The study will contribute to the knowledge of the relationships between clinical educators’ personal and professional characteristics and their primary role of teaching students in the clinical setting.

This survey consists of three sections. Please respond to ALL the questions in sections A and B. Section C is optional. I would appreciate you taking your time and being honest in your responses. It will take you approximately two hours (or perhaps a little longer) to complete this survey.

The code at the beginning of the questionnaire is known only to an academic not involved in the study; thus your confidentiality is assured. Your responses will be kept confidential from all except the researcher, Rhonda Marriott. The purpose of the code is to assist in identifying those who may be asked to participate further in the study.

**Section A** asks for clinical setting information that is important for the context of this study. I would appreciate you responding to all the questions in this section.

**Section B** has open-ended questions that ask for your perceptions of aspects of your role as a clinical educator. Again, I would appreciate you responding to all the questions in this section.

**Section C** offers you an opportunity to make comments on clinical education or related issues not covered in the survey.

When you have completed this survey and the Californian Critical Thinking Disposition Inventory, please return both of these to me in the attached addressed and post paid envelope by the Wednesday 19 February 1997.

Please contact me on ☏ (08) 93981692 (H), (09) 2738610 (O) or Fax (09) 493 4678 should you wish to clarify any of the questions, discuss your responses further, or if you have misplaced the return, addressed envelope.

Thank you again for your precious time. I appreciate your perceptions and responses.

Sincerely

Rhonda Marriott   RN, RM, RMHN, MSc (Nsg), PhD Candidate.
Section A.
Please respond to ALL the following questions.

11. On the table below, please circle the clinical settings and age classification of patients/clients relevant to where you will be teaching as a clinical educator in semester one, 1997.

If, for example, you will be teaching in a hospital ward that has neurosurgical patients who are adults and children you would circle specialties in “clinical setting” and mixed ages in “age group of patients”.

<table>
<thead>
<tr>
<th>Clinical Setting</th>
<th>Medical</th>
<th>Surgical</th>
<th>Mixed Med/Surg</th>
<th>Mental Health</th>
<th>Specialties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group of patients</td>
<td>Aged</td>
<td>Adult</td>
<td>Adolescent</td>
<td>Mixed ages</td>
<td>Paediatric</td>
</tr>
</tbody>
</table>

2. How many students in any given rotation will you be responsible for in the clinical setting this semester? _____ students.

3. How much average time per day would you spend with each student in the clinical setting? Do not include group tutorial or pre/post clinical conference time. _____ (time).

4. How many years have you practiced as a registered nurse? _____ years.

5. How long have you practiced as a clinical educator with a tertiary School(s) of Nursing? (complete as applies.) _____ years
   ____ months
   ____ never before

6. From the following table, please tick and complete the information next to the statements most appropriate for you.

<table>
<thead>
<tr>
<th>Programme of Study</th>
<th>I have completed</th>
<th>I am completing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Post-Basic Certificate in a Nursing Specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate Nursing Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate Degree (other than in Nursing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please specify:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate Nursing Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate Degree (other than in Nursing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please specify:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s Degree in Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s Degree (other than in Nursing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please specify:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD Degree in Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD Degree (other than in Nursing)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please specify:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section B

Please respond to all the following questions in the spaces provided. I would appreciate you taking your time and being honest in responding.

7 a. Please define the term clinical educator.

7 b. Please list what you believe to be the responsibilities of the clinical educator.

8 a. Please define the term critical thinking.

8 b. Have you taken specific units of study or attended any continuing education in critical thinking, or has this been part of a course you have taken?

   Yes ☐  No ☐

   If yes, please identify:
   (i) The approximate number of hours on critical thinking covered in the course.   (hours)
   
   (ii) What decided you to do the course?
   
   (iii) What do you feel you gained from the course?

9 a. Please define the term reflective practice.

9 b. Have you taken specific units of study or attended any continuing education in reflective practice, or has this been part of a course you have taken?

   Yes ☐  No ☐

   If yes, please identify:
   12. The approximate number of hours on reflective practice covered in the course.   (hours)
   
   13. What decided you to do the course?
   
   (iii) What do you feel you gained from the course?
10. Have you taken specific units of study or attended any continuing education in **clinical education strategies**, or has this been part of a course you have taken?
   Yes ☐ No ☐
   If yes, please identify:
   14. The approximate number of hours on **clinical education strategies** covered in the course. (hours)
   (ii) What decided you to do the course?
   (iii) What do you feel you gained from the course?

11 a. Please define preceptorship.

11 b. Have you taken specific units of study or attended any continuing education in **preceptorship**, or has this been part of a course you have taken?
   Yes ☐ No ☐
   If yes, please identify:
   15. The approximate number of hours on **preceptorship** covered in the course. (hours)
   (ii) What decided you to do the course?
   (iii) What do you feel you gained from the course?

12 a. Please describe what you consider to be the **essential characteristics** of the **critical thinking** nurse.

12 b. What do you believe is the importance and role of **critical thinking** for the **student nurse** in the clinical setting?

12 c. What do you believe is the importance and role of **critical thinking** in your role as a **clinical educator**?

12 d. In your role as a clinical educator, please describe an event that illustrates how you have enabled **students’ critical thinking** in the clinical setting. If this is your first experience in this role, please outline how you believe you can enable students’ critical thinking in the clinical setting.

13 a. Please describe what you consider to be essential characteristics of **reflective practice** for a nurse.

13 b. What do you believe is the importance and role of **reflective practice** for the **student nurse** in the clinical setting?

13 c. What do you believe is the importance and role of **reflective practice** in your role as a **clinical educator**?
13 d. In your role as a clinical educator, please describe an event that illustrates how you have enabled students’ reflective practice. If this is your first experience in this role, please outline how you believe you can enable students’ reflective practice, in the clinical setting.

14. Please describe your preferred clinical teaching style.

15. Please describe the beliefs that form the basis of your actions (intended actions) of your role as a clinical educator. That is, why do you teach the way you do (or intend to teach)?

16. Do you see teaching and facilitating students’ learning in the clinical setting as similar or different from one another? Please elaborate on how these are similar or different?

17 a. What do you believe are important personal and professional attributes for the clinical educator to be able to teach students in the clinical setting?

17 b. Do you believe you have the characteristics described in Q. 17 a?
   yes ☐ no ☐

17 c. Are you striving to achieve them?
   Yes ☐ no ☐

17 d. For the characteristics you described in Q. 17 a, how are you (will you be) able to apply these to your role in the clinical setting?

17 e. What support or help do you believe you need to apply the characteristics you described in Q. 17 a?

18 a. Whom do you see as having the primary responsibility for clinical teaching?

18 b. Following on from your answer to Q 18 a, what are the reasons that support this?

19 a. Whom do you see as having the primary responsibility for evaluating student’s learning in the clinical setting?

19 b. What do you believe are important personal and professional attributes for the clinical educator to be able to evaluate students in the clinical setting?

19 c. Do you believe you have these characteristics?
   Yes ☐ no ☐

19 d. Are you striving to achieve them?
   Yes ☐ no ☐

19 e. For the characteristics you described in Q. 19 b, how are you (will you be) able to apply these to your role in the clinical setting?
19f. What support or help do you believe you need to apply the characteristics you described in Q. 19 b?

20 a. Whom do you see as having the primary responsibility for student’s learning in the clinical setting?

20 b Following on from your answer to Q 20 a, what are the reasons that support this?

21 a. Please describe the essential characteristics of clinical decision-making you expect to see demonstrated by a semester 5 student in the clinical setting.

21 b. Following on from your description in Q 21 b, please indicate what you would look for to be able to evaluate the degree to which the student exhibits these characteristics. I.e. What would you count as evidence?

Section 3

16. You may wish to make some comments further on questions asked in the previous sections, or on clinical education and related issues not covered previously. Please use the following space for this.
CLINICAL EDUCATORS’ SURVEY RATING

Please rate each of the survey questions with a tick in the appropriate box according to the following 4 option rating scale:

1 = not relevant
2 = unable to assess relevance without item revision
3 = relevant needs minor alteration
4 = very relevant and succinct.

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section A</strong></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1.2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1.3</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1.4</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1.5</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1.6</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1.7</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>1.8</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td><strong>Section B</strong></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.2.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.2.2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.3</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.4</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.5.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.5.2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.6</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.7</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.8</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.9</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.10</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.11</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.12.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.12.2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.13</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.14</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.15.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.15.2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.16</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.17</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.18.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.18.2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.19.1</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.19.2</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.20</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2.21</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td><strong>Section 3</strong></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>
SECTION A  The Clinical Educator

1. Could you describe, as you see it, the similarity or difference between the university setting and the clinical setting in the way that learning is facilitated and constructed for the student? Given your answer, do you think it has to be similar or different? Why?

17. Do you see any similarity or difference between the act of teaching and the act of facilitating students’ learning in the clinical setting? Could you elaborate on how these are similar or different?

3a. Would you describe yourself as a teacher, a facilitator, or a combination of both?

3b. Can you describe the beliefs that underpin your (teaching and or facilitating) actions as a clinical educator? In other words why you (teach and or facilitate) the way you do?

3c. Do you recall if the way you now (teach and or facilitate) is similar or different from how you viewed it at the beginning of semester 1? If yes, then why is there a difference?

3d. Can you describe any new teaching and or facilitating strategies you were using at the end but not at the beginning of semester 1?

If you have introduced any new strategies, what are the reasons for you doing this? Can you gauge the effectiveness of these new strategies?

4a. What do you believe are important personal and professional attributes for the clinical educator to be able to assist students’ learning in the clinical setting? Can we look at the personal ones first and then the professional ones?

4b. Would you see the attributes, as you’ve outlined them, as being similar or different for those needed for teaching and or facilitating?

4c. In response to question 3a you described yourself as a (teacher and or facilitator) do you believe you have the personal and professional characteristics you’ve just outlined?

Do you recall if those characteristics are similar or different from how you viewed yourself at the beginning of semester 1?

If yes, then how and why is there a difference?

4d. What support, help or resources do you believe you need to apply the characteristics you’ve described?

5a. Who, and why, do you see as having the primary responsibility for assessing and evaluating students’ learning in the clinical setting?

5b. What do you believe are important personal and professional attributes for the clinical educator to be able to evaluate students in the clinical setting? Can we look at the personal ones first and then the professional ones?

5c. Do you believe you have the personal and professional characteristics for evaluating students you’ve outlined?

Do you recall if those characteristics are similar or different from how you viewed yourself at the beginning of semester 1?

If yes, then how and why is there a difference?
5d. What support, help or resources do you believe you need to apply the characteristics you outlined?

18. As the final question for this section, can you outline what you believe to be the responsibilities of the clinical educator?

Do you recall if this is similar or different from how you viewed the responsibilities at the beginning of semester 1?

SECTION B Critical Thinking and Reflective Practice

7a. Can you define for me what the term critical thinking means to you?

7b. What do you believe is the importance and place of critical thinking for the student nurse in the clinical setting?

Do you recall if that is similar or different from how you viewed it at the beginning of semester 1? If yes, then how and why is there a difference?

7c. Can you describe for me the importance and place of critical thinking for your role as a clinical educator?

Do you recall if that is similar or different from how you viewed it at the beginning of semester 1? If yes, then how and why is there a difference?

7d. In your role as a clinical educator, can you describe an event that illustrates how you have enabled a student’s critical thinking in the clinical setting?

