Rethinking the gap: The theory practice relationship in nursing from the perspective of the student nurse.

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Abstract

For nursing education, theory and practice are commonly construed as discrete entities separated by a metaphorical void; usually referred to as the ‘gap between theory and practice’. This particular conceptualisation, although widespread, was considered incomplete and for a more comprehensive understanding a Grounded Theory approach was taken to the collection and analysis of data from two phases of data gathering. The first phase was a series of computer mediated group discussions, and the second a number of individual interviews. In both sets of interviews participants were asked to describe how they experienced and managed differences they perceived between theory and practice in nursing.

The participants referred to different types of theory relevant and central to effective nursing practice. The first was private theory; the second was formal theory and third was situational theory. More specifically, the student nurses who participated in the study recalled critical moments when the different types of theory conflicted with the strongly held key values which each participant used as the standards against which they evaluated each type of theory. For the students it was a conflict that produced uncomfortable emotions, distrust of others and personal self doubt. In an effort to reduce this discomfort the students sought an explanation for the differences between theory and practice, some of which challenged their key personal values. However, the most emotionally neutral explanation that also preserved
the integrity of their key values was that there was a gap between the theory and the practice of nursing.

The theory *Negotiating Different Experiences* has implications for the education of nurses in that personal knowledge and experiences must be incorporated in a programme of study and the feelings evoked by learning must be acknowledged as a catalyst to enhance learning. Further, the different forms of theory to which students will be exposed must be made explicit and nursing educators who must involve the individual student as an active partner in the mapping of a personalised programme, which includes the creation of individual assessment methods.
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CHAPTER ONE

THE PROBLEM WITH THE ORTHODOX POSITION

The following extract is taken from an interview with Bernadette a student nurse in her first year of an undergraduate degree in nursing. At the time of the interview Bernadette had not been provided with any clinical experience in the form of a practicum.

P.G.: “From your experience how would you describe the relationship between theory and practice in nursing”?

Bernadette: “I think that there is a big gap...You’re talking about what I know about nursing now from the studies I am doing and what is actually happening out there...Yes, I think there is a big gap”.

During a focus group discussion that involved clinical nurses one very experienced participant made the following comment about the relationship between lecturers and student nurses in practical contexts.

The relationship between the student and lecturer must be such that the links can be made collaboratively, together as a team. If the relationship is weak or strained, the links are less likely to be made and the student may go away with a fragmented learning experience.

(Registered Nurse discussion group, May 2003)

Each of these participants, one a student nurse and the other an experienced nurse, had very different degrees of exposure to nursing and their comments related to different aspects of nursing education. However, they used very similar images to describe the relationship between theory and practice. More specifically, one compared her classroom experiences with “What is actually happening out there”. For which she thought of the difference as a “gap” and estimated that the size of the gap was “big”. Whilst the other participant believed that the magnitude of the difference between theory and practice was dependent upon the quality of an interpersonal relationship between the student and the lecturer that could be weakened or strained. Furthermore, she also believed that failure to ensure that the “links” between the two parties were effective would result in an unsatisfactory or “fragmented learning
experience” for the student nurse. The language chosen by each participant indicated that theory and practice were construed as different entities separated by a space, or more precisely a gap. In these two examples it was also implied that any gap between theory and practice was an undesirable feature that required regular attention in order to prevent any negative effect upon nursing care. In addition the language of these two participants not only reflected their personal views, but was also representative of the most widespread understanding of an important relationship within the nursing profession. Throughout this thesis the understanding of the relationship between theory and practice in nursing that is most widespread amongst the profession will be referred to as the ‘orthodox position’.

The aim of the research
Generally, the orthodox position, which will be elaborated on shortly, has made a valuable contribution to the understanding of how student nurses learn the application of theory in practical contexts. However, the enduring presence of a gap between theory and practice continues to evoke criticism from all sections of the nursing profession. This criticism suggests that the vast majority of efforts to address the problems presented by the gap, which have concentrated upon manipulating factors that lie in the environments in which student learn, have thus far been largely ineffective. Therefore the specific aim of this research was to gain an understanding of the meaning of the relationship between theory and practice from the perspective of student nurses. In pursuit of that aim, nurse lecturers, clinical nurses and undergraduate student nurses associated with one tertiary institution in New Zealand were invited to describe how they identified, experienced and responded to the differences between that which was taught and that which was performed in practical contexts.

The characteristics of the orthodox position
The key characteristics of the conventional or orthodox position in respect of the relationship between theory and practice in nursing are that:
• Theory, practice and the gap are different entities;
• Any difference between theory and practice can be identified;
• It is possible to increase or lessen the size of the gap.

These three characteristics constitute the basic components of the orthodox position and evoke a tangible quality in the relationship which suggests that the entities are amenable to manipulation.

**Separate entities**

The orthodox position comprises three entities. The first is theory, which can be found in textbooks and other activities that are associated with formal education. The second is practice, which is associated with the everyday work of nurses in contact with patients. The third, which is a less tangible entity, is the difference or variance between the other two entities. This third entity is usually referred to as the gap between theory and practice (e.g. Ekbergh, Lepp & Dalhberg, 2001; Falk-Rafael, 2005; Ferguson & Jinks, 1994; Goode, 1998; Prymjachuk, 1990; Vaughan, 1985; Wong, 1979). The specific way that nurses think about theory or practice has contributed to the belief that they are separate entities. For nursing, the purpose of theory is that it must have application in practical situations (Dickov & James, 1968; Jacobs & Heuther, 1992). It has been argued that poor or ineffective nursing care is a result of the inability or unwillingness to apply theory in practical contexts (Rolfe, 1998). Conversely it was thought that theory was by definition idealistic and therefore it was unrealistic for use in practical contexts (Backhouse & Brown, 1999). For some nurses the difference between theory and practice was highly troublesome and as a consequence they were motivated to engage in efforts to address any discontinuity (Duke, Forbes & Strother, 2001).

The nursing profession accepts that theory may be developed from studying the actual work of nurses in practical contexts or alternatively based upon principles taken from the natural or behavioural sciences. However, and irrespective of the source of theory, many nurses consider it crucial for effective nursing that theory and practice must be closely
related in that: “Theory constructed without a serious consideration of practice will bear a tenuous relationship to practice. Conversely, practice without theory will be carried out intuitively” (Jacobs & Huether, 1992, p. 523). This essentially symbiotic view of the nature of the theory-practice relationship has been embraced by many in the profession, and it is a view that has prompted both expert nurses and inexperienced student nurses to question the direct relevance of some theoretical material to the delivery of nursing care. The belief that theory and practice have different conceptual locations is supported by the fact that usually learning theory and learning practice are analogous with separate physical locations and resources. Most commonly theory is associated with classrooms, teachers and teaching, and practice with the actions performed by nurses in the daily care of patients (Alexander, 1983; Brassell-Brian & Vallance, 2002; Cook, 1991; Goode, 1998; Melia, 1987). This conceptual and physical separation of theory and practice was further reinforced at the latter part of the twentieth century when western countries such as Australia, Canada, New Zealand, the United Kingdom and the United States of America moved nursing education out of the traditional hospital base, and into colleges and universities. For nursing, in a relatively short period of time, the notional separation of theory and practice became subject to an increased physical separation.

The ability to identify and then address the difference

A second characteristic of the orthodox position is the belief that the gap between theory and practice can be identified, isolated, and once these goals are achieved, that the size of the gap can be adjusted. In respect of the dimension of the gap it is generally considered that the larger the gap the greater the problem for the effective application of theory in practical contexts. However, there are those who considered that the gap between theory and practice was an inevitable and desirable relationship that formed the basis of an ultimately productive relationship, and that the gap could not and should not be fully eradicated (e.g. McLeod, 1996; Lindsay, 1990; Rolfe, 1998). The majority of nurses however, regard the gap as a negative by-product of learning created by the actions of nurses
and nurse education in particular. Therefore, it is believed that if human action created the gap; the gap may be adjusted by addressing the ways in which nursing is learned.

The gap is viewed as tangible and responsive to manipulation which suggests that learning can be controlled and that there is a right and a wrong of learning. For the orthodox position it follows that the appropriate arrangement of either practice based or classroom based learning activities will eradicate or at least lessen the size of the gap (Fergusson & Jinks, 1994, Goode, 1998; Hurst, 1985). Conversely, failure to take action to address factors that may contribute to the gap will only serve to increase the size of the gap. These notions arise because in the English speaking world, which is a Western noun focused language culture, an important reliance is placed upon learning as a subject-object relationship (Brown, Duguid & Collins, 1989). In nursing it is believed that in order for the student to be able to apply theory in a practical situation, the theory central to the activity must be first learned from the external world and then incorporated in to the internal world of the student. In the orthodox position it is thought that many of the factors that comprise effective learning are deemed to be outside the control of the student nurse, but not beyond the control of the nurse educator or clinician. These factors include the places in which learning takes place, the subjects selected by those who design nursing curricula and the professional profiles of those who support students to learn nursing (Fairbrother & Ford, 1999; Lachat, 2004; Lambert & Glacken, 2004; Landers, 2000; Lathlean, 1992). It is believed that if those factors can be identified and isolated, they can also be arranged so that theory and practice are more closely aligned for the student. Once again, the academic literature and the informal language employed by nurses underscore this point. For example, it is suggested that the gap may "be bridged", "links can be made", "the gap may be closed" or "chasms may be spanned". The frequent use of the word gap and its derivatives with a spatial connotation conveys a concrete image of learning. The semantic corollary that follows is that schemes to resolve the gap are similarly laden with tangible imagery and a series of self-supporting material concepts are employed to construct solutions to the problems presented
by the gap. In the orthodox position, theory in the form of knowledge is
found in resources such as textbooks, journals, lecture notes or the
wisdom of others. The student is required to draw out the appropriate
knowledge from these resources and store that knowledge for future use
in practical nursing situations. Should a student fail to demonstrate the
correct application of knowledge in practical contexts, the student is
required to provide an explanation of that failure. One of the most readily
available explanations is contained in the orthodox position, which
contends that there is an inevitable dissonance or gap between theory
and practice in nursing.

The orthodox position has steadily emerged as an accessible
explanation of a complex relationship. The elements that have enabled
this explanation to develop can be traced in a debate that concerns the
nature of the connection between the human mind, human emotions, the
human body and the external world (Benner, 2000; Johnson, 1987;

The emergence of the orthodox position

For nursing the orthodox position is so embedded as part of conventional
wisdom that belief in the orthodox position has become axiomatic within
the profession. Furthermore, as the most widely accepted explanation of
a very important relationship in nursing, the orthodox position is rarely
challenged. The populist appeal of the orthodox position has emerged
from within the profession and has been influenced by a number of
perspectives. Specifically, those influential perspectives, which will be
discussed in turn, are linguistic influences, Cartesian influences,
objectivist influences and experientialist influences. These influences can
be found in all forms of education and more particularly, they can be
shown to be influences that have nurtured and maintained the notion of a
gap as the principal symbol of the variance between theory and practice
in nursing education.
Linguistic influences

The debate concerning the relationship between the human mind, the human body and human action was considered by the ancient Greek philosophers. In the context of the relationship between theory and practice, it is a topic that has persisted as the regular focus of detailed debate (Allmark, 1994; Benner, 2002; Sandelands, 1991; Ryles, 1949). The word ‘theory’ and the word ‘practice’ each have different roots in ancient Greek. ‘Theory’ is derived from the concept ‘theoroi’, which was associated with observation or contemplation. The concept ‘practice’ on the other hand has origins in the concept ‘poiesis’ which was related to activity of doing something or more specifically making something. It can be strongly argued that over the course of two millennia the dynamic nature of language has modified the sharp contrast in the original meaning of these two concepts. The dynamic nature of language has been a perspective adopted by post-modern linguists who consider meaning to be more than simply dependent upon etymological roots. However, the attraction in the etymological position is that concepts of theory and practice are logically distinct and the knowledge and activities that are associated with each concept were regarded as those of an entirely different character (Allmark, 1994; Ryles, 1949; Sandelands, 1991).

Cartesian influences

The Cartesian position or dualism, named after the 17th century scholar René Descartes, asserts that the ability to reason is a characteristic unique to humans and that it is an ability of a much higher order than any other human activity (Beckett & Morris, 2000; Benner, 2000; Mawson, 2001; Stephens, 2001). The idea of a rational human mind that functions separately from emotional and physical activities construes that the two, mind and body, are entirely separate and therefore the mind is disembodied from other bodily functions (Benner, 2000; Varela, Thompson & Roch, 1997). For dualism or alternatively the "Cartesian Split" (Damasio, 1995) there is an external world, a world that is "real", 

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and furthermore a world that exists independently of the person (Colliver, 2002; Stephens, 2001). If an individual is to understand that fixed reality, the individual is dependent upon the transfer and interpretation of that "real" world into their personal and definitively idiosyncratic world. For the vast part of the twentieth century, the Cartesian split, which construed a subject-object relationship between the mind and the external world, made a significant contribution to the education, research and practice of health professionals (Cunningham, 1992; Damasio, 1995; Van Maanen, 1990).

The belief in the separation of thought and action was perpetuated throughout the twentieth century by the central tenet of the objectivist philosophy of logical positivism, or the technical rational perspective (Clark, 1997; Colliver, 2002). At the core of logical positivism is the belief that personal and collective knowledge is drawn from observations of an external world that is constant and capable of measurement (Clark, 1997). The influence of positivism has meant that for many occupations, and this includes nursing, the process of becoming a profession has necessitated an increasing emphasis upon a knowledge base that is framed in objectivist terms (Eraut, 1991).

Influences from Objectivism

An indication of the influence of objectivism in contemporary nursing education can be found in the emphasis that is placed on evidence-based practice and the use of learning outcomes as the basic building blocks of many nursing educational programmes. In the twentieth century, the two particular objectivist theories of learning that had a marked influence on nursing education were behaviourism and cognitivism (Clark, 1997; Colliver, 2002; Cust, 1995; Davis, Sumara, & Kapler-Luce, 2000; Hartrick, 1999).

In behaviourism learning is viewed as a mechanistic process for which it is postulated that if an organism is provided with a sufficiently intense and appropriate stimulus then that organism will ultimately respond as intended (Hill, 2002; Hartrick, 1999; Stapleton, 2001). For behaviourism, the concern is for overt and measurable changes in
behaviour as evidence of learning. The effectiveness of learning is
determined by the correlation between the stimulus and the responses
that can be observed in a change in external behaviour. Behaviourism
was a dominant force in the first half of the twentieth century and the
influence of behaviourism on approaches to learning can be found in a
wide range of contexts. Examples of learning based on behaviourist
principles include; the psychological therapy of ‘aversions therapy’, the
instruction of soldiers to assemble firearms whilst blindfolded, and
schooling where pupils learned by rote multiplication tables or historical
dates. For behaviourism each of these apparently different learning
activities share two important features, one that evidence of learning can
be demonstrated by the outcome of learning, and two, the process by
which the individual learns is of lesser or no importance at all.

In the second half of the twentieth century, behaviourism was
largely superseded by cognitivism, a theory of learning that is considered
to be akin to the mechanisms of information processing, or what had
been previously term cybernetics (Varela, Thompson & Rosch, 1997). The
theory of cognitivism can be regarded as a contemporary version of
Cartesian dualism in which mental functioning enables the external world
to be represented as a series of abstract cognitive processes or
mentalisms. In this theory, the mind and the processes of the mind are
conventionally associated with the human brain. Damasio encapsulated
the imagery that is prevalent in the cognitivist position when he
suggested that: "...the mind is a software programme run in a piece of
hardware called brain" (1995, p. 248). Furthermore, in the cognitivist
perspective the role of the brain is considered merely a physical
receptacle that sustained the mind, in that: "... brain and body are only
related in the sense that the former cannot survive without the life
support of the latter" (Damasio, 1995, p.248). Not surprisingly,
cognitivist theories continue to be strongly influenced by the idea of the
computational mind and the associated notions and language of inputs,
processes, storage capacity, outputs, connections, and constructions
(Cust, 1994; Pinker, 1997). The latter two of these expressions gave rise
to the extensions of cognitivism known as connectivism and
constructivism respectively (Cobb, 2002; Colliver, 2002; Cust, 1994;
Mann, 2002). These perspectives maintain that an individual understands their world in terms of idiosyncratic abstract symbols or concepts and that those concepts are representations of something that is present in an external and fixed reality. The innate ability of an individual to accumulate knowledge from the external world as mental representations is conceptualised as a system of inputs and outputs for which each individual has a definitively idiosyncratic understanding of the external world (Colliver, 2002; Cust, 1994; Knowles, 1990). In connectivism, mental processes are envisioned as a vast and complex network of connections on an interrelated neural framework. Whilst for constructivism learning is considered to be a more organic experience in which the student is actively engaged in the construction of a personal, and therefore definitively unique meaning from the myriad symbols in a dynamic but essentially external world.

If the process of learning how to perform an action is drawn from external reality which is idiosyncratic, then it follows that there is a greater potential for the individual to misinterpret external reality. What is common in the perspectives of either connectivism or constructivism is that this misinterpretation could be conceived in terms of a "gap". Cognitivism has also been responsible for a powerful mythology that learning the knowledge, attitudes and skills central to nursing practice can be controlled and counted in a linear and logical manner in that: "Learning is presumed cumulative and knowledge incremental" (Brew, 1993, p. 87).

The outcome of the influence of objectivism on education has been to produce a pattern of thinking about learning in which knowledge is some "thing" that can be extracted from the external world and incorporated in to the internal world of the student as mental representations (John, 1988). This is a common mental picture of many formal learning contexts, and a picture of which it was suggested that: "...one forms the image of brains or minds hovering above school desks, in front of which is one more cognitive object, the teacher" (McLelland, Yahlberg & Plihal, 2002, p.4). For objectivism, the accuracy of mental representations is clearly only manifest in the behaviour of the student in
actual practical demonstrations, spoken explanations or other external representations of cognitive processes such as written assignments.

*Influences from experientialism*

Another influence that has shaped the orthodox position is that of experientialism, which can be found in the ideas of Vigostky (1934:1986), Wittgenstein (1953), Merleau Ponty (1962), Lakoff (1987), and Lakoff and Johnson (1980, 1999). Experientialism maintains that the origin of abstract notions, such as the gap between theory and practice, lies in the sentient physical relationship that an individual has with the other objects in the world. Furthermore, the experientialist position argues that humans construct and use abstractions, most commonly known as concepts, for both substantive and notional experiences, which enable humans to understand the complex world that they inhabit. These inner abstractions can also be relayed to other humans via spoken language and other associated forms of symbolic communication such as writing, music and the visual arts. Furthermore, spoken language is a metaphorical representation of experience in that: "Metaphor allows conventional mental imagery from sensori motor domains to be used for domains of subjective experience" (Lakoff & Johnson, 1999, p. 45).

This leads to the conclusion that metaphors, which permeate and direct human experience, are thus essential for effective human social functioning, and are much more than mere figures of speech (Lakoff & Johnson, 1980). Metaphors shape and guide both the personal and collective actions of social groups. Metaphors, in their internalised form, which may be called mentalisms, also provide the basis for humans to understand their personal relationship with the social world, to ponder how the human mind works, and to reflect upon their own experiences. These are three definitively private processes, which are dependent upon the mind being thought of as an actual place. As a consequence, the human mind is conceptualised as having capacities by which the mind can engage with, internalise, and represent the external world. The idea that the mind is an actual place with delineated boundaries has become a widely accepted metaphor for psychological processes which are
definitely invisible mental processes. Lakoff and Johnson suggested that thinking about the mind as a physical activity is embedded in the metaphorical content of the language used to discuss mental processes:

...the mind is given an inside and an outside. Ideas and concepts are internal, existing somewhere in the inner space of our minds, while what they refer to are things in the external physical world. This metaphor is so deeply ingrained that it is hard to think about mind in any other way (Lakoff & Johnson, 1999, p. 266).

For example, in psychopathology there are informal notions such "losing a grip on reality", "going out of one's mind" and the more formal term of "thought insertion" which refers to a particular psychiatric symptom (Glod, 1998, p.308).

The use of physical metaphors is particularly evident in the context of education, where physical metaphors have provided the foundational metaphors of the container and conduit (Lakoff & Johnson, 1980). The sum effect of these two metaphors is to conceive of the human mind as a receptacle and ideas or concepts as objects. In this metaphorical system the purpose of teaching and learning is to facilitate the transfer of the contents from one container (repositories of knowledge) in to another container (the student). The process by which this occurs is the particular mode of teaching or learning (the conduit). The efficacy and integrity of the chosen mode (the conduit) is measured by the performance of the student. The power and prevalence of the container and the conduit as metaphors for learning are clearly evident in the formal and informal discourse employed by students and teachers when they refer to learning activities. For example, new ideas are said to be introduced or taken on board, knowledge is passed from one person to another. Teachers are said to deliver lectures, to get ideas across, and the mind of the eager student is filled with interesting or novel ideas.

In the experientialist perspective of learning, the mind is regarded as being able to collect, process, and recall information. In this particular conceptualisation, learning is construed as a transactional experience in which an external and objective reality is introduced into the human mind via conduits or transmission channels. For the application of nursing theory to nursing practice, there are a series of metaphorical transactions. The first is a transaction between knowledge (from the
repository) and the student (the receptacle). This transaction is judged most effective when there is a very high degree of synchronisation between the intentions of the learning activity and the observed performance of the student. The student is obliged to demonstrate that the ‘right’ information is not only acquired but that it can also be applied in a practical context. In this conceptualisation of the transactions that comprise teaching and learning it is acknowledged that there is potential for the transfer between the two containers to be impeded, or conversely enhanced. In the orthodox position, this potential variance is conceptualised in the form of a third, less tangible container, which is the gap between theory and practice. The gap is a spatial metaphor that arises from structural metaphors, which construe knowledge as an edifice or building (Davis, et al., 2000; Johnson, 1987; Lakoff & Johnson, 1980). In this metaphorical system theories are constructed, they have foundations and a framework. Arising directly from the structural metaphor is another class of metaphor that depicts ideas as objects with distinct locations. For example, people are said to have strongly held views, some of which they keep to themselves lest they are stolen by others. In the orthodox position strategies designed to reduce the theory-practice gap, are similarly afforded structural denotation, such as bridging, forging or linking (e.g. Brasell-Brian & Vallance, 2002; Howkins 1994; Lee, 1989; Ousey, 2000; Watkins, 2000; Weatherston, 1981). Structural metaphors are important because they are the concepts upon which the relationship between theory and practice in nursing is founded (Gallagher, 2004).

The gap, which has spatial connotations, is the basis of most expressions used to describe the perceived dissonance between theory and practice in nursing. Furthermore, the gap corresponds with the other features of a metaphorical system in which a metaphorical gap, an estimable void between theory and practice, is a by-product of the faulty alignment of teaching and learning experiences (conduits) and the intended recipient, the mind of the student (container). In the orthodox position, the gap has become the focal metaphor around which the features of theory and practice are distinguished, categorised and allocated (Gallagher, 2004).
**Categories of experience**

All social life consists of experience, and the allocation of experience to categories is a mechanism by which order and coherence is afforded to social life. The membership of a particular category consists of entities that are judged to share similar or related properties. However, and as Fiske pointed out: “The boundaries between one category and another are man-made, not natural, for nature is all of a piece” (1982, p. 49). As an entity does not possess features that automatically and inherently constitute membership of a category, categories are therefore human constructs. The attributes afforded by humans to each prospective member of a category and the classification of individual experiences into categories may be based on formal or technical theory, or alternatively based on informal or folk-theory (Lakoff, 1987). The processes by which experiences are classified may be highly formalised and therefore afforded institutionally sanctioned authority, or alternatively the basis of categorisation may be common-sense assumptions or determined by means that are more formal. Of this variance in methods of categorisation, Lakoff stated:

> My guess is that we have a folk theory of categorisation itself. It says that things come in well-defined kinds, that the kinds of things are characterized by shared properties, and that there is one right taxonomy of the kinds. It is easier to show what is wrong with a scientific theory than with a folk theory. A folk theory defines common sense itself. When the folk theory and the technical theory converge, it gets even tougher to see where that theory gets in the way or even that it is a theory at all (1987, p. 121).

The approach to the categorisation of experience may be less problematic when considering something that possesses clear and identifiable physical qualities. For example, in the physical sciences the features of the category 'organic matter' are different to those of 'inorganic matter'. To continue, in the taxonomy of biological science, the category of animal is a separate category to that of vegetable; and mammal is a category of animal. In this system of categorisation, it follows that the features of canine animals can be classified separately to those of bovine animals.
and so forth. However, when the categories are based upon abstractions, as is the case with theory and practice, the distinctions become less clear and more subject to the vagaries of interpretation. Thus, the membership of a category is therefore more difficult to determine.

In nursing, some behaviour will be associated with theory and some will be associated with practice. However, the process of allocating categories to behaviour is not as conclusive as it first appears. For example, consider the experience of a student who attempts to locate the same textbook in different libraries. Each library may have a different indexing system and locating the textbook may not be as straightforward as first thought. This illustration demonstrates that even an apparently, well established and authoritative classification system such as the indexing system used by libraries has origins that are of human creation and are therefore essentially arbitrary in nature (Dey, 1999).

However, the categorisation of human experience does not solely depend on the process by which inclusion criteria were determined. Also important is the context in which the activity takes place. For example, if nurses read, write and discuss in a classroom, this will be most likely to be considered as belonging to the category of theory. However, should a similar type of behaviour occur in a clinical setting, and patient case notes were the focus of the reading, writing and discussion, these activities may well be considered as practice-based. What is clear is that in nursing the allocation of any particular psychomotor, affective or cognitive behaviour to a category of either theory or practice is subjective.

The orthodox position subscribes to both informal and formal processes of categorisation and at times entities that appear to possess similar qualities may be grouped into either of the categories of theory or practice. The way in which experiences have been classified has influenced the belief in a gap between theory and practice. For example, in the orthodox position there is little doubt that writing essays and reading textbooks are considered exemplars of theoretical pursuits. Alternatively, administering injections and washing patients are classified as practical pursuits.
The ideas that have formed the orthodox position can be found in a number of different perspectives and across a variety of academic disciplines. This is a form of eclecticism that has in part contributed to the widespread appeal of the orthodox position. The orthodox position has certainly stimulated invaluable professional discussion, but more importantly in the context of nursing education, it has inspired many educational strategies that have improved the learning experience for student nurses (Gallagher, 2003). However, amongst nurses from different professional backgrounds there continues to be disquiet with regard to the relationship between theory and practice. This disquiet suggests that the orthodox position, although the most common conceptualisation, is for a number of reasons an ultimately incomplete explanation of a complex problem.

**The incomplete nature of the orthodox position**

The orthodox position, comprising a relationship between three entities: theory, practice and a gap, appears to have widespread and plentiful support amongst nurses. However, based upon a number of observations it will be argued that the orthodox position is an incomplete explanation of the relationship between theory and practice. These observations are that:

- The orthodox position is essentially axiomatic in nature;
- Scholarship on the topic of the theory-practice relationship in nursing has a narrow focus;
- There is an over reliance upon information processing as a metaphor for learning;
- The notion of reductionism predominates and consequently the notion of embodiment is largely ignored;
- Explanation and demonstration are the primary tools of assessment.

*The orthodox position is axiomatic*
In nursing the belief in an unresolved tension between external factors as the cause of the theory-practice gap has predominated nursing education for over half a century, and it is a notion that has generally remained unchallenged. At the core of the conventional or orthodox position is the conviction that the gap between theory and practice is a self-evident truth, and because the vast majority of nurses assert that a gap exists, a gap therefore must exist. This argument is axiomatic and can be countered by the use of a simple illustration. There is a universal and common sense belief that the sun rises every day. This belief is widely held, but it is not supported by astronomical evidence. For it is the earth, as Copernicus demonstrated, that orbits the sun. Further, it is the earth, not the sun that alters its diurnal position. In a similar way that the heliocentric nature of the solar system contradicts what appears to be a self-evident truth, the orthodox position is essentially an aphoristic assertion. No matter how widespread or persuasive an axiom may become, it is insufficient evidence for the existence of a gap between theory and practice.

Scholarly narrowness

The second observation, in respect of the incomplete nature of the orthodox position, concerns the nature of the scholarship that addresses the relationship between theory and practice in nursing. A literature search of the database Cumulative Index to Nursing and Allied Health Literature (CINAHL) was undertaken using the key words “gap”, “theory” and “practice”. The search initially concentrated upon material published between the years 1991 and 2001. In the course of that search other material that met the same inclusion criteria was identified and accessed. The search revealed that in the opinion columns and letters pages of many journals, support, for the orthodox position was widespread and plentiful. More importantly, however, the belief in a gap between theory and practice was also evident in scholarly material that had been subject to formal peer review. The scholarly material that was accessed generally focused upon three related areas of academic interest, each of which started from the premise that a gap existed between theory and practice.
The first area of interest was one in which the authors had attempted to uncover different factors in the educational experience of student nurses and described how those factors had impacted upon the outcome of learning in practical activities (e.g. Landers, 2001; McCaugherty, 1991; Miller, 1985). Closely related to this area of interest was a second area in which additional factors that may have contributed to the existence of the gap were identified and discussed (e.g. Farley Pardue, 1979; Campbell, Larrivee, Field & Reutter, 1994; Le May, Mullhall & Alexander, 1998; Backhouse & Brown, 2000; Corlett, 2000). In a third, and related area of scholarly interest, the introduction of teaching, learning or organisational strategies, designed to reduce the adverse effects of the gap between theory and practice, were evaluated (e.g. Alexander, 1983; Corlett, Palfreyman, Staines, & Marr, 2003; Gassener, Wotton, Clare, Hofemeyer & Buckman, 1999; Gormley, 1997; Gott, 1982; Jordan, 1999; Knight, Moule & Desbottes, 2000; McCaugherty, 1991; Ramage, 2002; Williams, 1999). Implicit in each of these three areas of research interest was that nursing theory should be used to guide nursing actions (Dickoff & James, 1968; Jacobs & Heuther, 1992), and that nurses used theory to underpin their everyday practice. However, it has been pointed out that scant empirical evidence existed to indicate that nurses or other professionals apply theory to practical contexts (Clark, 1991; McLeod, 1996). Notwithstanding the absence of empirical support, the scholarly output of nurses continues to reinforce the key tenets of the orthodox position. This may be because in educational circles: “The desire to drive a wedge between theory and practice has a long and illustrious history” (Carr, 1995, p. 38).

The computational metaphor

A further observation made of the orthodox position is that it places too much emphasis on information processing as a metaphor for learning. This view has been largely sustained by reliance upon the metaphor of the mind as a naturally selected neural computer (Pinker, 1997). In the latter part of the twentieth century, the notion of the mind as a computer has undoubtedly had an irresistible influence upon learning theories and
has been a prevalent force in nursing education. Whilst the idea of the computational mind is ubiquitous and persuasive, it is ultimately deceptive in that it fails to impart the rich potential of cognitive processes. The computational metaphor although attractive, is a metaphor that conveys a mechanical complexity and does not fully convey the magnitude or the capacity of the mind and the plasticity of its organic physical location, the brain (Davis et al., 2000; Dennett, 1995; Dreyfus, Dreyfus & Anthansiou, 1986). The computational metaphor, which has origins in objectivism, over-emphasises learning as a process by which the individual incorporates mental representations from an external world into their distinctly private world. In doing so ignores a view that some forms of knowledge may be intuitive or embodied.

**A neglect of embodiment**

A fourth observation made of the orthodox position is that it ignores the notion of embodiment in which the human beings are viewed as part of the world they inhabit and not merely observers of that world (Benner, 2001; Lakoff, & Johnson, 1980; Merleau Ponty, 1962; Vygostky, 1934:1986; Wittgenstein, 1953). Furthermore, the orthodox position deems that knowledge is located somewhere outside of the person and therefore fails to conceive of human beings as intimately incorporated into the ‘allegedly’ external world. To ignore the notion of embodiment is to deny potential for human experience to be an inseparable and continuously evolving discourse between thoughts, sensations, and actions (Davis, Sumara & Kieran, 1996). Notions of embodiment also advise that the conditions in which learning occurs are also part of that which is learned and, however well intended, to address the features in the environment as being separate from the student is to address only part of the equation and to reinforce a conceptual divisiveness (Idhe, 1979). As observed: “Context is not merely a place which contains the student; the student is literally part of the context” (Davis, Sumara, & Luce-Kapler 1996, p.157). More specifically, in the context of learning nursing the orthodox position also fails to consider that the student nurse may be totally immersed in practical learning. This notion of immersion
makes it difficult to ignore the intimacy of the learner, the learned, and the process of learning as a unified experience, which cannot and ought not to be considered as separate entities in that: "...much of our holistic knowledge of our social world may be based upon direct understandings that are acquired through our bodily experiences in that world" (Dey, 1999, p. 101).

Reductionism

The reductionist view of learning, one in which learning is separated into components is inherent in the orthodox position. Reductionism is most evident in the fragmented and compartmentalised approaches that have been adopted for the design of many nursing courses, which are modular in nature (Farley Pardue, 1979; Jordan, 1999; Marriot, 1991; UKCC, 1986; Watkins, 2000). In the orthodox approach it is usually the teacher and not the student who determines the 'what', the 'how', and the 'when' of learning. Specifically, the ‘what’ which is to be learned is predetermined by the nurse educator and based upon a notion that for each component of the course a hierarchy of complexity exists. Educators also determine the criteria for both the hierarchy and the complexity.

The ‘how’ is also selected by the nurse educators who then initiate teaching and learning methods which are considered to maximise learning. A nursing course is usually divided into discrete units of learning, usually termed modules or papers. Each of these units is broken down further into a number of learning outcomes, for each of which there is an attempt to devise an assessment. The order in which the content of a course is selected and then sequenced provides an illustration of the reductionist influence on the design and delivery of nursing education. In the design of nursing programmes the ‘when’ of learning comes to the fore as educators decide the ratio between the length of time a student is exposed to practical experience and the period of time spent in a classroom learning material to support practical experience. Even before the nursing student begins a programme of study the prospective student is expected to learn that which others determine relevant in an order that others also hold to be suitable. This form of reductionist orthodoxy
pervades many forms of education, and as Becker remarked of the role of schoolteachers in the formal schooling of children:

They arrange the material in some order of increasing complexity, an order usually thought of as the “natural” or “normal” way to approach the subject. They decide what minimum amount of knowledge will be acceptable. They decide on a schedule, the time periods in which the student is to learn particular batches of material. They produce in short, a curriculum, which rests on a conception, usually un-inspected, of a normal student who can do that much work and grasp that much material in the time allotted (Becker, 1972, p.92).

By definition reductionism is divisive and therefore at a mundane level it creates a sense of a false dichotomy between theory and practice (Carr, 1995; Hoare & Nowell Smith, 1971; Moccia, 1992). As if to emphasise the dichotomy, those in education who adhere to the orthodox position continue to employ methods of student assessment which are reliant upon students producing written or verbal explanations as evidence that practical skills have been understood.

*Explanation and observation as evidence of learning*

In the orthodox position, conventional approaches to assessment are particularly noticeable in the context of practical learning. Here it is usually the teacher who determines the means that will best demonstrate that student learning has occurred. Further, it is the teacher who, irrespective of the individual needs of the student, also controls the pace and sequence of assessment.

Assessment techniques that place a very high degree of confidence in third party testimony are commonly found in the orthodox position. These techniques usually require an actual demonstration by the student, or an oral or written explanation to explicit performance criteria. However, demonstration or exposition alone do not confirm agreement between thought and action and the ability to demonstrate competence does not always fit neatly with the articulation of theoretical explanations (Sandelands, 1991; Wittgenstein, 1953). As a valid form of confirming synergy between thought and action, a personal explanation is flawed.
For example, one may marvel at the performance of an actor or a ballet dancer. That person may be asked to explain how they performed in such an accomplished manner or even to inquire as to the theory they drew upon to direct their performance. Of course, the performer may be incapable of providing a satisfactory explanation for their dexterity and skill. This is because the ability to demonstrate competence does not fit neatly with the articulation of theoretical explanations and an explanation cannot be regarded as evidence of the ability to perform. As was argued:

...as everybody starting work soon realizes, there is a world of difference between abstract knowledge in books and the practical knowledge required for, and acquired in everyday experience-between reading what to do, seeing others do it, and doing it for yourself (Dey, 1999, p. 101).

Conversely, the opposite is also the case and demonstration cannot be construed as evidence of understanding (Wittgenstein, 1953). The same observation may be made of practical nursing. For example if we want to know if a student nurse knows how to provide pain relief for a patient, merely asking a series of questions about an hypothetical patient does not provide adequate evidence of the ability of that student to apply theory to practice. If we then ask the student to explain how pain relief works this only provides us with their ability to recount the theory and the application of that theory to the hypothetical patient. If we were then to ask for a demonstration of how to provide pain relief to an actual patient, do we judge their competence by the process of attempting to provide pain relief, or by the outcome of the intervention? If the patient continues to experience pain, what does this tell us about the general ability of that nurse to provide pain relief? As a comparison the following illustration is offered.

Some people know how to play a piano. They know which note each key produces; they understand the composition of music. But they may not actually be able to play the piano. In short their theory is accurate but they are unable to apply that theory to practice. The problem has little to do with the theory-practice relationship rather the relationship between formal knowledge and action. This is a commentary not on the appropriateness or not of the theory but of the ability of an
individual to assimilate and use that theory in the practical context. It is apparent that in the orthodox position the high level of confidence afforded to attestation by a third party, that a student is able to link theory and practice, is a confidence that is misplaced.

In the orthodox position to think about the theory-practice relationship in terms of a gap, one that can be increased or lessened has made a valuable contribution to the understanding of how student nurses learn to apply formal theory in practical contexts. However, the history of nursing education demonstrates that attempts to close the "gap" have proved at best to be only partially successful. This is not to suggest that the orthodox position is wrong, rather that it is incomplete and that an alternative explanation, which complements the orthodox position, may prove insightful and ultimately helpful. For such a complementary explanation, the theory of learning, known as enactivism, is proposed.

**A complementary perspective**

The enactivist view is attributed to the work of the biologists Humberto Maturana and Francisco Varela and it is a term that may be used for a theory of learning which openly incorporates ideas from other disciplines including psychology, biology, ecology, philosophy and anthropology. The eclectic nature of enactivism means that elements of enactivism can also be found in embodiment and experientialism (Reid, 2001). In education, the notions contained within enactivism are an extension of the constructivist perspective. Enactivism builds upon the dynamic nature of constructivism whilst also explaining non-cognitive knowing, intuition and the role of emotions in learning. Enactivism acknowledges that the learner and the external world are part of the same ecological system in which the learner, as a living organism, has the capacity of autopoiesis. Autopoiesis is the ability to continuously change whilst still maintaining a wholeness and integrity as a self-organising system. Moreover, in order to survive, a self-organising system must have the structural capacity to respond to change or effect change in the medium, or environment, in which the organism exists. In the context of education, this capacity for
adaptation, also termed structural coupling, is best understood as learning (Maturana & Varela, 1992).

Enactivism advises that when we perform an action, we do not stand outside of that action and passively observe it. We are intimately part of the action, whilst at the same time influencing the progress of the action. Simultaneously, our perceptions of our action are guided by the action itself, which in turn influences our understanding of that action. The theory of enactivism provides nurse educators with an opportunity to regard the relationship between theory and practice in a manner that complements the orthodox position. This is because in enactivist theory, cognition, emotion and sensori-motor activity have evolved together as one and are therefore inseparable. In the performance of practical activities, cognition, emotion and sensori-motor activity guide each other in a simultaneously and integrated circularity. This circularity cements the relationship an individual has with the external world as an integral and evolved component of that world (Varela, Thompson & Roche, 1997). In the context of nursing education, the much stronger emphasis upon learning as a holistic experience that is presented by enactivism is an important feature when considering practice focused educational activities. For enactivism, learning nursing is a process that involves the teacher, which includes the clinician, the student and subject boundaries merging in a constant process of change (Maturana & Varela, 1992). For nursing, from the total experience that constitutes learning there can be no arbitrary separation into components. This leads to another important feature of enactivism, which concerns the means by which learning is assessed, and in particular the assessment of those forms of learning which concern the relationship between theory and practice.