7e. Did you evaluate the student’s critical thinking from that event? (If you did or even if you didn’t) can you take me through the process of decisions you (made would have made) in order to evaluate that student’s critical thinking?

7f. In what way would the decision-making process you’ve just described be typical for you when evaluating students’ critical thinking?

Do you recall if that process has changed for you in any way from the beginning of semester 1 to the end?

If yes, then what are you doing that is different and can you discuss why is there a difference?

8a. Can you describe for me what the term reflective practice means to you?

8b. What do you believe is the importance and place of reflective practice for the student nurse in the clinical setting?

Do you recall if that is similar or different from how you viewed it at the beginning of semester 1? If yes, then how and why is there a difference?

8c. Can you describe for me the importance and place of reflective practice for your role as a clinical educator?

Do you recall if that is similar or different from how you viewed it at the beginning of semester 1? If yes, then how and why is there a difference?

8d. In your role as a clinical educator, could you describe an event that illustrates how you have enabled a student’s reflective practice?
8e. Did you evaluate the student’s reflective practice from that event? (If you did or even if you didn’t) can you take me through the process of decisions you (made would have made) in order to evaluate that student’s reflective practice?

8f. In what way would the decision-making process you’ve just described be typical for you when evaluating students’ reflective practice?

Do you recall if that process has changed for you in any way from the beginning of semester 1 to the end?

If yes, then what are you doing that is different and can you discuss why is there a difference?

19. Now that we’ve talked about critical thinking and reflective practice, the final question for this section is: Do you see any similarity or difference between the two?

Can you enlarge on this?

SECTION C Influences to Critical Thinking and Reflective Practice

20. What factors in the clinical milieu (staff, physical resources and or the environment itself) work to either enhance or hinder your development of student’s critical thinking and reflective practice?

10a. Are there any factors which can be linked to either the way the clinical experience is structured or the curriculum that may contribute to, by either enhancing or hindering, your development of student’s critical thinking and reflective practice in the clinical setting?

SECTION D Clinical Decision-Making

11a. Could you describe what you believe to be the essential characteristics of clinical decision-making that a semester 5 student would demonstrate in the clinical setting?

11b. What would count for you as evidence to be able to evaluate the degree to which the student exhibits the essential characteristics you described?

Do you recall if your expectations of the essential characteristics of clinical decision-making for a semester 5 student have changed in any way from the beginning of semester 1? If yes, then how and why is there a difference?

SECTION E Your Participation in the Study

12. Has your participation in this study had any effect on you in your role as a clinical educator? If so, how?

13. Do you think similarly or differently about critical thinking and reflective practice for you and the student since your participation in this study? If so, how?

SECTION F Other Comments

21. Are there any comments further to the issues we’ve discussed, or on related clinical education issues not covered you would like to make?
Clinical Educator's Teaching Strategies

Rhonda Marriott  RN, RM, RMHN,
MSc (Nsg), PhD Candidate
CLINICAL EDUCATOR's TEACHING STRATEGIES

Definition of Terms

- Learning is the process by which the student moves from one position on the “knowledge continuum” to another where they can demonstrate that cognitive, affective or psychomotor changes have occurred. Learning has less to do with skills and techniques and more to do with attitudes and orientation.

- Teaching: acts and strategies which the teacher uses with the intent to enable learning to occur in the student (Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Sironnik, 1990; Stewart, 1993). Learning may or may not be the outcome, despite the intent.

- Facilitation: the enabling of students achievement of their goals. It involves four elements: 1) the task; (2) the needs of the learner; (3) the teaching skills of the clinical educator (Brown, 1989) to transform the student’s knowledge into effective practise behaviour (Egan, 1982); and (4) a supportive clinical milieu.

- Critical thinking: The literature provides a range of definitions for the concept of critical thinking and, while varied, have a common thread reflecting the concept’s complexity. Critical thinking is defined as an often non-linear process of purposeful, self regulatory judgement. This process gives reasoned consideration to evidence, contexts, methods, and criteria (American Philosophical Association, 1990, p.2). Critical thinking while encompassing cognitive processes (Perry, 1970), problem solving (Kurfiss, 1988) and professional or clinical decision-making (Halpern, 1984), extends beyond these boundaries to include characteristics of reflective thinking (Glen, 1995).

- Critical thinking disposition: the characteristics of truth-seeking, open-mindedness, analyticity, systematicity, critical thinking self-confidence, inquisitiveness and cognitive maturity (Facione, 1994).

- Critical thinking skills: cognitive processes which reflect the characteristics of induction and deduction and which, in turn, rely on analysis, inference and evaluation (Facione, 1991).

- Reflective practice: the process of turning thoughtful practice into a potential learning situation, using theory in practice in a situation of probability and ensuring the outcome of action is close to what was anticipated by the theory and the previous experience combined (Jarvis, 1992).

- Clinical decision-making: plans for action made by a nurse (registered or student) as a result of a process of evaluation and assertion of an opinion based on
knowledge and experience, and in response to the patient and other derived patient-related data (Dunn, 1993; Itano, 1989).

- Evaluation: the progressive assessment of behaviour that reflects cognitive, affective and psychomotor components of learning. Behaviours should be assessed according to predetermined criteria of acceptable or unacceptable performance.

**BACKGROUND.**

The Clinical Evaluation of Students’ Critical Thinking

An accreditation mandate (National League for Nursing, 1990) requires North American clinical educators to evaluate students’ competencies in critical thinking. This is in contrast to their Australian counterparts, who have no such regulatory requirement for evaluating critical thinking, other than to assess problem solving (Australian Nursing Council Incorporated, 1994). Students are assessed for problem solving (and its implied critical thinking process) through their application of the nursing process to patient care. The problem solving process, which is central to the nursing process, contains elements of deductive and inductive reasoning (essential for critical thinking) and these are highlighted in Christensen and Kenney’s (1990) definition of the nursing process as a deliberate activity whereby the practice of nursing is performed in a systematic manner ... the nurse uses a comprehensive knowledge base to assess ... to make judgements and diagnoses, and to plan, implement, and evaluate appropriate nursing actions (p.7).

However, Wilkinson (1992), cautions against considering critical thinking as synonymous with problem solving. A study by Jones and Brown (1991) reported considerable confusion in a sample of Deans and Heads of Schools of Nursing in defining critical thinking. The reported sample’s predominant description was of critical thinking as a problem solving activity.

Although the nursing process is a method of identifying a problem and then planning solutions, critical thinking extends to situations which don’t always require solutions, such as those where the nurse forms conceptions, rationalises, or makes fair and reasonable judgements. In particular, these aspects are of importance to the 1990s role of registered nurse.

An educational concern exists, therefore, if students’ critical thinking is only evaluated through the nursing care plans they produce (Marks-Maram, 1995).

The Clinical Evaluation of Students’ Reflective Practice

The literature provides much discussion on reflection (Schon, 1983; Boud, Keogh and Walker, 1987; Schon, 1987; Newell, 1992; Kemmis, 1994; Atkins and Murphy, 1993).

Reflective practice is the process of revisiting ones’ practice experience in order to learn about it (Atkins and Murphy, 1995). One theorist’s view of this
process is that knowledge of the probable outcomes of clinical practice can lead to the development of practice theories (Jarvis, 1992). Others (Habermas, 1971; Schon, 1983; Kolb, 1984) describe the learning resulting from the practice experience as from a mechanism of monitoring (self-regulation) and realising that the outcome of the action is close to what was predicted by the practice theory and the previous experience combined. This process of self-regulation is described by Schon (1983) as reflection in practice (occurring during practise) and reflection on practice (occurring after practise).

The application of the reviewed authors’ concepts of invoking theory in practice to the arena of clinical education has to be within a framework of uncertainty of the outcome because of the impact of the clinical milieu itself on the learning situation.

The process of self-regulation of learning is described in the literature (Paris and Byrnes, 1989) as a case where the learner uses higher order learning, such as synthesis. Some authors (Jarvis, 1992; Atkins & Murphy, 1995) indicate the efficacy of self-regulation for the student is in informing, supporting and directing their learning, making practise meaningful, and developing and refining clinical decision-making through the awareness of the thoughts and feelings surrounding the decisions made.

Furthermore, facilitating students to attend consciously and reflect on their clinical practice will lead to the recognition of repeating patterns of patients’ clinical presentation (signs and symptoms), responses to interventions and outcomes. Other researchers’ skills (Benner, 1984; Garratt, 1992; Dunn, 1993; and Jarvis, 1992) have found the use of pattern and similarity recognition, logical thinking and induction can facilitate and refine clinical decision-making.

Induction, essential for critical thinking, has been described as “a process of reasoning by which a general conclusion is drawn from particular instances” (Krebs, 1989) and has been alluded to in some others’ discussions on intuitive thinking and decision-making (Benner, 1984). Therefore, a second and equally important educational concern exists if students’ are not using reflective practice as a way for learning and testing theories in practice (Schon, 1991) and importantly, developing and validating their clinical decision-making.

The Clinical Education Milieu

A primary goal of nursing education: self direction and therefore independence of decision-making for patient care, is well served by the orientation of teaching practice being from the andragogical paradigm, described by Knowles (1978), and which, through principles of learning, fosters these independent characteristics in students.

Prior to 1993 Australian nursing education focused on training which, largely, occurred in the workplace (in the main these were hospitals). The clinical instructor approach which dominated nurse education in hospital based programmes prior to 1993 fostered a concept of heteronomy (Bates & Linder-Pelz, 1990) and perpetuated the perception of nurses as a useful service group to other professionals, such as the medical profession.
Even though nurses implemented direct patient care, such as attending to activities of daily living, their process of care could be described more as reactive rather than pro-active. In such a situation, doctors remained the primary clinical decision-makers and nurses implemented medical care (Ryan & McKenna, 1994). If Lillibridge and Biro’s model of independent practice (1995) was applied to the process of nursing care taught to student nurses prior to the mid 1980s, it could be viewed as lacking autonomy and situated at the dependent end of these authors model.

In the mid 1980’s, widespread implementation of the nursing process to guide nursing care wrought a significant change to pro-active patient-centred care and Hollingworth (1986) described the nursing process as a mode of delivering patient care in a way that required nurses to deliberate and plan. Although this emphasis on a holistic, patient-centred approach was, and is, significant for nursing education, there is no guarantee the nursing process significantly impacts on the development of characteristics of critical thinking and reflective practice in students. Certainly, Fonteyn and Cooper (1994) warn the nursing profession of a danger that nursing care plans contribute to the formation of ritualistic, habitual nursing practice.

Additionally, the clinical practice education component for tertiary nursing students is still primarily in hospital settings which, fundamentally, are bureaucratic. The scope of nursing practice within these settings is often governed by protocols which do little to foster the independence of nursing decision-making and tend, rather, to perpetuate traditional roles and hierarchical structures (McCoppin & Gardner, 1994; Nolan, 1995).

There is a concern that students may develop such a sense of trust in these protocols which could serve to impede students’ realisation of independent characteristics such as reflecting on nursing decisions based on a careful review of circumstances, the facts of the case and other evidence which impact on the decision or outcomes for patient care; and then acting responsibly on decisions clearly within the scope of their practice (Ellis, 1994; Nolan, 1995; Willis, 1993).

LEARNING

Säljö, a Swedish researcher, analysed university students responses to his question “What do you actually mean by learning?” The five conceptions derived from the answers were:

1. Learning as an increase of knowledge. The main feature of respondents answers in this category was the vagueness of their explanation of the meaning of learning. Learning was described as an outcome and based on the premise that knowledge is accumulated.
2. Learning as memorisation. The assumption of the responses in this category was learning as the transfer of pieces of information from an external source, such as teacher or a book, into the learner’s head.
3. Learning as the acquisition of facts, procedures, and so on that can be retained and/or utilised in practice. Compared to previous concepts, the student decides if
the facts and principles are considered to be practically useful and/or possible to remember for a long time. In other words, you learn so you can know it and use it. This category implies also that the student uses some criteria against which to judge the new information, and, if deemed useful, then, decides it should be learned.

4. **Learning as an abstraction of meaning.** The distinctive characteristic of this is that the nature of what is learned is changed. Learning is no longer conceived as an activity of reproducing – but instead as a process of abstracting meaning from what you hear and read. The reproductive nature of learning is replaced by a conception which emphasises that learning is a constructive activity. Learning material is not seen as containing ready made knowledge to be memorised but as new data to form as a beginning point.

5. **Learning as an interpretive process aimed at an understanding of reality.** This is similar to the previous one. Distinction is that some subjects emphasised an essential element of learning is that what you learn should help you interpret the reality in which you live. Thus there is a link between the learner’s beliefs and the world in which they live.

**CLINICAL TEACHING STRATEGIES**

One of the intents of the nursing curriculum is for learning to occur in the student when they are in the clinical practice setting. The realisation of an outcome of learning in the student is the *raison d’être* for the clinical educator. While it is tempting to debate the idea of cause and effect between acts of teaching and student learning, the very essence of such a debate is difficult as it would tend to simplify many complex issues. These issues have long been the subject of discourse in literature on education. It is important, however, to attempt to break down the context of teaching as it occurs in the clinical setting and examine it from differing perspectives. The benefit from this exercise to the clinical educator may be the identification of areas that they have not previously focussed on in their teaching with students.

According to Stewart (1993) and others (Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Sirontik, 1990), there are important considerations when describing the act of teaching. Stewart describes the three distinct acts comprising teaching: intellectual, strategic and moral teaching acts (pp.4-5). While in the changing reality of a clinical setting it may not be possible to view these acts as independent of one another, it is useful, for the purpose of this teaching package, to view them separately.

The intellectual acts of teaching include those strategies commonly linked with the idea of teaching. These include explaining, justifying, demonstrating, comparing, questioning, probing, inferring, concluding, interpreting, illustrating, and proving.

The strategic acts of teaching are necessary to support the main acts of teaching (ie. Intellectual acts). The strategic acts include – facilitating, motivating, planning, encouraging, guiding, counselling, and disciplining. These acts *aid the intent* of teaching, which is student learning, by creating a milieu or “improving the external practical conditions” (Stewart, 1993, p.4) so it becomes more likely the student will achieve learning.
The moral acts of teaching require the clinical educator to be honest and fair in the process of bringing about learning in students. The clinical educator needs to be considerate of others’ views while remaining objective about the issues of truth, evidence and argument. In addition, the clinical educator shows an active consideration for the standards of the nursing profession. Together, these strategies may be viewed as aspects of role modelling and professional socialisation.

There is much more, though, than this, as those who view the humanistic philosophy of teaching will ascribe. The very essence of the humanistic philosophy of teaching is the moral tenets it allows the teacher to bring to the teaching-learning interaction. This view is supported by the literature describing the constructivists view of learning. One such author expresses the educators role as being one which assists students to recognise erroneous, biased, or dysfunctional beliefs with the purpose of facilitating changes in these beliefs in the student (Candy, 1991).

“Teaching is not a process of transmitting knowledge intact to learners, but a matter of negotiating meanings. Learning is an active process of constructing a system of meanings and then using these to construe or interpret events, ideas, or circumstances. And so, the constructivist view of learning is particularly compatible with the notion of self-direction” (Candy, p.278.) and I would add, the notion of self-reflection.

**PEDAGOGY AND ANDRAGOGY**

The table and text that follows is Malcolm Knowles’ explanation of the differences between the assumptions and the process elements of pedagogy and andragogy which was cited in McBeath, 1989.

The body of theory and practice on which teacher-directed learning is based is often given the label “pedagogy”, from the Greek words paid (meaning child) and agogus (meaning guide or leader) – thus being defined as the art and science of teaching and guiding the learning of children. The body of theory and practice on which the concept of self-directed learning is based is coming to be labelled “andragogy”, from the Greek word aner (meaning adult) – thus being defined as the art and science of teaching adults (or, even better, maturing human beings) learn.

The two models, shown in Table 1, do **not** represent bad/good or child/adult dichotomies, but rather a **continuum of assumptions** to be checked out in terms of their rightness for particular learners in particular situations. If a pedagogical assumption is realistic for a particular situation, then pedagogical strategies are appropriate. For example, if a learner is entering a totally strange content area, he or she will be dependent on a teacher until enough content has been acquired to enable self-directed inquiry.
Table 1: PEDAGOGY AND ANDRAGOGY

<table>
<thead>
<tr>
<th>ABOUT CONCEPT OF THE LEARNER.</th>
<th>PEDAGOGICAL</th>
<th>ANDRAGOGICAL</th>
<th>PROCESSES</th>
<th>PEDAGOGICAL</th>
<th>ANDRAGOGICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of Learner's Experience.</td>
<td>To be built on more than used as a resource.</td>
<td>Developing from life tasks and problems. Task or problem-centred.</td>
<td>Diagnosis of needs. By mutual assessment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

References


REFLECTIVE JOURNALS

Rhonda Marriott  RN, RM, RMHN, MSc (Nog), PhD Candidate
REFLECTIVE JOURNAL WRITING

Dear Colleague,

I strongly encourage you to keep a reflective journal as the experience gives you an opportunity to learn from your practice experiences as a clinical educator. The reflective journal is your personal record of teaching situations that will allow you to gain more understanding of your teaching practice.

The personal benefit of reflective journalising is the enhancement of your personal knowledge about your role as a clinical educator.

The benefit for the profession is threefold. Grouped clinical educators’ reflections will provide examples to the profession of clinical educators’ critical thinking and reflective practice in their teaching role. The grouped reflections will show specific teaching strategies clinical educators believe facilitate students’ critical thinking and reflective practice. In addition, these teaching strategies will exemplify three distinct acts which comprise teaching.

According to Stewart (1993) and others (Fenstermacher, 1990; Green, 1971; Hellgren, 1985; Sironik, 1990), there are important considerations when describing the act of teaching. Stewart summarises teaching as a notion of three distinct acts: intellectual, strategic and moral teaching acts (pp.4-5).

The intellectual acts of teaching include those strategies commonly linked with the idea of teaching. These include explaining, justifying, demonstrating, comparing, questioning, probing, inferring, concluding, interpreting, illustrating, and proving.

The strategic acts of teaching are necessary to support the main acts of teaching (ie. Intellectual acts). The strategic acts include – facilitating, motivating, planning, encouraging, guiding, counselling, and disciplining. These acts aid the intent of teaching, which is student learning, by creating a milieu or “improving the external practical conditions” (Stewart, 1993, p.4) so it becomes more likely the student will achieve learning.

The moral acts of teaching require the clinical educator to be honest and fair in the process of bringing about learning in students. The clinical educator needs to be considerate of others’ views while remaining objective about the issues of truth, evidence and argument. In addition, the clinical educator shows an active consideration for the standards of the nursing profession. Together, these strategies may be viewed as aspects of role modelling and professional socialisation.
Instructions

I have provided an exercise book for the reflective journalising. Please do not write your name anywhere in the book or in your entries, as, the record is to be anonymous. If, in the process of journalising, you do happen to write students’ names, I assure you that these will be changed during the transcription to retain everyone’s anonymity.

Please record a minimum of 3 journal entries. The examples should be able to reflect the three acts of teaching as described previously. Therefore, you would choose one example to illustrate the intellectual acts of teaching, one example to illustrate the strategic acts and one example to illustrate the moral acts.

Remember that a number of teaching strategies fall under each of the three “acts of teaching”. When you select your teaching situation it may, perhaps, only include one, or, perhaps more strategy/ies. When you consider a teaching situation that illustrates your intellectual teaching acts with students you may choose a situation where, for example, your are supervising a student during a procedure. In this you can recount how you demonstrated, questioned and probed the student’s knowledge of the principles behind the procedure. You will notice that I have identified only three of the possible eleven “intellectual acts”. You may have used more or less in such an interaction with a student.

When you consider what you will record in the journal choose examples of teaching situations that are typical of your clinical educator role with semester 5 students. The teaching situations may be all in a particular rotation or; spread over the second, third and last rotations.

Once you start journalising, you may find the experience is very beneficial to the way you view and learn from your practice. As a result, you may choose to maintain the journal for a longer time. If this is the case, I will supply you with more exercise books.

There are two phases to the process of reflective journalising. Firstly, you record teaching situations you believe illustrate the acts of teaching which enabled students’ critical thinking and reflective practice. Secondly, the reflective summary phase requires you to reflect on the ways you enabled or had a part in the process of students’ critical thinking or reflective practice.

As you may have minimal experience with writing a reflective journal, the instructions, which start on the next page, may assist you in the process.
**Teaching Situation Journal Phase:**

- Write the accounts of the chosen teaching situations using only the right hand pages of the exercise book. Please **number** each record.

- Select three teaching situations to illustrate each of the three acts of teaching: **intellectual, strategic and moral teaching acts. Please identify which is being described.**

- Choose teaching situations you believe illustrate the way in which the specific teaching act **enabled students’ critical thinking and reflective practice.** The situations may be a combination of both or show one or the other. **Please identify which is being described** if the account only illustrates one of these.

- Make sure your accounts of the events of the teaching situations are objective. You may, in these accounts, also want to include your subjective feelings about the situations as you experienced them **at the time.**

- Use a **free writing** style. This means you do not need to worry about spelling or grammar. **Remember!** There is no right or wrong approach to the way you record the teaching situations.

**Reflective Summary Phase:**

The second phase of reflective journalising is for you to reflect on your journal accounts. This will provide the opportunity for you to **revisit** the situations in your mind. Write your reflective responses on the left hand pages facing the journal entry. Please **number** the reflective entry so it **corresponds** to the number of the journal entry.

I strongly suggest you use the following points to guide your reflection in your revisiting of the teaching situations:

1. What was I trying to achieve?
2. How did I respond to the student, patient, clinical situation?
3. Why did I respond in the way I did?
4. Why did the student respond to the patient, clinical situation as she/he did?
What were the consequences of this clinical situation for the student, the patient, myself?

How was the student feeling?

How did I know this?

How did the patient feel in this situation?

How did I know this?

How did I feel in this situation?

Were there any factors, external to the situation or the players, which affected the outcome?

What were all the alternative actions I could have used in this situation?

How has my teaching and evaluating abilities changed compared with the last time I was in a similar situation?

What is the relationship between this experience and the ways I have responded in the past and may respond in the future?

References


** Graham Participant Observation

I: Can we talk about the student with the needle stick injury? I had the feeling that you were doing two things: You were being supportive with her but I had the feeling that you might have been trying to let her take a little bit of control over what was happening when you got her to fill out those forms. Is that right?