Traditionally, nursing education in common with other forms of vocational education has relied upon a third party to judge whether student nurses are able to apply theory in practical contexts. In enactivist theory, any relationship between thoughts and actions is considered conceptual and not logical. The reasons for action are considered an integral part of that action and not a precursor to the action (Shotter, 1975). Therefore any link between thought and action is contained in the meaning that they produce for the individual and not in formalised links
that may be explained to or observed by a third party. The ability to deliberate before doing is a part of being autonomous and the reasons for actions are not always something that is thought about in advance of that action, nor spoken about when that action has been completed. In nursing, as with any other practical activity, it is necessary to understand how to use the tools of that practice. These tools include technical knowledge, which is executed as competent psychomotor activity. However, as Maturana observed: "I think that whenever we want to know whether or not somebody knows something about something, we ask him or her a question; and the question demands that he do something" (Maturana 1987, p. 66). He continued: "So the listener, the questioner, decides what an explanation will be” (Maturana, 1987, p. 67).

For enactivism any gap between theory and practice becomes the perceived difference between what the observer wishes or expects to see in the form of success criteria, and what the student does, which may consciously or unconsciously satisfy those criteria. Thus enactivism eschews the reliability of third party observation in that there is clearly more to individual experience than can ever be observed and for the observer the change sometimes is not entirely discernible. Enactivism considers there to be coherence: wholeness in all our actions and subsequent events. Each and every experience effects change in all organisms and some of that change is subtle. This is particularly true of human beings and this raises a third aspect of enactivism that is particularly helpful for nursing education.

In determining the successful application of theory to practice, the only exclusive and authentic witness is the student nurse. Only the student nurse can really know the intention of their actions. Whilst externally action does not look different from behaviour, it is the intentionality, the purpose of the action from the perspective of the student nurse, that is important, not the second-hand meaning which is attributed by an observer (Shotter, 1975). Only the individual student can engage in the experience, and only that student can sense a link between theory and practice. This is because formal knowledge cannot be demonstrated by practice, rather only that component of knowledge that can be translated into action and which may, or may not, be taken by an
observer to be evidence of understanding. For it is the student, who is the doer, and the final arbiter of whether or not there is a link between theory and practice (Habermas, 1974). Therefore even when there are transparent competency based performance criterion, enactivism questions the validity of observer based assessment and shifts the focus of attention to the individual performer.

In the context of any social action, for example nursing, any theoretical knowledge that is acquired will not necessarily be evident in external and observable actions. For example, if a person were to formally study logic or linguistics, it does not follow that the person will necessarily change the way that they think or speak. Therefore, formal knowledge is not demonstrated in practice only that component which an observer may or may not take to be evidence of understanding. For only the learner can engage in the experience of learning, and only the learner can sense a link between theory and practice. The doer is the final arbiter of whether or not there is a link between theory and practice (Habermas, 1974). The perspective that enactivism offers to nursing, which is a form of professional education that has espoused a practical focus for over a century, is that it guides nursing educationalists to consider the individual student nurse as the starting point in the search for a complementary understanding of the relationship between theory and practice in nursing.

**Conclusion**

At the core of the relationship between theory and practice in nursing education is the notion of division. This notion is widely referred to as the theory-practice gap. The gap is a particular metaphor that has proven to be a durable and particularly helpful in assisting nurse practitioners, nurse educators and student nurses to understand the relationship between theory and practice in nursing. The main function of the gap is to quantify the important educational relationship between the internal and definitively idiosyncratic world of the individual and an external world. More significantly, the dimension or size of the gap has become the benchmark against which efforts by educationalists to improve the relationship between theory and practice is evaluated. The consensus
amongst the nursing profession is that the gap is undesirable and that it has arisen because of external factors beyond the control of the student, but not beyond the control of educationalists. However, if just one student is unable to satisfy the criteria that confirm a close link between theory and practice then the responsibility for the failure to align theory and practice cannot lie solely in factors that are external to the student. If it is assumed that the concepts that underpin theory are correct, if the methods of teaching and learning are appropriate, and if the application of that theory in a practical context is effective. The mismatch between the application of theory to practice in nursing, is more likely to generate the hypothesis that the mismatch is related to individual characteristics of the student rather than factors in the external environment.

The metaphor of a gap is the root metaphor for a network of other related material concepts, which are used to identify any problems that are presented by the theory-practice gap. As a consequence, attempts to enhance the theory-practice relationship in nursing have focused upon arranging important factors in the context in which the student learns nursing, and which are perceived as external to the individual student. The orthodox position clearly emphasises learning as a subject-object relationship and is a reflection of the influence that positivism has had throughout the twentieth century and has reinforced a conceptual divisiveness between theory and practice. The sum effect of the orthodox position has been to reinforce the predominant view that learning is the incorporation of mental representations from an external reality and that the successful application of theory to practice is confirmed by the observations, assessments and judgements made a third party. It would appear that in general, nurse educationalists have considered the gap between theory and practice as an aberrant product of learning rather than an intimate part of the process of learning.

Despite the volume of material written about the gap between theory and practice, the range of suggested causes for the gap, and the actions taken to reduce the problems caused by the gap, interest in the gap has not lessened. This is because the orthodox position provides an incomplete and therefore unsatisfactory explanation of learning for practice contexts. The ongoing dissatisfaction within the profession opens
the door for the possibility of an alternative way to perceive the theory-practice relationship in nursing. In the search for a complementary explanation of the theory-practice relationship, two areas require further exploration. The first is the impact that the metaphor of a gap has had on the design and delivery of nursing education. The second is to understand, this time from the perspective of the student nurse, how any difference between theory and practice nursing is perceived, identified, then managed. It is the first of these two areas of interest, the impact of the metaphor of a gap, which will be addressed in the next chapter.
CHAPTER TWO
CONSTRUCTING AND FIXING THE GAP

In the opening chapter it was argued that at the core of the orthodox position is the metaphor of a gap between theory and practice in nursing. Above all other images this particular metaphor has come to represent the difference between that which students learn in the classroom and the work of nurses with patients. It has also been shown that the notions contained within the orthodox position form the framework for the way in which the theory-practice relationship in nursing is conceptualised. As a consequence any attempts to resolve problems caused by the gap were addressed using the same conceptual framework. The ideas contained in the orthodox position have made a most valuable contribution to nursing education in that they have assisted educators to understand how student nurses learn to apply theory in practical situations. However, the presence of a gap continues to evoke criticism from all sections of the nursing profession which suggests that this particular metaphorical framework may have inhibited creative thinking around this most important educational relationship.

With a particular emphasis on the use of the metaphor of a gap between theory and practice, this chapter will present three interrelated arguments. The first will be that the language used to describe an experience, in this case the relationship between theory and practice in nursing, ultimately constructs the meaning of that experience. The second argument with specific reference to the relationship between theory and practice in nursing will be that it can be demonstrated that the frequent use of the metaphor of a gap in the nursing literature has nurtured and reinforced
professional thinking about that relationship. Finally, it will be showed that in nursing education the power of the orthodox position is such that it has influenced not only the way that the relationship between theory and practice is conceptualised— it has also formed the basis upon which educational solutions to the problems presented by the existence of a gap are addressed.

Language, meaning and metaphor
Speech, which is a unique characteristic of human beings, is the most sophisticated of all communicative acts (Wardaugh, 1993). Other communicative acts, such as writing, gestures, and other forms of non-verbal communication, although complex are supplementary to and dependent upon spoken language (Cunningham, 1992; Smith & Wilson, 1979; Wardaugh, 1993; Wertsch, 1991). The ability to speak or "vocal expressivity" (Berger & Luckmann, 1967, p. 51) makes it possible for an individual to communicate aspects of otherwise private mental processes to other individuals. It is through spoken language that relationships are formed, feelings imparted, and mundane dialogue about objects, events, and ideas are facilitated. The power of language means that: "Put simply ... an entire world can be actualized at any moment" (Berger & Luckmann 1967, p. 54). Speech makes it possible to refer to matters that have an actual physical reality or to more abstract, esoteric and less tangible concepts. The medium of spoken language provides the means not only to make sense of individual experience, the self-evident reality of which is taken for granted, but also to comprehend the experiences of others.

Language and meaning
Probably the most common form of communication involving spoken language is that of a conversation between two people. In a conversation each participant takes it in turn to speak to the other participant; pause, and then waits for a response. A conversation requires that each participant is able to produce, exchange, and
then interpret concepts from a reservoir of concepts that are seemingly infinite. In a conversation, thinking and speaking appear instantaneous and in order to reply each participant needs to first establish meaning to the words that have been used by the other person before affecting a response. When the number of participants engaged in a discussion increases, each participant brings their own culture and values. As a result the complexity of the communication and the potential for different interpretations of meaning correspondingly increases.

In social groups there are written and unwritten rules for the way in which language is used. The unwritten rules go beyond the formal rules of grammar and extend to the construction of meaning which is conveyed in words. Words are the physical symbols of concepts and concepts are the most common vehicles for the transmission of meaning. There is no fixed meaning in any given word and no form of universal dictionary that can be used to ultimately determine meaning. Thus the potential meaning of any word is dependent upon the context in which that word is used (Cunningham, 1992; Johnson, 1987; Wertsch, 1991). It follows that the more that meaning is embedded in a culture group, the more readily can that meaning be shared within that culture. For example, in the belief that there is a gap between theory and practice, the key concepts that form the core of that belief, have a shared meaning which is widespread within the nursing profession. In the context of learning to be a nurse most nurses know what is meant by theory, most nurses know what is meant by practice and most nurses can understand the relationship between the two concepts in terms of a gap. If shared meaning facilitates communication, then the opposite is also the case and the more exclusive or individualistic the meaning, the less likely it is that it will be understood by the larger social group. Lakoff and Johnson observed that: “When people who are talking don’t share the same, culture, values and assumptions, mutual understanding can be especially difficult” (1980, p. 231). For example, people who exhibit highly idiosyncratic communication patterns may be regarded as
blessed, eccentric or even psychologically disturbed. It would depend on the way in which other members of the wider social group interpreted the behaviour of that individual.

The social group in which meanings are shared could be as large as the language culture of an entire nation or a much smaller group such as a family group, a friendship group or those who share a common occupation. In both large and small groups the boundaries of the group are delineated by a common interest and shared meaning. The medium of spoken language eliminates the need for meaning within that group to be re-negotiated and redefined in similar situations (Berger & Luckmann, 1967). An illustration of the way that occupational groups share meaning is found in the way that an occupational group uses technical language and jargon. The health professions are especially replete with specialist language for diseases, treatments and many other interventions. An appropriation of the word pernicious can be found to describe a form of anaemia and the neologism Bovine Spongiform Encephalopathy or mad cow disease has been constructed by veterinarians to name a specific degenerative neurological disorder of cattle. In due course some words or expressions are taken from specialised contexts entered into a specialist or revised generalist dictionary and thereby gain formal acceptance into the greater language community.

As well as the use of jargon, colloquial expressions and highly technical vocabulary, other more ordinary words or phrases are captured by an occupational group and used differently for specific occupational experiences. The resulting difference in meaning may be marked or subtle. For example, the words bull and bear are used quite differently by employees in the financial institutions than the lay person or the zoologist. In addition the application of the term professional, when it is used to describe a sports-person has a quite different inference when it is associated with legal, medical or nursing practitioners. When different occupations use the same word as a technical expression, the meaning produced may also be different. Consider the range of
possible meanings for the word culture. To the anthropologist it may mean the norms and values of a social group; to the bacteriologist it may refer to a colony of micro-organisms, and to the art critic it suggests a particular form of artistic presentation. In the context in which each of the groups employ the word culture the interpretation is correct and the etymological roots of the word culture clearly grounds all the three context specific meanings with a common origin.

This far it has been argued that words in themselves have no fixed meaning and that spoken words are merely noises or vocalised referents for concepts. This means that words, which are universally accepted as an external form of concepts, should be understood as representations of something else. Each word represents an idea, a concept, and that concept stands for something that exists in reality (Fiske, 1982). It can be seen that this is a reality from which the selected word is already two steps removed from the actual entity to which it refers. As such the meaning of the language symbol, the selected word, is open to interpretation (Fiske, 1982; Johnson, 1987). The range of possible interpretations may be less of a problem if the concept to which the word refers is a tangible object such as a chair. Obviously, there are different types of chair, but there are some key characteristics that are shared by all chairs. Chairs have legs, a back and can be used for sitting down. If however, the word refers to less tangible concepts such as ‘fairness’, ‘loyalty’ or ‘the relationship between theory and practice’, the importance of shared meaning can not be understated (Fiske, 1982). To promote the shared meaning of concepts that are definitively elusive, a number of linguistic devices such as analogy, simile, irony, rhetoric and metaphor are available. To use a linguistic device or trope is to employ the non-literal figurative use of language (Czechmeister, 1994). In the context of this discussion the particular trope that is of interest to nursing education is the use of metaphor.
Metaphor

The metaphor is a linguistic device in which words or phrases are used to make a mental comparison between two things; of which one is well known and the other of which is less well known (Richardson, 1998). The communicative intention of the metaphor is to shed light on the lesser known by its analogy with the better known (Czechmeister, 1994; Hamm, 1989; Jobst, Shoshtak & Whitehouse, 1999; Sutherland, 2001). The metaphor is widely used in the language codes of literature, poetry and theatre, but it is also present in normal everyday communication. Some common examples are that time can be compared to money so that it can be quantified, saved or wasted and arguments are compared to war for which there is a strategy and positions to be won or lost. The function of metaphor, however, goes far beyond the embellishment of language. The metaphor is much more than a skilful and imaginative use of language, and in mundane life metaphors permeate thought, speech and action. Lakoff and Johnson saw metaphor as: “...a pervasive, indispensable structure of human understanding by means of which we figuratively comprehend our world” (Johnson, 1987, p. xx). According to Lakoff and Johnson the metaphor forms the basis for human understanding of the world and the foundations of metaphor are located in how humans, who are essentially physical entities, experience the world in which they live.

Humans are erect bipeds with a sense of time, place and space. Therefore, humans utilise conceptual metaphors that arise from their spatial and temporal orientation with other living beings, objects and substances. For example, people who exhibit calm in stressful situations are said to be well grounded or emotionally stable, and people who are stimulated by prospective events have their expectations raised or their spirits uplifted. These are experiential relationships of which Lakoff and Johnson concluded: “If we are right in suggesting that our conceptual system is largely metaphorical, then the way we think, what we experience, and what we do everyday is very much a matter of metaphor” (1980, p. 3).
The use of metaphor is common in all forms of education and is a very useful way of conveying ideas about knowledge and learning. It was pointed out by Hamm that: “Many educational concepts fit the description as shifting, elusive and polymorphous; and so we can expect that metaphors will and should continue to be used in educational discourse” (Hamm, 1989, p. 27).

Metaphors and learning

In more general terms metaphors are particularly useful when educationalists attempt to explain the acquisition of knowledge or the process of learning. For example knowledge may be conceptualised using a food metaphor whereby the student is presented with ‘raw’ data, has ‘digested’ ideas or ‘chewed over’ details. Alternatively knowledge can be thought of using the metaphor of an edifice whereby arguments are ‘built’ or as a liquid metaphor in which ideas ‘flow’. In the latter half of the twentieth century perhaps one of the most pervasive and popular metaphors for learning was that of the computer (Pinker, 1997; Hill, 2001). The computational metaphor with the associated notions of input, information processing and output has influenced a number of major educational initiatives including competency-based education, the use of learning outcomes and standards based student assessment.

In the above examples of the use of metaphor for learning, the concept of knowledge was constructed as an entity, an object which could be incorporated from a pre-existing external world into the inner mental world of the student (Davis, Sumara & Luce-Kapler, 2000). It was suggested that such metaphors for knowledge arose because as humans: “We experience ourselves as entities, separate from the rest of the world - as containers with an inside and an outside” (Lakoff & Johnson, 1980. p. 58). This group of spatial metaphors for learning were named by Lakoff and Johnson as the container and conduit metaphors. In the specific context of education these are metaphors that construe the student as a
vessel, a container, for the storage of knowledge; and the mode of learning, the specific educational activity, as the passage, or the conduit, for that knowledge which is drawn from an abstract pool of knowledge in a second container. A common illustration of the prevalence of these metaphors is contained in the question ‘Where did that idea come from?’ It is a question that suggests innovative ideas have a location other than the individual who expressed the original thought.

The use of metaphor in nursing education was proposed as a specific tool for increasing understanding of abstract concepts (Cook, Gordon, & Frances, 2004; Sutherland 2001). Some examples that have been reported, include the story of Alice in Wonderland as a metaphor for socialisation in to the profession (Gunby, Chally, Dorman, Grams, Kosowski, & Pless, 1991), the Old Testament as a metaphor for nursing diagnosis in the care of the elderly (Bond & Urick, 1999), and the heroic journey as a metaphor for the experience of nurses returning to academia after a significant break in study (Heinrich, 1997).

If metaphors with distinctly physical characteristics are used for the abstract process of learning, then it is consistent with the imagery of those metaphors that the difference between desired learning and demonstrated learning should be encapsulated by another metaphor with physical connotations. That metaphor is the gap between a vessel (theory) and a container (practice). As the pivotal feature of the perceived dissonant relationship between theory and practice in nursing, the metaphor of a gap continues to feature widely in nursing publications. The regular use of the metaphor of a gap has proven to be a useful way of describing that relationship. But what is also very important is that the depth of conviction within the nursing profession in the existence of a gap has of itself played a major part in constructing the relationship between theory and practice in the first place.
Constructing the gap

To use the word gap is to adopt a spatial metaphor which acknowledges the fundamental, everyday and constant human experience of possessing a physical body as the primary interface with the rest of the world (Lakoff & Johnson, 1980; Varela 2001). For human beings the experience of occupying a physical space and sharing that space with other objects, includes an awareness of the spatial relationships of near or far, up and down, front and back, in and out, and so forth. These are rudimentary concepts of which it was said: “Concepts that emerge in this way are concepts that we live by in the most fundamental way” (Lakoff & Johnson, 1980, p. 57). The belief in dissonance between theory and practice in nursing has a long history (Department of Education, 1972; Landers, 2000; Ministry of Labour, 1947; NCNZ, 2001; Nightingale, 1980/1859; Rolfe, 1998) for which much of that dissonance has been expressed in terms of a gap.

The metaphor of a gap between theory and practice in nursing

In the context of nursing education and in its simplest form, the meaning that is conveyed by the metaphor of a gap is one in which each of the components of theory and practice has a separate location. Additionally, these different components, which are clearly separated, comprise disparate elements of a former or a potential whole. Also implicit in this metaphor is the belief that it is highly desirable that the components are drawn closer together. Therefore in this metaphorical system, knowledge readily becomes conceptualised as palpable and therefore is conceived as having tangible dimensions. The extent of the dissonance between nursing theory and nursing practice is encapsulated in the notion of a gap. The gap has become a powerful metaphor in nursing education, which has influenced how nurse educators and students think about learning and prompted important discussion of how student nurses in particular learn to apply theory in practical settings. The metaphor of a gap has proven to be very useful and a convenient
shorthand expression for a very complex educational problem. In education, despite the attraction and accessibility of popular metaphors it has been suggested that the overuse of metaphors in educational contexts may result in confusion, over simplification and stereotyping (Czechmeister, 1991; Sontag, 1989; Sutherland, 2001).

An analysis of the nursing literature demonstrated that the case for the presence of a gap and the subsequent strategies devised to resolve problems presented by the gap are both premised upon the belief that a gap exists in the first instance.

The prevalence of the gap

In order to establish the extent to which the nursing profession has embraced the metaphor of a gap between theory and practice, the key words gap, theory and practice were chosen for an initial search of the database CINAHL between 1982 and 2002. The search which encompassed editorial comments, position statements, research reports, and personal letters to the editor, accessed published material from across four decades. In that material spatial metaphors were extensively used by the authors. Although the literature search was limited to English language publications, the literature was from different publication sources, different countries and different eras. In addition, the contributions came from nurses with academic, administrative and clinical backgrounds. Thus in the review a high degree of confidence is expressed that the perceptions presented in the reviewed material were representative of the wider profession, and also corresponded to the informal discourse of nurses when they spoke of this most important relationship. Furthermore, and with specific reference to the prevalence of the orthodox position in the literature there were some recurrent characteristics. These were that:

- The gap was an entity and therefore amenable to manipulation;
• The parameters of the gap (the space between the containers) could be drawn closer together, or that the contents can be transferred from one container to another;

• The integration of theory (one container) and practice (a second container) could be evidenced by the performance of the student nurse (a third container).

The analysis of the language used in the professional literature to address the relationship between theory and practice, identified four broad categories of metaphor. Each of those categories was related to the core metaphor of a gap, and each inferred that any dissonance between theory and practice in nursing was a product of human action. The categories of metaphor were those that denoted images of structure, division, combination or dimension.

Structure

The first group of metaphors was the structural or building metaphor of which the most widespread metaphor was the mage of the bridge or associated imagery (e.g. Cardin, 2005; Gallagher, 2001; Gormley, 1997; Hesook; 1993; Hopton; 1995; Jerlock, Falk & Severinsson, 2003; Jordan, 1999; Khatib & Ford 1999; Landers 2000; Le May, Mullhall & Alexander, 1998). In this particular metaphor it was assumed that the gap was an already established void and that theory and practice were indeed separate notions. The boundaries of theory and practice were construed as solid, immobile, and delineated. There was a clear space between them and on each side of that space, or gap, there were locations that were suitable for the footings of a proposed structure that would stretch across the gap. These locations could readily be identified and appropriate action could be taken to bridge the gap. The use of the structural metaphor also implied the steps that were required to address the problem would have a permanent quality.
Directly related to the metaphor of a bridge was the notion that one way to address the gap was to “span” the discontinuity with distinct but unspecified structures (Gallagher, 2001; Stark, Cooke & Stronach, 2000). If the gap could not be directly spanned then links were to be made (e.g. Christmeyer, Cantanzariti, Langford & Reitz, 1988; Dale, 1994; Elkan & Robinson, 1993; Ferguson & Jinks, 1993; George, 2005; Upton, 1999; Williams, 1999). The notion of a link implied less permanence than a bridge therefore it was urged that the central characteristics of those links, was that they must be “strong links” (Perry, 2000) or “firm links” (Rafferty, 1992). A permanent solution to the gap was that the gap should be “filled” (Zelauskas, Howes, Christmeyer & Dennis, 1988). Conversely some authors considered that there were structures that acted as impediments to reducing the gap. Tolley asked clinical nurses to consider: “What are the possible barriers to them developing practice theory?” (1995, p. 187). Whilst Dahlberg employed the images of “obstacles” and “blocks” when considering the difference between espoused and actualised holism in the conduct of nursing care.

**Division**

Another common category of metaphor was one in which a sense of enforced and unnatural division was evoked in which the gap that had eventuated was a result of a split between the former component parts of a whole. The divisive nature of the gap was variously described as a “schism” (Hewison & Wildman, 1996), a “divide” (Dolan, Fairbairn & Harris, 2004; Landers, 2001), a “chasm” (Hesook, 1993; Stark et al., 2000), a “rift” (Ferguson & Jinks, 1994; McKenna & Roberts, 1999), a “divide” (Ashworth & Longmate, 1993: 1992; Khatib & Ford, 1999), and a “dichotomy” (Rafferty, 1992; Rhead & Strange, 1996; Waterman, Webb & Williams, 1995). Other forms of the splitting metaphor suggested that “separate branchings” had formed (Rhead & Strange, 1996), that there was a “gulf” (Castledine, 1993), or even that a “divorce” had eventuated (McFarlane, 1977). The space that was created, as
implied by these metaphors, was a result of disruptive forces that threatened stability and reflected the inability of the profession to build or maintain secure foundations. In this group of metaphors, associated with the idea of division amongst component parts, the occasional idiosyncratic metaphor was used. For example, one particular nurse academic stated that:

In the meantime nursing students generally and practitioners undertaking academic courses in particular encounter difficulties in reconciling nursing theory with nursing practice. We do not know what effects this process of reconciliation has upon these students but one suspects that they either develop mild schizophrenia or, if they absorb large doses of nursing theory they become so deviant that it is difficult for them to function as practitioners (Miller, 1985, p. 424).

In this illustration the word schizophrenia was selected to suggest division. Whilst the term was etymologically correct and the word schizophrenia can be traced back to its roots as “split mind”. However, the use of this particular metaphor was an inaccurate and inappropriate use of the technical term for the illness that forms the basis of the metaphorical comparison. Metaphors, it appeared could be misleading if not used carefully (Czechmeister, 1994; Hamm, 1987).

Combination

The third category of metaphor that was identified in the literature was the combination metaphor, of which there are two closely related types, those that implied fluidity and others that implied permanence. In both groups of metaphor there was an implication that the gap was a product of the failure to successfully gel or meld various components. One expression that was commonly found in the literature was the suggestion that there was a need to ‘integrate’ the various components that comprised theory and practice (e.g. Alexander, 1983; Davies, Welham, Glover, Jones & Murphy, 1999; Ekebergh, Lepp & Dahlberg, 2004; Fairbrother & Ford, 1998; Ferguson & Jinks, 1994; Hewison & Wildman, 1996;
Howkins, 1994; Landers, 2000; McCaugherty, 1991; Miller, 1985; Ousey, 1997; Waterman et al., 1995; Weatherston, 1981). There were also combination metaphors that had a fusing or welding quality. In this particular metaphor it was acknowledged that the different components could be readily identified and brought together to form a permanent bond. The gap must be “healed” (Mckenna & Roberts, 1999), “sealed” (Upton, 1999), “united” (Hopton, 1995) or the component parts “forged” (Jordan, 1999). These were notions of integration that denoted a flawless blend of component parts and consequently any change produced by this form of integration was permanent and inseparable. Other, and less common, metaphors that were associated with combination included a notion of “dissolving” the gap (Goode, 1998) or “harmonising” the factors that made up the gap (Lee, 1989), or attempts should be made to “marry” theory and practice (Lambert & Glacken, 2004). These metaphors endowed the gap with a fluid quality and accordingly the gap was construed as less stable, potentially less permanent and one that would require regular attention.

**Dimension**

The final category of metaphor to be discussed was one that contained images that conveyed the size of the gap. In the group of metaphors that implied dimension it was usually inferred that the size of the gap could be regulated by intentional or unintentional actions. The language chosen to estimate the magnitude of the gap reflected the degree of concern that the authors had for the perceived problems in the relationship. The gap was described as “huge” (Pycroft, 2003) but more commonly as “wide” (e.g. Castledine, 1993; Corlett, 2000; Davies et al., 1999; Gallagher, 2001; Goode, 1998; Hesook, 1993; Howkins, 1994; Ousey, 1997; Rhead & Strange, 1996; Rolfe, 1998). As the gap could not totally be eliminated (Prymachuk, 1996) it should at least be narrowed (e.g. Armitage & Burnard, 1991; Backhouse & Brown, 2000;
Brassell-Brian & Vallance, 2002; Cook, 1991; Gassener, Wotton, Clare, Hofemeyer & Buckman, 1999; Hopton, 1995; Zelauskas, Howes, Christmeyer & Dennis, 1988). The gap, could be lessened (e.g. Corlett, 2000; Elkan & Robinson, 1993), increased (Ferguson & Jinks, 1994; Yassin, 1994), reduced (e.g. Ferguson & Jinks, 1994; Landers, 2000; Rafferty, 1992; Tolley, 1995) or widened (e.g. Castledine, 1993; Corlett, 2000; Rhead & Strange, 1996). In all of these examples it was implied that the size of the gap, was a product of human actions. In the category of metaphor for which the gap inferred dimension, it was considered that the gap was responsive to intentional or accidental interventions and that the size of the gap was the yardstick by which the success of those interventions was evaluated.

Further to the notion of dimension, whilst references to a gap suggested a distance between separate entities, they did not accurately specify the actual distance. The size of the gap, to use similes, may be as microscopic as a neurological synapse or as immense as the mouth of the Amazon River. The metaphor of a gap implies size and there was a clear inference that any changes in the implied distance between the separate components could be measured. The language used to discuss the effects of the gap upon nursing practice reflects a view that the size of the gap could be changed, and that change in the size of the gap could be perceived. For example, it was stated that: “...the fact remains that many practitioners will or cannot incorporate research findings into their clinical work, and the theory-practice gap is showing no signs of diminishing” (Rolfe, 1998, p. 1316). A review of the literature concerning the theory-practice relationship in nursing, Goode noted that: “They (the authors) conclude that the gap will never be entirely closed” (1998, p. 89). In respect of the notion of actual measurement Hewison and Wildman argued: “It may be that the chance to close the gap has passed” (1996, p. 756). Whilst it was commented that: “The gap between what is taught by tutors and what students experience in nursing practice has long been a
source of concern for educators, and there is little evidence that it is reducing” (Ferguson & Jinks, 1994, p. 693).

The dimensional language used in these examples ran counter to the fact that there was a lack of consensus as to what would constitute a recognisable reduction between theory and practice. In addition the most common form of measurement was that of personal observation by others, which as a method of assessment was inevitably influenced by the vagaries of subjectivity. However, and notwithstanding the inaccuracies inherent in subjective assessment, there remained confidence that the relationship between theory and practice could be accurately gauged.

All of the above categories of metaphor have arisen from the orthodox position which in turn has generated a metaphorical system in which the spatial nature of the gap plays a pivotal role. The gap was acknowledged as an abstraction and therefore could not be directly addressed. However, theory and practice were attributed with more substantial qualities and it is those qualities that were the focus of educational initiatives intended to improve the relationship between theory and practice in nursing. It is those ‘gap-fixing’ initiatives that will be discussed in the next section.

**Fixing the gap**

In nursing education attempts to remedy or ‘fix’ the dissonance between theory and practice have a long history. Some initiatives have resulted in defining moments in the delivery of nursing education (e.g. Briggs, 1972; Ministry of Health, 1947; New Zealand Nursing Council, 1972; United Kingdom Central Council, 1986). However, the more common ‘gap-fixing’ initiatives are those that were conceived and instigated by small groups of nurses or individual nurses within the profession. These smaller scale initiatives all shared a common belief that in order to repair or reduce the gap between theory and practice, there were various features in environment in which the student nurse learned, which could be identified, isolated and addressed. Over the past three decades ‘gap-fixing’ initiatives have originated from across the nursing profession. ‘Gap-fixing’ initiatives
were as numerous as they were varied. However, each initiative could be classified as one of a teaching and learning initiative, a role enhancing initiative or a relationship building initiative.

*Teaching and learning initiatives*

The first category of initiative to be discussed concerns the changes made to the teaching and learning methods intended to enhance student learning. These teaching and learning initiatives were either addressed at the overall structure of a course or were individual educational initiatives that enhanced specific aspects of an educational programme (e.g. Burns & Patterson, 2005; Cardin, 2005; Davies et al., 1999; Ekbergh et al., 2004; Farley Pardue, 1979; Gott, 1982; Jordan, 1999; Perry, 2000; Weatherston, 1988). For example, in 1982 Gott observed the teaching and learning styles in three different hospital based schools of nursing in England. The central focus of the study was to establish how well the different styles, each with different proportions of ward and classroom based learning, forged links between theory and practice. In support of one solution her advice to clinical instructors was contained in the following summary comment:

> The second area of concern is the amount of teaching undertaken by teachers in hospital wards … yet this is where learning is most likely to be influential. If teachers wish to influence what is taught it would seem that they must deliver care in the wards, alongside other nurses (Gott, 1982, p. 44).

One initiative that was regularly reported, related to changes made to the quality of the learning experience for students in the clinical setting. These were changes that usually focused upon the length of time that students spent in the clinical setting and the content and sequencing of theoretical and practical experiences. For example, an early study on this topic by Alexander (1982) compared the difference between that which was taught and that which was practised by student nurses in hospital based training (HBT) courses in Scotland. Of particular interest to this study was the way that the re-scheduling of the elements of teaching and learning facilitated alignment and integration of theory and practice for students.
In a study with a similar topic of interest, Corlett (2000) interviewed students, teachers and clinicians to uncover some of the factors that contributed to the gap between theory and practice. She suggested two initiatives that might serve to close the gap. These were improvements to the sequencing of theory in relation to practical experience and ensuring that the theory that was applied in practice was both up to date and relevant. Both Alexander (1982) and Corlett (2000) believed that for the student nurse the clinical setting was the best place in which to learn practical skills. Although their work was conducted almost two decades apart, both studies emphasised that registered nurses who wanted to meet the needs of students during a clinical placement, must be enabled to incorporate an educational perspective into their work. In the United Kingdom it was reported that during university based courses student nurses spent up to twenty-five percent less time in clinical placements than was available in hospital-based programmes (Cope, Cuthbertson & Stoddart, 2000). This study was conducted during an era that coincided with the gradual transfer of nursing education from out of the hospitals and into the university sector. In response to the decrease in practicum time associated with the transfer, initiatives were devised with the specific intention to redress the reduction in the quantity of learning time in practice settings by an increase in the quality of the total learning experience for students.

The design of a post graduate course for community psychiatric nurses in England was reviewed by Simmons, and it was recommended that the various components of the course should be realigned so that a more integrated model would emerge. This realignment would, it was thought, improve a number of problem areas which included the relationship between theory and practice (Simmons, 1989). The relative success of two schemes introduced to a hospital-based programme was reported by Lee (1989). The schemes involved a student support scheme that also incorporated a system of what was termed a 'Student Self-Audit Learning Scheme' (SSLA). On the evaluation of these schemes Lee noted that:

Based on the comments received so far, the schemes have proved very acceptable and useful to both the mentors and the students. We sincerely
believe that these two schemes are the right steps on the path towards closing the gap between theory and practice (Lee, 1989, p. 18).

A number of gap-fixing initiatives were specifically concerned with improving the acquisition and assessment of learning that occurred in practical contexts. One such initiative was the "Practice write up or (PWU)"

The PWU was an assessment tool devised by Gormley (1997). According to Gormley, the PWU was to be used by students as a personal log in which to keep a record of learning that had occurred through practical experiences. The log enabled students to develop competence through reading, observation and supervised practice whilst in the clinical setting. For students, the process of learning was reinforced by reflection either alone or with other students in the classroom setting (Gormley, 1997). Of the relationship between the learning log, formal theory and clinical practice Gormley stated:"... PWUs are providing a meaningful contribution towards further reducing, for students, the gap between theory and practice" (Gormley, 1997, p. 57). Knight, Moule and Desbottes (2000) devised an instrument to enable students to personally analyse their acquisition of practical skills in either the simulated classroom laboratory, or the working environment of a clinical placement. That instrument, which they called the "Skills Grid", was used by students to link formal knowledge to the attainment of skills. In respect of the ability of the "Skills Grid" to enhance the relationship between formal knowledge and practice the authors commented that: "Students once exposed to Skills Grids, begin to appreciate the level of knowledge required for practice" (Knight, Moule & Desbottes, 2000, p. 120).

Another assessment tool, this time focused around the relevance of a theoretical unit in a nursing degree programme in New Zealand, was the subject of an evaluative study by Gallagher (2001). In this study students completed a series of written tasks. The student then collated the tasks and submitted them for marking. Each of the tasks was devised with an intention that they were relevant to practice based learning experiences, and an explicit purpose of the assessment tool was to enable the student to link theory and practice. However, in the discussion section of the report it was remarked that: "The link made between theory and practice, of key interest to the study, was not as strong as anticipated" (Gallagher, 2001,
To evaluate the process of learning in practical situations by undergraduate student nurses, Dumas, Villeneuve and Chevrier (2000) sought to develop and validate a tool specifically devised for that purpose. The researchers believed that the tool would contribute to the ability of students to link theory and practice whist learning in practical contexts. To improve the relationship between theory and practice and a result of governmental concern for the level of skills possessed by newly registered nurses, university schools of nursing in the United Kingdom were urged by the British government to ensure that theory and practice were drawn closer together (UKCC, 1999). In response to this request, one faculty of nursing changed the methods by which practice was assessed. It was reported that feedback from the student nurses to this particular change to the curriculum: “...indicates a favourable reception to the integration of theory and practise and the assessment methodology employed” (Turner, Doyle & Hunt, 2003, p. 234).

A category of teaching and learning initiative intended to reduce the gap between theory and practice that was frequently and regularly reported in the literature was those initiatives designed to enable student nurses to develop reflective skills (e.g. Conway, 1994; Christmeyer et al., 1988; Ekbergh, et al., 2004; Hiebert, 1996; McCaugherty, 1991; Ochieng, 1999). In Sweden, Ekbergh, Lapp and Dahlberg used educational drama as the means by which students had the opportunity to engage in reflection. This initiative, called drama caring and reflection in nursing education, was known by the mnemonic DRACAR. The authors stated of DRACAR: “This educational approach does not polarise theory and praxis but supports the students’ learning and reflective processes with the intention of creating a meaningful and whole of lived caring experiences and theoretical caring knowledge” (Ekbergh et al., 2004. p. 625). Based upon her observation that nurses engaged in informal conversations to recall "ward stories" Hiebert (1996) introduced the "learning circle" as an educational strategy in nursing education. Learning circles were infrequently employed in education therefore Hiebert introduced a series of a structured "learning circles" to assist student nurses to learn from their practicum placements. As part of the process of conducting a learning circle peer-support, collaboration and sharing were incorporated. The learning circle was
considered an empowering form of reflective learning and was introduced in anticipation that: “Praxis becomes part of learning as theory is derived from practice and in turn, enriches practice” (Hiebert, 1996, p. 38).

The focus of a study by Williams (1999) was problem based learning or PBL. In this evaluative study the perspective of clinical educators who had a role in the teaching and assessment of students in clinical placements was sought. Clinical educators were nurses employed on a casual basis with a primary responsibility to supervise the hands on experience of students (Williams, 1999). At the time of the report, the University had utilised PBL for over four years, and Williams sought to establish how effective this educational method was in improving the relationship between theory and practice. The involvement of clinical educators, as opposed to tenured academic staff or clinicians as the nurse who provided primary support for the student was central to the evaluation of PBL. Whilst the central focus of this study was the effectiveness of PBL it also highlighted another category of gap-fixing initiatives. That category was initiatives that focused upon the specific professional qualities required by the clinical or academic nurses who provided educational support for the student during the time the student was placed in a practical setting, and how those qualities might be enhanced.

Role enhancing initiatives

In the nursing profession there is a long-standing debate in respect of the most suitable person to facilitate learning for student nurses in the practical setting. In this debate, two positions are usually adopted. In the first of these positions the central argument proposes that clinical nurses, as expert practitioners, should be prepared for a primary role in the clinically based education of student nurses (Davies et al., 1999; Lachat, Zerbe & Scott, 1992; Perry, 2000). That preparation would require that clinical nurses were provided with additional educational training and time within their clinical role to facilitate the learning needs of student nurses. The counter position contends that as clinicians were more concerned with clinical matters than education they were ill equipped to facilitate student learning. Therefore it was the nurse educator who should be provided with
opportunities to maintain the currency of their clinical expertise (Calpin-Davies, 2001; Corlett, 2000; Ferguson & Jinks, 1994; Fourie, Olliver & Andrew, 2002).

A commonly suggested solution to the problems highlighted by this long standing debate, was that a nursing role should be created that combined the best characteristics of both educator and clinician (e.g. Dale, 1994; Davies et al., 1999; Goode, 1998; Hopton, 1995; Landers, 2000; Lathlean, 1992; McKenna & Roberts, 1999; Ousey, 1997; Rhead & Strange, 1996). This was a suggestion that led to the development of a hybrid role which has had a number of different titles including the Sister Tutor and the Clinical Teacher (Alexander, 1982; Morle, 1990). The most recent title, and one that was been associated with the move to higher education, was that of the 'lecturer-practitioner' (Driver & Campbell, 2000; Lathlean, 1992; Fairbrother & Ford, 1999). A primary purpose of the lecturer-practitioner was to forge links or act as a conduit between theory and practice. That role was attractive to both faculty staff and clinical staff. But it also required a significant investment of both time and money so that those nurses who adopted the role were suitably prepared (Driver & Campbell, 2000; Fairbrother & Ford, 1999; Rhead & Strange, 1996).

A number of authors were convinced that the potential for closing the theory-practice gap lay within the role of lecturer-practitioner (e.g. Camsookai, 2002; Durston & Rance, 1999; Morle, 1990; Ramage, 2004; Rhead & Strange, 1996; Severinsson, 1999; Slevin & Lavery, 1991; Spouse, 2001; Williamson & Webb, 2001). In a survey of four schools of nursing in New Zealand, Fourie, Olliver and Andrew (2002) gained an understanding of the notion currency of practice or clinical credibility. Also relevant to the survey was how, in a new era of mandatory clinical competence (NZNC 2001), nurse educators could be assisted to maintain currency of practice. The authors acknowledged the challenge of fulfilling a dual role as educator and clinician. They commented: "... the ability to manage a case load is not a measure of clinical standing or credibility. This is an important insight, as the core business of nurse educators is teaching and not a clinical caseload" (Fourie, Olliver & Andrew, 2002, p. 38). The success of the lecturer-practitioner initiative was dependent upon the ability of the lecturer-practitioner to combine current nursing practice with
an academic role. The symbiosis of two at times conflicting roles was central to effective student learning and of which Rhead and Strange concluded:

Our review of the nature of nursing knowledge forces us to the same conclusion. If nurse educators wish to facilitate the experiential aspects of its nature, they also need to participate in clinical practice if their knowledge is to be current and valid (1996, p. 270).

Within the nursing profession support for the role of lecturer-practitioner was generally widespread and the specifics of how the lecturer-practitioner should function varied from organisation to organisation. For example, Durston and Rance (1999) advised that a nurse should be appointed to the role of education co-ordinator to facilitate an improvement in learning for new staff during the induction and orientation programme of an intensive care unit. Perry (2000) extended this idea when he suggested that clinically based nurses, who by definition were considered the clinical experts, should have a greater involvement in clinically based educational programmes. In support of this position he argued for what he termed: "Centres of Clinical Excellence" (Perry, 2000). The role of lecturer-practitioner was considered by Camsookai (2002) to be the key to resolving many of the barriers that inhibited effective practice based learning. She argued that the role should be extended to other health and social care workers in what was described as: "inter professional education". In accord with ideas expressed by a range of authors one suggestion was that educational and clinical staff could gain insights into each other’s role by engaging in a regular job exchanges (Brasell-Brian & Vallance, 2002).

There were a number of means by which the goals of the lecturer practitioner were realised. For which it was evident that the role of the lecturer-practitioner had contributed to the quality of relationships between educational staff and their counterparts in the clinical area. The role of the lecturer practitioner was designed to improve the nature of the relationship between academic staff, clinical staff, and student nurses, and of the importance of this role it was stated that:

If student nurses are to acquire knowledge and skills in clinical practice, there must be someone there to demonstrate how theoretical knowledge
can be integrated into practice otherwise the significance of the opportune experiential learning experience may be lost or diminished (Lambert & Glacken, 2005, p. 666).

In a review of the literature that pertained to the facilitation of learning in the clinical environment, it was identified that the importance of the relationship between educators, students and clinicians was considered very important: “...in the provision of a supportive clinical environment” (Lambert & Glacken, 2005, p. 670). It is those initiatives concerned with interpersonal relationships that comprised the final category of gap-fixing initiatives.

**Relationship building initiatives**

The final category of gap-fixing' strategies in the nursing literature concerned the importance of quality of the interpersonal relationship between key personnel who worked alongside student nurses. These initiatives could be divided into the two sub-categories of partnership and mentorship.

An example of a partnership project, with a clear focus on Primary Health Care (PHC), was reported by Mann and Byrnes (2000). In a project which was named a Community Enrichment Project (CEP) a number of clinical agencies and a university school of nursing in Australia worked together to enhance student learning with the intention to improve the relationship between theory and practice. In the concluding section of report it was stated: "The students involved with the CEP were clearly enthused with their integration of PHC into their nursing practice" (Mann & Byrnes, 2000, p. 20). In another partnership initiative, this time involving the clinical speciality of gynaecological nursing, a group comprising of educators and clinicians devised and delivered a teaching programme for student nurses. The authors concluded that: "If there is recognition and mutual respect of the differing, but complementary strengths of both practitioner and the lecturer, these can be usefully combined, not just for the benefit of the student but for all concerned" (Davies, et al., 1999. p. 38). In Australia, Gassener, Wotton, Clare, Hofmeyer and Buckman examined an innovative approach to student learning, referred to by the
authors as: "A model of collaborative teaching" (1999, p. 16). In this model the key to bridging theory and practice was the alliance between university based educators and their clinical counterparts in an Australian city. The authors wrote that: “The evaluation data clearly showed that the model was effective in facilitating collaborative relationships necessary for the successful development and implementation of reality-based learning for students” (Gassener, et al., 1999, p. 21).

From the language in the quotations chosen from these selected illustrations it was apparent that the nature of the relationship between the partners in these two gap-fixing initiatives was crucial to the success of the projects. This was a reflection of a view that the period a student spent learning in a practical setting was significantly influenced by the quality of the relationship between the student and the teacher or clinician who acted in support of the student (Lloyd-Jones, Walters & Akehurst, 2001; Marriot 1991; Severinsson, 1998). In the literature, the supportive role that a clinician adopted to facilitate learning for student nurses was often referred to by the terms mentorship or preceptorship (Armitage & Burnard, 1994; Campbell et al., 1994; Gray & Smith, 2001; Lee, 1989; Lloyd-Jones, 2001; Morle, 1990; Myrike & Yonge, 2001; Spouse, 2001; Kavaini & Stillwell, 2000).

Although the term mentorship and the term preceptorship do not have exactly the same meaning, in the context of undergraduate nursing education the manner in which they were used suggested that they were interchangeable (Morle, 1990). Both expressions usually referred to the supportive role that a trusted professional had with a junior colleague for the purpose of the professional development of the junior partner (Armitage & Burnard, 1994). The success of the mentorship role demanded that the mentor must be a nurse, a member of the clinical team, work directly alongside the student nurse, and have received preparation for the role (Severinsson, 1998; Kavaini & Stillwell, 2000). In an appraisal of the contribution made by the effectiveness of clinical supervision programmes for student nurses it was concluded that: "... spending more time on reflection on individual student's experiences of clinical situations within the nursing education will affect the student's personal knowledge as well as integration of theory and practice" (Severinsson, 1997, p. 1276). The
simple allocation of each student to a mentor was not considered an act of itself that sufficiently improved the quality of the learning experience for the student (Spouse, 2001). In a study of the more effective qualities of mentorship Spouse concluded that central to the success of mentorship were positive and reciprocal interpersonal relationships. These were relationships of which she stated that: "...both parties need to be valued for their different skills and knowledge that can be shared under conditions of mutual respect and through forms of collaboration that benefit all participants" (Spouse, 2001, p. 520).

The nursing literature between 1980 and 1990 which had as a focus the support and supervision of student nurses was reviewed by Marriott (1991). In this review it was concluded that: "Whether addressing the ward learning environment, the characteristics of effective clinical teachers or the role of the mentor, the importance of good interpersonal skills shines forth as the most important factor in promoting learning in clinical areas" (1991, p. 269). Another study which highlighted the importance of regular contact between mentor and student was undertaken by Lloyd-Jones, Walters and Akehurst (2001). These authors commented that: "Moreover, students could be left too much alone if their mentors were not present or if they had poor relationships with them" (2001, p. 158). It was evident that mentorship, and other forms of supportive or supervisory initiatives were very highly dependent upon the interpersonal relationship between the individuals concerned. As a gap-fixing initiative the tactic of relationship building was therefore a precarious strategy as it was an initiative that was subject to the peculiarities of human behaviour and in particular the ability of two relative strangers to form a mutually rewarding relationship.

It was for these two reasons that relationship building was a volatile and impermanent solution to the problems presented by the perceived gap between theory and practice in nursing. The idiosyncratic nature of interpersonal relationships meant these were unstable gap-fixing initiatives. That instability was further compounded by the fact that the registered nurse workforce in New Zealand and in other western countries is reported as an ever-changing workforce, for which workforce retention and employee wastage were regularly reported as key issues of concern.
(Birch, 1975; Kramer, 1974; Salmon, 1983; Ministerial Taskforce on Nursing, 1998; NCNZ, 2001). In addition, and in order that the students gained breadth and variety of clinical experience that would satisfy the professional body, the student nurse was required to move from one clinical placement to another at regular intervals. When a fluid workforce and a transient student population were combined, the key personnel considered central to effective student learning formed a volatile base upon which to construct an educational strategy that was reliant upon strong and supportive interpersonal relationships.

The examples provided in this section of ‘gap-fixing’ initiatives were characteristic of the work undertaken by nurses who sought to lessen the gap between theory and practice. More importantly, in the context of a discussion about the influence of the orthodox position they were all examples that shared the belief that the problems presented by the gap could be solved by attending to conditions that were external to and therefore beyond the control of the student nurse.

**Conclusion**

What was clear from this review of the nursing literature was that when nurses referred to the relationship between theory and practice in nursing it was most commonly understood in terms of spatial metaphors. As a result a metaphorical system had developed that had influenced any analysis of that disjunction, and also provided the basis for practical strategies intended to resolve any problems produced by the theory-practice gap. The internal thoughts or mental processes that constitute cognition have no tangible substance, and are definitively private mental processes and thus they are inaccessible to the educator. It was therefore not surprising that educators turned their attention to some of the more accessible features present in the external conditions in which the student learned.

The notion of a gap has proven to be especially helpful and has assisted educators, clinicians and students to understand the application of formal theory to practical situations (Ashworth & Longmate, 1993). However, given the volume of resources directed towards reducing the
perceived gap between theory and practice in nursing, any enthusiasm for
gap-fixing initiatives based upon the orthodox position must be tempered
by evidence that those initiatives have actually worked. The nursing
literature indicated that there was considerable concern expressed within
the profession that the gap was still present and showed little sign of
diminishing. A recent example of the concern was contained in a national
review of undergraduate nursing education in New Zealand, which was
commissioned by the Nursing Council of New Zealand (KPMG, 2001). In
the final report it was advised that future programmes of nurse education
should provide: “...demonstrable linkages between theory and practice”
(KPMG, 2001, p. 6). This point was underscored later in the report when it
was stated that: “The relationship between theory and practice is
considered by many to be sacrosanct and a tenet of nursing education”
(KPMG, 2001, p. 91). In order to achieve the goal of a closer relationship
between theory and practice the report recommended changes to the
structure, delivery and outcome of nursing education. These changes
included a reduction of the number of educational providers for
undergraduate nursing education, the development of collaborative posts,
or joint-appointments, between the colleges and the clinical areas, and the
development of the lecturer practitioner.

These recommendations were contemporary versions of prospective
solutions that were based upon the orthodox position and differed little in
substance from many other suggestions that have been made over the
past thirty years. This may be because of the prevalence of the
metaphors associated with the orthodox position. No matter how useful
the metaphor of a gap has proven to be for nursing education, this
metaphor, in common with other metaphors, should be employed
judicially (Czechmeister, 1994). In education the use of distinctly physical
metaphors and other metaphors that sought to explain the relationship
between knowledge and learning in terms of concrete transactions has
prompted concern (Cunningham, 1992; Hamm, 1987; Varela, 1997). This
concern related to the over-reliance on physical metaphors to provide an
explanation for all aspects of human learning. As educators were warned:
“We should be cautious, though, against letting certain metaphors
become mindless slogans and 'thought stopsers' because of orthodoxy and dogmatism that builds around them" (Hamm, 1989, p. 27).

In the nursing literature, the perspectives that supported the presence of a gap and the strategies devised to resolve the gap were overwhelmingly those of nursing educators, managers or clinicians. As a consequence, in this important professional discussion there was a notable absence of how student nurses experienced the relationship between theory and practice. For a greater understanding of the perceived problems and the associated solutions to the relationship between theory and practice in nursing, nurse educators should be guided by the experiences of the student. In order to gain the perspective of student nurses, a qualitative study that adopted a grounded theory approach (Glaser & Strauss, 1967) was designed. Of specific interest to the study, for which there were two phases of data collection and analysis, were the strategies that individual student nurses employed when they considered that theory and practice were different. The first set of data was collected from participants in a series of four focus groups. Each group was conducted separately and comprised exclusively of registered nurses, third year student nurses, second year student nurses or nursing lecturers respectively. The second set of data was gathered from a number of individual interviews with student nurses drawn from across the three years of an undergraduate nursing degree. The data were analysed using the constant comparative method (Glaser & Strauss, 1967), and from which analysis emerged a grounded theory that offered an additional and complementary dimension to the current knowledge about the theory-practice gap in nursing. That grounded theory will also make a contribution to those strategies in nurse education designed to optimise learning for student nurses in practical settings.

Before presenting the methodological detail of that study, some important historical and contemporary features of the education of nurses in New Zealand, that have shaped the contributions of those who participated in the study, will be outlined in the next chapter.
CHAPTER THREE
THE CONTEXT FOR THE STUDY

Margot, a second year student recalls a dilemma she faced when she perceived that some experienced nurses were not caring for a patient in a manner that Margot considers to be appropriate:

I felt so disappointed by the fact that these people [the nurses] were nursing and they were... not nursing properly...and that sounds really conceited because they were older nurses and they’d been doing it for so very long and I respect them for the fact that they have all this experience.

She considers offering advice to those nurses but:

So then I come in like a little fluffy bunny with big bushy eyes and bouncing around and I come in and say well you’re not doing it right. You’re not doing this, this, this, this and this because of this, this, this and this...and they look at you and go Nyaaah you’re just a student what the hell are you talking about?

In the end she decides to say nothing and reaches a point of personal compromise:

I felt very disappointed and ... I knew I had only three weeks [the remainder of her practicum] so during my three weeks this gentleman got the best care he had ever got in his whole hospital life.

This extract from an interview with Margot, contains elements of some key traditional values that are still present in the profession of nursing. These are values which have also influenced the contemporary context in which the student nurses who participated in this study were prepared for professional practice. The values which are contained in Margot’s contribution include a respect for hierarchy, a sense of duty, and an emphasis upon the learning that occurs whilst working alongside an experienced
practitioner. These are very important values for nursing and with a long tradition, and the data gathered in this study will evidence that that they are values that continue to exert a powerful influence on nursing education.

**Similarities and differences**

The experience of being a full time student of nursing in New Zealand at the turn of the twenty first century contains both differences and similarities to a previous era when student nurses were apprentices. Some of the key differences between the two eras are that in sharp contrast to their historical counterpart the contemporary student nurse is a full-time student who studies in the same institution as other tertiary students. Furthermore, the student is no longer an employee of a hospital. Instead they pay tuition fees to an educational institution and are awarded a qualification that has both professional and academic currency. The most obvious similarities are that the vast majority of students are women, classroom based tuition precedes any exposure to practicum experience, significant numbers of those who start fail to complete the programme, and that clinically based learning occurs in a working culture that was hierarchical in nature for which the student nurse wears a uniform to distinguish them from registered nurses.

However, irrespective of any similarities or differences between the two forms of nursing education it is important to this study that some of the important historical and contemporary features that shaped the context in which the study was conducted are outlined. These features, which are a product of over one hundred years of nursing history, have influenced the perceptions of those who participated in the study. It will also be argued that of those factors the demise of the apprenticeship system and the move of nursing education away from the hospital into the education sector in particular strengthened the belief in the existence of a gap between theory and practice in nursing. Finally,
and with specific reference to the site at which data were gathered, a number of educational initiatives, designed to improve learning for students in practical contexts will be shown to be based upon the orthodox position. A description of these historical and contemporary factors will facilitate a greater understanding of the experiences of those who participated in this study and provide an insight into the possible reasons behind their responses to the questions that were asked of them.

**The demise of the nursing apprenticeship**

By the end of the twentieth century New Zealand, along with most western countries, had abandoned apprenticeship as the principal model for the education of nurses (Cowan, Norman, & Coopamah, 2005). In common with other occupational groups such as teaching and social work, nursing was termed a semi-profession (Etzioni, 1967). One characteristic common to all of these occupations was that they traditionally placed considerable emphasis on the importance of the apprenticeship as the primary method of learning and formal induction into their workforce. The apprenticeship was a highly valued form of professional socialisation of which it was stated: “Apprenticeship is a time honoured and robust tradition in professional education. It has survived changes in practice, rapidly developing knowledge bases, and shifts in primary programme responsibilities between practice and academic sites” (Taylor & Care, 1999, p. 35). The period of apprenticeship involved more than learning to perform the skills of a particular occupation. It was also a period when the individual was immersed in the values and culture of that occupation. Of this occupational process based on the apprenticeship it was commented that: “To become a person of a certain sort is to acquire a body and a set of bodily dispositions appropriate to this sort” (Fay, 1997, p. 150). This observation was made of the training of soldiers, and it was an observation that would have been equally valid had it been applied to the apprenticeship at
system of training for nurses that formed the basis of nursing education for the greater part of the twentieth century. For the prospective nurse the apprenticeship was more than merely a time when the knowledge and skills pertinent to nursing practice were learned. It was a period during which the student nurse adopted the demeanour, temperament and unwritten values that constituted being a nurse and thus the student became a ‘person of a certain sort’.

Diane, a student nurse in her first year of study relates the strategies she employed to help her to learn how to record blood pressure using a stethoscope and a sphygmomanometer. To develop this particular skill she practises at home with the assistance of her close friends and family. She recalls that:

Doing it [recording blood pressure] at home as well. I’ve got my own blood pressure kit and on my partner and stuff and my parents and stuff [prolonged laugh]. So that’s quite... it’s so... you become a different person when you’re doing the practical stuff and when you’re doing theory your sort of pushed back in to being a student again. It’s quite strange you sort of become different ... People come up to me and tell me you have a nurse’s voice when you start doing the blood pressure. You start talking like a nurse.

In the process of learning this particular skill Diane not only develops the required manual dexterity, she becomes immersed in a particular role. This illustration is one of several that reinforce the power of the process of socialisation which is evident in the contemporary context for nursing education.

For New Zealand nursing the apprenticeship system of education was formally abandoned in the last two decades of the twentieth century. A detailed account of the social and political conditions that prompted the decision to reject the apprenticeship model of nursing education falls outside the parameters of this discussion. However, two of the primary reasons that underpinned the abandonment of the apprenticeship will be discussed. The first focuses upon the pursuit of nursing for professional status, and the
second on the concern from within and without the profession for the educational welfare of student nurses.

**In pursuit of professional status**

In the course of the twentieth century the nursing profession, along with other occupational groups in most western countries, desired authentic professional standing rather being labelled as a ‘semi-profession’. If this goal was to be achieved one feature of professionalism that nursing would have to incorporate was that those who aspired to enter the occupation must first complete a period of extensive and formal education. Furthermore, if the semi-professions were to emulate the higher professions of law, medicine and architecture it was essential that the period of preparatory education must be undertaken in an institute of higher education (Agryis & Schön, 1989; Eraut 1991; Kolb, 1984). Nursing, an occupation eager for professional kudos, enthusiastically adopted the template for professional education and the last third of the twentieth century in particular saw, from within the nursing profession, an acceleration of efforts to transform nursing from a semi-profession to an occupation of unquestionable professional standing.

The second reason that prompted the move of nursing education from out of the hospital and in to the college or university arose out of a deep seated concern for the learning needs of the nursing student. Over many years, from within and without the nursing profession, it had become increasingly evident that for student nurses in New Zealand and other countries, the demands of being an employee who was required to deliver patient care, were at the expense of personal learning (Briggs, 1972; UKCC, 1986; Workforce Development Group, 1988). Of the experience of being an apprentice student nurse in English hospitals, it was commented that:

The nursing student has a hard life compared with university or college undergraduates. Doing her studying on top of a mentally
and physically draining job, with a number of weeks a year spent in school and four or five on holiday, leaves little time for the other activities which enable college students to relax and develop new interests (Salvage, 1985, p. 52).

The combination of the pursuit of professional status and the growing dissatisfaction with the quality of nursing education were two factors that played an important role in stimulating the transfer of nursing education from out of the hospital and into academic institutes. However, of these two reasons the rejection of the apprenticeship as the principal form of entry to the profession was considered to be particularly important to this discussion of the relationship between theory and practice in nursing. Therefore it is the apprenticeship that will be subject to a more detailed discussion.

The apprenticeship

The history of nursing education in New Zealand was similar to that of countries such as Australia, Canada, Sweden, the United Kingdom, and the United States of America (Cowan, Norman, & Coopamah, 2005; Watkins, 2000). At the start of the twenty first century the education of nurses in all of those countries was established as a function of tertiary educational institutes of varying kinds. The full-time status of student nurses evolved from the notion of the probationer nurse which was the forerunner of the apprenticeship system of nurse training (Baly, 1986; Watkins, 2000). The probationer nurse was based in a hospital and for the probationer nurse the underlying principle for learning was that they were instructed as to the duties that they were to perform by older more experienced superiors (Lind, 1982; New Zealand Nurse Organisation, 1984; Reilly & Oermann, 1992). The title ‘probationer nurse’ was eventually replaced and prospective entrants to the nursing profession, although still part of the workforce, were designated as student nurses.
For the greater part of the twentieth century the student nurse was usually an apprentice in a hospital who was paid a salary and subject to conditions of employment as were other members of staff. The student nurse was required to work a full complement of shifts which included periods of night duty and weekends. Whilst working in the wards, the duties that the student nurse performed were prescribed by more senior nurses and physicians. The length of the apprenticeship or training was usually of three years duration and contained short periods when the student nurse was released from ward duties to be taught in a classroom, which was located in a part of the hospital designated as the school of nursing. However, the periods of formal tuition were brief and the vast majority of the knowledge and skills required for nursing were gained as the student nurse worked and cared for patients alongside registered nurses, other student nurses and a range of different health professionals.

Given the size of the population it was considered that there were a large number of different hospital training schools in New Zealand and each school had its own training programme. It was reported that: "In 1970, 126 basic nursing programmes of the six types were offered amongst schools [of nursing] based at 62 different hospitals” (Workforce Development Group, 1988, p. 2). The “six types” of basic programmes referred to in that report related to the way in which until 2004 the Nursing Council of New Zealand (NCNZ) chose to record nursing registration. In 2004, as a consequence of the passing of the Health Practitioners Competency Assurance Act in September of 2003, all nurses in New Zealand were recorded as a Registered Nurse (RN) on the professional register. However, in the era when the apprenticeship was most prevalent, hospitals that were exclusively psychiatric hospitals could only offer a route to registration as a psychiatric nurse (RPN) and a general hospital could only offer a route to registration as a registered general nurse (RGN).

From these two examples it can be seen that the programmes that each hospital offered were dependent upon the
nature of the available nursing experience, which in turn was dependent upon the type of illness suffered by each patient who was admitted to that hospital. Moreover, all of the programmes in New Zealand, even if they were of the same type, were often of a very different nature. The differences reflected the availability and skills of teaching staff, the range of learning opportunities, and the working ambiance of each hospital. The key differences included the content of the course material, the availability of clinical experiences and volume of nursing work within that hospital (Salmon, 1983). The apprenticeship, in the form of hospital based training schemes, was subject to increasing regulation by the professional body in each country. For nursing education basically the same format was used for the apprenticeship for over seventy years, and it was a format that laid great importance on the belief that nursing was an occupation best learned on the job. The notion of ‘on the job’ training had the potential to be a rich and powerful form of experiential learning (Kolb, 1984). However for nursing education this was a potential that was never fully exploited.

The apprenticeship as experiential learning

In a vocational occupation such as nursing, exposure to practical experience was considered an important component, if not the most important component, of nurse training. For the student nurse, practical nursing in the company of experienced supervisors was a powerful opportunity to engage in experiential learning which was considered as: "...one of the most fundamental and natural means of learning available to everyone" (Beard & Wilson, 2002, p. 13). The process of experiential learning did not require nursing educators to purchase expensive technology and it was pointed out that: "... in the majority of cases, all it requires is the opportunity to reflect and think either alone or in the company of other people" (Beard & Wilson, 2002, p. 13). In the context of vocational education it was also emphasised that if experiential learning was to be effective there were three very important
conditions. The first was that the workplace must be appropriately structured so that the interests of the student are paramount. The second that the learning milieu must be supportive of experiential learning and the third, that time for reflection must be built into the working day (Beard & Wilson, 2002; Kolb, 1984). However, in nursing with respect to these conditions, the student nurse numbered 25% of the nursing workforce in most clinical settings in the United Kingdom. As an apprentice the student nurse was an essential part of the nursing workforce (Salvage, 1985). The high reliance upon student nurses to deliver nursing care and the hectic working environment of the public hospital were significant barriers to effective learning. Not surprisingly, time for reflection was a feature notably rare or entirely absent from the working day of the student nurse.

In the era when the apprenticeship predominated, student nurses were based in a hospital, and thus had much more exposure to clinical work than student nurses attending tertiary institutions (Cope, Cuthbertson & Stoddart, 2000). It might be assumed that there was never a better opportunity to maximise opportunities for experiential learning. However, when the student nurse spent more time in practical settings, worked as an apprentice, and was a central member of the ward team there was a paucity of formal learning opportunities factored into the working day. For example, in one study in 1953 it was noted that student nurses received no more than twenty-five minutes formal instruction each day. In addition, the Ward Sister, who was the most senior nurse clinician, at most offered five minutes of teaching each day. This equation represented the total formal education for students in the practice setting (Ogier, 1982). It appeared that the apprenticeship model of learning in a hospital was one for which there was scant regard for formal knowledge as the foundation for nursing practice (Merchant, 1989; Ogier, 1995; Small, Taylor & White, 1979). Furthermore, when nursing education was based in a hospital and the clinicians were intimately involved in the delivery of the nursing programme, the
physical relationship between the centres of theory (the schools of nursing) and the centres of practice (the hospital wards) was very close. However, despite the proximity of theory and practice, there were still significant government reports that expressed concern for the gap that existed between theory and practice (e.g. Briggs, 1972; Ministry of Health Department of Health for Scotland, Ministry of Labour and National Service, 1947; Workforce Development Group, 1988; UKCC, 1986). The apprenticeship system in nursing should have been an opportunity to maximise the potential for effective experiential learning that was present in lengthy periods of clinical exposure in the company of experienced practitioners (Pratt, Arseneau & Collins, 2001; Merchant, 1989). However, nursing patently failed to maximise those opportunities and from within and without the profession regular disquiet was expressed for the way that student nurses were prepared to enter the profession.

The problems with the nursing apprenticeship

For nursing the main concerns with the apprenticeship were that the clinical environment in which the student worked ultimately detracted from the learning experience, and the health care delivery in hospitals, in which trainees worked and learned, was becoming increasing complex. As a consequence of these two factors an unreasonable level of responsibility for patient care was expected of trainees. As the primary objective of a hospital was health care delivery and not the education of nurses, there was a clear conflict between the delivery of effective patient care and the provision of a suitable educational environment for student nurses (Birch, 1975; Kotecha, 2002; Kramer, 1974; Workforce Development Group, 1988). It was apparent that the cumulative negative effects on the educational and the personal welfare of the student outweighed any perceived strengths of hospital-based apprenticeship training. An observation that reflected the growing professional consensus of the time noted that: "The apprentice-
type training system was seen by students and their teachers to be inadequate from an educational point of view because it was very difficult to correlate theory and clinical work while meeting the service needs of the hospital" (Small, et al., 1979, p. 2). Ultimately the challenges present in the experience of being a working apprentice and at the same time a student of nursing contributed to a high wastage rate from all the types of nursing programmes offered in New Zealand. It was reported that: “About 7,000 students enter these schools each year and approximately 45% fail to complete their programmes” (Salmon, 1983, p. 39). This was a human cost that was also compounded by the high financial costs incurred by governmental departments and eventually the nurse leaders and educationalists combined to discontinue the apprenticeship system for nursing. At the start of the twenty first century in New Zealand, all prospective entrants to the nursing profession were no longer employees pursuing apprenticeship training. Instead, they were full-time students attending a university or another tertiary institution.

From hospital to tertiary institute

The transfer of pre-registration nursing education in New Zealand out of the hospital, which was begun in the 1970s (Salmon, 1983; The New Zealand Nurse Organisation [Inc.], 1984), was effectively completed by the middle of the 1990s. In 2003/4 when the data for this study were gathered, nursing education was established in 18 tertiary educational institutes in New Zealand, most of which offered undergraduate education (Health Workforce Advisory Committee, 2002). The transfer of nursing education from the hospital to the tertiary education sector in New Zealand happened during the professional lifetime of a large number of nurses who were very experienced practitioners. For these nurses, the transfer of nursing education meant that their perception of the relationship between theory and practice transfer changed from that of a conceptual gap to that of an actual physical gap.
The cessation of hospital based training and the associated reassignment of the responsibility for nurse education to institutes of higher education throughout the Western world was a feature of nursing education in the last two decades of the twentieth century (Jerlock, Falk & Severinsson, 2003). The transfer itself was cited as a major cause of the alleged gap between theory and practice in nursing (e.g. Calpin-Davies, 2001; Castledine, 1993; Crook, 2001; Duffy & Scott, 1998; Hewison & Wildman, 1996; Howkins, 1994; Khatib & Ford, 1999; McCaugherty, 1991; Miller, 1985; Stark et.al, 2000; Watkins, 2000; Yassin, 1994). The physical transfer of nursing education presented significant challenges, as in a relatively short period of time the educational culture for nursing education had altered dramatically (KPMG, 2001). Consequently, it was imperative that nurse educators, clinicians and managers worked together to address the challenges that arose from the separation. Some challenges were mundane matters such as planning the time to travel between two or more locations or the reduction in the chance to maximise opportunistic learning experiences that may suddenly arise in the clinical setting. Another challenge was that the lecturers and the clinicians were no longer employees of the same organisation. Therefore a different set of interpersonal skills were required so that effective communication channels were maintained between the educational establishments and the clinical areas.

**Nursing education in New Zealand**

*Theory: practice and the role of the Nursing Council of New Zealand*

All undergraduate nursing programmes in New Zealand are subject to approval by the Nursing Council of New Zealand (NCNZ). Prior to 1971 and the establishment of the NCNZ, that responsibility lay with the Nurse and Midwives Registration Board (Wood & Papps, 2001). To offer an undergraduate degree in nursing an
organisation is required by the NCNZ to ensure that: “In the first instance, institutions must be accredited by the tertiary education quality validation agency, i.e., Council for University Academic Progress (CUAP), New Zealand Qualifications Authority (NZQA), Institutes of Technology and Polytechnics of New Zealand (ITPNZ)” (NCNZ, 2002/2004, p. 1). The main educational function of the NCNZ is to approve, oversee, audit and monitor all nursing programmes, and to ensure that each programme is of a standard and kind appropriate for entrants to a professional register (NCNZ, 2002/2004). The NCNZ prescribes the qualification required for professional registration and for those institutions that wish to construct and deliver pre and post-registration nursing education; the NCNZ provides specific written guidelines. These guidelines are contained in the Nursing Schools/Departments Handbook for Pre-registration Nursing Programmes (NCNZ, 2002/2004). In respect of the curriculum framework for an undergraduate degree in nursing there is only one page of prescriptive text for educational providers.

In those guidelines reference is made to the overall ratio of theory to practice, for which the NCNZ requires that the curriculum provide a minimum 1500 hours of theory and a minimum 1500 hours of practical experience for each student (NCNZ, 2002/2004, p. 4). The NCNZ normally expects a student to complete their nursing degree over three academic years. However, the NCNZ also makes provision for an extension or a reduction of that timeframe based upon individual circumstances. The content of theory and practice offered to student nurses in New Zealand is also prescribed by the NCNZ. There are 14 broad headings for theoretical content and seven broad headings in respect of the content for practice. The brevity in the detail of the programme mandated by NCNZ suggests that whilst the overall substance of a programme is prescribed the specifics of that programme could be interpreted quite differently by each tertiary institution.
In many respects the School of Nursing at the selected tertiary institution shares similar characteristics to the other schools or departments of nursing in New Zealand. For example, the development of each school has a common history, each school is funded by the same government agencies, and the nursing courses within the school conform to the mandatory requirements of the statutory bodies. However, as well as some shared characteristics there are also some important individual features that are unique to each specific school. Those features include such relatively permanent characteristics as geographical location, buildings and the arrangement of teaching spaces. In addition there are inevitable differences in human resources, physical learning resources and a curriculum that is both philosophically and operationally unique to each school or department of nursing. The individual characteristics which are specific to the experience of being an undergraduate student nurse at the college also form the context in which the participants in this study work and learn. It is therefore considered important that before elaborating upon the approaches taken to collect data for this study that those characteristics are described.

The place, the people and the nursing degree at the college

At the time of the study the college is formally defined as a New Zealand Government Institute of Technology. The college, formerly known as a Polytechnic, is located in a purpose built educational building which was opened in 1999. The Polytechnic offered the Diploma in Nursing from 1984 and then as a Bachelor degree in Nursing from 1993. In the three years that preceded data collection, the college experienced significant expansion and established campuses in other regions. Amongst a wide range of vocationally focused programmes the Bachelor degree in Nursing is also offered in each of these regions. However, with direct reference to this study, all the participants are drawn from one urban campus where each year prospective students could choose
to enrol on the nursing degree at either the start of the first or second semester. These two start dates, which mark the beginning of the programme for separate intakes of student nurses, are referred to by both lecturers and students alike by the shorthand expressions of the full-year and the mid-year intakes respectively.

From the day that the student nurse begins her/his programme the student nurse is placed in a group or intake with other student nurses from the same intake. The full year intake usually starts with approximately 100 students and the mid year intake starts with approximately 40 students. There are some occasions when lectures are delivered to the whole intake but more usually the number of students in each class is between 20 and 25 students. During the period of data collection, the selected campus had approximately 300 nursing students in six separate intakes across all three years of the degree programme. Historically, the overwhelming majority of student nurses at the college were women and correspondingly most of the 43 nursing lecturers at the college are women. At the time that the study was conducted the academic staff of the school of nursing comprised 38 women and 5 men.

The NCNZ specified that the head of the school or department must be a nurse with a Masters Degree and that the majority of those who teach nurses must be nurses with a tertiary qualification in advance of a bachelor degree (NCNZ, 2004). Therefore, for most of the time that nursing students are on the campus they are taught by lecturers who also hold a nursing registration, and it is not until the student nurse is exposed to practical experience in either the hospital or in the primary health care setting that they encounter in any significant numbers, nurses or other health care workers. It is important to state that it is this second category of nurse, the clinical nurse in the real world of nursing, and not the nursing lecturers, who occupy the roles to which the student nurses aspires.
Orthodox gap-fixing initiatives at the college

There are two documents in particular that are freely available to staff and students which evidence the extent to which the nursing degree is influenced by the orthodox position. The first is the curriculum document which makes regular reference to the conventional notion that theory and practice are separate. The second document is the student handbook which is provided to all students at the very beginning of the programme. In the handbook there is regular acknowledgement of the orthodox position. For example in the section that specifically provides students with information about practical experience, the following was explicit:

Your practice experiences (practicum) are an important time for learning. Each practicum provides you with the opportunity to practise and apply the nursing skills and knowledge that you have learned in the classroom in the ‘real world’ of nursing (Student Handbook, 2005, p. 49).

Furthermore both of these documents contain evidence that the orthodox position influences the overall design of the nursing degree. The specific features of the overall design that are of importance in the context of this study will be discussed in the following sections.

Course design

The structure of the nursing programme at the college corresponds with other forms of what has been referred to as “the normative professional curriculum” (Schön, 1989, p. 8). In this form of curriculum it is usual to sequence basic scientific knowledge (formal theory) in advance of applied scientific knowledge (simulated practice) and finally to provide the opportunity for students to learn to apply formal theory to everyday practical problems pertinent to the focus of their particular profession (a clinical practicum). The normative professional curriculum is the most popular basis for the design
and sequencing of programme content in the school of nursing. In this design a mix of clinical experience is interspersed by periods of clinical placements and as the student progresses from year to year the period of clinically-based learning experience increases and the period of classroom-based learning decreases. The rationale for this pattern, which is not uncommon in other forms of vocational education, is that the gradual exposure to the world of work prepares students for their future role as a registered professional (Schön, 1987; Eraut, 1999).

In the context of nursing education it is usual for formal knowledge to be presented in advance of the opportunity to apply that knowledge in a practical situation (Agyris & Schön, 1987). It is this pattern that formed the ratio of clinical and theoretical experiences for student nurses at the college.

**The ratio of theoretical to practical components**

For students who choose to study at the college, each of the three years of study has a different amount of clinically-based learning experiences or practicum. The sequence in which each practicum occurs and the maximum length of each practicum is contained in the following table:

**Table 1**

The sequence and duration of practicum hours for student nurses:

<table>
<thead>
<tr>
<th>Year</th>
<th>(Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year One</strong></td>
<td></td>
</tr>
<tr>
<td>Medical and Surgical nursing</td>
<td>40</td>
</tr>
<tr>
<td>Family health nursing</td>
<td>40</td>
</tr>
<tr>
<td><strong>Year Two</strong></td>
<td></td>
</tr>
<tr>
<td>Medical and surgical nursing</td>
<td>120</td>
</tr>
<tr>
<td>Medical and surgical nursing</td>
<td>120</td>
</tr>
<tr>
<td>Disability nursing</td>
<td>120</td>
</tr>
<tr>
<td>Mental health nursing</td>
<td>120</td>
</tr>
</tbody>
</table>
Year Three

<table>
<thead>
<tr>
<th>Maternal and family health nursing</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community nursing</td>
<td>120</td>
</tr>
<tr>
<td>Mental health nursing</td>
<td>120</td>
</tr>
<tr>
<td>Medical and Surgical nursing</td>
<td>120</td>
</tr>
<tr>
<td>Elective</td>
<td>240</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td><strong>1280</strong></td>
</tr>
</tbody>
</table>

The first year of study, referred to as '100 level', is predominantly classroom based with two weeks (80 hours) of patient or client focused practical experience. This means that for the student nurse in the first year of the programme the majority of practical skills are developed in simulated classroom based learning. The second (200 level) and third (300 level) years of study are structured so that the student is incrementally exposed to increased periods of practical learning experience and the work of clinical nurses. To facilitate clinically based learning or the practicum, there are four clinical placements in year two, each of which is of three weeks (120 hours) duration, and there is a total of twenty weeks (800 hours) learning experience for the student in the third and final year of study. These clinical placements match the categories of practical experience demanded by the NCNZ. It can be seen from the table that the potential total hours accumulated by student nurses from the various clinical placements is 1280. This total clearly falls short of the statutory requirement of 1500 hours (NCNZ, 2002/2004). However the NCNZ permits that up to ten percent of the minimum practice hours could be gained: “In a laboratory/simulated setting” (NCNZ, 2002/2004, p. 7). The very small margin of error between the required hours and the actual hours means that the potential for students to do less than the required practicum hours as a result of sickness or other personal commitments is very high. The reduced time available for students to undertake practicum work in this and other undergraduate programmes compound the stress for students as they attempt to learn whilst in the clinical context.
It could be suggested that at times the circumstances for the contemporary student are similar to those described by Salvage twenty years earlier.

The school of nursing attaches great importance to the practicum as a learning opportunity and in an effort to minimise student stress and maximise student learning in the practicum, there are some well established educational practices within the school of nursing. These practices closely correspond to the three categories of gap-fixing initiatives. Those are the initiatives of teaching and learning, role enhancement and relationship building, which were described in chapter two.

**Teaching and learning initiatives**

In the context of this study it is important to re-emphasise that exposure to patient contact, and contact with nurses other than the nurses who have an educational role as lecturers, increases as the student progresses through the programme. Therefore there are a number of teaching and learning initiatives intended to assist the student to progress successfully. The first to be discussed concerns the way that the student nurse acquires a range of practical skills.

In the first year of study the vast majority of practical skills are taught by nursing lecturers in a designated classroom called the 'Skills Laboratory'. The Skills Laboratory is a purpose built classroom designed with input from nurse educators that aims to replicate the layout of a hospital ward. The Skills Laboratory is well equipped with a variety of contemporary medical and nursing equipment as well as a range of mannequins that are used to simulate some of the more common nursing procedures. The students usually find that these learning experiences are rewarding, but at the same time a frustrating experience as most students express an eagerness to work with 'real' patients and 'real' nurses. In one focus group discussion between second year students one participant summarises these
feelings when she comments on her experiences in the second year of the degree:

I have really enjoyed this year. Last year seemed such a drag with so much theory and bugger all nursing. But this year started off smack bang into the guts of it and now I can see why we needed to do all the theory that we did.