P: That’s exactly right. What I saw when she first came up to me – and that was when I came down to get you – I could see that she was feeling totally out of control, people were talking to her, she wasn’t hearing them. I felt she needed to take some time out and that’s why I sat her in there. She was upset and crying and I got to the bottom of it before I came to get you. She was crying because she was really embarrassed and felt really stupid and she was allowed to feel that way. I also gave her that little time by herself while I came and got you. She really needed to be more in control of the situation and not just a passive recipient with people doing things for her. So getting her to fill out the forms, getting her to speak to the infection control person – I was more than happy to take her to get the bloods but I didn’t feel that I should be sitting with her while she was getting that done. To put myself in that position, I wouldn’t want someone sitting with me. So I wanted to be there for her. I said, “You’ve got my pager; if you need me, please page me.” I wanted to say to her “Yes, I’m here for you but I didn’t want to be too hovering, too maternal, too clingy.

I: But you were still supportive to her. I didn’t have the feeling that you were standing back and being a bystander in the whole situation, so you were quite nurturing with her really but you still let her take control of it.

P: Yes. Especially with the semester 5s, now that they are adults they should be treated as adults. One of the things that happens is they get to next semester and it’s the first time ever they’ve really been on their own and it’s a really scary thing for them. So I try to give them a bit more autonomy and a bit more responsibility and put the ball in their court. So instead of me running around saying “What are you doing?” I say “You page me when you’ve got something to do.” So they’re then taking responsibility for their learning as well.

I: How do you find they respond to that?

P: The first group I have, which is the first lot of clinical they do in the semester, are not as good as the last group.

I: This is your last group now?

P: This is my last group now. So the first group I tend to follow up a lot more on. So I do say “Page me” but then I’ll go around and say “How’s it going? Have you got anything planned to do?” But then by the next week they’ve caught on, that they really need to – and they like it. Always at the end of each group I see each student individually and talk to them about their experience and how they felt and I’ve always had positive feedback that they feel grown up and they feel that they’re trusted. But they also know that I’m still there if they get into trouble, if they need more help.

I: So some of those decisions you make about giving more autonomy, getting them to page you when they have something – when they’ve had a chance to plan
their day and work out when they do need to spend some time with you: Is that driven from the more holistic picture you have because you’re involved in the program?
P: Yes, I think so. I think it comes from my own experiences as a student and from talking to the students, just chatting and hearing what they’re saying about what they want and need. I have semester 6s as well. In talking to the semester 6s, they say “This is the first time we’ve been on our own. I just wish we’d had a bit more independence last semester”. So it’s putting all that together. If I have a student who is needing a lot more time, then I’ll spend that time with them. I won’t say that comes from a gut feeling but you’re probably getting cues from them that you’re just registering. You know, you’ll get a feeling like “This student needs me” so you’ll stay with them a lot more and help them through that. But even then I’m gradually trying to get them to become more independent and using different skills, different tactics to get them to do that.
I: What sort of tactics do you use, and what skills are you trying to develop?
P: A lot of students are afraid to think for themselves because they’re desperately afraid of making a mistake. They do not want to make a mistake, whatever that is. A mistake that you and I would think is nothing, to them it’s world shattering. So dependent on whether it’s communication or a natural performing skill, I might be there with them closely, starting something off and then just step back out of their eyesight, but I’m still physically – I could touch them but they can’t see me – and then just letting them know every so often I’m still there observing them and then next time I might actually step back a bit further or I might say, “I’m just outside the room if you want me” and I’ll stand there and watch and listen to them from outside the room, to the point where I can actually leave the setting and say “Page me if you need me”. That may take two days or four days and it may never happen.
I:

END of SAMPLE FROM THIS INTERVIEW.
# APPENDIX 4

## Pedagogy and Andragogy

### Assumptions

<table>
<thead>
<tr>
<th>About</th>
<th>Pedagogical</th>
<th>Andragogical</th>
<th>Elements</th>
<th>Pedagogical</th>
<th>Andragogical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of learner’s experience.</td>
<td>To be built on more than used as a resource.</td>
<td>A rich resource for learning by self and others.</td>
<td>Planning.</td>
<td>Primarily by teacher.</td>
<td>Mutually by learners and facilitator.</td>
</tr>
</tbody>
</table>

### Process Elements

- **Learning activities.**
  - Transmittal techniques.
  - Assigned readings.

- **Evaluation.**
  - By teacher.
  - Norm-referenced (on curve).
  - With grades.

Malcolm Knowles’ (1985)
APPENDIX 5
Clinical Educators’ Philosophy and Style of Teaching of Teaching: From
Transcription of Survey Responses

Anne: Experiencing is a belief of mine. “To do” equates to learning with all senses. Encouragement provides a belief that it is possible, and provides support. Challenge creates an element of expectation and surprise, and a base on which to assess how much is understood. Honesty is fundamental to this process, as is confidentiality.

Bennet: ‘Finding out for yourself’ is the way that I have learned best myself and the way I found greatest response and respect from both my colleagues and students. Reinforcement of my style has been helped by feedback from students who say they are glad they have me because I don’t give them answers and I make them think.

Claire: I encourage questions. Students are able to approach me and feel comfortable around me, are not afraid to ask any sort of questions – as I do not belittle them. I understand how the students feel in a new setting and attempt to make learning interesting and fun. I try to prepare them for their “nursing experience” by being supportive and understanding.

David: I believe that constructive criticism is non-threatening. I rarely experienced constructive criticism as a student nurse and found this to be stifling. I believe there is more to a student than being “the nurse”. They each have their own feelings, thoughts and experiences behind them on which to build and should, I believe, be given every opportunity to do so.

Erin: I had clinical educators when I was training who intimidated me to the point that I could not function effectively as a student nurse and consequently did not enjoy that aspect of my training. It was only when I had a kind clinical educator who did not terrify me that I really learnt.

Fiona: I follow a humanistic approach that believes in the value of the individual student, patient or staff member. We are all trying to make our way through life with all of its stressors, demands and rewards.

Graham: I believe the student is an adult learner and should be encouraged in their role. My teaching is student centred.

Hanna: One needs to be supportive and kind. Past experience and past success from using a positive approach of working together with the students has reinforced this.

Ingrid: I encourage students to feel comfortable to try and discuss interventions for their nursing care.
Jordan: I believe students perform best when they are focussed on what they are doing, not who is watching them. I believe if you show nursing can be fun, they can enjoy it rather than thinking everything is study. Students are already motivated, you just need to guide them to maximise motivation.

Kendra: I remember feeling proud and motivated by my own successes during my learning and felt secure to attempt things whilst I had the support of a knowledgeable educator/preceptor. My experiences with students have shown that this way is best for learning.

Lyall: No one is perfect. We all need space to make mistakes – we are all firstly human beings. We need support and to feel valued in order to do our best. Problems are opportunities to extend ourselves and learn more. A good teacher must be highly motivated. My motivation comes from seeing the students improve and from knowing they are learning attitudes which will benefit patients for years to come.

Monique: My purpose is to help students learn how to be competent in a clinical setting and I have to allow them to approach me with confidence. No one can learn effectively in a threatening environment.
APPENDIX 6
Clinical Educators’ Views of Teaching and Facilitating: From Transcription of
Interview Responses

Claire saw teaching as not equalling learning. She described facilitation as allowing the student to try again with support from the clinical educator and thus learning from the experience.

David saw many differences. He perceived teaching in a more theoretical sense with teachers handing out information and students being passive recipients. David also described teaching as research based to give information which is time effective for the students: that is, students are saved the effort of researching the information. He described facilitating as more about getting the students to do the learning for themselves by the teacher showing them the ways and means to access information in order for them to become more independent learners in the future.

Graham described teaching as a didactic approach of getting information across to the student and then checking to see if the student understood. He described facilitation as a process of assisting the student to come to an answer or conclusion on their own but added that if the learning experience was new, the teacher should apply a didactic approach in order to enhance learning. Graham used cues to assist students to arrive at conclusions on their own and would intervene if the student was floundering so that learning could occur. Graham also saw this as important in order to maintain safety for the student and the patient within the clinical setting.

Hanna described one main difference between teaching and facilitating. She saw consistency in teaching through the use of one set of principles which would be applied both in the theoretical, classroom situation and in the clinical setting. Hanna described facilitating as the use of variable strategies depending on where and what you were doing, the particular patient you were looking after and the assessment of those patients.

Ingrid, interestingly enough, saw the differences between teaching and facilitating in another way. For her, the clinical educator was practising in a clinical area where she was not necessarily seen to be a clinical expert and thus needed to use a process of public relations as a means of facilitating and enhancing student learning. Ingrid identified another benefit from this process – that of acknowledging the expertise of the staff in the clinical area, both to themselves and to the student. She identified that direct teaching would occur in specific circumstances such as students doing an injection, administering medications, or communicating with particularly difficult patients in circumstances where the communication required was beyond their ability.

Jordan identified that facilitating was harder than teaching. For him, it was much more difficult to stand back, let the student have the experience, and not take over. Jordan described the process of facilitating as giving the student cues and
waiting for them to “see” what needed to be done. He identified that facilitating can be frustrating for the clinical educator and it was very tempting to be directive, especially when you saw the student struggling. He emphasised that it was much harder to stand back and let the student experience with minimal input and thus learn from experience.

Kendra had a similar explanation. She saw teaching as more formal and structured, and facilitating as providing the student with resources within themselves to encourage them further to achieve mastery of a competency or performance. She determined that through facilitating, the student learns more; whereas with teaching, the teacher is active in passing on knowledge while the student is merely a passive recipient. Kendra saw teaching as one-sided with difficulty in obtaining student participation.

Lyall also described the difference between teaching and facilitating and added that the success of facilitation was dependent on the student being motivated to learn. Lyall saw teaching as didactic with the teacher giving information and there being little or no interaction from the student. Facilitating however, involved sharing knowledge and interacting with the student in order to increase their knowledge. Within this process, the student would bring a problem or experience to the clinical educator and, through a problem-solving approach, a positive learning outcome would occur for the student.

Monique saw teaching as instruction with the teacher being active in the learning process and the student passive. She identified that within the framework of teaching, specific roles existed: that is, of teacher and student. In the process of facilitation, the teacher guides and prompts the student in the learning situation and the roles are less defined. Monique saw this as an opportunity for the student/s and the clinical educator to professionally collaborate with the teacher acting as a mentor. She acknowledged that if the student was struggling, the teacher would need to employ more directive strategies.

Two clinical educators (Fiona and Erin) said there was no difference. Fiona believed all clinical educators need to apply a process of facilitation in order for teaching to be effective. The clinical educator needs to make use of what ever teaching situation presents – be that through their own or student instigation. Fiona believed that if a teacher had a structured mindset about teaching, they would be limited in how they could effectively facilitate. For Fiona, the process of facilitation invites the learner to be more actively involved and thus free to express their ideas. She believed that clinical educators with a more structured approach would feel they were losing control.

Erin expressed that in the clinical area the clinical educator was supporting the student through the process of teaching and facilitating – giving them feedback on the application of knowledge to the experience (theory to practice).

Anne and Bennet, described teaching and facilitating as interchangeable and on a continuum. Anne described two key issues of which the teacher should be aware. Firstly, the teacher should remain very reactive and responsive to the learning
opportunities presented in the clinical setting as these opportunities were unique and not able to be controlled. Secondly, the teacher must be cognisant of the student’s knowledge and capabilities. The degree of intervention from the teacher was described as being from a degree of “guardianship” to “less visibility”. She described guardianship as the teacher who is alerted to learning opportunities and engaging the student in these. The other end of a continuum is where the teacher becomes less visible as the student is more able to independently perpetuate their learning from the opportunities presented.

Bennet described learning as being dependent on the teacher making available the means for learning to occur. He saw teaching as influenced by the student’s attentiveness and understanding. The teacher could facilitate the student to look inside themselves for answers which would reinforce and confirm their knowledge-base.
# APPENDIX 7

## Concepts and Information Sought Through Survey and Interview Questions

<table>
<thead>
<tr>
<th>Clinical Educator Survey Qs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7a, 7b</strong></td>
<td>Term CNE</td>
</tr>
<tr>
<td><strong>8a, 8b,</strong></td>
<td>Definition CT</td>
</tr>
<tr>
<td><strong>9a, 9b</strong></td>
<td>Definition RP</td>
</tr>
<tr>
<td><strong>10</strong></td>
<td>Education re clinical teaching</td>
</tr>
<tr>
<td><strong>11</strong></td>
<td>Education re preceptorship</td>
</tr>
<tr>
<td><strong>12a, 12b, 12c, 12d</strong></td>
<td>Characteristics of CT nurse</td>
</tr>
<tr>
<td><strong>13a, 13b, 13c, 13d</strong></td>
<td>Characteristics of RP for nurse</td>
</tr>
<tr>
<td><strong>14, 15, 16</strong></td>
<td>Preferred clinical teaching style</td>
</tr>
<tr>
<td><strong>17a, b, c, d, e</strong></td>
<td>Important personal and professional attributes to teach</td>
</tr>
<tr>
<td><strong>18a, b</strong></td>
<td>Primary responsibility for teaching</td>
</tr>
<tr>
<td><strong>19a, b, c, d, e</strong></td>
<td>Primary responsibility for evaluating</td>
</tr>
<tr>
<td><strong>19f</strong></td>
<td>Support needed to apply characteristics</td>
</tr>
<tr>
<td><strong>20a, b,</strong></td>
<td>Primary responsibility for student’s learning</td>
</tr>
<tr>
<td><strong>21a, b</strong></td>
<td>Clinical decision making</td>
</tr>
<tr>
<td>characteristics</td>
<td>semester 5</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
</tr>
<tr>
<td>student</td>
<td></td>
</tr>
<tr>
<td>CNE qs</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1</td>
<td>Similarity/difference between uni/clinical setting re student learning</td>
</tr>
<tr>
<td>2</td>
<td>Similarity/difference between teaching &amp; facilitating student’s learning</td>
</tr>
<tr>
<td>3a, b, c, d</td>
<td>Teacher, facilitator or both</td>
</tr>
<tr>
<td>4a, b, c, d</td>
<td>Important personal and professional attributes to assist student’s learning</td>
</tr>
<tr>
<td>5a, b, c, d</td>
<td>Primary responsibility for evaluating</td>
</tr>
<tr>
<td>6</td>
<td>Responsibilities for CE</td>
</tr>
</tbody>
</table>
APPENDIX 8
Clinical Educators’ Views of Evaluating Responsibilities: From Transcription of
Interview Responses

Anne identified that the primary responsibility for evaluation lay with the clinical educator. She also saw comments from the registered nurses as critical to developing a broader picture of the student’s abilities and would actively seek out the preceptors to obtain their feedback about students’ daily performance. Additionally, Anne saw an important role for the clinical educator in developing a reflective ability in the students so that they could effectively self-evaluate.

Bennet stated that the student had the primary responsibility for evaluation if one believed in reflective learning. However, Bennet conceded that the clinical educator had an important role in assisting the student to reach an understanding of their competence. He identified that the assessment tool used by the university was cumbersome and students did not feel a sense of ownership of the contents and what was recorded. As such, they could easily become distanced from understanding their progressive development in the clinical setting. Thus, it was the clinical educator’s role to assist the students in their understanding.

Claire emphatically believed the responsibility lay with the clinical educators though identified encouraging the registered nurses to write anecdotal comments, provide constructive feedback to the students and to discuss with her any problems they felt were important. She believed that specialist nurses quite often had higher expectations of students and their constructive comments often came across as criticism to the students. Claire relied on the registered nurses to assist in widening her perspective of the students and saw this as critical to her final evaluation. She identified her role as being able to turn constructive comments into learning opportunities for students and to encourage them to set their objectives and to work towards meeting them.

David identified the clinical educator as having the prime responsibility for evaluating students and spent a great deal of time in coaching and developing the students in their ability to fully understand the process of evaluation and the documentation surrounding it. David identified input from the registered nurses as important to the overall process but felt their understanding of the documentation was inadequate and this diminished their contributions.

Erin identified the responsibility for evaluation lay with her but depended very much on feedback from the staff at the end of each shift. She worked hard to obtain this feedback by talking individually with each staff member and making a note of their comments.

Fiona identified the clinical educator had the final responsibility although, identified the importance of the registered nurses in the clinical setting, as, with seven to eight students it was impossible to be everywhere at once. She relied on
students and registered nurses to contribute to the final evaluation though identified the responsibility of writing this would be with the clinical educator.

Graham identified that it was the clinical educator’s responsibility for evaluating students and identified the importance of the clinical educator having an understanding of the university requirements. However, he described a problem with staff seconded from the clinical settings, stating that their expectations were often unrealistic, especially if they were specialist nurses. Additionally, Graham expressed that preceptors could have a different set of standards for their evaluations of students and as a result, incorrectly fails a student. The main problems arose from them not understanding the curriculum and the development of the students throughout the program.

Hanna identified the responsibility for evaluation lay with both the clinical educator and the student. Students have a responsibility to seek out learning experiences and the clinical educator has the responsibility for making sure the learning opportunities are available, while both needed to be clear about what was being evaluated. Hanna also saw a prime responsibility on her behalf of giving the students verbal feedback and writing daily comments on the students’ activities. She emphasised the importance of documentation, particularly if there were problems with a student’s performance.

Ingrid identified that the clinical educator had the responsibility for evaluating the student as this person determines if the student has passed or failed. She also indicated that students should self-evaluate daily through reflective practice journals as a form of evaluation. Ingrid identified a problem with having registered nurses in the clinical setting contributing to students’ evaluations and made the observation that other health professionals take on the responsibility of sharing their knowledge and evaluating their students whereas, nurses seem to fail to do this.

Jordan identified the clinical educator as the one who decided if the students were passing or failing and with the responsibility to the university to inform them of students’ competence. Furthermore, he stated that this was a prime responsibility in his role.

Kendra stated the evaluation was the primary responsibility of the clinical educator but that the registered nurses played a huge role as she could not spend sufficient time with each student individually to evaluate the performance from all the aspects required. She made a habit of having the preceptor write an anecdotal note at the end of each shift and found these to be valuable as they gave additional perspectives for the final evaluation. Kendra shared the concern that as the clinical educator she often felt called on to supervise students with specific tasks and felt frustrated in not being able to develop a sense of the students’ ongoing competencies throughout the day. This is what she relied on the ward staff and their anecdotal comments to provide.

Lyall identified the responsibility lay with the clinical educator as he knew what he was looking for and had the skills required for evaluation. He also identified that he would include comments from the staff in the final evaluation though
indicated that the staff didn’t always provide specific comments, seeming more comfortable with making generalised comments such as “they’re doing very well”.

Monique identified collaborative responsibilities for evaluation between the clinical educator, the student and other staff members. She identified that the clinical educator had a daily responsibility to determine the progress of students and information from the staff was vital in adding to her own objective assessments. Additionally, the final responsibility for writing the evaluation was hers and was the culmination of everyone’s input.
APPENDIX 9

Critical Thinking Defined: Transcribed from Survey and Interview Responses

Anne defined critical thinking as the ability to think beyond the obvious, to examine issues in an unbiased objective way and to develop a capacity to learn. She saw the essential characteristics of a critical thinking nurse as being objective, adaptable, non-judgemental, curious and persistent.

Bennet defined critical thinking as the ability to look at things or situations critically and analytically from all angles. Critical thinking incorporates a sound understanding, knowledge base and skills based on our various senses and power of reasoning. Hence it is affected by previous experience and learning, self-confidence and acuteness of a person’s awareness at the time. He saw essential characteristics of a critical thinking nurse as being processes alert and attentive, having the ability to draw on previous experience and knowledge at any given moment and also recognising when the situation is “out of one’s depth”: that is, it is beyond one’s previous experience and knowledge base. Hence the critically thinking nurse can utilise basic principles previously learned to problem solve and look at any given situation from all angles – further challenging one’s self to look for further aspects. Then after the event, the nurse will reflect on how one performed and how it might have been done better or differently; not only for one’s self but also to critically analyse how others have performed.

Claire defined critical thinking as involving skilful judgement to get at the truth or merit of a discussion or passage and using logical and analytic thought processes. She saw the essential characteristics of a critical thinking nurse as one who reads and analyses relevant data, listens to all sides of an argument, seeks more information, thinks logically through problems and is able to consider other alternatives to overcome problems.

David defined critical thinking as the ability to process data and information logically and in a systematic way with the ability to look at all avenues before deciding on a particular approach. He saw the essential characteristics of a critical thinking nurse as the ability to assess, analyse and incorporate data in a systematic way.

Erin defined critical thinking as the ability to reason, question, understand and form one’s own conclusions. She saw the essential characteristics of a critical thinking nurse as the ability to reason, understand and form conclusions based on what is known and has been researched regarding a particular topic.

Fiona identified that her critical thinking definition did not fit “so-called” mainstream. While her survey response did not define the term, her responses are presented as follows: I’m curious about life, I attempt to be open-minded and objective, I believe I’m flexible and unbiased and I don’t give up that easily. I am a feminist who believes how people feel, and what their circumstances are has a significant bearing on what truth they find in life and that means I can embrace an illogical argument – particularly one with an emotional component. Fiona’s definition of the essential characteristics of a critical thinking nurse identified the
need of a sense of humour, ability to adapt to change at short notice, open-mindedness, flexibility, healthy cynicism, resilience, political activity and commitment to patient empowerment.

Graham defined critical thinking as the examination of all intellectual processes including ideas, assumptions and all forms of reasoning. Therefore, one analyses language to identify problems, and assumptions which we then weigh, judge, evaluate and conclude, in order to have an outcome, strategy or action. He identified the essential characteristics of a critical thinking nurse as the ability to analyse language, identify and formulate problems, analyse arguments, be able to form conclusions, examine assumptions, formulate and clarify, document and evaluate.

Hanna defined critical thinking as involving a number of concepts such as conceptualisation, reflective practice, rational and autonomous thinking; and that this thinking can be very creative. She identified the essential characteristics of a critical thinking nurse as having patterns of knowing (scientific, empirical, personal, ethical and aesthetic knowledge), reflective and autonomous thinking, creativeness, rationality and conceptualisation.

Ingrid defined critical thinking as the ability to logically reason and have outcomes based on emotional/cognitive and educational principles. She identified the essential characteristics of a critical thinking nurse as having a good knowledge base and education, common sense, assertiveness, research capabilities, a questioning and curious orientation and good clinical skills and expertise.

Jordan defined critical thinking as examining the situation in depth, considering all data available and determining a decision based on your own background, knowledge and experience. He identified the essential characteristics of a critical thinking nurse as being one who looks at all data, is open to all alternatives, does not jump at the first possible answer to a problem, and is intelligent and experienced. Furthermore, Jordan identified it would be hard to achieve all this without experience.