The nursing programme at the college is of a modular design, for which there are ten modules or units in each of the three years of the programme. In the design of the curriculum a conscious effort was made to integrate theory and practice and the notion of integration is reflected not only in the phrasing of the learning outcomes and content of some units but also in the title of those units. For example, one unit which is a mix of classroom based study and a practicum in community health settings has the title: *Fundamentals of Nursing Theory and Practice: Community*. Furthermore the integrated theory and practice units are assessed using a combination of written assignments and an assessment tool that is specifically designed for use in a practical context. It is this assessment tool and a number of other initiatives that intend to improve learning whilst the student is engaged in a practicum placement, which are the next set of teaching and learning initiatives to be discussed.

The specific assessment tool for practicum learning is based upon the NCNZ competencies for entry to the professional register (NCNZ, 1999). These generic professional nursing competencies were adapted by the academic staff of the school of nursing so that they could be used in an educational setting. The principles of the assessment process are basically the same for each of the 11 practicum placements across the three years of the programme. However, the documentation is adapted so that student nurses know that as they advance in their programme, so the complexity of performance correspondingly increases. As the tool is used for each practicum the tool is one with which all students and academic staff soon become familiar. Before a student is allowed to enter a practicum placement they are
required to develop a number of personal learning objectives. The suitability of those objectives was discussed with the same lecturer who supports, counsels and assesses the student during a practicum. The combination of the learning targets contained in the assessment tool and the personal objectives set by each student contributes to an individual learning plan for each practicum placement. In addition, and as part of the overall assessment process, the student has the opportunity to undertake a written self assessment of their performance during the practicum. The lecturer is expected to combine the dual roles of support and assessment when working with students in the practicum. At times the combination of roles results in a common professional dilemma. That dilemma is succinctly recalled by a lecturer during a group discussion:

I wonder where my teaching responsibility starts and ends in terms of their understanding. What should they [the student] do? What should I do?

The success of a lecturer in the joint roles of supporter and assessor is clearly affected by individual perceptions of the quality of the relationship between those involved. In the third year focus group discussion, one student nurse feels very strongly about some of her experiences. She informs the discussion group that:

Practicum are a sad experience -- some practicum lecturers only feel good if they fail someone, usually someone who is already marginalized for some reason. The practicum lecturer gets an ego boost i.e. their tutors have failed them by not providing what the student needs from failing someone because then they can go on about maintaining standards. I have never seen a student who has failed but I have seen students who have been failed by their tutors.

The comment from this participant is strong and it is one that leads to the next category of educational initiatives. Those are initiatives that concern the importance of interpersonal relationships in the practicum placement.
Role enhancement and relationship building initiatives

Access to the clinical environments, wherein practical-based learning occurred, is first negotiated in a formal contractual arrangement between the college and the various agencies in the vicinity of the college that provide health care. This is a sensitive process and one that has fiscal, legal and human resource implications for the parties to the contract. Therefore, to accommodate classroom and practical experiences for students in each of the three years of the programme, and to avoid overloading the clinical areas with student nurses, the annual practicum timetable is organised in such away that students from different years of the programme are not placed in the same clinical setting at the same time. An impact of this well intended strategy is that whilst most students usually have some form of peer support during a practicum, the opportunity for less experienced students to learn from the more experienced students is virtually absent from the programme.

During the practicum the student is placed in a range of locations all of which are outside of the campus and some of which are geographically distant from the school of nursing. In some cases that distance is over 100 kilometres from the college. The most frequently used placements are those located in hospital wards in which the student learns and works as part of the nursing team. In other circumstances students has a one-to-one relationship with a nurse who works primarily on their own but forms part of a community nursing team. Therefore, and in an effort to enhance learning opportunities for the student two key interrelated roles were developed. The first role is the supervisory relationship between the clinician who works alongside the student and who was usually referred to colloquially as the ‘buddy nurse’ and the second concerns the liaison role of the nursing lecturer. In all practicum experiences, students are expected to attend a clinical placement between Monday and Friday, for which they are directed to follow the working pattern of the nurses who usually
works in that clinical area. This is an arrangement that presents some difficulties for the provision of effective student support.

First, nurses in hospitals usually follow a working pattern that includes all seven days of the week and work hours that provide patient care over a 24 hour period. This means that student nurses who are placed in a hospital ward, more often than not, have inconsistent support from a ‘buddy nurse’. Second, the nursing lecturer who is located in a different institution has concurrent classroom and administrative workloads to fulfil, and is required to support more than one student at a time. This is a complex activity and requires the lecturer to be sufficiently well organised so that visits to support and assess students can be scheduled. Third, there are inevitable and understandable professional differences between the educators and clinicians. The former has a concern for student learning and the latter is appropriately more concerned with high standards of patient care. The resultant tensions arising from the educational orientation of the lecturer and the clinical orientation of the clinician, at times impacts upon the quality of the learning experience for the student. In an effort to address some of these professional differences the school of nursing, in partnership with the health agencies, offers a preceptorship training programme for clinicians who wish to act as a ‘buddy nurse’ for student nurses. In addition, those clinicians who support student nurses are offered a scholarship by the college so that they could further their own professional development. In a reciprocal arrangement, nursing lecturers are provided with time away from teaching duties to update their clinical skills in one of the hospital or community settings that are the responsibility of the District Health Boards.

In the general discussion that is focused on those ‘gap-fixing’ initiatives reported in the nursing literature, it was highlighted that merely having a named support person was not enough for student nurses to learn effectively. The quality of relationship between the two individuals, the mentor and the student, was reported to be central to the effectiveness of the
supervisory relationship (Severinsson, 1998; Spouse, 2001). Of the quality of the supportive relationship during practicum, one participant during the third year focus group discussion remarks:

> The quality of nursing supervision and mentoring in a ward situation is too unpredictable. Get along with your buddy and you will succeed. Get along with your lecturer and you will be alright.

**Conclusion**

The students, academic staff and clinical staff who between May 2003 and November 2004 participated in this study, were all associated with the Bachelor of Nursing degree offered by the School of Nursing at tertiary institution in New Zealand. The perspectives of those participants may contain features which are a reflection of the way that many nurses think about the relationship between theory and practice. However, it must be acknowledged that the data were collected in a particular time, from particular people and in a particular location. Therefore, before any detailed account of the methods by which data were gathered from the participants is presented, it was considered very important that the key factors that shaped nursing education at the particular site at which the data were collected were outlined. The data obtained from the student nurses is central to this study and these data were ultimately informed by the specific experience of being a student nurse at a specific college and at a particular point in the history of the nursing profession.

The meaning of the theory-practice relationship from the perspective of the student nurse is a topic about which little is currently known or written, and for such topics grounded theory (Glaser & Strauss, 1967) was considered to be a suitable research method (Carpenter, 1995; Van Maanen, 1990). In this study the primary forms of data collection were a series of focus group discussions and individual interviews with a number of participants. One feature of the focus group discussions, which differed from most other forms of focus group discussion, was that
whilst the participants and the moderator were in the same room, networked personal computers were used to record data. The detail of the first phase of data collection, which was a series of computer mediated focus group discussions, will be outlined in the next chapter.
CHAPTER FOUR
THE GROUNDED THEORY METHOD, THE PARTICIPANTS, FOCUS
GROUPS AND COMPUTERS

The previous chapter described the general population and the educational culture from which the participants were drawn. In that chapter it was also argued that the data from the participants was influenced not only by the personal experiences of the participants but also by the historical forces that had shaped the contemporary context for nursing education. In this study data were collected using semi-structured interviews during two phases of data collection. The first of these phases was a series of separate focus group discussions that involved registered nurses, third year student nurses, second year student nurses and nursing lecturers respectively. The second phase was a number of individual interviews with student nurses. The direction of the second phase of data collection and the questions that were generated for that phase emanated from the analysis of the focus group discussion data. Therefore, and for the purpose of clarity, each of the phases of data collection and analysis will be reported in separate chapters. The specific foci of this chapter will be the decision to adopt the grounded theory method, the processes by which participants were recruited and then protected from harm during the study, and the use of networked personal computers for the recording of data during the course of an oral focus group.

Selecting a research design
For the conduct of any research a choice has to be made from two possible strategies. The two strategies are usually referred to as experimental type or quantitative research, and naturalistic or qualitative research respectively (Depoy & Gitlin, 1994; Talbot, 1995). The key differences between the two strategies relate to the philosophical basis upon which each design is predicated (Crotty, 1998). The decision to select a qualitative research design for this study was influenced by three
important and interrelated considerations (Depoy & Gitlin, 1994). The first consideration was to decide which design would best serve the purpose of the research. The second was the level of personal comfort that the researcher had with the epistemological assumptions of quantitative or qualitative research in relation to the nature of the topic under investigation. The third was to take into account how the knowledge generated by the research would contribute to the existing body of knowledge on the topic.

In respect of the first of these considerations, the explicit purpose of the study was to explain how student nurses experience the relationship between that which they are taught, that which they have learned and that which they perform. Following on from that explanation, a number of recommendations would be made to enhance the relationship between theory and practice in nursing education. With reference to the second consideration, each student understands the relationship between theory and practice in nursing in terms of an individual experience. Therefore, as no two students could have the same experience, no two students could be expected to report the meaning of that experience in the same manner. Finally, and in response to the recommendations that would arise from the study— it was acknowledged that the study would be conducted in a particular time and a specific place in the history of nursing education. Therefore, those recommendations would have most relevance to those who participated in the research, and it would not be appropriate to make far reaching claims for their relevance in the wider context of nursing education.

The choice of a qualitative design has implications for the evaluation of the research. In quantitative research, the notions of validity and reliability are important considerations for which the research is designed so as: “...to minimize the threats posed by extraneous factors and bias through maximizing control over the research action process” (Depoy & Gitlin, 1994, p. 101). However, it is widely argued that subjectivity is an essential feature of qualitative research. Therefore qualitative research cannot be evaluated by the same criteria as quantitative research (Denzin & Lincoln, 1998; Talbot, 1995). For qualitative studies the notions of internal and external validity are replaced by the concept of
trustworthiness for which the notions of credibility and transferability are central (Talbot, 1995; Woods & Catanzaro, 1988). To ensure credibility or transparency the researcher must make explicit the processes by which data were collected and analysed, and how the researcher demonstrates reflexivity during the various stages of data collection and analysis (Altheide & Johnson, 1998). In respect to the notion of transferability, the central feature of this concept is that the results of the research should be rich enough so that those who read the results should be able to transfer them to another context (Talbot, 1995).

The grounded theory method
The relationship between theory and practice in nursing has been widely discussed in the nursing literature. Usually the literature has affirmed that a gap existed between theory and practice and suggested steps were taken to address the problems produced by the presence of a gap. What was clearly missing from this important discussion was any extended explanation of how the student nurse experienced and then managed any dissonance in the relationship between theory and practice. This project, ‘Rethinking the gap: an investigation of the relationship between theory and practice in nursing’ explores the relationship between theory and practice in nursing from the perspective of student nurses, which is a perspective about which little was known or written. For such topics the grounded theory approach was considered to be an appropriate research method (Carpenter, 1995; Glaser & Strauss, 1967; Hutchinson, 1993; Van Manen, 1990).

The grounded theory method was developed in the nineteen sixties by two sociologists, Barney Glaser and Anselm Strauss (Eaves, 2001; Hutchinson 1993; Porter, 1995; Strauss, 1987). The grounded theory method has roots in the philosophical perspective of science known as symbolic interactionism, which was associated with Herbert Blumer who considered that:

Symbolic interactionism is a down to earth approach to the study of human group life and human conduct. Its empirical world is the natural world of such group life and conduct. It lodges its problems in this natural world, conducts its studies in, and derives its interpretations from such naturalistic studies (Blumer, 1969, p. 47).
A central tenet of symbolic interactionism was the contention that meaning, and the social actions associated with meaning, were neither fixed nor immutable. Instead, meaning was subject to continuous change through a process of social interaction that involved the mediation and negotiation of symbols (Becker, Geer, Hughes & Strauss, 1961; Berger & Luckmann, 1968; Blumer, 1969; Charmaz, 1990; Hutchinson 1993; Porter, 1995). The aim of symbolic interactionism was to: "...explain social actions and interactions in terms of the meanings that those actions have for social actors" (Porter, 1998, p. 85). To avoid the potential for chaos that may be produced by idiosyncratic interpretations, unconscious agreements are reached within social groupings on the meaning of symbols and symbolic behaviours. In any given context, this informal agreement enables sense to be made of the social actions of oneself and others. The meaning that is attributed to physical entities or abstractions is therefore consensual and unconsciously constructed by the participants in that social action (Blumer, 1969). For example, the standard configuration of a physical space that has four walls, a ceiling, floor, windows and a door constitutes a room. A room has of itself no specific purpose, no specific rules for behaviour, and the way in which individuals relate to each other in that space is determined by the meanings constructed by the individuals who occupied that space. In an educational institution a room may well be designated as a classroom with desks and chairs arranged in a particular manner; often in rows and facing a white-board or projection screen. The symbolic exchanges, which include spoken language and the other roles that people adopt in that room, are often much more formal and structured than if the room is designated as a student or staff common room with a different arrangement and different types of furniture.

The notion of a gap between theory and practice in nursing has no physical form. Yet, when that concept was represented by spoken or written language it was transformed into an experience with apparent physical manifestations that were encapsulated by particular words such as 'links', 'bridges' or 'chasms'. The role of language is central to the construction of meaning in that: "...meanings derive from shared interactions which turn on the pivotal role of language" (Charmaz, 1990, p. 1161). Thus of direct interest to this study, the relationship between
theory and practice in nursing, was the way that nurses and student nurses in particular spoke about that relationship as a reflection of how they experienced the relationship.

An overview of the grounded theory method
Grounded theory (GT) is a general research method in which theory is developed from the social context in which the data originate, and the intention of GT is to uncover the social processes that fashion human behaviour in social life (Glaser & Strauss, 1967). As a research method grounded theory has been applied across a wide range of different academic disciplines and has employed different forms of data collection. Some of the many illustrations of studies that adopted a grounded theory approach can be found in Examples of Grounded Theory: A Reader (Glaser, 1993) and Grounded Theory 1984-1994 (Glaser, 1994). These are compilations of research reports in which the grounded theory method was employed. These collections contain report studies from such apparently diverse research topics as health care, education, customer relations in the retail of milk, and the experiences of prison inmates. The variety of research topics even amazed Glaser who stated that: "It came as a surprise to this author in 1994 that grounded theory is used all over the world and how widespread its use is in many disciplines" (Glaser, 1994, p. 4). Some thirty years after the dissemination of grounded theory Strauss and Corbin commented upon the popularity of GT and noted that: "Researchers in practitioner fields such as education, social work, and nursing have increasingly used grounded theory procedures alone or in conjunction with other methodologies" (1994, p. 276).

For those researchers who chose to adopt the grounded theory method it was important that any theory developed by the researchers was embedded in, and therefore developed from the social actions of the participants. It followed that the development of robust theory was reliant upon the standpoint of participants or actors in that: "As researchers, we are required to learn what we can of their interpretations and perspectives. Beyond that, grounded theory requires, because it mandates the development of theory, that those interpretations and perspectives become incorporated into our own interpretations" (Strauss & Corbin, 1998, p.
To temper researcher perceptions and biases, that were inevitably present when the researcher ascribed meaning to the words of the participants, Glaser advised that concepts arising from data analysis should be allowed to emerge from the data rather than being forced upon the data (Glaser, 1992). This required the researcher to re-visit the data time and time again, making memos and revising initial codes. For Glaser, the notion of emergence was an important part of data analysis. It was a process that required researchers to engage with the data, or in the expression used by Stern: "... get dirty with the data" (1995, p. 57). Emergence also demanded patience as the concepts present in data must be allowed to surface from, rather than be imposed upon, the data (Glaser, 1992). Indeed, Glaser even regarded that the use of computer software to analyse data masked the abstractions that were present in the data and contributed to 'forcing' the data (Glaser, 2002). The point at which a theory was said to have emerged was when data saturation had been reached and no further new concepts were identified (Glaser & Strauss, 1967; Hutchinson, 1993).

The participants who contribute to a study are both the source of data and through the process of constant comparative analysis, verifiers of theory (Glaser, 1998; Glaser & Strauss, 1967; Strauss & Corbin, 1998). However, as participants may not discriminate between concepts and descriptions Glaser cautioned against reliance on the support of participants as a means for the verification of theory. He argued that: "Inviting participants to review the theory for whether or not it is their voice is wrong as a "check" or "test" on validity" (2002, paragraph 6). Thus, as a grounded theory study advanced, it was important for the researcher to continually refer back to the sources of data, compare data and be sensitive to opportunities to investigate new sources of data. This required a systematic approach to data collection and data analysis, which was interwoven and iterative. The constant comparison of each item of datum as the analytic process for generating grounded theory was generally considered to be a central tenet of the grounded theory method outlined by Glaser and Strauss (1967). The grounded theory method may produce a theory that is substantive or formal in nature. In the former the theory had direct application and 'fit' with the topic being investigated. In the latter, the
theory had a higher level of abstraction and application (Glaser, 2002; Strauss & Corbin, 1998). The theories that emanated from this analytic process prompted the comment that:"... grounded theories, which are abstractions quite unlike any other theories, are nevertheless grounded directly or indirectly on perspectives of the diverse actors toward the phenomena studied by us" (Strauss & Corbin, 1998, p. 173).

The relationship between grounded theory and nursing
In 1967, The Discovery of Grounded Theory was published simultaneously in the United States of America and the United Kingdom which presented the grounded theory method to a wider academic community of researchers and graduate students (Strauss & Corbin, 1998). However, it can be evidenced that from the outset the development of grounded theory, nurses and nursing had clear historical links with the origins of the grounded theory method. The first link was that during their time at the University of California, Glaser and Strauss collaborated with nurses and other health professionals on a project that explored the attitudes of staff towards the dying patient in the hospital setting (Glaser & Strauss, 1966). In the conduct of this project the important features of the constant comparison of data and theoretical sampling, which were to become cornerstones of the grounded theory method, were used and of which it was stated:

...a concern with death expectations and awareness guided the preliminary data collection; the systematic formulation of these concepts and of the paradigm governed further data collection and the ensuing analysis; and this book completes the formulations on the theory of the awareness of dying. These formulations should guide others both in research on dying and in developing other theories which must take into account the awareness of people (Glaser & Strauss, 1966, p. 287).

It was within this study of the dying patient that the method, yet to be named the grounded theory method, was developed or as Glaser preferred "discovered" (Glaser, 1998). A second link with nursing was that Glaser and Strauss also worked on nursing programmes and supported the work of nurse researchers. One such nurse was Jeanne Quint Benoliel who worked with Glaser and Strauss and who was regarded as the first nurse to undertake both joint and individual research that used the grounded theory
method (Hutchinson, 1993). It would appear that by accident very early in the history of the grounded theory method, nursing was studied and nurses were exposed to the key principles of grounded theory. It was argued that these two factors encouraged nursing researchers to make use of the grounded theory method in their own work (Eaves, 2001).

Almost three decades after her initial involvement with grounded theory, Benoliel reviewed 146 grounded theory publications written by nurses. Her analysis identified four phases in the development of grounded theory in which nursing had a key role. These phases, which were considered clear evidence of the influence of nursing in the development of grounded theory she called the decades of "discovery", "development", "diffusion" and "diversification" (Benoliel, 1996). In addition by undertaking this review Benoliel had also demonstrated that across a period of twenty-four years there was clear evidence of the utilisation of grounded theory by nurse researchers (Benoliel, 1996). The case to adopt a grounded theory approach to investigate the gap between theory and practice in nursing was strengthened following a search of the CINAHL database of the years 1996 and 2004. Using the key words 'grounded', 'theory', 'nursing', 'research', and 'report' this search revealed 69 published items that had as their focus grounded theory method.

Amongst these reports were a number that investigated aspects of the relationship between theory and practice in nursing and for which a variety of specific data collection methods were used. For example, the introduction of a new programme for preparatory nursing education in the United Kingdom prompted Gray and Smith (2000) to undertake a three-year grounded theory study. To collect data for that study they interviewed participants who were also required to keep a personal diary. In a Swedish study Granskar, Edberg and Fridlund (2001) also adopted grounded theory to generate a theoretical model to explain how student nurses experienced their first professional encounter with psychiatric clients. To uncover the factors in the learning environment that enhanced or impeded the development of critical thinking amongst student nurses a grounded theory study in Canada selected interviews as the chosen method (Myrick & Yonge, 2001). The use of ‘intuition’ as a particular form of theorising in nursing practice was acknowledged as a common occurrence by
McCutcheon and Pincombe (2001). Based upon this assertion the authors employed the combination of group interviews and a Delphi survey to determine whether nurses considered the use of intuition to be valid. A series of in-depth interviews provided the data for a grounded theory approach for a study that explored the ability of nurses who had a primary role as a lecturer to manage the dual roles of clinician and teacher in “...the classroom and practice area” (Ramage, 2004, p. 287). On a similar topic Fairbrother collaborated with a colleague with a background in medical education and employed the grounded theory method to gain insight into the challenge of managing multiple clinical and educational roles. For the collection of data the authors engaged in semi-structured interviews with lecturer-practitioners from six different professions (Fairbrother & Mathers, 2004). All of these studies, each of which had an educational focus, acted in support of the decision that a grounded theory approach was suitable for an investigation of the relationship between theory and practice in nursing.

This discussion would be considered incomplete without reference to the dispute between Glaser and Strauss that concerned the analytic procedures for coding data. The grounded theory method demands that data collection and data analysis are concurrent activities, and that researchers who select the grounded theory method are advised to begin analysis soon after the first collection of data (Glaser & Strauss, 1967; Miles & Hubermann, 1987; Strauss, 1987; Woods & Catanzaro, 1988). However, the two originators of grounded theory eventually disagreed on the processes by which data should be analysed during a research project (Benoliel, 1996; Charmaz, 2000; Eaves, 2001; Glaser, 1992; Glaser, 2002; Strauss & Corbin, 1990).

The analytical debate
The widespread diffusion of grounded theory and the scarcity of grounded theory mentors meant that novice researchers, particularly those engaged in postgraduate study had no one to train them in grounded theory methods. Instead these researchers were primarily guided by that which had been written about the grounded theory method (Glaser, 1998). This was termed "minus-mentoring" (Stern, 1995) and consequently in the absence of close supervision, researchers inevitably departed from the original principles of
grounded theory. It has been argued that in general, this was a departure that made a positive contribution to the growth and dissemination of grounded theory (Benoliel, 1996; Glaser, 1998). However, in 1990 Anslem Strauss collaborated with Juliet Corbin and produced *The Basics of Qualitative Research*, in which they advocated a particular procedural analysis that took the form of a prescribed conditional matrix that: "... helps towards specifying conditions and consequences, at every level of scale from the most "macro" to the "micro" and integrating them into resulting theory" (Strauss & Corbin, 1994, p. 175). The detail of this particular procedural advice produced a particularly vehement and protracted riposte from Glaser, who considered that Strauss and Corbin had developed an entirely different form of analysis than that which was contained in the original formulations of grounded theory. He stated that Strauss had engaged in: "...an irretrievable, irresistible shift from the fundamental point of grounded theory" (Glaser, 1992, p. 44). According to Glaser the shift was a major deviation from the cornerstone principle of emergence. Emergence was a principle that he considered central to grounded theory method (Glaser, 1992; Glaser, 1998). For the researcher who selects grounded theory there were two important lessons from this dispute. The first was that polarisation into either Glaser’s or Strauss’ respective camps should be avoided, and second that as most, if not all research projects must be completed in a limited period of time, the merits of the techniques for data analysis proposed by either Glaser or Strauss and Corbin should be incorporated into the analysis of data.

The epistemological roots of grounded theory, the history of the development of grounded theory and the utilisation of grounded theory for nursing topics that were related to this study, reinforced the decision to select grounded theory as the primary research method in this study. For the specific method of collecting data, the researcher who seeks to understand the meaning of a particular experience from the point of view of the individual, the language used by individuals to describe that experience was a rich and authentic source of data (Fontana & Frey, 1994; Holloway & Wheeler, 1996 Kvale, 1996; May, 1993). Thus for this study semi-structured interviews in focus groups and one-to-one between the researcher and the participants were selected as the primary method to gather data.
Focus group interviews

For this study data were collected from participants during one of either a group or an individual interview, and for the first phase of data collection a series of focus groups were convened. The attractiveness of focus groups for nursing research was evidenced by the variety of nursing topics for which the focus group interview was considered an appropriate method (e.g. Barker, Jackson & Stevenson, 1999; Corlett, 2000; Cutcliffe, 1997; Darbyshire, 2004; 1999; Hummelvoll & Severinsson, 2002; Kitzinger, 1995; Manias & Street, 2001; McCutheon & Pincombe, 2001). The conduct of the focus groups in this study differed from the usual form of focus group discussion in that personal computers (PCs) were used as an interface between each participant and the moderator during the course of an oral focus group discussion. This approach to data collection, which retained many of the features of spoken exchanges and also captured the advantages of on-line discussion, was termed Synchronous Computer Mediated Group Discussion (SCMGD).

To aid the researcher, who may select the focus group as a form of data collection, a great deal of advice was offered on how to formulate and then conduct focus groups (Hudson, 2003; Kreuger, 1994; Mc Lafferty, 2004; Morgan, 1997; O'Donnell, 1988). More specifically, Morgan referred to the "four rules of thumb" (Morgan 1997, p. 34). Briefly, these rules of thumb advised that: the number of participants in each group should be between six and twelve, that no more than five groups should be convened for each project, that each group should be composed of individuals who know the topic but not necessarily each other well, that the trigger questions should be prepared in advance, and that moderator involvement should be unobtrusive and facilitative rather than intrusive and directive. In the nursing literature the most commonly reported procedure for the conduct of a focus group discussion was one in which the researcher assembled a number of participants in the same room, recorded the contributions of those participants on an audiotape, made field notes, and at a later date, for the purposes of data collation and analysis, the audiotape was transcribed either by the researcher or a third party (Corlett, 2000; Cutcliffe, 1997;
Darbyshire, 2004; Hummelvoll & Severinsson, 2002; Kitzinger, 1995; Manias & Street, 2001; McCutcheon & Pincombe, 2001).

The recruitment of participants
The data collection began with a series of four computer mediated focus group discussions. The chronological order in which each group was convened, and the composition of each group was as follows:

1. Four registered nurses (May, 2003);
2. Eleven student nurses in their third year of study (June, 2003);
3. Seven student nurses in their second year of study (September, 2003);
4. Eight nursing lecturers employed by one tertiary institution (November, 2003).

In the second phase of data collection, data were gathered from 15 individual interviews with student nurses from the first, the second and the third year of the undergraduate nursing degree. The questions asked during these one-to-one interviews were developed out of the data analysed from the focus group discussions. Therefore it was important that those who agreed to engage in a one-to-one interview had not been influenced by any previous involvement in the study and therefore no participant who was a member of a focus group was invited to volunteer for an individual interview.

All of the participants in the study were associated with the same urban tertiary institution and one of three District Health Boards (DHB) that provided the practical experience for undergraduate and postgraduate student nurses. The period in which data were collected and analysed spanned two academic years and the number of student nurses who were enrolled on the nursing degree at the college who could have been invited to participate was approximately 300. At the time that the study was conducted that number of students was estimated at
approximately 15 percent of the total population of undergraduate student nurses in New Zealand.

Purposive and theoretical sampling

The starting point for data collection was to identify and recruit a purposive sample of participants. In accordance with the two key principles of purposive sampling, participants were required to have certain characteristics and be willing to participate in the study (Flick, 2002; Silverman, 2000). In addition, as one key characteristic for this study was that each participant should be recognised as an expert in the topic of interest, it had to be acknowledged that in relation to the experience of being a student nurse, the student nurse was an expert. This may appear to be an obvious characteristic of student nurses, but with specific reference to the gap between theory and practice in nursing it had previously been asserted that: "... students do not have particular expertise of the gap" (Corlett, 2000, p. 500). This point of view contrasted sharply with Kevern and Webb who considered that: "...student nurses are an underutilized resource in formal assessment of their own experiences, preferences and needs” (Kevern & Webb, 2001, p. 331). For the purpose of this study the student nurse was considered to be the expert informant of their own experiences.

The registered nurses who participated in the study were invited by the researcher in accordance with purposive sampling procedures as they possessed certain characteristics. For the registered nurses it was that they were experienced and expert practitioners. This category of participants had no close personal relationship with the researcher, and each was known to the researcher only via professional networks. The required characteristics of the students were that each student must have completed both theoretical and practical components of their programme. Therefore only students from the second and third years of the pre-registration undergraduate-nursing programme were invited to participate in the first phase of data collection. In the initial sampling neither the lecturers who taught the undergraduate nursing degree nor any students from the first year of the programme were invited as participants. With respect to the
lecturers, they were not invited because it was thought that to inquire into the nature of the relationship between the theory and practice of lecturers, could be interpreted by some lecturers as a question about education not about clinical nursing. The justification for not involving the first year student nurse was that at the time of the study student nurses in their first year had no formal exposure to practicum. Therefore, it was thought that they could not be expected to comment on the specific experience of relating theory to practice in clinical nursing.

One of the strengths of the grounded theory method was that during the concurrent collection and analysis of data it permitted the researcher to follow hunches and leads. It was realised after the second focus group discussion that the initial decision to exclude the lecturers and the first year students as potential participants was based on erroneous assumptions. Therefore it was decided that as data analysis and collection progressed the perspectives of lecturers and first year students must be incorporated into the data collection. The omission was addressed in the theoretical sampling processes associated with the grounded theory method and the additional categories of participants were invited to contribute to the study.

Recruitment for the group interviews

To reiterate, this study had two phases of data collection, the first of which was a series of four focus group discussions and the second a number of individual semi-structured interviews. For both phases, which were conducted with different participants, each prospective participant was provided with an invitation and detailed information sheet in the form of a letter. That letter outlined the purpose of the research and what was expected of participants during the research. The first information sheet related to the conduct of the focus groups (Appendix I) and the second information sheet related to the conduct of the individual interviews (Appendix II). For practical reasons the process of recruitment varied slightly for each category of participants. In respect of both the registered nurses and nursing lecturers the letter was sent to the work or home address of each person. The student population was somewhat larger and
to gain access to students from each year group the researcher made the following arrangement with a colleague. At the start of a large group lecture the researcher requested the allocation of a short period of time to distribute the letter, outline the purpose of the study, and respond to any immediate questions. All invitees who wished to act as participants were requested to inform the researcher by either email or telephone of their intention, and the researcher followed up each affirmative response to confirm the arrangements for the focus group discussion.

**Registered nurses (Focus Group RN)**

The inclusion of registered nurses in this study may appear to be outside the population of specific interest. However, the registered nurses were intentionally included as it was important to establish if there were significant differences and similarities in the way in which experienced nurses and student nurses perceived and managed any dissonance between theory and practice. Twelve Registered nurses were sent a personal invitation to participate in the study. Of this number, six indicated a willingness to participate and four were able to attend on the scheduled date at the pre-arranged venue. The participants were three women and one man. The nurse with the minimum amount of nursing practice had ten years experience and the one with the maximum had twenty years experience. At the time that the discussion took place the nurses worked in one of the specialist areas of mental health, community nursing, and surgical nursing. The four participants came from diverse national backgrounds —the United Kingdom, the Republic of South Africa, the United States of America and New Zealand —which provided an unexpected range of background perceptions for the study.

**Student nurses 300 level (Focus Group SN3)**

Twelve third year student nurses from one tertiary institution were sent a personal invitation to attend the second pre-arranged discussion group. Of this number all indicated their willingness to participate and eleven attended the discussion group. All of the participants were women who had recently
successfully completed the theoretical and practical components of a three-year nursing degree. At the time of the study the legal framework in New Zealand for professional registration as a nurse required that a student, as first time entrant to the professional register, must be successful in the Nursing Council of New Zealand final examination (NCNZ, 2002/2004). The participants in this focus group were due to enter the final examination one month after the data were collected and were thus considered to be on the verge of entry to professional practice. Amongst this group of students, the stated and preferred initial options for future practice extended to a range of specialities and geographical locations. Indeed, some students had taken steps to seek nursing work in countries other than New Zealand.

Student nurses 200 level (Focus Group SN2)
A third focus group, which comprised second year student nurses, took place approximately two months after the first focus group. An individual invitation was handed to each student who attended a formal lecture that took place eight days prior to the scheduled date of the focus group discussion. There were fifty-six invitations of which nine students indicated their willingness to participate. These students were provided with specific detail in relation to the time and venue. On the day of the discussion, one student apologised because of illness and another did not attend the discussion. In total there were seven participants, all of whom were women and all of whom had successfully completed two semesters of a six semester programme which was spread over three academic years. At the time of data collection each student had been provided with up to thirty-eight weeks classroom based theory and ten weeks exposure to practice based learning. Moreover, and in common with other students, practical experiences had taken place in different care environments under the supervision of different lecturers and different clinical nurses. In relation to the conduct of this SCMGD a particular technical problem arose. Briefly, the problem was that this group of participants were unable to ‘log-in’ to the discussion group using their individual passwords. Therefore, the moderator ‘logged-in’ each of the participants using the moderators’ password. On each monitor screen each participant had the same identifier as the moderator thus this
unplanned arrangement had no impact on the processes and outcome of the discussion and maintained the anonymity of contributions.

*Nursing lecturers (Focus Group NL)*

The researcher was already conscious of the significant role that the nurse lecturers had with student nurses in relation to teaching and assessment but had decided not to include this group in the data collection. However, it became evident in the analysis of data that the perspective of nurse lecturers, who worked alongside student nurses in practicum and were responsible for the summative assessment of the students, would be a very important source of third party data. Therefore a fourth focus group was convened for which an invitation was extended to all nurse lecturers who were known to have a significant role in the delivery and assessment of students in both theoretical and practical aspects of the nursing degree. Of these invitations, eight lecturers agreed to participate in the focus group discussion. The group comprised seven women and one man and their educational expertise covered the range of theoretical and practical components of a nursing degree mandated by the Nursing Council of New Zealand (NCNZ, 2002/2004).

**Ethical considerations**

For each phase of data collection formal ethical approval was granted by Victoria University of Wellington Ethics Committee and the ethics Committee of the host organisation of the majority of participants. As the first phase of collection involved a number of employees of a District Health Board (DHB) it was thought that formal approval would be required from the ethics committee of that DHB. Therefore before any invitations in the form of a letter (Appendix III) were sent to registered nurses advice was sought from the Director of Nursing at the DHB (Appendix IV). The Director of Nursing arranged for the researcher to meet with a Professor of Nursing employed by the DHB. The Professor advised that as the nurses would be offering their personal perceptions and would contribute in their own time there was no requirement to seek approval from the relevant ethics committee of the DHB.
To ensure that participants were made fully aware of their rights with regard to data collection, storage and dissemination each participant was presented with a detailed consent form (Appendix V) immediately prior to each interview. In addition time was afforded for the participants to read and then discuss the detail of the form with the researcher before signing the form. In addition to these general procedures that ensured that participants were fully informed, there were some ethical considerations that were specific to each category of participant.

Ethical considerations: registered nurses

With specific reference to the registered nurses who participated in the study, the following ethical concerns were identified and addressed. One District Health Board (DHB) employed the majority of the clinicians. Each potential participant was invited on the basis that as an individual they would be required to give freely of their time. The researcher had no supervisory or teaching role with any of these potential participants, as a consequence of which there were no conflicts in respect of "authority" or "power" in relation to the registered nurses who chose to participate. Although the registered nurses and the researcher had no ongoing relationship there remained the potential risk that in the course of a focus group discussion these nurses might share aspects of their performance that demonstrated professional weaknesses on their part. To counter this potential risk each registered nurse was given the same written information with reference to the storage and destruction of data that was presented to all participants.

Ethical considerations: student nurses

The study was conducted in one tertiary institution in New Zealand, which was the same institution from which the student nurse participants were drawn. Furthermore, the researcher was a lecturer at that institution and taught on the course that resulted in a Bachelor of Nursing degree and registration with the Nursing Council of New Zealand. In this study, it was important to protect the participants from any emotional risk that may arise as a result of the particular relationship between the researcher, the
student and the institution. The students were in a potentially vulnerable position inasmuch that the researcher, in the role of lecturer, would usually set and mark written assignments that formed part of the summative assessment of each student. Success or failure in this or any assignment could impact upon student progress in their course of study. In respect of this situation, and as a consequence of the relationship between the students and the lecturer, the student nurses should neither implicitly nor explicitly be subject to any coercion so that they felt obliged to contribute to the study.

To counter these potential risks the data collection was timed so that when each group of students was invited to participate that group of students had already completed the particular assignment for which the researcher was responsible. Furthermore, as part of the initial written invitation, the students were clearly informed that their agreement or not to participate in the study was an entirely voluntary matter; and that the decision each student made would have no impact whatsoever upon their status as a student nurse. A further consideration was that in the course of a focus group discussion or individual interview the students may share aspects of their performance that may demonstrate weaknesses on the part of the student. To counter this potential risk the recording of all data although not anonymous was confidential, and clear descriptions of the methods of storage and destruction of audiotape, computer stored and hard copy data were presented in writing to each prospective participant.

**Ethical considerations: nursing lecturers**

The lecturers who agreed to participate in the study were drawn from the peers of the researcher; some of whom had regularly expressed interest in the progress of the study. The researcher was therefore highly conscious that wittingly or unwittingly no personal pressure should be exerted to influence colleagues to participate in the study. A specific important risk to this group of participants was that in the course of the group discussion they may reveal to colleagues, including the researcher, aspects of their performance as a lecturer that may otherwise remain unknown. Once again to counter fears related to this potential risk it was made clear in writing that the recording of all data, although not anonymous, was
confidential. Furthermore each prospective participant was provided with clear descriptions of the methods of storage and destruction of audiotape, computer stored and hard copy data. A particular and perhaps unusual ethical concern for the researcher was that the nature of the ongoing working and personal relationship between the researcher and colleagues should not be affected by agreement or non agreement to participate. At the time that his report was written there was no reason to believe that the study had adversely impacted upon the working relationships between the lecturers in the school of nursing.

The use of Synchronous Computer Mediated Group Discussions proved to be an innovative approach to data collection and an approach to data collection that warrants further elaboration.

**Synchronous Computer Mediated Group Discussion (SCMGD)**

For the nurse researcher much has been written about the contribution made by various forms of information technology to the collection, storage and analysis of research data. Over the past twenty five years the popularity of the focus group method in nursing and the widespread use of personal computers appear to have developed separately but in parallel. An initial literature search revealed that the contribution of computer based technologies to the collation, storage and analysis of data for nursing research was indeed comprehensively reported. However, until recently there was little specific advice in the nursing literature on the use of on-line or virtual methods of data collection, particularly as a development of the focus group method. Therefore in order to establish if the literature offered any advice to support or reject their combined use as a data collection method a search using the key words computers, research and nursing of the data-base CINHAL between the years 1993 and 2003 was undertaken. When the search was extended to incorporate the additional words "focus" and "group", sparse specific material on the use of computers in the facilitation of a focus group discussion was elicited. This confirmed the perspective that: “Although ‘virtual focus’ group is both a familiar term and method in market research, its use in academic research has so far been limited” (Bloor, Frankland, Thomas, & Robson, 2001, p. 75).
To maintain the benefits of face-to-face discussion and at the same time maximise the benefits of computer technology, participants had to be present in the same room with access to networked computers. Put bluntly, without the facility of the room and associated resources the Synchronous Computer Mediated Group Discussion could not have taken place. The college campus has access to ten such rooms and each room was comfortable, easy to book in advance, and equipped with a minimum of 20 networked personal computers. In order to facilitate a discussion that used networked computers the researcher was able to confirm with the campus Information Technology Advisors that the software would facilitate the discussion-room environment and a trial run was conducted to ensure that the equipment worked as intended. The process of identifying, inviting, and conducting each SCMGD was no different than that required to convene a conventional focus group for which participants are expected to travel to a pre-determined venue.

For the duration of each discussion group, which lasted between 60 and 90 minutes, a designated site on the Blackboard Learning System was constructed for the sole purpose of that discussion group. All participants were provided with a keyboard, a 15 inch monitor screen and access via the Microsoft XP operating system to the Blackboard Learning System. The Blackboard Learning System was familiar to the participants and it was a system that permitted simultaneous inter-computer communication in a chat-room environment specifically created for the focus group discussion. For some participants the opportunity to contribute to a research project using the networked computers and a language code [text messaging] that was more usually associated with leisure activities was considered to be an enjoyable experience. One participant commented: "This [the focus group] was more fun than I expected".