Kendra saw critical thinking as a method developed with experience, of assessing a situation or circumstance, considering it from all aspects, and drawing inferences which may be the basis for decision making or action/change. Kendra saw the essential characteristics of a critical thinking nurse as a good knowledge base and access to resources, open minded and unbiased, a rapport with other staff members in an area where change may be considered as a result of critical thinking and an understanding or awareness of personal values, beliefs & philosophies.

Lyall defined critical thinking as the ability to identify and define a problem, reflect on it, consider alternative approaches, act appropriately and learn from the experience. He described the essential characteristics of a critical thinking nurse as one who considers the whole picture (holistic and seeing beyond the immediate approach), sees problems as learning experiences, is aware of his limitations and uses other resources/persons when needed, is self-aware and uses his experience and wide knowledge base effectively.
Monique defined critical thinking as analysing a situation or theory utilising the powers of experience, scientific knowledge, comparing and contrasting with other relevant theories or research and asking many questions to ascertain the efficacy of a given situation, theory or practice. She described the essential characteristics of a critical thinking nurse as one who seeks ongoing education, keeping up to date with professional and ethical issues and research (particularly in own area of work). This nurse would participate in research projects, be open minded and have a scientific approach to problem solving.
APPENDIX 10

Clinical Educators’ Definitions of Reflective Practice and Essential Characteristics

Anne defined reflective practice as considering, in retrospect, actions and events that tie in your behaviour and develop honesty in recall so as to focus on the issues, feelings and behaviours of practice to be able to move on from that and to improve, or to do it differently. Anne’s definition aligns with Kember et al’s. content/process level of reflection. Anne saw the essential characteristics of reflective practice as honesty, clarity and being realistic. She saw the importance of reflective practice for the clinical educator as assisting them to continue to develop as a nurse in a changing world, remain adaptable and to continue to have integrity of practice through honest reflection and ownership.

Bennet defined reflective practice as the practice of looking back on a situation, to self evaluate/make judgment about how one performed. This may be self or others (if only an observer). Bennet’s definition aligns with Kember et al’s. process level of reflection. Bennet described the essential characteristics of reflective practice as one who is always asking the question “why is something done that way; could there be other ways?” He identified the importance of observation and learning from one’s own and others’ successes and failures; recognising one’s deficits after a situation reframing one’s objectives in order for improvement to occur. He identified the importance of always looking for learning opportunities and wanting to improve. Bennet saw the importance of reflective practice for the clinical educator as assisting them to facilitate students to make judgments about their own standard of practice, to self-evaluate and give rationale for practice. The clinical educator would accomplish their own self-evaluation and thinking about how something could be taught or presented differently in order to facilitate students’ learning.

Claire’s definition of reflective practice aligns with Kember et al’s premise level of reflection where one would think back carefully over experiences and to analyse your decisions, why you chose your course of action at that time, what was the outcome, has it made any difference to my practice, & how in the future you could improve on your performance. It’s very important in terms of how you perceive problems to ensure you don’t see them as a problem but draw from you clinical and other experiences. Claire described the essential characteristics of reflective practice as acknowledgement of deficits and a desire to improve these and a desire to learn and improve the next time practice occurred. She identified the importance of reflective practice for the clinical educator as providing a good insight into students’ standard of nursing practice. She further described the importance as enhancing her own worth of performance, and examining and analysing her own feelings and inadequacies. Through this process, Claire could then plan how she could incorporate these outcomes into providing a more enlightened, workable, teaching relationship with her students.
David’s definition of reflective practice is the ability to look back over one’s experience and to learn from it, think about what you’ve done and why, and how you could do it differently, and whether what you did made a difference. David’s definition aligns with Kember et al.’s content/process level of reflection. Reflective practice is looking back and looking forward, and looking at a particular thing: it’s a question of just observation and examination of what you’re looking at. He described the essential characteristics of reflective practice as having the ability to recognise one’s own abilities and level of professional competence. David described the importance and role of reflective practice for the clinical educator as creating a learning environment for the students and encouraging students to think about their actions, consider consequences based on current experiences and to learn from their experiences. The clinical educator could also draw on their own experiences to build up case scenarios for students’ learning. Furthermore, reflective practice enabled clinical educators to enhance their professional development and recognise the value of research in contributing to improved standards of care.

Erin’s definition aligns with Kember et al.’s. content/process level of reflection and is the ability to assess yourself objectively in any given clinical situation: to be able to constantly look at yourself and critically evaluate yourself in terms of the positives and the negatives and what you would like to change and what you would like to keep. There is always room for improvement. She described the essential characteristics of reflective practice as the ability to assess one’s actions in both the positive and negative way. For her, the importance and role of reflective practice for the clinical educator was to be able to assess her own strength and weaknesses and to take appropriate steps to correct them.

Fiona’s definition aligns with Kember et al.’s. content/process level of reflection and is to draw on past experiences as sources, frames of reference, information, and possible solutions to problems, as a as means of dealing with new situations. Reflective practice is dynamic, changing, and like an internal computer and reference library used every day at a subconscious level. Reflective practice is personally interactive and can be used to achieve a favourable outcome either for the student, teacher, patient – or all three. While Fiona did not described the essential characteristics of reflective practice, she saw the importance of reflective practice as giving one confidence about a situation and serving to reinforce the importance of prior knowledge and validation of previous experience.

Graham’s definition aligns with Kember et al.’s. content/process level of reflection and is the ability to critique ones’ practice. Reflective practice is a circular process requiring one to think about ones practice: looking at strengths and weaknesses, feelings about the situation, incident and how can you make it better; how can you use your strength/s to improve the situation, to clarify the context. One can also clarify ones’ experiences with another person because in order to reduce the process as often ones memory of what occurred can be distorted. He identified the essential characteristics of reflective practice as the ability to identify an experience and to be able to conceptualise the experience from the information. Graham identified the role of reflective practice for the clinical educator as facilitating ones teaching strategies with students and facilitating and assisting students to become competent in their own reflective practice.
Hanna’s definition of reflective practice describes it as a process of thinking back over a particular situation or event, exploring the factors that influence the handling of such a situation, analysing the situation and evaluating it. Hanna’s definition of reflective practice is aligned with Kember et al’s process level of reflection. She described the essential characteristics of reflective practice as self-awareness, critical analysis, synthesis, analysis of feelings and knowledge, sharing knowledge and networking. Hanna identified the role of reflective practice for the clinical educator as important for facilitating the sharing of one’s experiences, stories and role modelling good care to students.

Ingrid’s definition of reflective practice describes being able to reflect on practice issues to determine strengths and weaknesses of clinical practice. Ingrid’s definition is aligned with Kember et al’s process level of reflection. She identified the essential characteristics of reflective practice as looking at practice issues, discussing the impact of these and determining how to deal with outcomes. Ingrid saw the importance of reflective practice to the clinical educator for facilitating student learning and this enabled her to plan student experiences, look at her teaching strategies, develop rapport with students and to role model effective practice. These processes also enabled her to consider whether she was effective as a leader.

Jordan’s definition aligns with Kember et al’s. content/process level of reflection and describes the ability to look back on the practice of self and peers and identify, in contextual setting, what happened and why, what worked, what didn’t to see how one can modify or change things or do things again. Through this, one may seek empowerment or appreciate ones’ own ability. He saw the essential characteristics of reflective practice as critically evaluating ones of own performance and that of peers. Jordan described the importance of reflective practice for the clinical educator as assisting students to appreciate how much they had achieved and to gain further confidence. The educator could use reflective practice to enable the students to learn from good and poor practices of other registered nurses.

Kendra’s definition of reflective practice is a continual process of assessing actions, reactions and methods that one may use. This allows evaluation and changes in personal practice. Reflective practice also encourages philosophy and development of a theory based practice. Reflective practice might be a process of critical thinking: reflecting on your thoughts and feelings and what you’ve done, thinking critically about them in a different light or how they may have changed. Kendra’s definition is aligned with Kember et al’s premise level of reflection. She saw the essential characteristics of reflective practice as being open to new ideas and change, able to critically consider one’s own actions and a desire to learn from others. Kendra saw the importance of reflective practice for the clinical educator in applying methods of reflective practice to improve her own abilities within the role and allowing her to stimulate students’ reflective practice.

Lyall’s definition aligns with Kember et al’s. content/process level of reflection and is based on awareness and requires a person to observe their thoughts and feelings, ask questions about them and learn from the answers that emerge. Reflective practice requires you look at what you did, why you did it, your motives;
and how you would evaluate what you actually did – not what you planned to do. If the experience falls short of expectation, then one would look at ways of improving: thus a process of continually self-evaluating and setting goals for improvement. He saw the essential characteristics of reflective practice as self-awareness, awareness of others, an open attitude to learning, and ability to accept one’s mistakes and to move on, seeing learning as a continual event, valuing learning highly and caring for others and respecting one’s self. Lyall saw the importance of reflective practice for the clinical educator as enabling him to improve his practice by reworking according to responses from the student and his own sense of effectiveness. Reflective practice kept him motivated as he found clinical education an “isolated” role with no peers in the workplace. Applying reflective practice helped Lyall remained clear about his role and his practice.

Monique’s definition aligns with Kember et al’s. content/process level of reflection and is the thinking about what was performed – how, why, effect, outcome, relevance, timeframe; and then looking at the need for change or improvements. She identified the essential characteristics of reflective practice for a nurse as one who is self-directed, proactive, striving for excellence, has exemplary professional conduct, understands policies and protocols pertinent to the clinical seating, has an ability to self evaluate an act appropriately on that, seeks to better one’s self and has an ability to utilise resources necessary to improve patient care and one’s work environment. Monique identified the importance of reflective practice for the clinical educator for fostering the professional development of students to become safe practitioners, and, in giving meaning to the practice experience, reducing the tendency of students for seeing experiences as task-oriented.
Reflective Journal Transcripts

Anne

Intellectual Acts of Teaching:

In an effort to ascertain (in the initial days of the rotation) what the average understanding was of clinical depression and bipolar affective states, I engaged the students with direct opportunities to tell me what they knew. My questions were phrased “What is your understanding of depression? What is you understanding of bipolar disorders? Tell me and each other what you know.” The responses were varied and built on each other developing the concepts of their current level of understanding and they seemed to be encouraged by each other to expand further and explore the subject. Whilst this type of group challenge has some pluses such as developing of a group process and the chance to learn from each other – for me, I find it hard to keep track of what specifically each student may actually know, other than they 1) are quiet and non-contributory; 2) verbal; 3) have great level of knowledge; 4) sometimes demonstrates more about the students’ personalities than my original aim of assessing in a general way their current understanding. In some respects it seems (on reflection) an inaccurate way of ascertaining in a clear way anyone’s understanding, because of the fear of disclosure.

Reflection on Intellectual Acts of Teaching:

1. What was I trying to achieve?
   An overview of general knowledge for the area of the majority of students.

2. How did I respond to the student, patient, clinical situation?
   Hopefully openly and with more questions.

3. Why did I respond in the way I did?
   To encourage the student(s) to ask more questions, my openness was to show I was non-critical of what I heard.

4. Why did the student respond to the patient, clinical situation as she/he did?
   In the case of a student verbalising – she had some understanding and wanted to know more. In the event of the student not saying anything I can only assume they were ill at ease with the setting.

5. What were the consequences of this clinical situation for the student, the patient, myself?
Unclear outcome. I.e. How much was understood by the students from my viewpoint. Patient absent from some student consequence(s) as an overview (unclear).