**Getting started**

In accordance with the "four rules of thumb", a number of trigger questions drawn from the aims of the study were prepared by the moderator/researcher in advance of each discussion. However, before these specific questions were posed, the moderator asked the participants
to type in any form of greeting that they wished. This was a light-hearted activity that served the following purposes:

- To act as an ice breaking exercise for the participants;
- To enable participants to practice using the keyboard;
- To view on the monitor screen the responses of other participants;
- To permit participants an initial understanding of the manner in which the discussion would progress.

From the outset participants were informed that they should focus on engaging in the discussion and not be unduly concerned about accurate spelling or grammar. The presence of the moderator in the same room rather than on-line meant that each question was presented in both oral [spoken by the moderator] and visual [on the monitor screen] form. Furthermore, the pace at which the questions were presented to the group was determined by the moderator. This technique ensured that the participants addressed one thread of the discussion before moving on to the next thread.

**Data recording**

A key practical advantage of the SCMGD was that the actual words entered into the computer were those of the participants, and that there was no risk that words or terms could be misheard during transcription. In addition, the verbatim contributions were made available to the researcher in a printed form immediately after each discussion group. This provided an almost instantaneous access to hard copy and it negated the need for the transcription of audiotapes at a later date. Therefore, apart from editing, data were collated in their original form and the time for the researcher to read and digest participant responses could be planned more easily. The recording of contributions verbatim was a process that required each participant to type, sometimes rapidly, on to a keyboard. Inevitably the participants made errors in their grammar and spelling. For example, when commenting upon the challenges she found in questioning the practice of a registered nurse one student typed:
... I didn't want to be too disrespectful to my buddy as I was only a mere student and she was supposed to be the bloody expert!! I also didn't want the rest of my placement to be made difficult.

However, had the focus group been conducted using an audiotape then in the process of transcribing the data the errors ‘disrespectful’ and ‘posed’ would have been accurately spelt. Therefore, for public presentation this comment would appear as:

... I didn't want to be too disrespectful to my buddy as I was only a mere student and she was supposed to be the bloody expert!! I also didn't want the rest of my placement to be made difficult.

Whilst an unedited version of the original data record was retained, the personal view of the researcher was that it would be inappropriate to present spelling, font and grammatical errors to an external audience. For the purposes of hard copy the errors made by participants were regarded as a direct consequence of the participants inputting text whilst also engaged in a discussion, and the researcher took responsibility for ensuring that the final text was presented accurately.

*Maintaining confidentiality*

In the series of focus group discussions the participants were asked to share aspects of their performance. In the course of the discussion some illustrations may have indicated poor quality performance on the part of a participant. It was self evident that as the members of a focus group could identify each of the other participants, the conduct of a focus group was confidential rather than anonymous. In a conventional spoken focus group discussion the simple fact that individuals could identify each other may cause some participants to be reluctant to reveal to others any weaknesses on their part. However, such was the organisation of the SCMGD that this potential risk to participant safety was countered for the following reason.

In order to be able to enter the discussion each participant was randomly allocated the same log-in but a separate and personal password. The personal password was a different number for each participant preceded by the same words; ‘guest guest’. The actual number allocated to each group related to the number of participants in that particular group.
For example, in the registered nurse group there were four numbers allocated (1 to 4) and in the third year student nurse group there were eleven numbers allocated (1 to 11). The process of allocating numbers was the same for each of the groups and confidentiality was further maintained in that in the course of the discussion no individual number was displayed on the computer monitor. The only identifiers on the computer monitor screen were the words ‘guest guest’. As an illustration, in response to one of the questions from the moderator: “What is practice?” the following comments were recorded:

- guest guest: Practice is putting into place what is learnt in theory
- guest guest: Practice for me is doing hands on.
- guest guest: The hands on aspect of learning and practicing our learning to gain skill acquisition in the reality of the lived experience
- guest guest: Putting the theory we have learnt into a practical context
- guest guest: Practice is learning to put some theory into practice but only the useful hands on taught stuff

The end product of this form of anonymous data recording was that the only person who could be identified by name was the focus group moderator. Furthermore, the SCMGD could be regarded as offering a greater degree of confidentiality than an oral discussion in that the words of participants were typed and not spoken. It was possible for some participants to glance at an adjacent screen. However, for the greater part of the discussion, at the time that a comment was made it was not possible to attribute any comment to any single person unless they chose to be identified. In the process of the discussion one of the participants remarked of the SCMGD that it was a: “Great format for discussion fun and safe”.

The potential for loss of emotion in the discussion

One concern in relation to the quality of the data was that the use of personal computers would render a focus discussion emotionally neutral. As a consequence the data generated by a SCMGD discussion would fail to reflect participant interactions and emotions. For this particular concern there was some guidance in the literature and in one study the differences between three arrangements of focus discussion groups were compared
(Underhill & Olmsted, 2003). The configuration of focus groups of interest was: a traditional face-to-face group; a face-to-face group that used laptop computers; and a group of individuals who were in separate locations and communicated via the Internet. Of particular interest to the authors was how the different configuration of each focus group impacted upon the equality of participant engagement in the discussion; the quality of data from the discussion; the level of participant satisfaction with the discussion, and the degree of intra-group conflict. It was concluded that there were no significant differences in the first three of these items. However, and unexpectedly according to the authors, the distance based computer mediated discussion group produced: "A significant amount of intra-group conflict including disagreements and insults..." (Underhill & Olmsted, 2003, p. 511). In another study, this time one that compared aspects of face-to-face and computer-mediated group (CMG) discussions, or what was termed "virtual focus groups" (VFG), it was concluded that there were no significant differences in the quality of data collected from both modes of focus group discussion. Furthermore, the use of (CMG) was supported as it was stated that: "My experience indicates that at present, especially if the research participants are novice users of CMG, the best results for VFGs can be obtained by generally applying the same rules as those for conducting face-to-face discussion groups" (Murray, 1997, p. 548).

The potential for data to reflect only bland comments was not realised during the SCMGD as the material inputted by the participants was liberally peppered with bold lettering, uppercase letters, punctuation, question marks and exclamation marks. In the context of standard written communication these could be considered as an inappropriate use of these adjuncts to formal language. However, in an era when there was widespread use of computer based technology as a primary form of communication, these apparent 'errors' were not simply lapses of formal grammar. It was evident that the participants were applying the linguistic codes and conventions of the chat room or text messaging. These were conventions which in the context of computer-speak were means of conveying emotion. The following illustration was taken from one of the focus groups:
I found that there was so much going on that I was thinking of the first 50 things that I should do instead of the very first thing! It took another colleague walking into the room and saying "How many joules are you charging the defibrillator for?" For me to FOCUS and do what I was supposed to DO!!!!!!! yikes!!!!!!

The potential for loss of contributions
As a computer keyboard and monitor screen served as the intermediary between the moderator and the participants, some participants may have missed the comments of others. This may have happened because they could not read the quickly screen enough or that they were so focused on typing their own responses that they failed to read the screen. However, and in terms of the ability to contribute to the discussion, this was considered to be no greater a problem than if the participants in an oral discussion group had failed to hear or misheard the comments made by other participants. Alternatively, other participants may have missed the opportunity to respond because they did not type quickly enough. These potential problems were addressed by having the moderator in the same room to control the pace at which each question was asked. With the SCMGD method there was also the opportunity to speak to each other, and have the trigger questions clarified by the moderator. The potential for the loss of some contributions was also a problem for a conventional oral discussion group which occurred when some participants felt silenced or intimidated by the more forceful participants in a group discussion. In fact it could be argued that the confidential nature of the input and subsequent recording of data associated with a SCMGD made it easier for participants to contribute to the discussion. There was also ample evidence that participants freely adopted the social convention of turn taking which is central to the notion of a conversation or a discussion. To illustrate the flow of a SCMGD the following brief extract was taken from a series of exchanges between the third year students. This group was responding to the question from the moderator: " When you experienced the gap between theory and practice. How did you feel at the time?"

guest guest: It is interesting that at the start my intention was to work in the hospital. After the treatment from nurses and lecturers during the three
years, I now have no interest in working anywhere near any hospital. Who needs to be treated in this way?
guest guest: AS nurses we need to be more supportive of each other, rather than be critical.
guest guest: Back to the question I felt like I am never gonna be a good nurse and felt I chose the wrong profession
guest guest: Theory-practice confusion - to get back to the point, I felt that my ideals will wait until I am registered. I will go with the flow to get through.
guest guest: Some settings when have experienced conflict/upheaval lecturers have been great - it depends on who they are and how approachable and proactive towards your learning they are! I have walked away from one upsetting situation (e.g. closure of facility) after discussing the issue with the lecturer feeling less anxious and able to see insight into my feelings.
guest guest: Usually discuss with other students at lunch time and have a big bitch session

**Conclusion**
The starting point for the collection and analysis of data was to recruit participants to a series of computer mediated focus groups which retained the important interpersonal features present in a focus group discussion and at the same time produced an immediate data record. The data gathered contained both collective and idiosyncratic perspectives and was sprinkled with a range of emotions that reflected the animated exchanges amongst the participants. That the participants were in the same room and were not on-line participants who communicated from separate locations, enabled the participants to input ideas into a personal computer, engage in a real time discussion and address any matters that required clarification. In addition, the synchronous and simultaneous recording of data meant that the data collated were authentic and not subjected to any distortion and misinterpretation which has the potential to occur during the process of written transcription.

In the grounded theory method, data collection and data analysis are concurrent activities and it was advised that analysis should begin as soon as practicable following the first collection of data (Chiovitti & Piran, 2003; Glaser & Strauss, 1967; McCann & Clark, 2003; Miles & Hubermann,
In this particular study, data analysis was planned to start as soon as practical following each focus group discussion. The immediate recording of data meant that there was no need to wait for audiotapes to be transcribed and initial analysis was usually addressed within three days of a focus group. The starting point for data analysis was line by line open coding (Glaser & Strauss, 1967; Strauss, 1987). It was recommended that during the construction of open-codes the researcher should be sure to name each code, pay attention to language that could itself be used to name a code, ask many questions of each code, and seek out comparisons at each point in data collection. Therefore in the initial analysis of the text which took the form of open coding (Glaser & Strauss, 1997), words, phrases, sentences or whole sections of discussion which related to the objectives of the study were identified and labelled either with a label created by the researcher or an ‘in vivo’ label that was taken from the data. The basis upon which these codes were identified was the frequency with which they occurred in the data and their fit with the central aim of the study. In the course of the initial data analysis, what was of particular importance was to uncover those strategies employed by student nurses as they sought to manage the feelings produced by the experience of dissonance between theory and practice. It is the analysis of data from the series of focus groups that will be addressed in the next chapter.
CHAPTER FIVE
THE FIRST PHASE OF DATA ANALYSIS: A SERIES OF SYNCHRONOUS COMPUTER MEDIATED FOCUS GROUP DISCUSSIONS

In research projects for which the grounded theory method was selected it was not uncommon for there to be more than one set of data collection (Charmaz, 2000; Maijala, Paavilainen & Astedt-Kurki, 2003). This project had two sets of data collection and what follows is the report of the first set of data, which was gathered from four separate focus group interviews comprising one group each of registered nurses (RN), student nurses in their third year of study (SN3), student nurses in their second year of study (SN2), and nursing lecturers (NL).

In the grounded theory method data analysis and data collection are concurrent activities in which collection leads to analysis, and analysis leads to further data collection. These are intertwined activities, and to maintain focus during this study, the central aims of the study were kept at the forefront of the first phase of data analysis. Those aims were to establish how student nurses understand the relationship between theory and practice in nursing and to uncover the strategies that student nurses employed when they perceived differences between the theory and practice. More specifically the analysis of data in this phase of the study had the following purposes:

• To identify further sources of data;

• To establish the extent to which the key principles of the orthodox position were prevalent amongst the participants;

• To examine the metaphorical content of the language participants used to describe the relationship between theory and practice in nursing;

• To identify and label a number of open codes;

• To identify and label a number of substantive codes;
• To begin the development of an emerging grounded theory that explained the meaning of the relationship between theory and practice for student nurses;
• To identify those areas to be investigated further during the second phase of data collection.

In pursuit of these aims and purposes a number of trigger questions, shaped by the aims of the study, were devised and asked of those who participated in the focus group discussions.

**The trigger questions**

In the opening chapter of this thesis it was asserted that amongst the nursing profession the orthodox position was axiomatic. Based upon that assertion it was expected that at some point during a discussion group most participants would refer to a gap between theory and practice. Therefore, in the formulation of the trigger questions for a series of focus group discussions any direct reference to the notion of a gap between theory and practice was avoided until that notion surfaced. The trigger questions, the sequence in which they were asked, and some illustrations of participant responses were as follows:

**What do you understand by theory?**

Theory is the "head stuff". It is the philosophical base behind what is done in the clinical setting. Framework stuff, that guides; big books, head, fundamentals, philosophies. Book stuff - research - literature - ideas gained from study. (RN)

**What do you understand by practice?**

The things we do as nurses- practical hands on stuff, the "what", the actual presence in the clinical setting. (RN)

**How would you describe the relationship between theory and practice in nursing as you have experienced it?**

Theory and practice-Two words which are constantly reinforced to us from the first day of study - However they should be more closely intertwined and integrated to gel more - there seems such a huge gap between the two and each persons understanding that a more collaborative approach should be taken so each one compliments the other. (SN3)
Tell me about a nursing situation that you found difficult because you did not really know what you were doing?

I was working in a surgical ICU, and my client (post-op. coronary artery bypass client) went into an arrest. I found that there was a moment where I didn't know what to do first. CPR? Bag with 100% oxygen? (RN)

Tell me about some nursing cares that you did really well but find it difficult to explain why you did it the way that you did?

Caring for a patient dying with cancer. I think instincts take over to some extent regarding how you would like to be treated if it was you in that situation. (SN2)

Have you ever experienced a gap between your practice and the theory that you were taught? (If so tell me about it: have you any examples?)

Care plans, they [the nurses in the wards] don’t do them at all in any of the places I’ve been like we’ve been taught them!! In some places you are lucky if they even know what’s meant to go in a care plan let alone what one is!! (SN2)

How did you feel at that time?

Bad, that I wasn't able to make the links. Guilty; that I didn't "know more." Sad that the experience was not more clearly defined. So I could achieve some closure. (RN)

Just a silly student. (SN2)

Out of my depth and out of control. Isolated, with nowhere to turn. (SN3)

In this report, and except when multiple examples are particularly important, single extracts from the data will normally be used to support the observations that were made during the first phase of data analysis.

**Data analysis**

The Synchronous Computer Mediated Group Discussion (SCMGD) method of data collection meant that data were available immediately following each discussion group. With less time required for transcription the analysis of data began very shortly after the first focus group discussion. The data generated by the trigger questions was addressed using the
guiding principles proposed by the originators of the grounded theory method. Those principles were that:

Joint collection, coding and analysis of data is the underlying operation. The generation of theory, coupled with the notion of theory as process, requires that all three operations be done together as much as possible. They should blur and intertwine continually from the beginning of an investigation to its end (Glaser & Strauss, 1967, p. 43).

The three processes of collecting, coding, and analysing data that constitute the constant comparative method require that each piece of datum is compared with preceding or subsequent pieces of datum. This method permits the researcher to follow hunches that emerge as data collection and analysis progress. The starting point for data analysis should be a line-by-line process of open coding (Strauss, 1987). During this process of open coding it was advised that when deciding to name a code, the researcher should pay particular attention to the actual language used by the participants (Glaser & Strauss, 1967; Strauss, 1987). In the context of this study words, phrases, sentences, or whole sections of discussion, which related to the objectives of the study were identified and labelled either with a label that was created by the researcher or an in vivo label that was taken from the actual words used by the participants (Charmaz, 1990; Holloway & Wheeler, 1996; McCann & Clark, 2003). The following is an illustration of the line-by-line open coding of a contribution taken from the registered nurse focus group:

<table>
<thead>
<tr>
<th>Data</th>
<th>Open codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a theory that some clients in the mental health setting need to be nursed in a &quot;de-stimulated setting&quot; because it is thought that their internal thought processes being chaotic combined with a highly stimulated setting makes things worse.</td>
<td>Rejecting formal theory</td>
</tr>
<tr>
<td>My experience is that often it makes things worse, imagine being alone with your confused, disorganised thoughts.</td>
<td>Using a personal theory</td>
</tr>
<tr>
<td>In my practice careful management of the environment the person is in and helping them manage the impact is the thing to do.</td>
<td>Subverting</td>
</tr>
<tr>
<td></td>
<td>Just being me</td>
</tr>
<tr>
<td></td>
<td>Using a personal theory</td>
</tr>
</tbody>
</table>
Identifying further sources of data
The iterative and flexible approach to data collection and analysis, that is inherent in the grounded theory method, can easily distract the researcher. A researcher who enthusiastically pursues hunches and new sources of data may fail to capture ideas that emerge as the analysis progresses. Therefore, as data are analysed it is essential that the researcher makes and keeps written notes, and maintains a journal of personal reflections (Hutchinson, 1993). These reflections, usually referred to as ‘memos’, were considered central to theoretical sampling and reflexivity during the collection and analysis of data. In addition, the memos would ultimately prove the key to the development of a grounded theory (Benton, 1984; Glaser, 1992). The value of memos in the context of this particular project was highlighted very early in the analysis of the data, and can be illustrated by the following three memos which were made during the analysis of the data from the second focus group discussion (SN3).

The first memo was:

Do I need to involve the 1st year students? They have very little exposure to practice. But an interesting comparison could be drawn after their brief exposure, and of course some of them already have extensive experience in care giving roles. (PG)

This memo related to an observation that in the first two focus group discussions the participants, all of whom had been exposed to nursing practice, expressed personal notions and personal values in relation to the nature of nursing work. What was not clear was the extent to which these notions and values were influenced by factors other than formal exposure to nurses and nursing care. The memo served as a stark reminder that the perspective of student nurses from the first year of the programme had to be incorporated into the study. Therefore, it was considered vital that in the second phase of data collection a number of first year students must be invited to contribute to the one-to-one interviews. In addition, it was essential that at the time that data were gathered, those first year students must not have been exposed to a practicum experience. The data from the second focus group also prompted the researcher to write the following memo:
The whole session was for me at times surprisingly emotional I felt very uncomfortable for the students with some of the things that were shared. Need to be aware of my bias towards student focused learning. I did not want to hear of these things although I know them to be a fair reflection of their experience and transfer readily to other contexts in my 20 years plus experience. The feelings of disempowerment that were expressed by the students are for me so contrary to my personal beliefs about the nature of education. Nothing, or should I say very little has changed in this time. But I am being told that relationships play a very important part in learning, students need support not assessment and the ability to fail is a learning opportunity not a learning failure. Fear, as an emotion is playing an important part here. (PG)

This memo served as a reminder that the researcher must always be aware of personal bias and preconceptions, and that for a qualitative researcher the activities of data collection and data analysis were not emotionally neutral experiences. Furthermore, this memo re-emphasised that researchers must continually ask questions not just of the data but also of their own position with regard to the data (Strauss & Corbin, 1998). A third memo was one that suggested that the validity of the data gathered from student nurses would be strengthened if it were supported by the perspectives of third-party observers. That memo read:

Data from the educators may prove really, really useful as they provide a mirror perspective that is complementary to the student point of view.

(PG)

This memo highlighted that a potential source of data, which had not been included in the initial sampling was the perspective of nursing lecturers at the college. The perspective of those lecturers would prove particularly useful because lecturers, as part of their academic role, supported, assessed, and therefore observed student nurses during a practicum. Thus in accordance with the principles of theoretical sampling (Glaser & Strauss, 1967; Strauss & Corbin, 1994) nursing lecturers from were invited to convene as a focus group. A specific purpose of this focus group was to note and record how lecturers responded to the practical performance of student nurses. To achieve that purpose some of the trigger questions remained the same and some were amended. The
trigger questions, the changes, and some illustrations of the responses from nursing lecturers (NL) were:

What do you understand by theory?
Ideas, concepts, way of thinking. (NL)

What do you understand by practice?
Practice is what one does in order to get a desired outcome. We may be aware or unaware of the theoretical base of those practices if we do them out of habit. Practice does not imply thoughtful practice. (NL)

How would you describe the relationship between theory and practice in nursing?
I think it is the knowledge we gain through either education or our day to day practice, it is peppered by our past. (Who we are and what our beliefs are) and we put all these things together in a ball and undertake practice wherever that may be. (NL)

In your role as a lecturer, tell me about a situation when you worked with a student whom you think did not know what they were doing?
I have found students in clinical sometimes in situations they do not understand i.e. giving a drug they don't understand, taking a patient to theatre for a procedure they can not even say properly, involved in dealing with "difficult or confused patients", they are involved in the action performing the task, because that is what they believe is the expectation. (NL)

How did the student deal with the situation?
They look guilty sometimes, but predominantly there is a feeling of confusion, like I didn't get it. That they have let me down, they feel guilty and worried that it will effect their overall assessment or what I think of the student. (NL)

How did that make you feel at the time?
Like I wanted to go home and have a stiff gin. (NL)

The nature of data collection in the grounded theory method, insists upon a flexible approach to theoretical sampling (Glaser & Strauss, 1967), and the memos enabled this study to incorporate the important perspective of
both first year students and nursing lecturers, two groups of participants who may have otherwise have been overlooked.

**The prevalence of the orthodox position**

The data from the four focus groups provides abundant evidence that the orthodox position is indeed a pervasive influence in nursing. The principles that underpin the orthodox position are present in the way that each of the groups defines the concepts of both theory and practice, and also in how each group describes the relationship between those concepts. In the data, theory and practice are regarded as different and are associated with different people, different locations and different resources. Most usually, theory is associated with the traditional and more formal aspects of learning. For example, theory is:

- The class room environment where learning takes place from books and information from lecturer is given to students. (SN3)
- Book stuff - research - literature - ideas gained from study. (RN)
- Paperwork. (SN2)
- Ideas, concepts, way of thinking. (NL)

On the other hand, practice is analogous with the health care environment and psycho-motor activities, which is exemplified by the work of nurses with patients. Practice is regarded as:

- Going out into the hospital, community or where ever and trying to learn things. (SN3)
- The things we do as nurses- practical hands on stuff, the "what" actual presence in the clinical setting. (RN)
- The doing aspect of something. (SN2)
- The 'doing'. (NL)

The high degree of convergence amongst these groups of nurses from different professional contexts and with varying lengths of experience is also reflected in the way that theory and practice are viewed as separate entities with separate locations:

- What is taught in theory is usually from a fantasy world where everything is done a particular way. Once out in the REAL world, things are done different. Nurses do daily tasks completely different from the way taught in
theory, so it requires more learning, and the student is left wondering what was the use in attending theory anyway. (SN3)

The metaphorical content of the language associated with the orthodox position is also present across all the focus group discussions.

**The metaphorical content of the data**

The data from the focus groups contains many metaphors that correspond with the structural and spatial imagery found in the review of the nursing literature. A number of the more commonly used metaphors are found in the following exchange amongst the nursing lecturers:

They [theory and practice] are miles apart what we need is a bridge. The relationship is as tenuous or as strong as politics of health care quality demands it to be. Theory should be applied to practice but sometimes this is not possible to do this well.

It is often confused. One does not exist without the other.

I agree, there is often a huge gap. It seems strange that if one cannot exist without the other that we have so much trouble integrating them. (NL)

The student nurses employ similar metaphors, and their discussion also reflects the widespread influence of the orthodox position:

However, they [theory and practice] should be more closely intertwined and integrated to gel more - there seems such a huge gap between the two and each persons [sic] understanding that a more collaborative approach should be taken so each one compliments the other. (SN3)

Occasionally, some members of the more experienced groups of registered nurses and nursing lecturers offer alternative conceptualisations of the theory and practice relationship. This suggests that their experience enables them to consider the subtleties and complexities of that relationship:

Pulling the theory through (like a thread through a side of cloth) is absolutely essential to tying the whole "garment" together. (RN)

Even though theory and practice are most usually conceptualised as different entities separated by a gap, it is acknowledged that effective
professional nursing relies upon the ability of nurses to incorporate theoretical perspectives into the practical aspects of patient care:

Theory makes you understand what you are doing and not just doing tasks for the sake of doing them - you understand what you are doing. (SN2)

The orthodox position, which is plainly evident in the language used across all four focus groups, is reinforced by the experiences that each participant has of nursing and nurses. What is less clear however is the point at which student nurses become aware of the notion that there is a gap between theory and practice in nursing.

Identifying substantive codes

In the grounded theory method, the second stage of data analysis requires that the researcher group the open codes from the first stage of data analysis. These codes may then be subsumed into a smaller number of second level or axial codes of a more abstract nature (Glaser & Strauss, 1967; McCann & Clark, 2003; Strauss, 1987). In this particular study, the basis upon which substantive codes were identified from the open codes was the frequency with which they occurred in the data, and their fit with the central aims of the study (Hutchinson, 1993). The second stage of data analysis produced 23 substantive codes, which were labelled as follows:

<table>
<thead>
<tr>
<th>Substantive code</th>
<th>An illustration from the data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performing for others</td>
<td>A student will perform an act based on direction from staff and will complete the task with competence but the rationale is not there. Perhaps this is due to a need to &quot;impress&quot; the colleague. (NL)</td>
</tr>
<tr>
<td>Jumping the hoops</td>
<td>You are constantly changing the way you do things from what you know they should be done like, to how you know the person assessing you ... wants it done, so that you can pass. (SN3)</td>
</tr>
<tr>
<td>Pleasing others</td>
<td>So it is a terrifying balance of trying to please the 'buddy nurse' to achieve a good assessment from him/her, as well as trying to please the lecturer involved to achieve a good report from them. (SN3)</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Bluffing</strong></td>
<td>One thing is we should not have to bluff. (SN3)</td>
</tr>
<tr>
<td><strong>Confidence</strong></td>
<td>A feeling of confidence when you are performing a procedure and your buddy says you are very good at this. (SN3)</td>
</tr>
<tr>
<td>The confusion of the moment</td>
<td>Disoriented, confused, uncertain, frustrated, excited because I had to find a way out using my own wits. (RN)</td>
</tr>
<tr>
<td><strong>Rushed and pushed</strong></td>
<td>Some students are convinced that you are asking a trick question and panic. If you know they have the knowledge it takes some time to give them the hints to lead them to success. Some do not seem to have the ability to work towards the answer and throw everything they know at it in the hope it might be right. (NL)</td>
</tr>
<tr>
<td><strong>Expectations of others</strong></td>
<td>Different lecturers having different standards and expectations. (SN2)</td>
</tr>
<tr>
<td><strong>Just being me</strong></td>
<td>I think to care for others as you would like to be cared for, is a good philosophy to have. (SN2)</td>
</tr>
<tr>
<td><strong>Changing times</strong></td>
<td>Today the theory is ever changing and the practice should change. (RN)</td>
</tr>
<tr>
<td><strong>Fitting in</strong></td>
<td>Feel that if you don’t do things the way you are told then they give a bad report to your lecturer. It affects the way the lecturer sees your practice. (SN2)</td>
</tr>
<tr>
<td><strong>Mistrust/distrust</strong></td>
<td>Some lecturers need to go back into practice and things change on the ward. (SN3)</td>
</tr>
<tr>
<td><strong>Needing feedback</strong></td>
<td>I think it is more that we experience the worse more often and are not given feedback to know when we did something well. (SN3)</td>
</tr>
<tr>
<td><strong>Rejecting formal theory</strong></td>
<td>A nurse said &quot;No we don't need to do it like that at all.&quot; When we said &quot;That is the way we get taught”. She said “Look just do it my way&quot;. (SN2)</td>
</tr>
</tbody>
</table>
Using a personal theory
I think it goes on instinct and just knowing and feeling comfortable about yourself and your role is, and how you practice. (SN3)

Subverting
Seems to be in some cases ... that if you can do something an easier way and not get caught then do it. That does not mean the patient is getting the best care though. (SN2)

The interpersonal part
Some settings when have experienced conflict/upheaval lecturers have been great - it depends on who they are and how approachable and proactive towards your learning they are! I have walked away from one upsetting situation (e.g. the closure of facility) after discussing the issue with the lecturer feeling less anxious and able to see insight into my feelings (SN3)

Needing support
Asked to do an assessment on a patient without the support of my buddy nurse. Resulting in getting a hard time afterwards. (SN2)

Impacting upon my self esteem
It made me question my ability to ever be a nurse often lead to thinking I will quit...and to this point I still feel I don’t want to be a nurse. (SN3)

Imbalance
Last year [referring to year one of the programme] seemed such a drag with so much theory and bugger all nursing. (SN2)

The future will be different
But in several years time, will we ourselves remember what it was like and will we be able to help and support our students appropriately. We would all like to think so, but we will have to wait and see. (SN3)

Being observed
Sometimes an outsider is able to see into the situation more clearly than one who is in the situation directly. (SN2)

Being in control
When I got the situation under control, I remember going back to him and saying, "Thanks for keeping your sense of humour!" I'm so glad that I got that fixed. (RN)

These 23 substantive codes were further reduced into a number of categories which would eventually form the basis of an emergent grounded
theory. The process by which the codes were reduced can be illustrated by referring to those situations when the participants recalled that their nursing care was being watched by another person. In the initial coding a different label was afforded to each of these situations according to the perception that each participant had for the reason that they were being watched. If the participant simply noted the presence of another person this was labelled “being observed”. However, if that observation was for the purpose of an informal or formal assessment this was labelled as “jumping the hoops”. Alternatively, the participant may have described an event when they performed under explicit or implicit direction, which was labelled as “performing for others”. The category to which these three substantive codes were subsumed was labelled as “fulfilling expectations”.

From the first stage of data analysis seven categories were identified and named. Those categories were incorporating personal knowledge, trusting learning, fitting in, fulfilling expectations, noticing the difference, experiencing the difference, and finally managing the difference.

**Categories of experience**

The analysis of the data suggests that the notion of gap between theory and practice in nursing is nurtured and reinforced by a number of experiences that students encounter during their programme of study. The first of these experiences is the extent to which nurses and student nurses are able to incorporate personal theory and personal values into their nursing care.

**Incorporating personal knowledge**

From the data there is a clear indication that the nursing care of all the participant groups is strongly influenced by their personal ideas of the attributes and skills essential for professional nursing. This is particularly evident when the students articulate their perceptions of the interpersonal qualities required by nurses. Although, the students are unable to put into words some of the technical detail associated with these qualities, they consider it important that as nurses they are:

- Able to connect with clients. Being mentally unwell or alcohol addicted or with disabilities and establish a therapeutic relationship - I think all I did
was treated them how I would like to be treated. I think it goes on instinct and just knowing and feeling comfortable about yourself and what your role is, and how you practice. (SN3)

The type of knowledge referred to in this extract constitutes an informal or personal theory about nursing. It is a type of theory which when it is combined with practical knowledge gained from participating in clinical situations, it becomes increasingly influential. In the registered nurse group one participant relates:

There is a theory that some clients in the mental health setting need to be nursed in a "de-stimulated setting" because it is thought that their internal thought processes being chaotic combined with a highly stimulated setting makes things worse. My experience is that often it makes things worse, imagine being alone with your confused, disorganised thoughts. In my practice, careful management of the environment the person is in and helping them manage the impact is the thing to do. (RN)

The ability to incorporate personal theory acquired from day-to-day 'life experiences' or from the experience of professional nursing, is very important to the participants. Furthermore, as the students are exposed to more clinical nurses, and more clinical contexts, personal and practical theories become major influences that modify learning that is acquired from more formal resources. As a consequence there are occasions when experienced nurses and students alike openly doubt or mistrust the validity of learning that occurs in classroom and clinical contexts.

**Trusting learning**

In the comments from the second year focus group, it is evident that they place a high degree of trust in classroom-based learning. In fact this group voices a higher degree of confidence in formal knowledge than the third year students, and indicates that the second year students are just as likely to question the practice of the nurses with whom they come into contact during a practicum. The basis for their questioning is the knowledge that they acquire in the classroom:

Administering medications - nurses often do not follow the procedure that we are taught, e.g. not signing for the drugs until the patient takes them,
not checking Bradma [a manufacturers name for an identity bracelet worn by hospital patients].

I get the feeling that sometimes some RNs feel they have to dispense the medication properly because a student is present - but they make comments that suggest they normally do it differently!

Medications!! Some RNs are absolutely hopeless! Not at all like we've been taught. They sign everything off before they get to the patient and take them all out at the same time. During the first 3 days of my last medical-surgical placement my buddy nurse made 5 drug errors which I pulled her up on before they actually made it to the patients. (SN2)

However, the third year students who had exposure to longer periods of practical work alongside clinical nurses, and as a result this group is more likely to challenge the relevance of formal theory presented to them in the classroom:

In an ideal world theory is meant to improve our practice by opening us up to various viewpoints thereby making us better nurses. However in reality I believe I have gained more knowledge and confidence from working in a ward setting then I have in any classroom and by sitting assignments and tests. Assignments and tests allow for the base line information to be integrated into my psyche however it is the practicum settings where the nitty gritty workings of the ward are learnt. (SN3)

These two illustrations, which are both critical of some aspects of practice or theory, contain no indication of the resentment expressed when the students describe formal theory which they consider to be wide of the mark, or the practice of some nurses that they judge as unacceptable. In the student nurse focus groups some of the comments were at times hostile and very critical of both human and non-human learning resources. The third year students are in no doubt that the problem clearly lies with some of the lecturers who fail to maintain the currency of their skills and knowledge:

Some lecturers need to go back into practice as things change on the ward. The theory can be a bit out dated as some of the lecturers don't seem to be up to date with the way things are done, or try to impose how they think it should be done.
Lecturers seem on a different planet to the real clinical setting. Not sure they realise the pressures on students. Get them out there for a month every year. (SN3)

This very strong criticism of nursing lecturers may be because the people with whom the student spent most time during a practicum, and the people who the student observe perform nursing care on a daily basis, are clinical nurses and not nursing lecturers. More importantly, the clinical nurse above all others is the nurse who represents the professional role model to which the student nurses aspire. It appears that the more a student is exposed to the work of registered nurses the greater confidence they have in the validity of the nursing care that they witness. This point is emphasised by one of the nurse lecturers:

Students may be taught a skill and it will be the right way. They go to clinical and see it performed completely different and sometimes completely wrong. They will come back to class and repeat what they have learnt because the 'clinician did it that way, it must be right'. Which shows me that what I teach is not as important to what they see. (NL)

However, one consequence of the deference that student nurses afford to the registered nurses is that when the students notice nursing care that they consider is of a poor quality, they find it difficult to question those concerned:

I didn't want to be too disrespectful to my buddy as I was only a mere student and she was supposed to be the bloody expert!! I also didn't want the rest of my placement to be made difficult. Powerless, as some situations you really can't change as there may be consequences. If you say something about a nurses inadequate practice they just think you are a little student know-it-all out to better them. They are defensive. Just keep quiet and do as you're told. Can't upset the buddy as the rest of the time will be uncomfortable. (SN2)

This discussion amongst the second year student nurses also highlights that during a practicum the nature of the relationship that students form with either the lecturers or the registered nurses is very important:

Lecturer personality comes into the practice settings - many students can be disadvantaged when lecturers and students have personality clashes -
when personality clashes occur too frequently students are poorly marked as the lecturer allows personality to cloud their judgement. (SN3)

[1] feel that if you don't do things the way you are told then they [the registered nurses] give a bad report to your lecturer. It affects the way the lecturer sees your practice. (SN2)

These last three extracts are an indication that the decision that students make not to challenge the practice of more experienced nurses or question the nursing lecturer, is based upon two important personal considerations. The first of which is that it is important for the students to be seen as a team player, and the second is that the student needs to behave in a manner that ensures their success during a practicum.

Fitting-in
For their periods of practicum learning, student nurses are allocated to a minimum of eleven different clinical areas. As students progress through the programme, the length of time each devotes to learning in a practicum increases whilst the time spent in a classroom correspondingly reduces. Most usually, each practicum is of three weeks duration and during a practicum the student is effectively a guest in a clinical area. Albeit, a guest who is in a clinical area for the specific purpose of learning. On the other hand, for those registered nurses who supervise the students, practicum experience takes place in their working environment. In the clinical environment there is rarely, if any, simulation of nursing care. In a similar fashion to their historical counterpart, the nursing apprentice, the tertiary student learns as they work alongside registered nurses. To reiterate, for the student nurse the clinical nurse is their professional role model and therefore is a very influential feature of the learning climate:

There are also some great nurses out there - ones that are truly supportive and encouraging of students - these nurses have been great to work with and learn from. On placements these are the nurses I go to in order to discuss my feelings when uncertainty occurs - they are able to point you back on track and guide you through situations. (SN3)

Practicum experiences expose the students to clinical nurses and the culture of the nursing workforce, which is reported by one participant as
one in which the values and conventions of academia are judged as less important than the efficient execution of practical skills:

I get the feeling that sometimes some RNs feel they have to dispense the medication properly because a student is present - but they make comments that suggest they normally do it differently! (SN2)

Furthermore, for some clinical nurses knowing how to perform nursing work is regarded as less significant than the effective outcome of nursing interventions. A successful outcome is valued more highly than the idealised and context-free theory that is presented to students in either the classroom or the textbook:

A nurse said “No we don't need to do it like that at all”. When we said “That is the way we get taught.” She said “Look just do it my way”. (SN2)

At times the practicum becomes less of an overt learning experience and more like a place of work for the student. This requires the student to get along or fit in with the other members of the nursing workforce. To fit in and to ultimately to succeed during a practicum the student nurses quickly learns to assume a number of roles. Whichever of these roles predominates is contingent upon considerations of the status, the role, and the nature of the relationship that the student has with the other parties who are involved at the time. In the data the most commonly reported roles are that of a student:

I do think that the nurses we work with do not actually realise how LITTLE we actually know. They often ask for our assistance with something but don't realise we haven't got a clue about that. (SN3)

A neophyte professional nurse:

I think the best thing that I do well is being available to my clients, showing an interest in them and spending time with them - remaining people focused rather than task focused. (SN3)

And at times the most junior member of the clinical team:

My RN introduced me to the staff: “Remember this is just a ‘second year student’, she doesn’t have many skills.” (SN2)
The practicum is also a time when the student nurses are acutely aware that for the vast majority of their practicum their nursing care is observed by another person.

Fulfilling expectations

The data from all of the focus groups indicates that nursing care is rarely undertaken without the presence of another person or even a group of people. The presence and the status of the observers has a significant impact upon the emotions that accompany the experience of delivering nursing care, and the intensity of those feelings varies according to the purpose of the observation. For example, one experienced nurse describes an opportunistic teaching session that took place in the presence of colleagues:

Recently a new form of depot antipsychotic medication was introduced. The drawing up technique was relatively complicated. I received no training in how this was done properly but had to draw up the drug to give it is very rarely given so didn’t want to miss the opportunity of showing other staff so I did so at the handover basically first time I did it I had an audience. (RN)

In this illustration there is no overt challenge to the professional competence of the nurse. As a consequence the nurse appears to enjoy the experience. However this is not generally the case for student nurses, for whom the experience of being observed is usually accompanied by uncomfortable feelings associated with being judged or assessed. The students report numerous occasions when it is clear to them that there is an explicit, if perhaps not always a formal evaluation of their competence:

You are constantly being assessed by tutors with irrelevant check lists so the whole thing is incredibly stressful. (SN3)

Not surprisingly, the student nurses more than any other participants recall strong feelings of anxiety associated with the idea that they are being judged:

Sometimes on placement a lecturer will be looking over my shoulder analysing everything that I am doing - I freeze and begin to doubt my own ability - I know the stuff but am fearful that I will say it wrong and be failed. (SN3)
The student nurses expect to be assessed during a practicum and assessment is a common experience:

Practice is going out into the hospital, community or where ever and trying to learn things as well as doing assignments, learning objectives and attempting to pass the placement. (SN3)

For the student nurse, performing correctly during each practicum is critical, as failure could prevent a student from successfully completing their nursing degree. However, the student nurse also realises that successful performance is not a straightforward matter, as the criteria for successful performance varies according to the individual preferences of the observer:

You are constantly changing the way you do things from what you know they should be done like, to how you know the person assessing you or precepting [refers to the preceptor] you wants it done, so that you can pass. (SN3)

In the data, and not withstanding the idiosyncratic nature of assessment, the participants allude to three broad categories of performance criteria. The first is a category in which criteria are formal and institutionally determined:

You spend so much time making sure you are completing your learning objectives and assignments. (SN3)

The second category is the personal values of the assessor:

I have them [students] tell me that they always get ‘merit’ [reference to the approved grading system] before we start the clinical --We had a long chat about that and I made my criteria very clear (NL)

The third category is the personal values of each participant:

[I] resolved to continue with best practices and try to maintain these without making anyone else feel bad. (SN2)

In addition, it is also clear that criteria for success are sometimes implicit rather than explicit; sometimes convergent and at other times contradictory. The criteria for formal assessment are usually written down and available to both the student and the assessor in advance of an
assessment. However, the other two categories are less transparent and therefore less predictable:

This [practicum] is an endurance test and you just give them what it takes to pass. (SN3)

For the student at the time of an assessment, individualistic standards are equally as important, and ultimately in the attempt to meet different criteria for success, the students experience significant tension:

I agree with the statement that fear enters the equation. You are taught something in a particular way then see on placement that everything is done differently, so it is a terrifying balance of trying to please the 'buddy nurse' to achieve a good assessment from him/her, as well as attempting to please the lecturer involved to achieve a good report from them. If they see you doing things differently to the way taught, then they tend to pull you up about it. (SN3)

The feelings associated with the belief that one is constantly being judged has a negative impact upon the practical performance of the student, and the learning experience in general. This is evident in the following discussion amongst the third year students:

Each lecturer has a different method and states that their method is the one and only correctly researched based method and that it should only be done that way. Thus students are constantly trying to learn each lecturer’s requirements so that they can perform this way for that lecturer.

The practical and the theoretical components are two different aspects and we somehow have to make them fit together with a biased lecturer hovering over us.

I love that comment.

Practicum are a sad experience -- some practicum lecturers only feel good if they fail someone, usually someone who is already marginalized for some reason. The practicum lecturer gets an ego boost i.e. their tutors have failed them by not providing what the student needs from failing someone because then they can go on about maintaining standards. I have never seen a student who has failed but I have seen students who have been failed by their tutors.

Yes I agree with that comment (SN3)
The negative aspects associated with constantly being observed are further compounded when the practical activity is performed for the purpose of meeting a course requirement. In these situations there is an additional stressor. That stressor is that the student is not only expected to perform the task competently but is often required to articulate the reasons behind their performance to another person. This is sometimes a highly emotionally charged experience, and the emotions experienced by the student are felt by both the student and the lecturer:

Once I had a student storm out of the room in tears (even though I had been gentle on the feedback) - didn’t feel too good about that for a couple of days. (NL)

Both student nurses and the lecturers acknowledge that the assessment conventions usually associated with written assignments and examinations are not suited to the assessment of practical nursing care:

In the classroom we are taught the step-by-step methods of how to perform a practical task and then when you get out there to do it, you feel totally out of place. As the nurses all have their ways of doing things and the atmosphere alters how you will perform that skill as well. (SN3)

How well you can write an assignment seems of little significance on how well you can care for patients. (SN3)

The realisation that the same approach to the assessment of theory and practice is inappropriate is just one experience when students notice that theory and practice are different. Other circumstances are reported when the participants notice that theory and practice do not align.

Noticing the difference

The first circumstance in which theory and practice are thought to be at variance is when the students comment upon the practice of another person:

Maintaining the client’s privacy and dignity - a lot is left to be desired when you see RNs wheeling patients down to the shower in badly soiled bedclothes hitched up round their bottom with no blanket. (SN3)
The second circumstance is when another person notices that the student is unable to make a connection between the accepted theory and their own practice:

I think medication administration is a classic - students not having an understanding of what they're giving and why. (NL)

The third circumstance, which is less uncomfortable for the students but nonetheless puzzling, is when the participants perform nursing care that works effectively, but for which the participants are unaware of any formal theory to support the intervention:

Being able to connect with clients... and establish a therapeutic relationship - I think all I did was treated them how I would like to be treated. I think it goes on instinct and just knowing and feeling comfortable about yourself and what your role is, and how you practice. (SN3)

Finally, the students recall incidents, which they attribute to their own naivety or lack of experience:

I think one that I always find hard is when you are asked to shower a patient and they have to get up from bed. It is this point where I often find I don’t have information on how I should be moving this client or how mobile and steady they are. Then you get them up a particular way only to discover they are not able to walk or something. (SN3)

One circumstance that is noticeably absent from these illustrations is an occasion when the student nurses state that their own practice is of a poor quality, unsafe or for which they have cynically disregarded theoretical principles. However such circumstances do not go unnoticed by those who observe the students:

I had a student who left an elderly patient on the chair alone in the shower. When we discussed safety issues she could not understand the relationship between him being left alone and safety. (NL)

There are a number of reasons why this category of circumstance does not appear in the student data. First, the student nurses were not directly asked to reflect upon their own practice, whilst the lecturers were specifically asked to recall occasions when they noticed disparities in the performance of students. Second, even though all of the participants were
assured that the data collection was confidential. In the company of their peers and a lecturer, students may have been reluctant to offer an illustration that could be perceived as evidence of their own poor practice. Third, it was possible that because any weakness had not been previously pointed out to them, the students remained unaware of any failure on their part to adhere to theoretical principles. However, and irrespective of the experience that served to highlight a difference between theory and practice, the realisation that theory and practice were not aligned evoked strong emotional responses. These responses were especially evident in the contributions of students and were often projected on to other people who then became closely associated with the uncomfortable experience.

**Experiencing the difference**

Those occasions when theory and practice do not align are reported as experiences that are accompanied by uncomfortable feelings. In general these feelings have a negative impact upon self-image and self-esteem, and some participants even question their personal worth or doubt their initial decision to choose nursing as a prospective career:

> I wondered if I would be strong enough to change others practices, if at all. (SN2)
> What’s the point of this am I ever going to be good enough. (SN3)
> Often lead to thinking I will quit and to this point I still feel I don’t want to be a nurse. (SN3)

The emotional discomfort experienced by the students is noticed by others, especially the nursing lecturers who recall episodes when they were subject to the transfer of the negative feelings that students experience:

> They look guilty sometimes, but predominantly there is a feeling of confusion, like I didn’t get it. That they have let me down, they feel guilty and worried that it will effect their overall assessment, or what I think of the student. (NL)
> I too have had a student not speak to me since the assessment. (NL)

The psychological discomfort that is associated with the discovery that their practice, or the practice of others does not correspond with formal
theory has to be managed. The students describe a number of strategies they employ in order to deal with any actual or potential discomfort.

**Managing the difference**

In order to be deemed successful in a practicum the student has first to be formally assessed. The student is fully aware that to perform successfully they have to meet the needs of different assessors. Therefore, as assessment is often an idiosyncratic process, students choose to demonstrate competence in the form that the student considers will most suit the assessor:

Each lecturer has a different method and states that their method is the one and only correctly researched based method and that it should only be done that way. Thus students are constantly trying to learn each lecturer’s requirements so that they can perform this way for that lecturer. (SN3)

The students know that to vary their performance is in effect a subversion of the formal assessment process:

You are constantly changing the way you do things from what you know they should be done like, to how you know the person assessing you or precepting [refers to the preceptor] you wants it done, so that you can pass. (SN3)

A second strategy, intended to deal with the discomfort produced by dissonance, is for the student to hold a view that following the successful completion of their degree and subsequent professional registration they will be able to act in a more autonomous manner which would permit the student to employ personal theory in the management of prospective clinical problems:

I do believe that as we grow in our practice that maybe we will develop some shortcuts that don't break aseptic techniques etc... These may be viewed by future students as bad practice but will be just good time management. (SN2)

A more common strategy for the students is to find something or someone to blame for the discomfort produced by the experience, and of which
there are two options. The first option is to mistrust theory and trust the
validity of what they personally perform or observe:

Theory is not always a practical way to learn or practical at all. Often parts
of it are in there to cover "Politically Correct" topics legally required but are
of no use to us in reality. (SN3)

The second option is to trust theory and mistrust the practice they
observe:

The one important aspect I have learnt from theory and practice is
recognising how I don't want to work - I have heard many stories in theory
of what some nurses do and whilst in practicum had the unfortunate
experience of working with some nurses whose practice leaves a lot to be
desired - so in some ways practice has enabled the bad parts of nursing to
be observed which theory only told me about. (SN3)

No matter which of these two options is chosen, the student ultimately
mistrusts or even rejects the learning associated with that experience, and
as an extension of that unpleasant experience they also mistrust the
resources such as the people, the locations or the materials that contribute
to the experience:

The important things for us as new nurses to ensure is that we don't
become stuck in the ways of other nurses and become another 'lamb' or
'clone' - I hope that I am able to stick by my principles and beliefs and not
lower the standards I set myself. (SN3)

Finally, when students observe nursing practice that is not based upon the
theoretical principles that they learn, they compromise their personal
values in order to preserve harmonious relationships with the registered
nurse or the nursing lecturer. The students indicate that they really want
to point out the differences between formal theory and the practice that is
observed. Thus, the sum effect of this strategy is to compound rather than
alleviate any emotional discomfort. However, the student decides to put
aside their personal values and avoid confronting others. The reasons for
this apparent compromise are present in the following extract from the
discussion amongst the second year students:
I didn't want to be too disrespectful to my buddy as I was only a mere student and she was supposed to be the bloody expert!! I also didn't want the rest of my placement to be made difficult. Powerless, as some situations you really can't change as there may be consequences.

If you say something about a nurses inadequate practice they just think you are a little student know-it-all out to better them. They are defensive. Just keep quiet and do as you’re told.

Can’t upset the buddy as the rest of the time will uncomfortable for me.

Not many nurses want to know errors in their practice you have noted.

Resolved to continue with best practices and try to maintain these without making anyone else feel bad.

A lot of nurses are on a power trip when they have little Smurfs [a derogatory reference to the uniform that students wear during practicum] running around them doing all the dirty jobs!

It emphasises that power must rule and I don’t want to be a power tripper. Seems to be in some cases the thinking that if you can do something an easier way and not get caught then do it. That does not mean the patient is getting the best care though.

Note a nurses errors and your practice may well be doomed- beyond the point of repair. (SN2)

In the above exchange the students describe unequal power relationships, fear of interpersonal discomfort, fear of being seen not to fit in and a clear reluctance to disrupt a perceived friendly relationship that has developed between the students and the registered nurses.

It is evident that the experience of noticing that theory and practice do not match is an uncomfortable experience and that the emotions produced by that experience impact upon the quality of the relationship between the student and other nurses. These negative emotions are aspects of the perceived dissonance between theory and practice that ultimately detract from the overall quality of the learning in a practicum. To manage their distress the student employs a number of strategies to reduce that discomfort whilst at the same time seeks to preserve their personal values about nurses and nursing.
Conclusion
The analysis of the data from the first phase of data collection demonstrates that the orthodox position, for which theory and practice are most usually construed as different entities, is widely accepted and is generally unchallenged by the participants. Furthermore, the data also supports the argument that the difference between the two concepts of theory and practice is most usually understood as a gap. It is also apparent that from the very early experiences of practicum, the student nurses believe that a gap exists between theory and practice in nursing. From that point of clinical exposure onwards the mix of clinical and classroom based experiences reinforce the notion of a gap for the student nurse.
The data analysis also provides support for the argument that the orthodox position is an incomplete explanation of the relationship between theory and practice in nursing. In the data the participants believe there is a clear dichotomy between theory and practice. However, the distinct nature of separation implied by the notion of division is not evidenced in the illustrations participants select to describe occasions when theory and practice do not align. In those illustrations the participants describe three types of theory that are considered appropriate in the care of patients. The sources of those types of theory are the personal, the formal and the practical learning experiences of each participant. Furthermore, the choice of which theory to employ is determined by the context in which nursing care is carried out. Therefore, by necessity, some care is different from that outlined by formal theory. The fact that some nursing care differs from the principles outlined by formal theory does not mean that the care is inappropriate or unsafe nursing practice. There are other theoretical frameworks available that support what initially appear to be atypical nursing interventions. However, those theories, which include the use of intuition and experience, are less amenable to explanation. This leads the participants to conclude that neither formal theory, nor the contextually determined care they observe is wrong: they are different ways of perceiving and addressing nursing problems. As a consequence the participants do not always consider that their own practice or the practice of others should be perceived as wholly wrong. Once again they should be considered as different ways of addressing a nursing problem.
The data from the focus group discussions highlights a number of new areas for investigation and other areas that require further exploration. In the second phase of data collection, which has an exclusive focus on the experiences of student nurses, the following are of specific interest. First, the point at which the notion of a gap between theory and practice in nursing is introduced or recognised by the student nurses is explored. Second, an attempt will be made to identify those features that contribute to the reinforcement of the notion of a gap between theory and practice once that notion is introduced. In addition, the second phase of data collection seeks to elicit those features in the clinical environment that shape the understanding of which type of theory is considered important for clinical work. A fourth area of interest will be to find out if the degree of confidence that students have in formal, personal or practical theory altered as the course progresses. The final area of investigation endeavours to gain a deeper understanding of how student nurses manage and respond to differences in their own practice and the principles of the types of theory to which they are exposed.
CHAPTER SIX
THE SECOND PHASE OF DATA ANALYSIS: INDIVIDUAL INTERVIEWS WITH STUDENT NURSES

This chapter reports on the analysis of data collected from a number of one-to-one interviews between the researcher and student nurses in the first, second and third years of an undergraduate degree in nursing. A purposive approach to sampling for which participants were willing to participate in the study and possessed certain characteristics was adopted. The key characteristics for the second and third year students were that when they were interviewed each student must have completed both theoretical and practical components of the Bachelor of Nursing programme. However, for the first year students it was most important that these students had not completed any practicum components of the programme. The actual numbers of student nurses who would be invited to participate could not be determined in advance, as in the grounded theory method sample size is determined by the notion of "data saturation" (Charmaz, 1990; Chiovitti & Piran, 2003; Dick, 2002; Glaser & Strauss, 1967; Hutchinson, 1993). For this phase of data collection the procedures for sampling, ethical approval and recruitment were very similar to those that were described for the focus group discussion amongst second year students (SN2). However, as some aspects of those procedures differed slightly, it is important that the differences between the two phases are highlighted. The first important difference concerned the population from which students were drawn. In the first phase of data collection, no focus group comprising of students from the first year of the nursing degree was convened. That omission was intentional because in the initial sampling process it was thought that, as first year students would have no formal practical experience of nursing, it would not have been possible for them to comment on the relationship between theory and practice in nursing. However, following the first phase of data analysis, the rationale behind this viewpoint was reviewed and the perspective of first
year student nurses was considered to be a very important component of the second phase of data collection.

Ethical considerations
Access to the participants was gained following approval by the Victoria University of Wellington Ethics Committee and the ethics committee of the Universal College of Learning. In the application for ethical approval the following particular area of potential harm to participants was identified. There was a potential conflict of interest between the researcher, who was a lecturer at the same tertiary institute as the students who would be invited to participate. It was possible that whilst the data were gathered the researcher may have been in a position to teach or assess some of the students. To avoid that potential conflict of interest the following safety measures were ensured. The research was timed so that for the period that data was collected the vast majority of teaching and assessment work undertaken by the researcher was with postgraduate students. Further, in respect of undergraduate students, for the duration of data collection the researcher neither taught nor assessed any students in the first year or the third year of the programme. All year two students who were invited to participate in the study had completed the subjects that the researcher taught or assessed. All of the students who were invited were informed in writing that their willingness to participate or not would have no bearing on their course results. In addition the letter made explicit that no advantage or disadvantage would be incurred by students who participated in the research over those who did not, and that students may withdraw from the study at any point they wished (See Appendix V). With respect to the specific method of data collection, the participants were informed that the interviews would be recorded on an audio tape, subsequently transcribed by the researcher, and that during an interview the researcher may make and record written personal notes.

Recruitment of participants
In a similar manner to that described for the recruitment of second year students to a focus group discussion, the researcher gained permission from a colleague to meet with students from each year group as they
assembled for a lecture. At that meeting the researcher distributed to each student an invitation and information sheet in the form of a letter (see Appendix II). In addition, the meeting provided an opportunity for the researcher to outline the purpose of the study and to respond to some initial questions from the students. The students were advised that if they were willing to participate in the study they should contact the researcher directly. The researcher then made specific arrangements for each student to engage in a one-to-one interview with the researcher. In total 15 interviews were eventually conducted; and the breakdown of students from each year intake was: seven from the same full-year one cohort (100 level students); four from the same full-year two cohort (200 level students), two from the same full-year three cohort and two from a separate mid-year three cohort (300 level students).

The interviews

Each interview was of a semi-structured nature and the focus of each interview was contained in an interview guide that comprised six questions. Those interview questions, which are accompanied with illustrative extracts from the interview with Bernadette (not her real name), a first year (100 level) student nurse, were:

Q. How would you describe the relationship between theory and practice in nursing as you have experienced it?

   I think that there is a big gap...
   You’re talking about what I know about nursing now from the studies I am doing and what actually happening out there?
   Yes, I think there is a big gap.

Q. Tell me about a nursing situation in which you found that theory and practice did not match up?

   The first thing I noticed was, hey she hasn’t washed her hands and yet she came straight in from heavens knows where and was handling equipment and him and that was one of the first things we were taught.

Q. How did you feel at the time?

   I felt like sort of out of control, I just didn’t have control of the situation.
Q. How did you deal with the situation?

I think a part of me didn't want to come across as I know it all [makes exaggerated facial gesture of bigheadedness or conceit] and they might scoff at me. But, I know after that situation I did reflect on it myself and that is something else we are learning [laughs] and I did think, yes I did. I'm sure give me a little more time a little more confidence and I will actually speak up.

Q. What was the end result?

I should have taken control there.

Q. How did the experience affect your ideas on the relationship between theory and practice?

It's always been important to apply the knowledge that you've got and if it’s worth doing it’s worth doing right. I just hope I can carry that through to the practical situation where I’m not...I don’t sort of compromise my standards because of other situations like time or resources or whatever.

These six questions were also typewritten in a large font and at the time of each interview handed to each student on a laminated sheet of A4 paper. This proved a particularly helpful technique which enabled the student to read the questions, reduced the potential that the student might mishear each question, gave each student time to consider the questions before responding, and provided each student with a clear indication of the direction that the interview would take. The responses from each interview were recorded on audiotape and transcribed by the interviewer within seven days of each interview. For the purpose of transcription, each student was identified by a letter of the alphabet. For example, the letter ‘A’ was allocated to the first student who in the data report would be referred to as Alison. The letter ‘B’ was allocated to the second student and so on.

In the grounded theory method, the theory that seeks to explain phenomena emerges from multiple sources of data. In respect of the contribution that would be made to a theory if participants were provided
an opportunity to read their personal transcript, the strong advice from Glaser was that:

Inviting participants to review the theory for whether or not it is their voice is wrong as a “check” or “test” on validity. They may or may not understand the theory, or even like the theory if they do understand it. (Glaser, 2002, p. 3)

Therefore, and with the advice offered by Glaser in mind, no participant was provided with the opportunity to read their contribution after it was transcribed.

The length of each interview

When the interviews were transcribed, the shortest interview was 665 words and the longest interview was 1743 words. An initial response to the length of these interviews was that they were brief, and that the apparent brevity of an interview may have impacted upon the quality of the data. However, it is important to reiterate that each interview had an intentionally narrow focus, which was the specific experience of student nurses when they noticed a difference between theory and practice in nursing. More particularly, the interviews sought to uncover the thoughts and feelings associated with that experience, and the steps taken by the student to address those feelings. In respect of the length of an interview, some most helpful guidance was provided by Kvale (1996). He suggested that in advance of data collection the researcher should consider how the volume of data that were collected would influence data analysis. Kvale summed up the daunting challenge that faced researchers by the analogy of the researcher who attempted to analyse a hypothetical 1,000-page interview transcript. The clear guidance offered by Kvale was that in advance of data collection a researcher should very carefully consider the implications for the analysis of the data and the volume of data that may be produced. Therefore, to construe that the brevity of some interviews with student nurses would necessarily compromise the quality of the data was unfounded.
**Initial data analysis**

In pursuit of an explanation of how student nurses experienced the relationship between theory and practice in nursing, the second phase of data analysis had a number of purposes. The first was to ascertain if the validity of the codes and categories that arose out of the series of focus group discussions would be strengthened or weakened by the data from the interviews with student nurses. The second was to obtain a clearer idea of the point at which student nurses were introduced to the notion that a gap existed between theory and practice in nursing. The third was to identify those features in an undergraduate programme that had specifically influenced learning in practical contexts. A fourth purpose was to explore further how student nurses noticed and then managed any differences they perceived between theory and practice in nursing. The final purpose was to seek support for, and add depth to, the emergent grounded theory from the first phase of data analysis.

**Codes and categories**

The nascent theory that emerged from the first phase of data analysis suggested a number of categories of experience to which student nurses were exposed as they learned professional nursing. Those categories represented a number of related experiences, which introduced, nurtured and reinforced a belief in the orthodox position. In respect of this emerging theory the interview transcripts were read line-by-line and where appropriate afforded the same codes that surfaced during the analysis of the focus group data. Those codes and illustrations from the data are provided in the following list:

<table>
<thead>
<tr>
<th>Substantive code</th>
<th>An illustration from the data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performing for others</td>
<td>I could try and give the care that I expected other people to give then maybe they would see and be led by my example. (Margot 200 level)</td>
</tr>
<tr>
<td>Jumping the hoops</td>
<td>Because at the end of the day these people can pass or fail you</td>
</tr>
<tr>
<td>Topic</td>
<td>Quote</td>
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<tr>
<td>on your placement</td>
<td>I wouldn’t want to do anything wrong particularly upset someone or....... invade their privacy or something.</td>
</tr>
<tr>
<td>Pleasing others</td>
<td>Becoming a step ahead of her basically.</td>
</tr>
<tr>
<td>Bluffing</td>
<td>You really do need to know what you are talking about.</td>
</tr>
<tr>
<td>Confidence</td>
<td>So yes, I just felt like stuck in the middle of some thing but not knowing what to do.</td>
</tr>
<tr>
<td>The confusion of the moment</td>
<td>I felt quite rushed at this one instance if I remember.</td>
</tr>
<tr>
<td>Rushed and pushed</td>
<td>You know that you have to do you know what’s expected of you, and you know that at the end of the day you have got to make sure everything is in the rightful place, done at the right time, and you can’t be laid back and you’ve got to be really alert and slightly sort of you don’t have a life of your own.</td>
</tr>
<tr>
<td>Expectations of others</td>
<td>But for me I know that if you’re left to do it your own way you don’t do it exactly as the textbook tells you. You learn to do it how you feel comfortable.</td>
</tr>
<tr>
<td>Just being me</td>
<td>There needs to be maybe more on going training for the older school. I mean you hear a lot of “I’ve done it this way for maybe 20 years and I’ve never hurt anyone. Why should I change?”</td>
</tr>
<tr>
<td>Changing times: changing theory</td>
<td>You run the risk, I feel, of either alienating yourself from the staff or being a know-it-all that no one wants to help.</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
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<td>---------------------------</td>
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<tr>
<td>Mistrust/distrust</td>
<td>The theory I’ve learned does make sense to me. I haven’t learned a lot yet but it all makes sense and I can see why it’s important ... looking at the biology, we learn about the cells. That really is important if we don’t understand that how are we going to carry on and build on that? (Catherine 100 level)</td>
</tr>
<tr>
<td>Needing feedback</td>
<td>I should have known that she was very good and said “Well you know you’re just a student and you know blah, blah, blah and we picked it up...and he’s okay and every thing is fine now”. (Irene 300 level)</td>
</tr>
<tr>
<td>Rejecting formal theory</td>
<td>Theory is all good and all that but sometimes there are a few curved balls there are things that don’t always go by the book and you have to be quite adaptable to situations. (Kevin 200 level)</td>
</tr>
<tr>
<td>Using a personal theory</td>
<td>You rely on your experience and your knowledge of human patterns and human behaviours and how people will react. (Grace 100 level)</td>
</tr>
<tr>
<td>Subverting</td>
<td></td>
</tr>
<tr>
<td>The interpersonal part</td>
<td>And I found that by the ways that we've been taught, especially myself like, still have the body language of a friendly person and the smile except don't be familiar, too familiar like calling people dear and &quot;just sit down sweetie it won't take long&quot;. (Alison 100 level)</td>
</tr>
<tr>
<td>Needing support</td>
<td>We all had a go at it and when we all had the same experience we all went [name of lecturer in an exaggerated meek and pleading voice].We didn’t know what’s wrong, what’s going on and she explains it and it’s okay. (Diane 100 level)</td>
</tr>
<tr>
<td>Impacting upon my self esteem</td>
<td>I felt I wasn’t going to pass the placement and I felt stupid. (Helen 300 level)</td>
</tr>
</tbody>
</table>
Imbalance I think there needs to be more practice [commenting upon the course structure] in this course I think. If were talking about this specific course. In the first year, it was all theory and one week of practice. (Irene 300 level)

The future will be different Hopefully, in the future I will remember if I come across the same situation and remember yes, no I should be doing something about it. (Leah 200 level)

Being observed And the first thing I noticed was hey! she hasn’t washed her hands (Bernadette 100 level, referring to an observation she made when her husband was being nursed in a hospital)

Being in control I felt like sort of out of control, I just didn’t have control of the situation. (Bernadette 100 level)

Reflecting I reflected upon it afterwards and I went to the books and I just kind of said okay so this is what the norms are and so that I could understand it a bit better. (Kevin 200 level)

Accessing resources By knuckling down and researching and making sure I knew everything when she came and asked me next time [laughs]. (Helen 300 level)

From the above list it will be noted that two additional codes, those of ‘reflecting’ and ‘accessing resources’ emerged, and that no data could be found that corresponded to the idea that students engage in any form of subversion. In respect of the two additional codes, reflection was considered as a form of self-observation and accessing resources as a self-initiated method of seeking feedback or support. In respect of the label “subverting”, this was considered as a particular subset of “jumping the hoops” or “performing for others”.
The origins of the orthodox position

Not surprisingly, the data from the interviews with student nurses in the second and third year of the nursing degree contains the key notions of the orthodox position which were also found in the data from the focus group discussions. Leah, a second year student, remarks upon the way that she has been taught and the way that she has seen nurses practice during practicum.

...Yes there is quite a big difference. To a certain extent as student I feel that I have to sometimes fit in with what they [the nurses] do... Sometimes they are so quick with a procedure that it’s gone...and you sort of think that shouldn’t be done that way but it’s too late. Yes there is a difference.

The third year students are nearing the final stages of their degree, and have completed between eight and ten separate clinical placements. Whilst they acknowledge differences between theory and practice, they also regard the components of theory and practice as complementary. Jane said:

In my first year because it was a lot of theory and I thought nursing was all hands on taking temperature. You know all hands on things. I thought that the theory was irrelevant. But now it isn’t, now it’s all pulled together and it’s all needed it’s all really, really relevant. (Jane, 300 level)

When Irene is asked to summarise the relationship between nursing theory and practice she is adamant that:

You can’t have one without the other. You have to have you can’t practice without having the theory. You have to know why you’re doing it and where you’re going with it and what your outcomes are going to be...and it’s the same with practice. I mean how can you practice if you don’t know what you’re doing? I mean they go hand in hand. Don’t they? Yes.

Margot and Norah, both in their second year of study, view the relationship between theory and practice as very important. They are both confident that a central function of theory is to inform practice. For Margot theory and practice are different, but she also believes that they complement each other:

As a beginning practitioner it is becoming more apparent to me how the relationship between theory and practice is important. Because when I
started I had no concept of the theory behind nursing. I just thought it was purely practice, practical. That you got taught how to stitch something up and you got taught how to wipe something down and I didn’t realise that there was theory behind it. But now as I get into it and I’m getting more in-depth into my nursing I am realising that there is this huge iceberg behind the tip of the nursing.

Norah reflects on the relevance of formal theory in the practical context:
Theory in nursing, in practice... I find myself that I enjoy both. I think that the theory and the practice match very well. I think that what we learn in the classroom does, what’s the word? Not transgress [she meant transfers], to the theory side. It blends.

As the first year students have no institutionally sanctioned clinical experience in the form of a practicum, it is particularly important to explore how they conceptualise the relationship between theory and practice. In the very first interview, and in response to the opening question: “How would you describe the relationship between theory and practice in nursing as you have experienced it?” Alison offers the following:
Actually to begin with I thought that there was no theory in nursing.
To me nursing was more of a practical hands-on job, a way of life.
So the theory was a bit of a slap across the wrist for me...
I didn't really know that there was theory behind anything.
We were just put here by God to do the job. So there was a big difference and a big gap between theory and practice.

An initial response to the specific comment that Alison thinks there is “no theory in nursing” is one of surprise. It seems inconceivable that a person who is embarking upon an undergraduate degree in nursing could contemplate that it is possible to be successful in a degree programme without recourse to formal theory. However, upon reflection the message contained in these words becomes clearer. Alison expresses her surprise at her discovery that the volume and depth of theory that is required by professional nurses is extensive. For Alison, this discovery counters the widely held popular beliefs that student nurses learn as they work, that nursing is a vocation, and that nursing is akin to a religious calling. These
are beliefs that have a strong historical basis in the development of professional nursing.

All of the interviews with first year students reveal that this group of students without any practicum exposure also view theory and practice as separate entities. When Bernadette is asked to describe the relationship between theory and practice in nursing, without hesitation she replies:

I think that there is a big gap.

In a separate interview Diane considers that the relationship is:

Different really, really different. When you're doing the theory you sort of feel quite confused like its really so, so full on like it's really like their pushing all this theory and theory, theory in to you and you like oh so when you do practical it's like sweet as. You get in to it and the relationship they are so different they are so incredibly different I don't know how to describe it.

She concludes:

I think theory and practice are very different.

That the data from the first year students contains the notion of a gap between theory and practice strongly suggests that factors other than formal exposure to practicum have influenced their thinking. The first of those factors is the personal contact with nurses and nursing care that the first year students have experienced prior to enrolling as a student. Some students recall situations in which illness is a feature. Bernadette:

My husband has been in hospital recently.

Fiona:

I was at a doctor’s surgery and the nurses had to administer an injection [to the student].

Emma:

The only other situation that I can tell you ... was when my husband got cancer. I would say that was definitely emotional mentally and physically - that was draining.
Fiona refers to the care she received from a registered nurse when she attended her local family practitioner:

I suppose they [the registered nurse] must have been qualified but I was really quite surprised about you know maybe the way they looked after me they seemed very rushed or it’s just another person and I sort of walked out of there thinking ah well they could have treated me a little bit better?

Alternatively, some first year students refer to close relatives or friends who are registered nurses. Emma comments that her insights into nursing practice are:

From what I’ve seen, you know growing up in a family with my mother being a nurse. The way that she probably practices is... I’ve been into a hospital and seen her working with clients and bits and pieces.

A second factor that influences the beliefs that students hold of the qualities required by nurses is the popular image of nurses in the mass media.

In advance of any recording each student is asked if they watch television programmes about health and health matters. This question is intended not only to ensure that the tape recorder works, but also to establish the extent to which the interviewees watch television programmes which include both fiction and factual representations of nurses. All of the 15 student nurse interviewees state that they watch television programmes in which images of nurses and nursing feature.

In the data all students declare that there are clear differences between nursing theory and nursing practice. Furthermore, when they are asked to describe the relationship between theory and practice each employs concepts that derive from the orthodox position and use language based upon the metaphors associated with the orthodox position. In the data from the students in years two and three of the course, the notion of a gap between theory and practice is reinforced by their periods of exposure to clinical experience. The separation of the experiences for learning theory in a tertiary institution and learning practice in the clinical setting is encapsulated by the students in the expressions 'out there’, 'doing it’ and the 'real world’.
“Out there”, “doing it”, “the real world”
The phrases “out there”, “doing it” and “the real world” are used by students to refer to the clinical context and nursing care. Catherine, in common with all the first year students learns nursing care in the simulated environment of the Skills Laboratory. She is philosophical about this form of learning, in her opinion it is:

...just one of those things. There’s nothing else.

She accepts this form of learning for the time being, but she is convinced that:

You can only get experience through actually going out and doing it in the practical situation.

Pauline, in her third year of study, reflects upon the relationship between classroom theory and practicum:

...I found that what we’re taught in class in regards to how it should be is not necessarily what we experience when we’re out there.

Similarly, Grace in her first year ponders upon the skills learned in the classroom. She remarks:

Theory is alright in theory but hello! Come into the real world and see you know these are human beings with all different foibles and quirks and variations and you have varying responses to it.

The three expressions, ‘out there’, ‘doing it’ and ‘the real world’ and other similar spatial expressions, which occur not only in these interviews but also in the focus group discussions, are further evidence of the objectivist influences that shape the orthodox position. In addition these expressions also indicate the very high value that students from all three years place on the learning that occurs in the company of experienced clinical nurses and patients.

For the first year students, the prospect of caring for patients in a practicum is viewed positively and something that they look forward to with enthusiasm tinged with anxiety. Practicum is an upcoming opportunity to apply those skills learned thus far in the classroom, in the clinical setting. Catherine comments on the importance to her of the skills that she learns in the classroom:
Yes up in the nursing lab we've done quite a bit of basics like hand washing, blood pressures, general survey. Practice, it's practising the skills we're going to need when we're out working out in the wards when we go out next semester. We're basically building up to go out and be safe and understand a little bit of what's going on.

This extract is one of many in the data which demonstrates that students associate different locations and different people with different forms of learning. The students firmly believe that learning practical skills or applying theory to practical situations should take place in the real world of patient care. However, they also accept that formal theory, which is most commonly represented by classroom based learning, is equally as important:

You can’t have one without the other. You have to have; you can’t practice without having the theory. You have to know why you’re doing it, and where you’re going with it, and what your outcomes are going to be…and it’s the same with practice. I mean how can you practice if you don’t know what you’re doing? I mean they go hand in hand. (Irene 300 level)

The students refer to some important experiences that they encounter during the nursing degree which reinforces for them the belief that theory and practice should align.

The important features that reinforced practice-based learning
From their actual or vicarious experiences of clinical nursing, the students report some important features that contribute to the experience of learning in the clinical context. These features are the authenticity of location in which nursing care is learned, the strongly held view that nursing care is a moral enterprise which should be performed correctly, that students require regular support and feedback during a practicum, that the interpersonal ambience of the clinical setting is welcoming, and that students should be acknowledged and valued within the clinical team.

Location
The first year students accept that whilst they wait for imminent practical experiences in the real world, learning nursing skills in classroom based simulation is the only available option. Fiona, a first year student is keenly
looking forward to her first clinical placement. She outlines her feelings about an imminent practicum experience:

This Friday I’m going to spend a day with the district health nurse and then the following Friday… I’m spending two Fridays as well, with that lady as well. I’m looking forward to that. I know it’s just observation and I’m quite happy about that. I’d be quite happy to take a blood pressure or a temperature but yes I am quite happy just to watch and sort of, I mean I’ve got expectations of this course but until I really get in to the community and really see the real stuff you know the how you do it.

For students, learning nursing in the Skills Laboratory is a substitute for real clinical exposure. However, despite their eagerness to engage in actual nursing care they accept that the simulated environment is a safe place to learn and one in which it is acceptable to make mistakes. Diane recalls her first attempts to record blood pressure in the skills laboratory:

I thought, I’ve done something wrong or maybe my equipment was incorrect. I wasn’t sure what was wrong. I was thinking ...I more thought that it was me rather than sort of coz the lecturers didn’t say it won’t be exactly like this. I mean it’s not the lecturer’s fault I think they just assumed that we would realise that but … yes, it got a bit scary.

She adds that as a lecturer was on hand to offer tuition and support, her anxiety soon dissipated:

So I thought I was doing something wrong. That was the main thing but I got over it pretty quickly [Laughs]. We asked the lecturer straightaway. We all had a go at it and when we all had the same experience we all went [Use the name of a lecturer in an exaggerated meek voice of pleading and laughs].We didn’t know what’s wrong, what’s going on and she [the lecturer] explains it and it’s okay.

However, once a student has experienced learning in a practicum it is clear that practicum is a form of experiential learning that is very powerful. Irene recalls the learning that followed an occasion when she failed to apply theory in a clinical context:

I went into the four bedded unit to give out the breakfasts this morning and this elderly gentlemen was lying there with the bed clothes all thrown off ... And I said to him goodness you’ve got; you know. What are you doing?
He said I’m hot. [Pause] I should have done more then but I didn’t and anyway we went back in later to get him up for breakfast and he didn’t want any breakfast: ‘I can’t eat that put it away’...And I knew, in hindsight now when I look back. I should have asked more questions. I should have said why are you feeling hot? What’s happened? They’re the questions but I didn’t...and it wasn’t until the next day, the registered nurse spent a lot of time with him that day but the next day I went on and that gentleman had been removed back to the medical ward because he had septicaemia [pause] and as soon as they said to me septicaemia. I thought [claps hands in gesture as if to say “That’s it!”] I knew the symptoms why didn’t I do more? Why didn’t I ask those questions?

The practicum not only provides students with the opportunity to care for patients, it also presents an opportunity for students to observe the nursing care of experienced registered nurses. The students express a mix of surprise and disappointment when the quality of care that they observe falls short of the standards they expect of professional nurses.

Nursing as moral action
The student nurses express strong views in respect of the characteristics that registered nurses should possess and the way that patients should be cared for by those nurses. Some of those views are reinforced by personal experience:

She’s [Referring to her mother who was a nurse] very kind and open and very relaxed with her clients, and they seem to be very relaxed with her, which is nice. (Emma 100 level)

In contrast to the nursing care that she saw, Margot’s views of nursing are confirmed by the poor quality practice of some registered nurses:

I felt so disappointed in the fact that these people were nursing and they were... not nursing properly.

The realisation that registered nurses do not always practice nursing in the best interests of the patient is an experience that is compounded when it appears that those nurses do not adhere to the same theoretical principles that the student learns, and are therefore principles of nursing care that are very important to the student.
Correct ways

For the student nurses it is imperative that the actions of registered nurses correspond with what the students understand to be the best practice that could be offered to patients. For student nurses best practice is associated with formal theory. In the absence of practicum the first year students are able to compare the theories they are taught with the practice they observe from their personal experiences of nurses and nursing care. Bernadette remembers when her husband was admitted to hospital:

Well that was what I was talking about with my husband; he was in hospital just a week ago and...while the nurses were quite attentive at the same time while they were doing the procedures like taking his blood pressure, or temperature or moving him making his bed or something like that. There wasn’t a lot of communication going on then. They were friendly enough and polite and kind but the academic stuff the nursing stuff wasn’t explained...and the first thing I noticed was –hey! She hasn’t washed her hands.

The more experienced students have more confidence in their own theoretical and practicum experiences as the basis upon which they compare the practice of registered nurses. Pauline, in the third year of the programme, speaks of the technique she observed a registered nurse use for changing a wound dressing:

I worked with the nurse that I was working under that day. I found it unbelievable her practice in regards to what we know as to what we should be doing we get a whole different picture ... and that’s only an example of one nurse...and to be honest I actually found her practice really quite appalling. A sterile dressing particularly... we are looking at stopping infection and then to see her practice the way she did. Was for example "Oh no, I don’t use sterile gloves for this. You know people get all stressed out about this blood business. But for me I’ve done it for years so it’s..."And I was actually really appalled.

In order to learn from the weaknesses in their own practice or the practice of others, the students need supportive feedback and reassurance.
Support
The supportive feedback that students receive is another feature that impacts upon clinically based learning. The means by which supportive feedback is conveyed to the student is either explicit or implicit, and usually most feedback comes from the lecturers, other students and the registered nursing staff. Diane relates the difficulty she experienced when attempting to learn how to record blood pressure in the skills laboratory:

We asked the lecturer straight away. We all had a go at it and when we all had the same experience we all went [name of lecturer in an exaggerated meek and pleading voice] and laughs. We didn't know what's wrong, what's going on and she explains it and it was okay.

Emma outlines the importance of support amongst her first year group.