6. How was the student feeling?
I didn’t inquire.

7. How did I know this?
As above.

8. How did the patient feel in this situation?
Pt was absent.

9. How did I know this?
As above.

10. How did I feel in this situation?
Comfortable.

11. Were there any factors, external to the situation or the players, which affected the outcome?
No.

12. What were all the alternative actions I could have used in this situation?
Individualised my format. I.e. Not use the group as an avenue but evaluate students’ knowledge individually and privately.

13. How has my teaching and evaluating abilities changed compared with the last time I was in a similar situation?
I don’t think it is worth repeating this type of inquiry en masse in a group – use the group activity to facilitate “other” learning such as workshops and debriefing etc. but not inquiry specifically.

14. What is the relationship between this experience and the ways I have responded in the past and may respond in the future?
Use the group inquiry specifically for informal sharing and debriefing sessions as appropriate.

Strategic Acts of Teaching:

Student on day 2 was expressing some concerns. Concerns were being alluded to which took me some time to interpret. Comments such as “The last time I was in a place like this the staff weren’t helpful”. “Are there any patients here that should be in X hospital?” As the morning progressed, I noted this student remained bright, interested, but not interactive with allocated client, in fact could tell me nothing about this person at all. Her allocated client was an adult male. I engaged with this student and encouraged her to talk
with me about “What it was like for her to be here now?” Her response was “I feel ill at ease – and I have trouble with these people.”

After some guiding along by myself, the student was able to identify some specific problems that has occurred prior, in her enrolled nurse training. The student’s prior experience was to feel intimidated and somewhat threatened by a male patient who stared at her in a way that made her very uncomfortable. She also believed she was able to work with a newer insight and overcome these difficulties.

My strategy was to assist the student to re-evaluate an old situation, help her to put it into context, develop a means to plan a course of action, act on it – achieve an outcome which could be seen as a learning objective for the placement. Part of her strategy was to interact initially with her allocated patient in the dining room around others; and secondly to understand that by being a part of a caring profession doesn’t equate to being intimidated or fearful of others’ actions.

Student progressed sufficiently to develop a workable rapport with this patient and others during her placement, and, reported a newer thinking which did not include feeling vulnerable and helpless.

Reflection on Strategic Acts of Teaching:

1. What was I trying to achieve?
   Ascertain the student’s inability to talk to her allocated male patient.

2. How did I respond to the student, patient, clinical situation?
   Open inquiry.

3. Why did I respond in the way I did?
   So she wouldn’t feel let off from my possible assistance.

4. Why did the student respond to the patient, clinical situation as she/he did?
   Prior experience – she felt intimidated.

22. What were the consequences of this clinical situation for the student, the patient, myself?
   Student – able to examine her old history.
   Patient - (long-term) able to develop rapport with student.
   Self – able to achieve an outcome for the student with her assistance.

6. How was the student feeling?
   Apprehensive – to feeling more positive.

7. How did I know this?
She said so and looked so.

8. How did the patient feel in this situation?
   Unaware of the events.

9. How did I know this?
   I don’t know other than events weren’t discussed in front of him, unless student discussed this.

10. How did I feel in this situation?
    Helpful.

11. Were there any factors, external to the situation or the players, which affected the outcome?
    None directly at the time.

12. What were all the alternative actions I could have used in this situation?
    I don’t know that there were any more appropriate actions as an alternative.

13. How has my teaching and evaluating abilities changed compared with the last time I was in a similar situation?
    More insightful into my options – students options to act.

14. What is the relationship between this experience and the ways I have responded in the past and may respond in the future?
    I will use this strategy more – it works.

    Moral Acts of Teaching:
    Example One:

The debate seems to be continuous in relation to ECT. Students invariably have very subjective sentiment in relation to this procedure.

An Instance: Student had done some prior reading in relation to ECT and pronounced it to be harmful and without therapeutic benefit, based on what she had heard and seen portrayed in the movies – and cited in evidence some books of fiction and Hollywood movies to support her claim.

My objective on hearing her vocal point of view was to allow her to talk out her point to the full extent of everything she knew, heard, read – and allowed her to expand her argument fully. She became adamant and I remained neutral.

I then presented some facts and remained neutral. The student then engaged in a debate around the introduced facts. Further discussion ensued.

The student asked for more facts which I gave her. I remained objective. The pivotal point was when she discovered that she did
not have to abandon her own subjectivity or personal beliefs – so long as she has an objective and fully informed position in relation to transfer of information to patients and how fundamental this is in relation to transferring relevant, objective information on. She in fact saw this as an integral task in the consultative process with her patients – and how this, for her, would be a valuable learning objective not just for ECT but other contentious, moral and ethical issues she would encounter in future.

**Example Two:**

Student was of some considerable concern. Obvious that set tasks were unattended. For example: Had allocated patient to each student and had mentioned that I would catch up with them in turn – and ask them about their allocated patients. Student was followed up by me. My inquiry was direct. “Could you please tell me all you know about this person, starting with why they are here?” Student was unclear about her patient and why they were in hospital. Only explanation forthcoming was they were “sick”.

I asked the student to find out what she could and I would wait for her to get back to me. The student took an inordinate time to find out the relevant data and get back to me. The whole process of me exploring what she knew about her patient was long and frustrating. The student seemed passive and almost obstructive, her manner was avoidant, no eye contact, and (an) ineffectual small voice with the odd smile/grimace – and very restricted comments. Our contact continued for over 30 minutes – and seemed to be getting nowhere.

I talked about wanting to help her develop strategies to overcome her difficulties with approachable people – student seemed defensive and unable to talk with me ie. Passive and non-verbal. I informed student that based on her current performance ie. Not being informed, unable to respond to questions about a patient’s condition, and unable to approach a patient were fundamental to her role and duty of care. And that based on these behaviours she would require extra time in the area unless we could discuss strategies in which to help her.

All this comment from me “appeared” to fall on deaf ears. I felt fed up and frustrated and angry because I felt “blocked” from acting. My next task was to make a full evaluation as I saw it on her clinical assessment tool. On day 5 I presented this to her. She seemed unaffected by the fact that on interim assessment she was failing. However when student came on prac on day 5 (prior to my giving her her assessment) her behaviour was transformed. She was
smiling, making eye contact, industrious and taking a degree of
initiative.
My comments to her immediately were to remark on the change in
her behaviour and to inquire how it came about. Her only comment
was “I guess it has to do with possibly failing”.
As a continuum to this example: Day 6 of the rotation arrived. I
was expecting the researcher at 0800. Students occupied with
patient care. Student from previous journal entry and her colleagues
were introduced to the researcher.
Prior to the researcher’s arrival, I had informed the students of her
planned arrival in the am and that she would be observing how I
went about my teaching role.
When, as a matter of course, during the mid morning I caught up
with my student our interaction was brief with me attempting to
elicit (in front of the researcher) how her patient had fared at ECT
and what she had observed. Some information was forthcoming (a
general reply with some inaccuracies) smiling with a real sense of
need to flee – which I relented to. I also sensed her great sense
of unease, as did the researcher.
At the focus discussion with the researcher we talked about this
instance (it was great for me to have somewhere to talk it out with)
– the researcher’s comments were valid ie. Student was displaying
anxiety. I sensed the increased level of student discomfort and from
this I “let the student off the hook”.
Later in the day I addressed this directly with the student as it had
occurred. (ie. As mentioned previously “being let off the hook”).
Student response was indeterminable.
I felt like I was doing all the work again. Then restated – “The
researcher was here to determine how I work, what methods I use.
She was here as an observer of me – not to assess you”. To which
the student said she felt she was examining her and she became
very anxious as a result.
Student and I discussed this (I don’t believe that she believed me at
all) – and she and I finally determined that her anxiety was directly
related to me and my presence.
I informed the student that this was disabling her learning and that I
was again offering to assist her with this.
I suggested student counselling on campus to tackle her learning
anxiety with clinical educators.
Day 6 Student informs me she has seen a campus counsellor. I am
delighted she has acted so promptly and show it.
Generally she showed some continued growth with interactions and
maintained good patient rapport.
My interactions with her were restricted and very focussed on her
specific “revised learning objectives”. Ie “I will approach all
patients, I will feedback to CE, I will feedback to ward RNs, I will
ask if uncertain, I will not assume I am inept if I need redirection or
clarification”.

249
Student passed placement because 1) In an overall context, she did not deserve to fail. 2) She had an area to continue to develop (as above) and knows this. 3) She initiated a self-help strategy herself (ie, counselling).

Reflection on Moral Acts of Teaching:
Example One:

1. What was I trying to achieve?
   Encourage student to incorporate her subjective beliefs to inform her learning and to enable her to develop an objective and unbiased approach.

23. How did I respond to the student, patient, clinical situation?
   Open with my objectives in mind.
   No Patient involved outside clinical situation.

3. Why did I respond in the way I did?
   To encourage the student to expand her understanding to a point where she could make a shift herself.

4. Why did the student respond to the patient, clinical situation as she/he did?
   Preconception.

24. What were the consequences of this clinical situation for the student, the patient, myself?
   Allowed a situation to be developed by the student
   No patient involved.
   Great for myself – saw a change.

6. How was the student feeling?
   Safe, engaged, pursuing the end.

7. How did I know this?
   Body language “comfortable:.

8. How did the patient feel in this situation?
   No patient involved.

9. How did I know this?
   As above.

10. How did I feel in this situation?
    Active and bright.

11. Were there any factors, external to the situation or the players, which affected the outcome?
12. What were all the alternative actions I could have used in this situation?

13. How has my teaching and evaluating abilities changed compared with the last time I was in a similar situation? I think it’s about the student making a shift, not me.

14. What is the relationship between this experience and the ways I have responded in the past and may respond in the future? Good response. In the past I may have become impatient. I like this method – I will re-use.

Example Two:

1. What was I trying to achieve? Initially to find out what the student knew about her patient.

25. How did I respond to the student, patient, clinical situation? Response to the student was patient and tolerant (from me) to frustrated and intolerant. Patient absent. Clinical situation – difficult as always – lack of privacy for everyone.

26. Why did I respond in the way I did? Patient response can mostly engage people in a non-threatening way. When I became frustrated I responded because I was stuck and felt unable to act.

4. Why did the student respond to the patient, clinical situation as she/he did? I’m assuming it was fear.

27. What were the consequences of this clinical situation for the student, the patient, myself? Consequences for the student was to highlight a problem for her. Patient unaffected. Myself to see clearly a problem for the student.

6. How was the student feeling? Defensive – no communication.

7. How did I know this?
No eye contact – very restrictive verbal communication. Sometimes quite childlike and petulant.

8. How did the patient feel in this situation? No involvement.

9. How did I know this? As above.


11. Were there any factors, external to the situation or the players, which affected the outcome? Yes – her clinical assessment tool.

12. What were all the alternative actions I could have used in this situation? None to pursue any further – inform the student that when she has chosen her course of action to let me know so I may further facilitate her path of choice.

13. How has my teaching and evaluating abilities changed compared with the last time I was in a similar situation? This time I didn’t feel somehow I was to blame – I could see the student’s situation more clearly.

14. What is the relationship between this experience and the ways I have responded in the past and may respond in the future? Clearer able to see my role more clearly, take less blame for an outcome which might not be as desired.

Further Reflection on Example Two:

1. What was I trying to achieve? Elicit info about ECT and what she witnessed (in front of the researcher).

2. How did I respond to the student, patient, clinical situation? Response to student was inquiring, words restricted, spoke quietly.

3. Why did I respond in the way I did? Quietly to not exacerbate student anxiety (she is a quiet person). To maximise potential to engage her. Patient absent.

4. Why did the student respond to the patient, clinical situation as she/he did? “Fleeing” – “to get away”. I assume from “anxiety”.

252
28. What were the consequences of this clinical situation for the student, the patient, myself?
To focus on her observed “fleeing” – for the student.
Patient – nothing
Myself – to have the opportunity to observe this “fleeing behaviour” again and to wonder about it.

6. How was the student feeling?
Anxious – stressed. I assume she was unable to express to me how she felt.

7. How did I know this?
Her actions.

8. How did the patient feel in this situation?
Unaware of events.

9. How did I know this?
Student was not at bedside. Nor was I.

10. How did I feel in this situation?
“Stumped, blocked, controlled”.

11. Were there any factors, external to the situation or the players, which affected the outcome?
Yes – the researcher and her feedback.

12. What were all the alternative actions I could have used in this situation?
Stopped events and given student feedback immediately. And to trust myself to do it.

13. How has my teaching and evaluating abilities changed compared with the last time I was in a similar situation?
Still needs practice, although more familiar now with the process.

14. What is the relationship between this experience and the ways I have responded in the past and may respond in the future?
Past – unclear (blocked)
Present - less unclear. Action initiated (later).
Future – to be clear, see all interactions as opportunities to clarify and act quickly.
Reflective Journal – Erin’s

**Intellectual Acts of Teaching:**

Pediatric health and physical assessment for each rotation  
Present a tutorial with overheads – EXPLAINING importance of head circumference, height, weight, growth development followed with a bit on growth and development.  
Done system by system  
Stress importance of understanding what they should be looking for  
Stress importance of observing as the main tool  
DEMONSTRATE where possible depending on the circumstances  
Give feedback on the health and physical assessments that the students submitted as part of the evaluation both written and oral.

**Reflection on Intellectual Acts of Teaching:**

Trying to enable the student to perform a comprehensive health and physical assessment.  
The students seem to respond well to the tutorials. I observed this through note-taking, asking questions and their participation in answering questions.  
I think that the students health and physical assessment for the most part was quite good, especially the 2nd assessment after I gave both written and oral feedback.  
I feel that my approach was better and more thought out than last year when I just talked about health and physical assessment (overheads, examples, growth and development tut).

**Strategic Acts of Teaching:**

Taped handover – The students all seemed to be apprehensive and nervous re taped handover.  
I gave verbal instructions to each group at the first week of the rotation and for several weeks then I spoke individually to each student re their patient and what they felt they should include in their report. They would write them out for me then we would go over what should remain and what should be excluded to the report. I would go from student to student doing this and give them encouragement especially when they did their first report. I also encouraged them to aim to not write their reports on paper by the end of the rotation however this is only if they felt comfortable enough. By the end of the rotations if the student was comfortable with the taped handover and I was confident of their ability to do this I would let them do it by themselves.
Reflection on Strategic Acts of Teaching:

Trying to teach the students how to give a clear concise nursing report and to be comfortable doing it.
I think I spent a great deal of time (1 hr) each day in prac emphasising and developing this skill.
The majority of students appreciated the support and if taped handover didn’t go well then we could redo it.
Students were generally nervous during this procedure which is why I felt it important to spend time on it. Also the quality of the report to the next shift was important so I felt responsible for this aspect of their learning.
I think that the students the time spent on this area through their verbal comments.
The staff on the ward were always supportive of the students during their taped handover and the feedback from staff re reports was generally good.

Moral Acts of Teaching:

I had a student whose nursing care plan (1st) was of a very poor quality. However she was very quiet, conscientious and not very sure of herself and her ability to nurse. I wasn’t sure how to approach her and tell her how bad her assessment was but I also felt that the situation needed to be confronted. I didn’t want to discourage her and to make her even more unsure. But I had to be honest in this situation and I felt if her nursing care plan wasn’t adequate I would do her no favours by letting it slide by.

Reflection on Moral Acts of Teaching:

Sat her down in a quiet room off the ward.
I talked about the positive aspects of her health and physical assessment.
Then I proceeded to tell her that her nursing care plan needed some work and she did agree with me.
We discussed the nursing care plan in front of us and discussed how we could improve it, what was relevant to her particular patient (she included a lot of information that wasn’t relevant to that particular patient).
She didn’t understand criteria for evaluation very well and we discussed what should be included in that area.
She took the criticism quite well and was very eager to improve her next nursing care plan which was very good.
I praised her on the dramatic improvement and had no qualms about praising her in this particular area.
APPENDIX 12

Remaining Models of Overlap between Critical Thinking and Reflective Practice

In the fifth described relationship, critical thinking occurs before the event and reflective practice after. There is a link between the two and a similarity in the cognitive processing. This relationship is depicted in Figure 11.1.

Figure 11.1

Critical Thinking and Reflective Practice Overlap: Relationship 5

<table>
<thead>
<tr>
<th>Process of CT</th>
<th>Process of RP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare for event</td>
<td>Event</td>
</tr>
</tbody>
</table>

Hanna described this relationship thus:

Critical thinking and reflective practice sometimes go hand in hand. Critical thinking happens before an event occurs, whereas reflective practice happens often after the event, because you are reflecting back. The process by which you reach the decision on most things may almost be the same. You are still looking back or looking forward whatever the case may be, and the mind processes might be similar. The way that I teach students to be critical thinkers is to think about what is happening before the event occurs, and to reflect after what has happened. That is how I see the difference between the two. The first one is looking more at the specifics of problem solving, preparing them for how they are going to perform. The reflective practice would be to look back at it, mull over it. So, they are quite distinct. I don’t know whether the memory process or the thought process could be similar.

In the sixth described relationship, critical thinking is a decision making approach to a situation while reflective practice is an evaluation of those decisions.

This relationship is depicted in Figure 11.2.
Erin described this relationship thus:

I think if you have one you need the other. There is a lot of similarity in the ability to critically think and then evaluate your decision-making. I think they’re different but you can’t do one without the other. If you decide to do something you should always be assessing if what you did was right or wrong or if you could have done it a little better, and, that is reflective practice. If you do one you should evaluate and do the other and I think it should be automatic. You do it all the time! Sometimes you may well be presented with a situation and you may think about how you are going to approach it and then make your decisions, based on what you did before: ‘The last time I did this, this worked’, and so it may be a little bit of both. I think they intertwine with each other.

In the seventh described relationship, critical thinking and reflective practice are similar – if you can do one you can do the other. This relationship is depicted in Figure 11.3.

Claire described this relationship thus:

I think there is a similarity. I think if you’re actually using reflective practice then you’re probably capable of critical thinking, well it would improve your critical thinking skills.

Desna had a similar explanation, viewing the relationship similarity thus:

I think that they’re tied in; I don’t know that they are similar. I think one is necessary for the other one to occur, but I wouldn’t necessarily say that they
were similar; otherwise they would be the same term. Reflective practice is necessary for critical thinking to occur and critical thinking is necessary for reflective practice to occur. You have to be able to critically think to understand that reflective practice is necessary and reflective practice has to be done in order for critical thinking to occur. You can’t say, one leads to the other, without having to refer back to the other. Critical thinking is not a one-way street but I don’t think that they are the same: I think it is symbiotic: I think they work together.

In the eighth described relationship, reflective practice needs critical thinking skills but critical thinking doesn’t need reflective practice skills. Reflective practice is critical thinking about self – thus has a focus. Critical thinking has no involvement of self and has a broader application. This relationship is depicted in Figure 11.4.

Figure 11.4
Critical Thinking and Reflective Practice Overlap: Relationship 8a

They are similar but also different. I see reflective practice as looking at self; you’re really evaluating yourself, your performance, actions, thoughts and ideas. It’s critical thinking about you. But with critical thinking – you’d use that about everything. So it’s not only something you do for yourself, it’s an every moment, every minute thing. However, one needs critical thinking to be able to effectively use reflective practice. So, you can’t effectively use reflective practice if you haven’t got critical thinking skills. Reflective practice involves the self and that is the biggest difference – you really need to think about yourself. I can stand back and judge you quite easily because it’s not actually taking anything from me … you need to critically think to be effective as a reflective practitioner however you don’t need reflective practice in critical thinking.
Kendra similarly considered reflective practice as a process of critical thinking but placed the focus on consideration of thoughts, feelings and actions and added an outcome of critical thinking as considering the actions in a different light to define how they may have changed. This relationship is depicted in Figure 11.5.

Figure 11.5
Critical Thinking and Reflective Practice Overlap: Relationship 8b

Kendra described this relationship thus:

I think there is a difference between the two but reflective practice might be a process of critical thinking. You reflect on your thoughts and feelings and what you’ve done and then think critically about them in a different light or how they may have changed. I think that’s the difference between them.

In the ninth described relationship, critical thinking is abstract and theoretical while reflective practice recognises the human element (humanistic) and accounts for this perspective when looking at a situation. This relationship is depicted in Figure 11.6.
Critical Thinking and Reflective Practice Overlap: Relationship 9

CT ≠ Humanism

Abstract, theoretical world view

RP = Humanism

Recognise the human element & factors impacting on situation

Fiona described this relationship thus:

There’s quite a difference. Tying it in with my philosophy as a person and a clinical teacher, critical thinking is not a very humanistic way of viewing the world. It’s a very abstract, theoretical framework that doesn’t consider the human element whatsoever, whereas reflective practice does. Reflective practice is much more about all of those uncontrolled variables that can impinge on a situation and, for that reason they are really quite different. And, for a discipline such as nursing that has as its core a holistic view of reality, I don’t think that there’s much room for critical thinking, except for people in isolated glasshouses. Economic rationalists may engage in critical thinking and I’m sure they do in terms of trying to work out what the solution to a problem is.

In the tenth described relationship, the processes, whilst different, are integral to one another. Reflective practice precedes the event to identify associated feelings and issues that deserve more attention and, to make tangible the elements involved. Reflective practice allows a critical thinking process to be used to think through a logical, sequenced, analytical way to focus outcomes. This relationship is depicted in Figure 11.7.
Anne described this relationship thus:

There is a difference. Reflective is to understand, critical thinking is more problem solving. Your reflective practice is more in touch with the feelings evoked. The processes, whilst different, are in fact integral to each other, so need to be used as one. An example would be for me to reflect on an event and to have feelings about that event. It’s very useful before an event as well, sort of a preparatory thing, to be able to identify the feelings associated, and see that there are issues that deserve more of your attention. Because reflective practice comes first in the process, laying out the ground, clearly giving it a form, it highlights the issues in a very tangible way, almost into a singular element. Then it allows you to think it through in a logical, sequenced, analytical way to focus the outcomes. Looking at the outcome is reflective because you’re pausing, looking at what your doing really in a new form, new shape. That needs to make sense, so it could be again a critical thing on top of that, but it certainly is reflective initially. The process is almost quite scientific really. It’s like a funnel. It encapsulates a whole that’s unclear and the questions keep drawing through, in a very fine way. Each question becomes more and more specific and fine-tuned and you end up with a result. So, reflective practice is a process to distil the essence out of a whole lot of different issues. You start at the top and through a filtering process, you have single words describing a whole event – it’s so clarifying, it’s like little drops of gold, but it allows you to do something about it.