Our class has been quite special. We’ve actually… try everybody through together and even though we are on the computer we’ve been checking each others work and we’ve be going nah that doesn’t belong and we still have this relationship. We develop them as we go along. It goes both ways you can’t just expect the help from your colleagues and not expect to give back.

Not surprisingly, given the nature of the interview questions, the students from the second or third year of the course provide illustrations of the support that they received during a practicum. Irene refers to a time when she thought that she had failed to care adequately for a patient. In that situation she was able to share her discomfort with the registered nurse who was her preceptor:

I actually… I actually… I actually spoke to my preceptor about that and said that I feel as though I had let him down. I should have known. She was very good and said “Well you know you’re just a student and you know blah, blah, blah” and we picked it up.

However, some students found inanimate sources of feedback and support from their textbooks or lecture notes. Helen, a third year student recalls an occasion from a practicum when her knowledge about a particular pharmaceutical product was limited:

Yes I had a case study and the lecturer asked me about the medications and the conditions and why they’re on the them and I couldn’t answer it
because I was still stuck on a first year level and it wasn’t until I went back
and researched it that was the theory that made me understand what was
going on.

In another very different example, Kevin thinks long and hard about
something he saw during a practicum in his second year. What he saw did
not correspond with the tenets of conventional theory:

That put me up to explaining the situation. There was [sic] still a few gaps
and such. So, I just went to the books to clarify the gaps and everything
else with what they were saying.

The students know that during each practicum they are temporary
members of the clinical team and that means for each practicum they have
to enter into a new and different set of social relationships. The process of
forming new relationships is stressful and the degree of stress associated
with practicum is highly dependent upon the quality of interpersonal
relationships within a clinical setting.

**Interpersonal ambience**

The interpersonal ambience engendered by those who work in a clinical
setting is considered an indicator of the nature of relationship between the
student and the clinical staff. The two main features that construct the
interpersonal ambience are the perceived hierarchal nature of relationships
between nurses and student nurses and the need for each student to feel
part of the nursing team. In her account of the poor quality nursing care
that Margot saw, that hierarchal relationship is clearly evident. In respect
of the poor quality care that she observes, she expresses a mixture of
disillusionment, respect and deference:

I felt so disappointed in the fact that these people were nursing and they
were... not nursing properly... and that sounds really conceited because they
were older nurses and they’d been doing it for so very long and I respect
them for the fact that they have all this experience. So then I come in like
a little fluffy bunny with big bushy eyes and bouncing around and I come in
and say well you’re not doing it right. You’re not doing this, this, this, this
and this because of this, this, this and this and they look at you and go
‘Nyaaah you’re just student what the hell are you talking about’. 

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Hierarchical relationships also play a significant role for Leah when she explains why she participated in an unsafe lifting technique:

- I felt like the buddy nurse was the one higher up than me.
- Basically I just felt that I had to go along with what was being done.

The data from the focus groups revealed that during a practicum experience, student nurses adopt a number of different roles. From the interviews it was clear that the tensions produced between the role of a student and at the same time a team member poses a dilemma for the students.

**Being valued**

It is important to the student that as part of that team the student is regarded as valuable, that their voice is heard and that at the very least they are liked by the other team members. Norah summarises each of these concerns:

- In school we’re told this is how you do it. But then we go out and we are put in a position where we’re nursing, young, beginning practitioners and we’re out of [name of college] for two, three weeks at a time...and if we start oh, you don’t do it like that, you run the risk, I feel, of either alienating yourself from the staff or being a know-it-all that no one wants to help out. Or do you do whatever you feel is right because at the end of the day these people can pass or fail you on your placement.

For the student being part of a team and ‘fitting in’ is an important component for success during a practicum. This means that when students notice that the nursing care of some of the team members is not based upon accepted theory, that realisation is always an unpleasant experience.

**Noticing and responding**

In all of the interviews it is evident that the experience of noticing that theory and practice are not aligned is an experience that triggers uncomfortable emotions. The degree of emotional discomfort varies from student to student and is represented in the data by the words or phrases used to describe the discomfort. The more common expressions include ‘angry’, ‘disappointed’ ‘shocked’ or ‘upset’. These are emotions that
sometimes emerge when students reflect upon their own actions. Irene describes a situation in the third year of her course when she considered that her ability to apply theory in a clinical was below her own acceptable standards:

...Well recently, actually, in my last clinical placement...and I’m just get so angry with myself over this because I didn’t ask the right questions. Yet I knew later on that I should have done this and done that ...I should have done more then but I didn’t ... in hindsight now when I look back, I should have asked more questions I should have said ‘Why are you feeling hot? What’s happened?’ They are the questions but I didn’t... But the next day ... they said to me septicaemia. I thought [claps hands in gesture of immediate acknowledgement] that’s it! I knew the symptoms, why didn’t I do more? Why didn’t I ask those questions?

In this illustration, Irene repeatedly refers to letting herself and the patient down. Her performance at the time fell far short of her own expectations:

... Hell in hindsight when I look back it was just really stupid I really shouldn’t be [nursing]... I should be waitressing [extended laugh].

Helen, another third year student, recalls a time in her second year of study when she failed to answer correctly questions posed by her lecturer:

I felt I wasn’t going to pass the placement and I felt stupid [laughs].

Uncomfortable emotions are also evoked when the students describe how they felt when they saw inappropriate actions on the part of other nurses:

They were treating him as Oh, he’s slightly demented, and he's incontinent. So therefore we are not going to pay that much attention to his cares. That [referring to poor nursing care], Oh! That made me so mad [increase in the volume of her voice and she laughs ironically] so mad. I did, I jumped up and down and rocked the boat and spoke to people, and nothing happened...and that made me very upset. (Margot 200 level)

During some interviews when the students retold uncomfortable events, it was apparent that some of the emotional aspects associated with the experience were still present. For example, during her interview Leah remembers a time when she was involved in poor lifting technique. She states quite clearly:
It's still on my mind. I can still remember it and that was from a year ago. It still plays on my mind. So obviously I’m thinking I should have done something. I could have done something. It’s not resolved well in my own mind.

Pauline reflects on the poor dressing technique of a registered nurse and suggests that her interview with the researcher has provided an opportunity for her to recall and address her discomfort:

Now that it’s come up this [referring to the interview] is like a bit of a debriefing.

The first year students, whom it must be reiterated have no practicum exposure, also express similar emotions when the nursing care of another person appears at odds with formal theory. Fiona thinks about her own experiences of nursing care:

It was a busy doctor’s surgery but they were very impersonal I just felt like I was just number 37 on the list and they were hanging out for their coffee.

However, when the first year students remember skills performed in the safety of the Skills Laboratory the emotional content of their responses is less acute. Diane on her attempts to listen and record blood pressure:

I was thinking... I more thought that it was me rather than...? Sort of because the lecturers didn’t say it won’t be exactly like this. I mean it’s not the lecturers fault I think they just assumed that we would realized that. But ... yes, it got a bit scary. So I thought I was doing something wrong. That was the main thing but ... got over it pretty quickly [Laughs].

In common with the data from the focus group discussions the interviewees report that they employ a number of strategies to alleviate emotional discomfort. If the students observe poor practice in others they choose to avoid conflict, apportion blame, become resolute in the values of their own practice or find a safe environment in which to raise their concerns. Alternatively, if they consider that it was their own practice that is inappropriate some students seriously doubt their competence or choose to revisit formal theory.
The strategies students employed to deal with emotional discomfort

At the time the student nurses observe poor practice on the part of others they want to point out to those concerned that their actions are not in accordance with accepted theory. However, for fear of reprisal most students feel unable to confront experienced staff. Instead they remain silent, internalise the experience, and outwardly appear to do nothing. They know that this is not a satisfactory course of action and the failure to act at the time also produces significant discomfort:

I felt, I felt put in a position where I was either going to be a know-it-all show off and run the risk of being looked upon badly. At the end of the day who knows. Who knows this person I’m working with knows and who they know. Nursing is a really small profession and you can’t put somebody’s nose out at the beginning. You never know when it will comeback to bite you in your career. (Norah 200 level)

Leah knows that she should have been more assertive when she comments on how she managed a situation:

In retrospect not very well because I didn’t really deal with it at the time. So I still have those memories of what I should have done. What I perhaps should have said or how I should have approached the nurse, but I didn’t.

Whilst the students are determined that they will not compromise their own standards of nursing care, few copy Margot who:

... Jumped up and down and rocked the boat and spoke to people, and nothing happened.

In the full knowledge that her actions will make her unpopular within the nursing team, Margot decides to take a stand:

And when I challenged them regarding the practice and what they were doing they didn’t care ... and that shocked me a lot.

More commonly, students remain silent, resolve not to imitate the poor practice they see, and like Margot ensure that they maintain high personal standards in the care that they offer to patients:

I had only three weeks [the length of the practicum]. So during my three weeks this gentleman got the best care he had ever got in his whole
hospital life. Because I knew that if I could try and give the care that I expected other people to give then maybe they would see and be led by my example. (Margot 200 level)

The bad practice that they observe is an experience that some students eventually choose to share with others, but only with those who the student trusts:

I talked to other girls on the placement and found out how they, what they felt like. We did talk to our lecturer and when we got back to [name of college] because the actual lecturer on the placement was the head nurse of the facility. So nobody wanted to really talk to her because not only were you saying. ‘Your staff are doing it wrong’. But you sort of—yes it’s just putting her staff in a bad light. (Norah 200 level)

Jane, a third year student adopts a similar approach:

But I knew I wasn’t so and I just thought carry on. I talked to my lecturer about it. They [the lecturer] said "No carry on the way you are doing it”.

For most of the students the experience of noticing a gap between accepted theory and their own practice is sufficient to undermine their self-confidence, and for which they relate strong feelings of self-doubt.

Irene:

I should have gone and got a thermometer. It’s as simple as that. But I didn’t...

Diane:

I thought I’ve done something wrong or maybe my equipment was incorrect. I wasn’t sure what was wrong.

Some students accept that their application of theory to practical nursing is deficient and acknowledge that they have a personal responsibility to enhance their learning. Helen, an experienced third year student, decides that she would address an identified shortfall in her knowledge by:

...knuckling down and researching and making sure I knew everything when she came and asked me next time [laughs]. Becoming a step ahead of her basically.

And in response to her flawed attempt at patient assessment Irene:
...went home that night. I actually got into my books ... so the next time it happens I’m going to know.

From the data it is clear that the individual characteristics of each student and the specifics of each situation influence the way in which each student responds. Interestingly, in the context of this study what is of note is that unlike their counterparts in the focus groups these students are willing to share what may be perceived as weaknesses on their part. This lead to a conclusion that as the researcher was the common denominator in both sets of data collection, it was more likely that it was the presence of their peers that discouraged the students in the focus groups from sharing examples of poor nursing care.

The students recognise that when individuals fail to perform nursing care correctly those were actions that challenge the key values that each student holds about the nature of nurses and nursing care. Therefore the students seek explanations as to why theory and practice are different. The most usual explanations of the dissonance are that nurses are constrained by the demands of their job, that some nurses are disillusioned after many years of practice, that some nurses are less educated than undergraduate students, or that some care is idiosyncratic and thus defies conventional theory.

**Explaining the difference**

In an attempt to rationalise the behaviour of those nurses observed undertaking inappropriate nursing care, the students offer a number of unsolicited explanations. The first explanation concerns the demands of nursing, the hectic nature of nursing work and the shortage of nursing staff.

Leah:

In reality there isn’t the time or there isn’t the manpower or whatever to actually implement some of those things.

Norah reflects upon the reason two nurses decided to lift a patient in a manner that ran counter to the available theory:

Mmm [pause] we came back to school we had a debrief and found out that lots of people had the same experience of moving people that its quicker to
do this than using slip sheets. They found that there wasn't [sic] enough nurses to do it. Because you have to roll the person, put the slip sheet under. We were just given the excuse-quick and easy.

Bernadette:

And I think that some of that comes from the lack of staff as well. You know you haven't got time a lot of the time you're rushing in and rushing out again. Perhaps that's where some of that comes from.

A second explanation of inappropriate nursing care is that the more experienced nurses may be jaded. Furthermore, the length of time that the registered nurses were members of the profession may have made the nurses complacent in their work.

Margot:

I don’t know whether they’d been there for 50 million years and they thought that they knew what they were doing.

Bernadette, this time commenting on why she chose the word complacent to describe some experienced nurses:

...The nurses that have been there for some years have lost that, lost the passion or something. I don’t know it’s [the view expressed by Margot] very judgmental.

A third suggestion from the student nurses is that nurses who trained in hospitals rather than tertiary institutions may have a less intensive education, and although they are highly experienced they are less knowledgeable. As a result, those registered nurses are now reluctant to address ongoing professional development.

Norah:

Mmm...I think that the old school needs to catch up with the new school. There needs to be maybe more on going training for the older school. I mean you hear a lot of I’ve done it this way for maybe 20 years and I’ve never hurt anyone. Why should I change?

Jane considers aspects of the differences between the culture of hospital-based training and the educational culture of a nursing degree:
I thought that the nurse I was working with had trained a long time ago and that they (sic) were trained task orientated.

Helen believes that one reason why some experienced nurses fail to understand the pharmaceutical effect of particular products is: Probably because they haven’t had the study and experience that I’ve had.

The explanation Kevin offers is very different from the other students. He saw a patient respond to surgery in a way that contradicts and confounds formal theory. This puzzles Kevin, but it does not distress him. He concludes:

Theory is all good and all that but sometimes there are a few curved balls there are things that don’t always go by the book and you have to be quite adaptable to situations. Because who knows some people will feel pain some won’t. You can’t exactly say who is getting the pain.

In their accounts of the differences between theory and practice the students allude to three types of theory that influences nursing care. Those types of theory are formal theory, theory acquired through experience and personal theory.

Types of theory
The first year students have no practicum upon which to make a comparison between the ideals of formal theory and the day-to-day world of nursing care. However, they believe that a high level of understanding of nursing prior to a practicum is important, and that the basis of that understanding is the formal theory present in either textbooks or associated with lecturers and classrooms. Catherine describes the contribution of formal theory to nursing care:

You’ve got to have the theory first. I feel to a certain extent obviously you got to have basic knowledge before you can go out and do your practice otherwise you not going to be safe. You’re not going to know why you’re doing things. It [theory] gives you a background to what you need to do. It’s quite important.

Fiona describes her experience of being a student in the first year of her nursing degree:
I just feel like that I am back at school doing assignments learning about all these theorists and that sort of thing. It’s quite interesting... I suppose we all need to start at the very beginning and be taught properly I suppose.

Helen and Irene are experienced students who have extensive exposure to practicum. When faced with challenges to their ability to understand the relationship between theory and practice they refer to their textbooks. It is their ability to research that enables them to address their problems. In order to deal with gaps in her knowledge of a particular illness, septicaemia, Irene:

... Went home that night. I actually got into my books and I looked up what septicaemia was what the signs and symptoms of it were and what I was to look for and how it was to be treated...and so the next time it happens I’m going to know.

A second type of theory introduced to students, is of a more informal nature. It is a contextually embedded theory that guides the actions of experienced nurses in the clinical setting. Diane (100 level) and Pauline (300 level) independently question the differences between the hypodermic needle techniques of registered nurses they had observed and the formal theory they had been taught in relation to the administration of injections. Diane recollects a recent event when she had a specimen of blood taken from her by a registered nurse in a health centre:

We haven’t done blood tests on adults yet. But yes, I think when we get to it I’ll be asking questions [laughs] about it probably. Yes, it was interesting because she said ‘You will be told never to do it like this but I do it and I don’t have any problems’. So I’d say she was taught you know how you do it this way you do it you don’t ever do it differently and then she shifted off and did it her own way anyway. So I think that people just do it how they want to [Laughs]... I think a lot of nurses develop how it suits their own way of doing things.

Pauline comments on the technique for intra muscular injection:

For example there is this business about the best site for an IM [intra muscular injection]. Now that’s changed a lot. I never seen where we should be doing it [the injection site] actually happening on the wards. So my query is ‘As students how are we supposed to use the best site’? Because it’s a whole lot different to the site they use.
A third, and an equally important, type of theory is the personal theory that students declare influences their actions. This type of theory is particularly prevalent in illustrations where interpersonal communication between nurse and patients is the focus of care. Fiona, who at the time of the interview acknowledges that she had no formal training in interpersonal communication, is confident that:

... with regards to how you treat someone I think ...you know if you don’t know how to treat another human being like you would be treated you probably shouldn’t be a nurse. You might not; you might not last long in the profession.

Margot chooses to counter the poor nursing care of she observed and resolves that:

Because I knew that if I could try and gave the care that I expected other people to give then maybe they would see and be led by my example.

At times these three different types of theory, each with different sources, appear to conflict with each other. As arguments could be put forward to support or reject the validity of each type of theory an inevitable tension is produced and that tension is experienced by the students.

An alternative explanation?

The convergence between the data gathered from two phases of data collection confirms that the orthodox position is a notion that is firmly embedded in the nursing profession. However, from the individual interviews there emerged a small number of atypical explanations of the relationship between theory and practice in nursing. In particular there were two students who offer examples that suggest that they hold an alternative understanding of the complexity of the theory-practice relationship. In the first example, Kevin describes a situation in which a patient was being cared for following abdominal surgery. Kevin is aware that the established formal theory advises that in this situation the patient should experience considerable pain and therefore require strong post operative analgesia. The belief that the patient should experience significant pain is also a perspective clearly supported by the practical theory of the registered nurses and personal theory held by Kevin in
respect of what should occur. However, the patient required minimal pain relief and therefore confounded all three forms of theory. Kevin remarks on this considerable variance between theory and practice:

There are a few curved balls. There are things that don't always go by the book and you have to be quite adaptable to situations.

In a second example, Margot is asked how her practicum experiences influence her understanding of the relationship between theory and practice. She considers the relationship as:

Very complex, it's kind of like a dance I think. You've got to dance a line and you move in and out of both the areas and they interrelate.

The language Margot uses to describe the relationship between theory and practice employs complex rather than complicated imagery. Furthermore, it is a description that has particular resonance as it mirrors the key features of an enactivist explanation of learning, of which it is stated that: “Learning, should not be understood as a sequence of actions, but in terms of an ongoing structural dance - a complex choreography-of events which, even in retrospect cannot be fully disentangled and understood, let alone reproduced” (Davis, Sumara, & Kieren, 1996 p. 153). Both of the explanations put forward by the students are an indication that there are occasions when students experience the possibility of an alternative explanation of the relationship between theory and practice in nursing.

Conclusion

In this set of data collection the examples that students provide when theory and practice did not match cover a wide range of learning contexts and are representative of the experience of being an undergraduate student nurse at the college. Alison, Catherine and Emma select examples that reflect the challenge of applying conceptual principles in the absence of actual clinical experience alongside registered nurses. Bernadette, Leah, Pauline, Diane and Norah describe the use of clinical skills that counter or ignore formal theory. Helen questions her poor knowledge of pharmacology, whilst Irene and Kevin respectively, describe inadequate or inconsistent assessment skills. Finally, the examples offered by Fiona, Jane, Margot and Grace are of those occasions when registered nurses
exhibit unacceptable or ineffective application of interpersonal skills in the conduct of patient care. In all of the examples negatives feelings are brought about by the experience. Those feelings range from mild bemusement to feelings of disappointment, anger and overt distress. For a number of students the emotional turbulence appears to be unresolved at the time they were interviewed as part of this study. For the students, and as a consequence of their experience of dissonance, the gap between theory and practice in nursing and their key personal values have simultaneously been reinforced.

The analysis of the second phase of data collection contains a number of themes consistent with those uncovered in the data analysis from the series of focus group discussions. The first theme is that participants overwhelmingly believe in the tenets of the orthodox position, which is encapsulated by the notion of a gap between theory and practice in nursing. The second theme is that it is evident the learning experiences which occurred in the context of authentic nursing care, with patients and clinical nurses, more than any other experiences reinforces the perception of a dissonant relationship between nursing theory and nursing practice. Third, when the student nurses, in particular, notice a difference between theory and practice, they also recall negative feelings that are associated with that realisation. It is apparent in both sets of data analysis that those negative feelings impact upon the self esteem and self confidence of the students. The fourth theme revealed in the data, is that for students the practicum is not only a time to learn ‘real’ nursing but also time when the student want to be a contributing member of the professional workforce. Fifth, the students attempt to explain the difference between theory and practice by suggesting a number of reasons that produce the gap. Finally, it is clear that the individual characteristics of each student influence their ability to manage the experience and devise strategies to address the discomfort associated with the experience of dissonance. The analysis of both sets of data adds depth and volume to the developing theory that emerged from the first phase of data analysis. A summary of the development of that theory is contained in table II, the detail of which will be the focus of the next chapter.
Table II. A summary of the codes, categories and emergent grounded theory

<table>
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<tr>
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<th>An emergent grounded Theory</th>
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<td>Incorporating personal knowledge</td>
<td>Believing in a gap</td>
</tr>
<tr>
<td>Just being me</td>
<td>Trusting learning</td>
<td>Experiencing different theory</td>
</tr>
<tr>
<td>The interpersonal part</td>
<td>Fulfilling expectations</td>
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<tr>
<td>Rejecting formal theory</td>
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<td>Negotiating Differences</td>
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<td>Changing times: changing theory</td>
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<td>Imbalance</td>
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<td>Fitting in</td>
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<td>Pleasing others</td>
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<td>Being observed</td>
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<td>Expectations of others</td>
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<td>Being in control</td>
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<td>Performing for others</td>
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<td>Jumping the hoops</td>
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<tr>
<td>Impacting upon my self esteem</td>
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<td>Rushed and pushed</td>
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<tr>
<td>The confusion of the moment</td>
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<td>Confidence</td>
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<td>Needing support</td>
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<td>Mistrust/distrust</td>
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<td>Bluffing</td>
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<td>The future will be different</td>
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CHAPTER SEVEN

‘NEGOTIATING DIFFERENT EXPERIENCES’: A GROUNDED THEORY

In nursing education the orthodox position, known by the shorthand expression ‘the theory-practice gap’, is the most widely accepted conceptualisation of the relationship between theory and practice in nursing. The orthodox position has proved to be a most helpful notion that has assisted nurse educationalists to understand how they might best help student nurses apply theory in practical contexts. However, the orthodox position is an ultimately incomplete explanation of a complex relationship for the following reasons:

- It is over reliant upon the objectivist perspective of learning in which the world of theory is viewed as distinct from the world of practice;
- It fails to regard learning as a unified experience in which the student is influenced by the context in which they learn and at the same time influences that context;
- It fails to recognise that knowledge may be more deeply understood as an integral component, an affiliate, rather than a precursor or a successor to practical activity;
- It is highly dependent upon the mechanistic qualities inherent in the metaphor of the computational mind and thus ignores the more organic notion of embodiment;
- The metaphor of a gap is laden with physical images which contrast with the abstract processes that comprise learning;
- The primary evidence to support the existence of a gap is taken from the ability of one person to articulate or demonstrate to another person their ability to align theory and practice;
The belief amongst nurses in the existence of a gap is axiomatic and subsequent analyses and attempts to resolve problems presented by the gap are based upon a series of self-supporting concepts.

In the opening chapter of this thesis it was proposed that for a more complete understanding of the relationship between theory and practice in nursing, it was necessary to consider the relationship as a definitively private and individual experience from the perspective of the student nurse. In pursuit of that understanding, a Grounded Theory (GT) approach was taken to the collection and analysis of data from participants in two discrete sets of data collection that employed group and individual interviews respectively. The raw data were liberally peppered with metaphorical language and practical illustrations that appeared to strengthen rather than weaken support for the orthodox position. Furthermore, the orthodox position was so prevalent in the data that a search for an alternative or complementary explanation of the relationship between theory and practice in nursing may have proved fruitless.

However, when the constant comparative method was employed to analyse the data, evidence emerged which confirmed that prevalence alone was insufficient to counter the emergence of an alternative explanation of the relationship between theory and practice. For example, the presence of the orthodox position, in which theory and practice were separate entities from separate domains of experience, was certainly widespread in the data. However, the analysis of the data revealed that when registered nurses and student nurses recalled their experiences of the relationship between theory and practice, they reported those experiences as occasions when thoughts, actions and feelings were simultaneously engaged. This strongly suggested that the experience associated with a perceived dissonance was a holistic experience and not a fragmented experience. Further, the definitions of theory offered by the participants were those that exclusively associated theory with the conventional notion of formal or propositional theory. In spite of these definitions, when it came to illustrations of the application of theory in practical contexts, participants drew upon examples that used theory from three different sources and not one source. Those sources of theory were
private (personal), practical (situational) as well as formal (propositional) theory. Finally, the participants believed that an understanding of formal theory was an important precursor to effective nursing practice. However, the participants described patient care for which the successful outcome was based upon interventions for which they, or the more experienced registered nurses had no formal knowledge.

From the data analysis an alternative and complementary explanation of how student nurses identify, experience and manage any differences they perceive between theory and practice in nursing emerged. That explanation, which was grounded in the experience of student nurses, and based around the concept of negotiation, is called ‘Negotiating Different Experiences’. That theory can be represented by the following diagram (Figure 1).

**Figure 1. Negotiating Different Experiences**

![Diagram showing the process of negotiating different experiences](image)

**Negotiating different experiences: a synopsis**

Even before student nurses are exposed to practicum it is evident that they hold personal values with regard to the skills, attitudes and knowledge that they considered were required for professional nursing. Those values were strongly held, and based upon the preconceptions
which arise from the personal contact that each student has with nurses and common sense notions about nurses that are present in the public domain. Once a student embarks upon an undergraduate nursing degree, two course related experiences are very influential and compel the student to evaluate the validity of their preconceptions. Specifically, those experiences are the exposure that students have to different sources of theory and their exposure to the application of different theories in the context of nursing practice. The tension between these two experiences and their personal values produces a form of intrapersonal conflict which is manifest as emotional discomfort. That is a discomfort which might be private or might be observed by others. As a result of those experiences some of the preconceptions held by students are modified. However, the core personal values that students hold about nursing, which are embedded in their preconceptions, are more resilient and persist throughout the three years of their nursing degree. Those values impact on all learning opportunities and shape the students’ explanation of the difference between theory and practice in nursing. From the range of possible explanations, the notion of a gap is the explanation that offers the least threat to the integrity of their personal values and produces the least emotional discomfort.

**Believing in a gap**

The language that students use to describe the relationship between theory and practice in nursing contains many of the core images of the orthodox position. Furthermore, in a manner similar to other more experienced participants, the metaphors of the conduit and the container (Lakoff & Johnson, 1980), considered central to the way that the orthodox position construed the process of learning are also evident:

I didn't really know that there was theory behind anything. We were just put here by God to do the job. So there was a big difference and a big gap between theory and practice. (Alison 100 level)

I do need to take all the theory into the practice. (Bernadette 100 level)
I think that there is a big gap... you’re talking about what I know about nursing now from the studies I am doing and what actually happening out there? Yes, I think there is a big gap. (Bernadette 100 level)

Applying knowledge and things learned into practical situations. (SN2)

Personally for me as a student I like as much theory as I can get before I go out on a placement...and even if I’m not going to be using it all on placement at least I’ve got a good base knowledge. (Pauline 300 level)

It is clear from these extracts that the relationship between theory and practice in nursing can only be expressed by using the language that is associated with the notions of the orthodox position. In both sets of data collection, the key notions that surfaced effortlessly and without encouragement from the interviewer are that theory is an object found in one location and taken to another location, where it is stored and processed to be used later in another location. Those locations are regarded as very different and are separated by a space or a void. In the data the widespread presence of the orthodox position came as no surprise and added significant weight to the assertion that the orthodox position is both widespread and axiomatic across the nursing profession.

However, two important additional comments are made with particular reference to the contributions of the first year students. First, in the absence of any sanctioned practicum experience, this category of student readily uses images derived from the orthodox position. This confirms that linguistic, objectivist, Cartesian and experientialist influences are forces that shape the thinking of student nurses in advance of any practicum experience. Second, the firm belief in the principles of the orthodox position influence the confidence that the first year students express in the relevance of theory in practical contexts even before their exposure to practicum. Third, in addition to the conventional notions contained in the orthodox position, students also hold very strong personal beliefs about the nature of both nurses and nursing care before they experience practicum. When the data from the second and third year student is incorporated into this study, it demonstrates that the subsequent experiences that students have during an undergraduate
programme generally reinforce rather than weaken their belief in a gap between theory and practice.

**Preconceptions and personal values**

In the absence of any formal study of nursing, two categories of informal experience from public rather than professional notions of nursing combine to provide student nurses with insights into the work of nurses and the qualities that nurses possess. The first category of experience is the personal contact that each student has with nurses or nursing care. The second category is the exposure that students have to the popular representations of nurses in the mass media.

**Personal experience**

In respect of the personal contact that students have with registered nurses. As the students from the second and third years of the programme had undertaken practicum experiences, it is self evident that as part of the undergraduate degree they had come into contact with registered nurses and nursing lecturers. Therefore of particular interest are the responses of the first year students as they recall occasions of their own experience of nurses or those of a family member or friend:

- All through my asthma education, I have been educated as a layman asthma educator not as clinical asthma educator. (Alison 100 level)

- My husband has been in hospital recently (Bernadette 100 level)

- Even this morning, I had this blood test (Diane 100 level)

- The only other situation that I can tell you, was when my husband got cancer I would say that was definitely emotional mentally and physically (Emma 100 level)

- I was at a doctor’s surgery and the nurses had to administer an injection [to the student]. (Fiona 100 level)

- Probably the practice side would be from what I’ve seen you know growing up in a family with my mother being a nurse … the way that she probably
practices is, I've been into a hospital and seen her working with clients
(Fiona 100 level)

...and at my age, I've been care giving [Referring to her work as a Care
Assistant] for about 30 odd years (Grace 100 level)

It will be noted that missing from these brief extracts from the first year
students, is any contribution from Catherine. Although in her interview
Catherine uses no illustrations that suggest she had personal experience of
nurses, she reveals at the start of her interview that she had both relatives
and friends who are nurses.

The popular representation of nurses

In addition to personal contact with nurses all of the students who were
individually interviewed report that they watch television programmes in
which nurses feature. The impact that the media image of nurses may
have on the nursing profession does not form part of this discussion.
However, in the context of the theory that emerged from the data, what is
important is that nurses along with police officers, teachers and fire-
fighters are members of occupations that are in the public domain. Not
only are nurses in the public domain, but nurses and nursing are regularly
featured in either documentary or fictional programmes on television and
other forms of mass communication. As a consequence representations of
the work of nurses are well known to the students. The nursing literature
has consistently reported that the most common images of nurses in the
mass media were those of the handmaiden, the angel of mercy, the battle-
axe and the sex-symbol (Gallagher, 1987; Kalisch & Kalisch, 1984; Karpf,
1991; Salvage, 1984). These images of nursing, which have a historical
and contemporary reality, persist and are found in the data:

I just thought it was purely practice, practical. That you got taught how to
stitch something up and you got taught how to wipe something down.
(Margot 200 level)

She’s very kind and open and very relaxed with her clients, and they seem
to be very relaxed with her, which is nice. (Fiona 100 level)

I had a clinical nurse leader lecture me in front of the client. (SN3)
I just thought it was just women walking around in white coats and looking pretty and assisting people who are ill. (Fiona 100 level)

The nursing profession usually rejects these popular images of nurses and declares them as inaccurate representations of nurses and nursing (e.g. Fealey, 2004; Meier, 1999; Salvage, 1984). However, it would be difficult to deny that these images are persistent, pervasive and powerful, and that they provide a source of information about nursing for the general population, from which prospective student nurses are drawn.

When the personal experience of students is combined with commonsense notions of nursing, a set of key values that each student associates with professional nurses is formed. Those key values, which are expressed both implicitly and explicitly, are that nurses are principled people; that nursing is a worthy human activity; and that patients deserve the best care that nurses can provide. These key values are very important to the student and are values that modify learning during the nursing degree and inform personal decisions about the relevance of theory to practice. In addition personal values also serve another important purpose. That purpose is that they are the standards against which the students evaluate the formal theory presented to them in their nursing degree, the care that registered nurses offer to patients, the quality of their own nursing care, and the foundations upon which each student incorporate and extend their knowledge of nursing.

*The influence of preconceptions in professional education*

Student nurses hold preconceived ideas about the values of nursing and nursing care, and whether or not those ideas are accurate or converge with professional notions, is not important. What is important is that student nurses, perhaps even before they begin their nursing degree, develop a personal or private theory of the skills, knowledge and attributes relevant to nursing care. The students accept that at times the formal study of nursing will contradict aspects of their personal experiences. However, as the basis for the values that they associate with nursing work, formal study does not entirely cancel out the impact and
influence of personal experience. In the data personal values emerge frequently and are an enduring feature of the way that student nurses speak about and evaluate the delivery of nursing care. Personal values, central to the process by which student nurses negotiate the relationship between theory and practice, are found to be an important influence in the education of student teachers, and an influence that must not be underestimated (Haney, Czerniak & Lumpe, 2003).

The influence of preconceptions, were one of three important "presage factors" (Biggs, 2003, p. 18) drawn from personal experience and was demonstrated to be a significant factor in shaping the views and behaviours of students and teachers in respect of how they learned and taught. It was also observed that newly qualified school teachers and student teachers were most likely to select a teaching method or an approach to learning that was proven to be successful during their personal experiences of learning (e.g. Cole & Knowles, 1993; Haney, Czerniak & Lumpe, 2003; Harris, Guthrie, Hobart & Lundberg, 1995; Korthagen & Kessels, 1999; Trigwell & Prosser, 1997). Furthermore, based on their own experiences, teachers often adopted a teaching style that reflected their personal experiences of teaching and learning, and therefore believed that similar approaches to learning would also work the best for the students they taught (Silverman & Casazza, 1996). It was also stated that the performance of experienced teachers was influenced by preconceived notions of teaching and learning and that many teachers functioned without overt reference to educational theories of learning (Eraut, 1994).

The extent to which preconceptions about nurses and nursing influences the behaviour of student nurses, has received some attention in the nursing literature. In 1993, Andersson was specifically interested in the nature of the preconceptions held by students prior to entering a Swedish nursing programme, and whether those preconceptions altered during the programme. In that study two observations were made by Andersson which added weight to the importance of preconceptions. One observation was that the preconceptions held by students remained stable throughout the programme. The second was that: "New information offered by the education programme has to 'filter' through perceptions of
nursing. Information, knowledge or values, which are not in line with the ideal image of nursing, are rejected or induce perspective transformation” (Andersson, 1993, p. 814). In another study, this time conducted in England, the focus of interest was the interaction between individual preconceptions of nursing, referred to as personal knowledge, and course determined propositional knowledge. The author acknowledged that little was known: “...about how it [personal knowledge] is used to interpret propositional knowledge acquired during students’ professional courses” (Spouse, 2000, p. 731). The study reported that some students retained their personal values with more doggedness than others. Further, with an allusion to the relationship between theory and practice in nursing Spouse reported that: “Inevitably interpretative frameworks that students bring to any situation influence their goal achievement. Consequently, beliefs about what nurses do, inform not only their career choice but also the way in which they will engage in it” (Spouse, 2000, p. 737). These references to the significance and persistence of preconceptions supported the observations made in the context of teacher education. Of such preconceptions it was remarked that once established they were very difficult to counter in that: "Preconceptions show a remarkable resistance to traditional attempts to change them" (Korthagen & Kessels, 1999, p. 5).

Historically, the normative professional curriculum, which usually formed the framework for professional education including that of nurses, had scant regard for the private or personal knowledge held by aspirant professionals (Peters, 2000). If any form of prior knowledge was valued it was usually knowledge of a propositional nature such as those academic subjects deemed relevant to the demands of the traditional academic curriculum (Eraut, 1994). As a consequence the personal knowledge held by student nurses in respect of nurses and nursing was most likely viewed as unimportant or at best evidence that the general public was misinformed of the true nature of nursing work (Meier, 1999). For educationalists to disregard the personal theories that students held about the nature of nursing was to run counter to a central tenet of constructivist approaches to learning, for which it was considered that the past experiences of the learner were important in the construction of
prospective learning experiences (Colliver, 2000; Lesh, Doerr, Carmona & Hjalmarson, 2003; Peters 2000). Constructivism, which was closely associated with the ideas of Dewey, Piaget, Vygotsky and more recently von Glaserfield (e.g. Begg, 2000; Fox, 2001; Henson, 2003; Peters, 2000) presented a range of possibilities for the education of nurses in that:

...prior knowledge influences what new or modified knowledge they will construct from new learning experiences. The learning process is an active one. Learners challenge their comprehension as a result of new learning encounters. If what learners encounter is inconsistent with their current comprehension, their comprehension can be changed (Peters, 2000, p. 167).

**Experiencing different theory**

The personal values of each student form the axis around which their acceptance or rejection of the validity of different types of theory to which they are exposed in the undergraduate programme is negotiated. Over the three years of their programme the students have a number of learning experiences during which they are introduced to the possibility that there are different types of theory relevant to nursing care. Those learning experiences are classroom-based formal learning experiences, clinically-based learning experiences in patient care contexts, and learning derived from informal personal experiences. The first type of theory to which students are exposed is formal theory, the influence and importance of which is underlined by the definitions of theory in the data. Those are definitions that overwhelmingly associate theory with formal or propositional knowledge:

The 'book' based part of the learning with no practical hands on of the subject, just reading and assignments to gain learning. (SN3)

**Negotiating formal theory**

In common with other forms of education that prepare students to enter a profession, the nursing degree is structured in accordance with the principles of a normative professional curriculum. The normative professional curriculum is usually organised so that the first type of theory to which students are exposed is formal theory (Agryis & Schön, 1989;
Benner, 1984; Carr, 1995; Eraut, 1994). Thus from the day that the student nurses start the nursing programme, formal or propositional theory associated with textbooks, classrooms and lecturers, forms the basis of their programme. Given the status, power and tradition of formal theory in all forms of higher education, it is not surprising that the students value and trust formal theory. Furthermore, those students who had no practicum experiences express a higher level of trust in both formal theory and the teaching and learning resources associated with formal theory. At the college all of the students initially learn practical skills under the supervision of nursing lecturers in a classroom designated as the Skills Laboratory. The purpose-built Skills Laboratory is a simulated nursing environment which uses equipment such as beds, wash basins and a selection of technical apparatus that are similar to those found in a hospital ward. In many ways the ‘Skills Laboratory’ looks and feels like a hospital ward except that the key human features such as clinical nurses and patients are missing. The students learn how to perform nursing skills by practising on each other or on commercially produced mannequins. Simulation supported by propositional knowledge is, in the absence of learning drawn from practicum experiences, regarded as an important and reliable source of learning:

It’s quite interesting... I suppose we all need to start at the very beginning and be taught properly I suppose. (Fiona 100 level)

You have got to have the theory first. I feel ...to a certain extent obviously you’ve got to have basic knowledge before you can go out and do your practice otherwise you’re not going to be safe you not going to know why you’re doing things it gives you a background to what you need to do it’s quite important. (Catherine 100 level)

However, it could not be construed that the knowledge associated with textbooks, classrooms and other artefacts of formal education is fixed in that:

It is an illusion that there is knowledge in books or documents. They contain language, which is a string of words, deposited in them by authors. The words have meaning for the author and the readers and interpreters,
each one of whom has built up her subjective meanings according to her individual experiences (Von Glaserfield, 1993, p. 30).

The perspective of Von Glaserfield is an important consideration which regards formal knowledge and in particular formal knowledge that may underpin practical nursing skills, as subject to interpretation. However, it is not a perspective that is shared by all of the nursing lecturers. The nursing lecturers are more likely to conclude that there is one correct way to perform nursing care, and that is the way that the student is taught in the classroom:

Students may be taught a skill [in the classroom] and it will be the right way, they go to clinical and see it performed completely different and sometimes completely wrong. They will come back to class and repeat what they have learned because the ‘clinician did it that way, it must be right’. Which shows me, that what I teach is not as important to what they see.

(NL)

With respect to the validity of theory other than formal theory, the above response from a nursing lecturer suggests that the actions of educationalists contribute to the power and primacy of formal theory in an undergraduate nursing degree. The structure of the undergraduate degree means that for students in their first year of study, formal theory is the only theory to which they are exposed, and the only theory which is made explicit. Therefore, from the outset only formal theory is afforded authority and legitimacy, thus by default nursing lecturers reinforce the hierarchy of knowledge that is present in the conventional curricula of professional education (Schön, 1987), namely a hierarchy of knowledge in which propositional knowledge is generally regarded by academics as the most important type of knowledge for nurses in the care of patients.

The primacy of formal knowledge as a precursor to the execution of practical skills is also reinforced by the way in which students learn and practice practical nursing in the simulated environment of the Skills Laboratory. One of the important qualities of the Skills Laboratory is that it provides an emotionally and physically safe environment for the students to learn and practice skills under the guidance of a lecturer. If a student makes mistakes whilst learning, no actual or potential harm is caused to
patients. However, despite the ‘role-play’ nature of the ‘Skills Laboratory’, the students consider it important to perform practical skills correctly:

> It [simulation] is all quite entertaining. But it does make it, almost makes it, feel that it's not until we get go out do out and actually do some practicum out on the ward. Something like that it’s actually going to put it together properly it’s not going to completely fall into place I don’t think, until then. (Fiona 100 level)

The students know that they want more than simulated practical nursing skills from a nursing course. Simulation is considered a very important form of learning, but only as forerunner to learning and applying those skills in the clinical environment. For Fiona, the opportunity to learn nursing in the clinical area is a prospect mixed with fear and a sense of satisfaction that at last she would be doing that which she wanted:

> I'm looking forward to that [an upcoming practicum] I know its just observation and I am quite happy about that ...I’d be quite happy to take a blood pressure or a temperature. But yes I am quite happy just to watch and sort of, I mean I’ve got expectations of this course but until I really get in to the community and really see the real stuff [strong emphasis] you know the how you do it. (Fiona 100 level)

The desire on the part of students to get out in to a real world, do it and engage in the real work of nursing, or at least the hands on aspects nursing work is also identified in a discussion amongst the lecturers in the first round of focus groups:

> For some [referring to the students] nursing is a huge mystery in the first year they expect to emulate those on ‘Shortland Street’ [A New Zealand television soap opera set in a hospital] and be "doing" they cannot seem to relate many of the first year subjects to nursing at all. We [lecturers] sometimes suffer delusions of grandeur that we teach them [students] nursing assuming they will undertake practice that is appropriate and thoughtful, but what do they want, "the action" cause baby that's where it's at as far as they are concerned. (NL)

The 'doing', the 'it', and the 'action' are just a few of the shorthand terms that the participants use to refer to what they consider the real work of nursing. For students and lecturers the real work of nursing is something
that can only be experienced during a practicum outside of the physical boundaries of the college. In a very simple way the notion of separation between theory and practice is reinforced. ‘Doing’, ‘it’ and ‘action’ can not be simulated and therefore they are notions most usually associated with the hospital and the work of nurses. The ‘doing’ and the ‘action’ are also the key components not only of learning nursing but also of becoming a nurse:

Learning to think like a professional now requires learning to build one’s own theory of practice, which in turn requires engaging in situations of practice. Practice must play a central role in the process by which students learn to think like practitioners (Agyris & Schön, 1989, p. 186).

Part of learning to ‘think like a professional’ requires the practitioner to draw upon another type of theory to which students are exposed. That theory is situational or practical theory, which can only be learned in patient-centred experiences.

**Negotiating practical theory**

As the programme advances, the student nurses are increasingly exposed to the actual work of nurses and thus the students learn more and more nursing in the company of experienced registered nurses. Often the students observe registered nurses draw upon a form of theory which is determined by factors in the context in which that nursing care is undertaken (Manias, Aitken & Dunning, 2004; Perry, 2000). This type of theory is named situational knowledge or practical theory and it is a form of theory which it is considered can only be acquired through experience:

"...Some practical knowledge may elude scientific formulations of "knowing that"...and "know how" that may challenge or extend current theory can be developed ahead of such scientific formulations. Therefore knowledge development in applied discipline consists of extending practical knowledge [know how] through theory-based scientific investigations and through charting of the existent ‘know how’ developed through clinical experience in the practice of that discipline (Benner, 1984, p. 2-3)."

One student, Diane, describes how a registered nurse employed an injection technique that varied from the technique which Diane had been taught:
Even this morning I had this blood test and they, the nurse said “You’ll be told never to do this, but this is how I do it”...and she and she, then the needle was on an angle as opposed to instead of straight on to the...I’m not sure what it’s called...and she said “You’ll be told never to do this but this is how we do, I do it because I find it comfortable and I’ve never had any problems with it”. So I thought okay so it really is, it really is the case of how you do it... (Diane 100 level)

Diane also notices that the nurse concerned found it difficult to articulate the reasoning behind her practical theory. This makes Diane unsure if practical theory has the same validity as formal theory:

...so I’d say she was taught you know how you do it this way you do it you don’t ever do it differently and then she shifted off and did it her own way anyway. So I think that people just do it how they want to [Laughs]... I think a lot of nurses develop how it suits their own way of doing things. (Diane 100 level)

The students also refer to specific examples of patient care when they drew upon personal or private theories. The sources of those personal theories were the life experiences of each student, which must also include the experiences each has as a student nurse.

*Negotiating private theory*

In the course of their undergraduate degree, student nurses apply their private theories in the delivery of patient care. The personal theories are closely related to the key personal values held by each student and private theories are most evident when the students refer to the professional demeanour they thought that nurses should exhibit, the interpersonal skills that nurses should employ in patient contexts, and the ethical standards that they expected of nurses:

They [the nurses] were friendly enough and polite and kind (Bernadette 100 level)

So people come up to me and tell me you have a nurse’s voice when you start doing the blood pressure you start talking like a nurse. (Diane 100 level)
You know that you have to do you know what’s expected of you, and you know that at the end of the day you have got to make sure everything is in the rightful place, done at the right time, and you can’t be laid back and you’ve got to be really alert and slightly, sort of you don’t have a life of your own. [Laughs] (Emma 100 level)

You rely on your experience and your knowledge of human patterns and human behaviours and how people will react...and okay sometimes you get it wrong .........but if you’ve got something that you honestly believe is right then you go with it. (Grace 100 level)

So with regards to how you treat someone I think ...you know, if you don’t know how to treat another human being like you would be treated you probably shouldn’t be a nurse. You might not; you might not last long in the profession. (Fiona 100 level)

These five illustrations, selected to support that student nurses become aware of the existence of different types of theory, are purposely taken from the contributions of the first year students. This is to demonstrate that even in the very early stages of the programme students are exposed to the possibility that is more than one type of theory that guides nursing care.

For the first year student nurses the origin of their personal theory is clearly in their life experiences:

I actually over the years I have picked up quite a few life skills ... being a supervisor of a conference centre and dealing with people I know that a lot of staff liked working with me because I was very empathetic towards their needs. (Emma 100 level)

I was in the bank and... I was a teller and you could only spend so much time with a person and if they were asking you questions that you couldn’t answer then you passed them on because you had to keep that queue going and it sort of kind of the same in nursing, ... It’s just the way you treat people. I think and they might get a wrong impression. If I was having a bad day...I think I’m pretty nice person (laughs). If I was having a really bad day and this person sort of got me on a bad day they would probably think I was horrible for the rest of the time they came into the bank and maybe tell their friends “Stay away from that one!” [Laughing] (Fiona 100 level)
However for the second and third year students, it is unclear if the origin of personal theory each employs in patient contexts is from their social or educational experiences. What is clear is that as the students progress in their nursing programme, their interpersonal interactions with patients are influenced by personal theories:

Just chatting with the patients, spending a little more time than the least possible. Just a few more moments when talking with them changes them and their attitude towards you. (SN2)

Spending time with an elderly man who did not want to leave hospital and having him open up to me that his wife bullied him and he was scared to go home. Not sure why he chose me. (SN3)

In the process of learning to become a professional nurse, when the private theory acquired from life's experiences and the practical theory acquired as a student nurse are combined with the key values held by each student, a very influential force is produced. It is a force that is a major determinant of the way the student perceives the relevance and appropriateness of theory in practical situations:

As I've experienced it the relationship between theory and practice sometimes interact with each other but sometimes commonsense comes in first.

But...in other placements it was commonsense that got me through than theory.

Does that make sense? (Helen 300 level)

P.G. Do you want to tell me more about commonsense?

...[extended pause] its like your actions, you do without even reading your book like you know all about safety and all the rest of it so you wouldn’t need to go to a book to know what’s in safe practice and that. Does that yes, answer your question? (Helen 300 level)

As student nurses engage in longer periods of practicum, they increase their own experience of nursing and also observe registered nurses care for patients in the real world. As a consequence, the students become more aware that they and the registered nurses frequently employ types of theory other than formal theory. Moreover, as the theories that emerge
from practice were of a holistic nature they can not be explained in the same terms as formal theory in that contextually sourced theory:

... is seen as an embodied, reflexive process of responsive action. As such theorizing involves tuning in to and critically considering bodily sensing, intuitive and emotional responses, existing theories and research, contextual forces, and so forth. These responses are seen as forms of knowing that can in-form and re-form our in-the moment actions, that is to say, theoretical practice (Hartrick Doane & Varcoe, 2005, p. 83).

Experiencing different practice
Once the students are exposed to practicum they encounter a number of experiences that gradually erode their confidence in the primacy of formal theory. Those experiences are related to occasions when they observe or carry out nursing care for which it appears that there is no one absolutely correct way of performing nursing care. The first of which is the realisation that formal theory is only one of a number of different standards to which the student is expected to perform; and it is a realisation that is present even before the students engage in practicum:

I realised that theory was not identical to how you will be practising out there in the real world. The theory is sort of idealistic. Whereas what you’re doing in practice ..., means, you have to work differently with different people in different situations. (Diane 100 level)

The second and third year students know in advance of each practicum that they will have to perform differently to meet different expectations. This category of student also knows that having to meet different expectations, rather than a single prescribed standard of nursing care, is an important feature that contributes to success during a practicum. In the data five different sets of expectations are described, each of which will be highlighted in turn.

Negotiating expectations
The students soon discover that during a practicum if they want to be regarded as part of the clinical nursing team, they must conform to the
unspoken expectations and values of that particular nursing team (Cahill, 1996; Melia, 1984; Swain, Pufahl & Williamson, 2003):

We are put in a position where we’re nursing, young, beginning practitioners and we’re out of [name of college] for two, three weeks at a time.

You run the risk, I feel, of either alienating yourself from the staff or being a know-it-all that no-one wants to help... (Norah 200 level)

The students also find out that success during a practicum is ensured if they meet the individual expectations of the nursing lecturer who works with them during a practicum:

Different lecturers have different styles, do it one way: WRONG. [The participant used upper case to add emphasis to this word]. Change it for new lecturer; WRONG. (SN2)

Another expectation of practicum and one that is that valued highly by students is reflected in the feedback that they receive from patients:

It is nice to hear from a patient leaving, that they wish you well for the future and tell you that you will make a good nurse. It is sad that only patients say this usually, but it can be argued that they are the ones we deal with so perhaps their opinion is the most important. (SN3)

In addition to these three sets of expectations, which are informal in nature, the student also has to meet the obligatory educational requirements of formal assessment in order to pass a practicum:

... I suppose it's just getting signed off really is the very final result. (Catherine 100 level)

Practice is going out into the hospital, community or where ever and trying to learn things as well as doing assignments, learning objectives and attempting to pass the placement. (SN3)

A final and no less important set of expectations are the individual expectations that each student has of their own performance in the care of patients. These expectations are very closely related to the personal values that each student nurse holds about the nature of nursing:

I’d let myself down...because I didn’t act professionally. I mean I didn’t do the best in my practice. (Irene 300 level)
I had a case study and the lecturer asked me about the medications and the conditions and why they’re on them and I couldn’t answer it because I was still stuck on a first year level. (Helen 300 level)

The students are fully aware that it is in their best interests to meet each of these different expectations. They also know that inconsistent performance to different, and at times fickle, standards is a necessary and frustrating part of the practicum:

As students, in one placement we were told by a lecturer we had to do them [complete patient assessment documentation]. However, the ward staff told us the opposite - in fact demanded that they not be done in that format. (SN3)

I felt that [name of college] and clinical each wanted different things from us and we were puppets. You are constantly changing the way you do things from what you know they should be done like, to how you know the person assessing you or precepting [neologism that referred to her preceptor] you wants it done, so that you can pass. (SN3)

For student nurses their attempt to meet different expectations produces unsettling and dissonant feelings which become associated with the application of theory in practical contexts. Furthermore, those feelings are compounded by circumstances when the students notice obvious differences between theory and practice.

Noticing differences
Those circumstances when students become acutely aware of differences between the theories they are taught and the practice that they perform or observe can be grouped as four categories of experience. The first category is those occasions when the student considers that theory is correct and that registered nurses choose to cynically ignore that theory:

Their [the registered nurses] practice was not matching what I was learning and experiencing ... and the respect that you give to people and the way that we’re told you know...do no harm and they were not treating him as a human being. They were treating him as “Oh he’s slightly demented and he’s incontinent. So therefore we are not going to pay that much attention to his cares”. (Margot 200 level)
The second category are circumstances when formal theory appears correct but can not provide an explanation for aspects of nursing care for which contextual features are a significant factor:

They [the registered nurses] explained, they [the patient] go and get the surgery and all that but they could not explain one situation and what happened afterwards was didn’t quite match up as such...When it came to the care and everything else it didn’t quite - the person, the signs, the [pause] symptoms the signs and the symptoms and everything else wasn’t quite what they had said. It was quite contradictory what, the way we had to deal with the patient. (Kevin 200 level)

The third category relates to situations when the students consider that the formal theory presented to them in the classroom is idealistic or unrealistic:

But in actual fact when something is done differently in reality. We kind of, well I was left wondering whether we are perhaps being taught , of course were being taught the ideal here, but I do sometimes step back and wonder if the ideal can actually be practiced or is it a bit airy fairy. (Leah 200 level)

What is taught in theory is usually from a fantasy world where everything is done a particular way. Once out in the REAL world, things are done different. Nurses do daily tasks completely different from the way taught in theory, so it requires more learning, and the student is left wondering what was the use in attending theory anyway? (SN3)

And the final category is those circumstances when the students realise that the process by which formal theory is applied to a practical situation is not always a methodical or premeditated process. Instead both the students and the experienced practitioners perform care which at the time is considered to be correct and appropriate. It is usually only afterwards, when they reflect upon the performance, that the student reviews the suitability or otherwise of an intervention:

I didn’t ask the right questions yet I knew later on that I should have done this and done that. (Irene 300 level)
So I still have those memories of what I should have done what I perhaps should have said or how I should have approached the nurse, but I didn’t. (Leah 200 level)

Or do you do whatever you feel is right. (Norah 200 level)

We sometimes suffer delusions of grandeur that we teach them nursing assuming they will undertake practice that is appropriate and thoughtful. (NL)

In all of these circumstances the awareness that there is a difference between theory and practice in nursing is always accompanied by an emotional response:

I found that there was so much going on that I was thinking of the first 50 things that I should do instead of the very first thing! It took another colleague walking into the room and saying "How many joules are you charging the defibrillator for?" For me to FOCUS and do what I was supposed to DO!!!!!!! yikes!!!!!! (RN)

The emotions contained in this illustration from an experienced registered nurse are of a quite different tone than those emotions expressed by the student nurses. That difference is indicated in a discussion between students when they are asked to recall how they felt when theory and practice did not align:

A bit powerless inferior inadequate.
A bit stuck, as the understanding was not there just a silly student. Small.
Feel that if you don't do things the way that you are told then they [the clinical nurses] give a bad report to your lecturer.
It affects the way the lecturer sees your practice. I wondered if I would be strong enough to change others practices - if at all. Unfit for the job and had no right to be there as I didn't know enough. (SN2)

Crap.
Pissed off.
Incompetent and cheated. What the hell are they teaching us?
Incompetent and doubting myself.
Inadequate.
Incompetent, useless and a failure.
Out of my depth and out of control, isolated with no where to turn.
What’s the point of this am I ever going to be good enough. (SN3)

When they perceive a difference between theory and practice, the discomfort felt by students, is a result of the tension between the experience that brought about that perception and the key personal values that each student holds about the nature of nursing. The tension produced a type of conflict known as intrapersonal conflict. Intrapersonal conflict is produced when an individual is faced with a clash between two sets of values (Huber, 1996; Marquis & Huston, 1998). The students privately compare the experience with their key personal values. If there is close alignment between the two, then no disruptive emotions are produced and the student has no reason to question the quality of the nursing care they witness. However, if the experience appears to present an overt or covert challenge to the substance of their personal values, the dissonance is experienced as intrapersonal conflict, and that is such an uncomfortable experience that it has to be addressed. For the students learning from practical contexts is an experience in which actions, thoughts and emotions are inseparable in that: “Knowledge depends upon being in a world that is inseparable from our bodies, our language and our social history - in short embodiment” (Varela, Thompson, & Rosch, 1997, p. 149).

For the students, the emotional response that accompanies practical experiences forms an integral component of their learning. However, the more unsettling feelings also contribute to the total experience of dissonance and are therefore a very powerful experiential reinforcement that there is a difference between theory and practice. In the moments that the students experience dissonance they not only think that there was a difference between theory and practice in nursing: they also sense that difference.

**Negotiating differences**
The practicum was a very powerful class of experiential learning, and one which engages the whole person (Beard & Wilson, 2002; Kolb, 1984). In experiential learning, emotions form a central part of learning and the
disruptive emotions that accompany the experience of a gap between theory and practice are a sentient reinforcement for each student of the instability that exists between theory and practice in nursing. In order to deal with the conflict the student has to choose between a number of courses of action; each of which will challenge their efforts to maintain one or all of their personal values, and will either increase or lessen their emotional discomfort.

The first course of action, or rather inaction, is for the students to do and say nothing. The students are highly conscious that they have to complete their nursing degree, and to reduce the possibility that they may be penalised for challenging the practice of a registered nurse they choose not to point out the differences between the theory and the practice that they observe with those concerned:

I felt that my ideals will wait until I am registered. I will go with the flow to get through. (SN3)

If they select this particular course of action the students know that they have silently colluded with poor practice or inadequate theory. By not speaking out the student behaves in a manner that is not in accordance with their own personal values. When the students reflect upon the incident, they regret their inaction. Furthermore, to remain silent may contribute to success, but silence also increases the intensity and extends the timescale of the emotional discomfort felt by students beyond the practicum. Another course of action is for the students to blame others for the experience, and to transfer any negative feelings to their lecturers, the registered nurses, other student nurses or classroom based-learning experiences. The student then dislikes or mistrusts those that they consider responsible for the negative feelings. The transfer of blame is an action that also preserves their personal values. If a student nurse realises that the difference between theory and practice is of their own making, and that they have personally failed to live up to their own set of values they doubt their ability as a future professional, which in turn has an impact on their self esteem. A less frequent course of action is for the student to approach those with whom they associate the uncomfortable feelings, to confront those people and seek the rationale behind the behaviour that they observe. As this course of action poses a challenge to
the authority of others, it increases the immediate emotional discomfort for the students. Once again this is a course of action that preserves the integrity of the student’s personal values:

P.G. What was the end result for you?
For me? I don’t know. A bit of jadedness crept in. I became a bit hardened. I went in there a little fluffy bunny. Brand new bouncy student and came out thinking great [pronounced ironically] the real world sucks [laughs] and [pause]... It made me think about what I would do differently. (Margot 200 level)

In all of the learning experiences that produce intrapersonal conflict the personal values of each student are the standards against which nursing care is evaluated. The attempt to resolve intrapersonal conflict, retain personal values and at the same time alleviate uncomfortable feelings is a complex balancing act during which the students search for a satisfactory explanation of the differences between theory and practice. In that search the personal values are the focal point around which each student negotiates a satisfactory explanation. To recap those values are that nursing is a worthy occupation; that nurses should always behave morally; and that patients should always receive the best possible care.

Explaining differences
In the data a number of explanations are provided to explain the difference between theory and practice. All but one of those explanations erodes one or all of the key values held by student nurses. The first explanation is that the knowledge base of either the registered or the student nurse is of an unacceptable or unsatisfactory standard and for the student it follows that the person concerned is unfit to be a nurse. A second explanation is that the registered nurses who perform so poorly do so because they have a lower standard of education, that they are jaded or disillusioned after many years of nursing work, or that they work in environments that are under resourced. A third explanation is that some registered nurses, in full knowledge that they were carrying out inappropriate care, choose to cynically disregard formal theory. A fourth explanation is that the theory that is taught or is present in textbooks is either outdated or unrealistic in the context of the real world of the clinical setting. Each of these
explanations presents a challenge to the integrity of the key values about nurses and nursing. A fifth possible explanation, which is contained in the orthodox position, is that there were two nursing worlds, one a world of theory and the other a world of practice, which are separated by a conceptual gap. This explanation contains a notion of inevitability and thus offers the least threat to personal values, is emotionally neutral as well as an explanation that is widely understood by the rest of the nursing profession.

**Conclusion**
The theory 'Negotiating Different Experiences' refers to the thoughts, emotions and actions that student nurses associate with their recollections of critical experiences in the delivery of nursing care. Those are experiences when the application of one or more of three different types of theory conflicts with one or all of the key personal values held by each student. The conflict distresses the students and produces a range of strong emotions, mistrust in other nurses and ideas of self doubt. The emotions are not an adjunct to the experience of dissonance; they are central to the holistic nature of that experience. In an effort to reduce the negative feelings that accompany the dissonance between theory and practice, the students seek an explanation for the apparent differences. Some of those explanations contain a challenge to their key personal values. The most readily available and the least emotionally charged explanation, and one that also preserves the integrity of personal values, is that a gap exists between the theory and the practice of nursing.

With direct reference to how student nurses acquire, apply and evaluate theory for practical purposes this study highlights a number of broad lessons for nursing education. The first of which is that educators must acknowledge the personal knowledge and personal experience of each student. Preconceptions must be highly valued and incorporated into the programme of study. This means that as far as is practicable the student must be involved in the design of an individualised programme which must maximise personal experiences and preconceptions. A second implication, is that it must be acknowledged that there are three types of theory to which student nurses will be exposed and educators must explain
these types of theory to the student. In addition it must be emphasised that all of these types of theory may be considered as valid and that any apparent variance between them should be regarded as an energising force that aids rather than inhibits learning. Third, students should be prepared to expect dissonance and to manage the associated psychological discomfort. As the process of learning to apply theory in practical contexts is experience that involves emotions, educators must clearly appreciate the importance of emotions in learning and provide opportunities for intra-practicum and post practicum debriefing. Emotional responses should not be viewed as a barrier to learning, but rather as a catalyst to the enhancement of learning. Finally, formal, practical and private theories have different roots and an understanding of those different types of theory cannot be evaluated by the same criteria (Carper, 1978; Eraut, 1994; McCutcheon & Pincombe, 2001; Moccia, 1992). Therefore, when educators determine the method that will be used to assess students during a practicum they must involve the student as an active partner. The student should be able to select a method that most closely corresponds with criteria related to each different type of theory. Each of these lessons, and some recommendations for nursing education based upon those lessons, will be discussed in the next chapter.
CHAPTER EIGHT

THE LESSONS FOR NURSING EDUCATION

The lessons for nursing education that arise from this study are related to the overall goal of the study, which was to enable student nurses to optimise learning opportunities in the practical setting. In pursuit of that goal the study had a number of related purposes. The first of which was to understand how student nurses experienced the relationship between theory and practice in nursing. The second was to uncover some of the individual strategies that student nurses employed when they considered theory and practice to be different. The third purpose was to offer an alternative explanation of the relationship between theory and practice in nursing, and the fourth purpose was to consider the lessons of that alternative explanation for nursing education.

In respect of the first purpose, the experiences of the student nurses who participated in this study can be summarised as follows. When they were asked to define the theory-practice relationship in nursing, the students spoke of the relationship in terms of different entities from distinctly different domains of experience and used notions of separation. For the students, it was important that theory had to be seen to work in practice. In general, most of the definitions provided students corresponded with a popular view amongst nurses that: “A good theory — or in perhaps more familiar terms, a true or valid theory — is a theory that in fact fulfils a purpose for which the theory was proposed or invented” (Dickoff & James, 1968, p. 198). However, when those same student nurses were asked to relate critical events in which they believed that they had observed a difference between theory and practice, they recalled events which were holistic experiences that simultaneously involved thoughts, feelings and actions. In addition, when the student nurses referred to the sources of the theory that they associated with the delivery of nursing care, the first source that they referred to was that of formal
theory. Yet, when they described key events in the delivery of nursing care they alluded to practical and personal theories as two other types of theory that were employed in the care of patients. That the students believed in the primacy of one form of theory meant that the students were more likely to doubt the validity of those other types of theory. The most common circumstances when students perceived a difference between theory and practice in nursing were: one, when their personal values clashed with the nursing care they observed; and two, when the students were unable to distinguish between different theories in the conduct of patient care.

In relation to the second purpose of this study, when students perceived a difference between the theory and the practice of nursing it was a perception that was always associated with disruptive emotions. Those emotions ranged from mild surprise to shock and anger, and were unpleasant emotions that served to reinforce the perception of a conceptual gap between theory and practice. The negative emotional content associated with the experience ultimately had a long term impact on the trust that students placed in both classroom-based and clinically-based learning experiences. The students responded to the difference that they simultaneously comprehended and sensed between theory and practice by attempting to reduce the intensity of the more unpleasant emotions, whilst at the same time maintaining the integrity of their personal values. To reduce the discomfort the options most commonly chosen by students were to reluctantly collude with others, to blame others, to blame themselves or more commonly to seek an explanation for either their own behaviour or the behaviour of others. Unfortunately, some of the options chosen by students meant that their personal discomfort was increased and extended rather than alleviated.

In respect of the third purpose, from the outset of this thesis it has been argued that the idea of a gap between the theory and the practice of nursing was essentially an aphoristic notion. Furthermore, it was contended that if the relationship was examined from the perspective of the student nurse, an alternative and at the same time a complementary explanation of that relationship would emerge. The theory, ‘Negotiating Different Experiences’, that emerged from this study
considered that central to the experience of a gap between theory and practice in nursing was a complex interplay between the thinking and feeling experiences associated with learning to become a nurse, as well as the personal values that each student held about nurses and nursing. The inevitable tensions that arose from this interplay meant that in an effort to maintain the integrity of their personal values, the student attempted to seek, or to negotiate, an explanation for the discomfort they experienced. Of the available explanations the idea that there was a gap between theory and practice was an explanation that posed the least threat to those personal values.

The theory that emerged from the data complemented the orthodox position, in that it was a theory which acknowledged there were a variety of features in the educational environment that contributed to the emotional discomfort experienced by students, and that those features required attention. Contextual features, important for effective learning, were conceptualised by Hall and Kidman as: “A relational map of teaching and learning”, of which the authors considered that: “The central core of the map is the interface between the students, the content of the course (paper or module), and the teacher. These are the cornerstones of any formal teaching-learning context (Hall & Kidman, 2004, p. 332). A simple way to understand how ‘Negotiating Different Experiences’ complements other educational initiatives in nursing education designed to improve the relationship between theory and practice, is to think of ’Negotiating Different Experiences’ in terms of the container and conduit metaphors (Lakoff & Johnson, 1980), for which there are two containers and multiple conduits. The first container holds the knowledge required for practice, and the second container is the student nurse. The conduits are the various educational strategies, such as enhancing the roles of lecturers and clinicians, the design and sequencing of formal subject matter, which have been devised to improve the ability of student nurses to apply that knowledge in a practical context. It is important to emphasise that the theory ‘Negotiating Different Experiences’ does not propose that educators ignore the contextual features that contribute to learning. Rather it is a theory that advises nurse educators to afford the same degree of attention
to the ways by which the student nurse learns nursing as was afforded to the conditions in which that learning took place.

In addition, and perhaps more importantly, ‘Negotiating Different Experiences’ also identified that the experience of a gap between theory and practice in nursing was a holistic experience for which the individual characteristics of each student were a very significant component of that experience. The idiosyncratic nature of the experience of dissonance has some important lessons for improving the way in which student nurses learn how to apply theory in practical contexts. Those lessons are that nurse educators should make a number of changes to undergraduate nursing programmes. The modifications that are required will not need wholesale revision of curricula and will not compromise the ability of students to meet the prescribed competencies set by the Nursing Council of New Zealand. The specific changes that can be made concern individual rather than collective approaches to learning, the types of theory relevant to nursing care, the nature of practical assessment, and the role of emotions in learning. It is those adjustments to nursing programmes that will be discussed in this final chapter.

The problem with collective approaches to learning

Students may be taught a skill and it will be the right way, they go to clinical and see it performed completely different and sometimes completely wrong, they will come back to class and repeat what they have learnt because the 'clinician did it that way, it must be right' Which shows me that what I teach is not as important to what they see. (NL)

The nursing degree at the college, in common with all undergraduate nursing education in New Zealand, was required to ensure that at the end of the programme student nurses had met predetermined professional competencies (Nursing Council of New Zealand, 2001/2004). How those competencies were interpreted and the detail of each programme was a matter for each institution. Most usually the prescribed professional competencies were subsumed in the overall aim of a programme, before being broken down into a number of learning outcomes, which were
usually expressed in behavioural terms. The learning outcomes were then used as the building blocks of a nursing programme for which the orthodox notions of input, process and output generally shaped programme design and delivery. In this form of curriculum delivery the students, the teacher and the subject matter were usually allocated to a set location for predetermined periods of time. For the practical purposes of teaching each student nurse was a member of a cohort that comprised other students who enrolled at the same time. At the college, although it was not explicitly stated, and in common with other nursing degrees in New Zealand, the maximum size of each cohort was determined by the physical and human resources of the tertiary institution from which the nursing programme was offered.

This method of conventional programme delivery common in other forms of professional education meant that the focus of teaching and learning was the perceived need of a group, rather than the individuals who made up that group. Thus each student was expected to learn those subjects that the educators determined were relevant, in a manner that educators considered to be the most effective, and in a sequence that the educators also held to be the most suitable. These are common objectivist principles that pervade many forms of conventional education, and Becker’s remarks on the role of educators in the design of curricula for the formal schooling of children are as equally valid if they were applied to the context of nursing education:

They [educators] arrange the material in some order of increasing complexity, an order usually thought of as the “natural” or “normal” way to approach the subject. They decide what minimum amount of knowledge will be acceptable. They decide on a schedule, the time periods in which the student is to learn particular batches of material (Becker, 1972, p. 92).

Specifically, for the student nurses the key components of their programme were determined in advance with little, if any, consideration for the previous experience and knowledge of nursing. Furthermore, the overall design of the nursing programme was such that formal or propositional knowledge was presented to students in advance of each of their practicum experiences. This was a pattern of teaching and learning that conformed to the principles of the normative professional curriculum.
Within the culture of academia it was considered that there was a hierarchy of knowledge, of which applied knowledge has the lowest status (Agyris & Schön, 1987; Erut, 1994; Schön, 1987). In the normative professional curriculum it was also contended that if the student was to best learn in practical contexts they must be guided by knowledge that was framed in objectivist terms: “The university based schools of the professions... have assumed that academic research yields useful professional knowledge and that the professional knowledge taught in the schools prepares students for the demands of real-world practice” (Schön, 1987, p. 9-10).

At the time that the study was conducted, the Nursing Council of New Zealand mandated that fifty percent of an undergraduate nursing programme must be in practical settings (NCNZ, 2001:2004). Therefore a significant portion of the learning that occurred for student nurses was by definition experiential in nature. For the nursing students the majority of practicum experience took place in the second and third years of their programme and was governed by the key principles of the normative professional curriculum. Thus the shape and pattern of the nursing programme reinforced to students the importance of formal knowledge in advance of practical experience. This was a principle that was made explicit in the student handbook and groups of students were ‘allegedly’ prepared for each practicum in advance of the practicum. However, based upon the data analysis from this study the effectiveness of those attempts to prepare students for practicum in a collective rather than an individual manner was limited for the following reasons.

First, when the complexity and variety of experiences that a student might encounter during a practicum were permutated, it would be very difficult for educators to claim that working with groups of students was a realistic way to prepare individual students to pursue what was to become for each student a definitively individual practicum. Second, any preparation for practicum that was based upon propositional knowledge or simulated practice did not take sufficient account of the holistic nature of the practicum as a form of experiential learning in that: “Knowledge does not exist solely in books, mathematical formulas, or philosophical systems; it requires active learners to interact with, interpret, and elaborate these
symbols” (Kolb, 1984, p. 121). A component of learning that could not be authentically simulated in the classroom was the emotions that students experienced when they learned in the real world of nursing and the reflections that practicum experiences generated. A third reason why the notion that it was possible to prepare students for practicum collectively was flawed, was that the individual knowledge and experience of each student, shown in the data to be very significant factors, were ignored by collective approaches to the preparation of students for practicum learning. Therefore for nurse educators to continue to design nursing programmes that were based upon the key principles of the orthodox position, in which collective and standardised approaches to teaching, learning and assessment predominated, was founded on an erroneous premise.

Recommendation
In the opening chapter, the account of learning contained in the emerging theory of enactivism was proposed as an alternative explanation of how student nurses learn in practical contexts. The notions contained within enactivism should be regarded as an extension of the constructivist perspective of learning for which constructivism is understood as: “…a learner-centred theory that contends that to learn anything, each learner must construct his or her own understanding by tying new information to prior experiences” (Henson, 2003, p. 13). Enactivism however, builds upon and extends the dynamic nature of constructivism whilst also explaining non-cognitive knowing, intuition and the role of emotions in learning (Fenwick, 2001). The holistic nature of practical learning, that is central to enactivism, was a characteristic found in both sets of data gathered for this study. The data supported the enactivist observation that: “The focus is not on the “learning event” and its components (which other perspectives might describe in fragmented terms: person, experience, tools, community and activity) but on the relationships binding them together in complex systems” (Fenwick, 2001, p. 248). Therefore for an approach to practicum learning that will focus on the learning that eventuates for the individual student nurse an overtly enactivist approach should be adopted. There are a number of reasons why enactivism dovetails with the data generated by this study. The first is that enactivism supports the experience of the
participants that learning in practical contexts was a process by which the learner was wholly engaged and had an active rather than a passive role:

But for me I know that if you’re left to do it your own way you don’t do it exactly as the textbook tells you. You learn to do it how you feel comfortable. (Diane 100 level)

Second, for the participants their knowledge either explicitly or tacitly, was formed or enacted by experience and as such that knowledge was invented or devised as consequence of their total experiences rather than discovered from an existing fixed reality:

Practice is what one does in order to get a desired outcome. We may be aware or unaware of the theoretical base of those practices if we do them out of habit. Practice does not imply thoughtful practice. (NL)

And finally, in the enactivist perspective of learning, the learner makes sense of the world based upon previous and concurrent experiences of that world and uses those experiences to address new challenges and solve new problems:

I think it goes on instinct and just knowing and feeling comfortable about yourself and your role is, and how you practice. (SN3)

If nursing education adopts approaches to learning that conform to the principles of enactivism, this does not mean that student nurses can be left to their own devices and that learning experiences do not need to be structured. On the contrary, student nurses must be enabled to feel confident that what they experience is very important. In order to achieve that objective the following should be introduced to the nursing programme:

- The personal values of the student nurse must be respected, valued and a formal way must be found to incorporate personal values into a nursing programme;
- The sources of private, practical and formal knowledge should be made clear to the students so that they can distinguish more clearly between different forms of knowledge;
• Alternative approaches to the assessment of practice, which are less reliant on third party observation should be devised;

• The important role that emotions play in learning during a practicum should be optimised.

The importance of personal experience

A focus on personal growth and development and a better understanding of who we are in relation to our nursing practice. (NL)

Students must not be regarded as tabula rasa, a blank canvas upon which the essential qualities of professional nursing can be pasted. It was clear from the data that the individual characteristics of each student were important features that modified and mediated all forms of learning. Those characteristics were equally as important as those contextual features in the practical settings in which learning occurred. Nursing Educators must put aside some of the orthodox conventions that are so prevalent in many forms of professional education and openly acknowledge that all students have extensive and varied life experiences. In addition, nurse educators should ensure that the individual experience and personal characteristics of each student receive significant focus when a nursing programme is planned. The professional curriculum, which is established on orthodox principles, should be reviewed and the starting point for learning must be the experiences of the student which must be regarded as valid and incorporated into the programme.

It was evident in the data that before students engaged in practical experiences and perhaps even before they enrolled on the nursing programme they were exposed to many aspects of nursing and health care. More importantly, that exposure not only formed the basis of their understanding of nursing but also confirmed that students had clear preconceptions of the skills, knowledge and attitudes that were required by nurses. More specifically, in the data it was revealed that student nurses generally believed that nursing was a worthy occupation, carried out by
persons of good character, who ensured that patients received the best care that was possible. These were core values, which along with other values were strongly held, but were by no means fixed. This was illustrated by the following extract taken from an interview with Alison:

Actually to begin with I thought that there was no theory in nursing. To me nursing was more of a practical hands on job, way of life. So the theory was a bit of a slap across the wrist for me. For myself. I didn't really know that there was theory behind anything. We were just put here by God to do the job. So there was a big difference and a big gap between theory and practice. (Alison 100 level)

This extract, which contains a personal interpretation of the three important values, also expresses surprise when very early in the programme Alison realised that one of her preconceptions was not borne out by her experience as a student nurse. It could be suggested that she would also have to compromise her other beliefs as her exposure to professional nursing increased. Further, it could also be argued that her beliefs contained naive and idealised notions of professional nursing, and that the innocent aspects of her beliefs would ultimately be dispelled by the reality of nursing work. However, for nurse educationalists what was of greater general significance than the detail of student preconceptions, was that preconceptions were very important and the personal values they contained would influence many aspects of learning during the time a person spent as a student nurse and beyond into professional practice (Korthagen & Kessels, 1999; Spouse, 2000). In forms of education other than nursing it was established that the personal knowledge held by students was a strong influence that mediated learning (Belenky, Clinchy, Goldberger & Tarule, 1986; Perry, 1970). Yet, it appeared that in the design and delivery of the undergraduate curriculum at the college it was assumed that amongst student nurses, ignorance of the nursing profession and nursing care was the lowest common denominator:

There will be people coming in to us that have had absolutely no...They've got no idea about nursing or maybe they haven't come from a nursing background and I suppose we all need to start at the very beginning and be taught properly I suppose. (Emma 100 level)
And even if the views held by students were found to be inaccurate perspectives, they were perspectives that must be respected, and should be used as the basis to debunk any false notions held by students. To assume that student nurses know nothing or at best very little about professional nursing was unacceptable to the students. Further, it was an assumption that made students believe and feel that they were being patronised:

Tried to generate discussion on topic and seek assistance and was talked over and disregarded - made to feel like an idiot whilst being talked to like a baby!!!!. (SN3)

Clear examples of the application of skills and knowledge from a personal type of theory rather than a formal theory were found in the illustrations provided by students of those occasions when interpersonal skills were the focus of a nursing intervention.

The interpersonal relationship that nurses form with other people is both explicit and implied in nursing, and has been considered the single-most feature that distinguished nurses from other health care professionals (Peplau, 1991). The untutored and unique interpersonal qualities of each student were very important factors. They were factors that formed the basis of each student’s professional nursing skills, knowledge and attitudes. The importance of prior experience to the clinical practice of nursing students was illustrated by the strong influence that personal experience had on the development of the interpersonal skills that student nurses employed in their care of patients.

I’ve been care giving for about 30 odd years, with time off for bus driving but you know, you rely on your experience and your knowledge of human patterns and human behaviours and how people will react. (Grace 100 level)

Nursing is a human social activity that has arisen out of the human tendency to nurture and care for other humans. As with any other social action, nursing has to be learned. Professional nursing however, is a social action that has been constructed as an occupation. One important feature that nursing shares with other occupations such as teaching and social
work is that these are occupations that require highly skilled interpersonal relationships with other humans. For example nurses may be expected to counsel patients, to transmit bad news and to teach patients how to manage their illness.

**Recommendation**

To enable student nurses to gain a greater understanding of the relationship between theory and practice in nursing; ‘Negotiating Different Experiences’ recommends that when nursing educators design a nursing programme a key principle of that design is to openly acknowledge, respect and value the personal experience of each student nurse. This means that each student must be involved in the design of their own individualised programme, which must also be constructed so that the personal experiences and personal values of each student can be optimised. One way that personal experiences and values can be optimised is to ensure that from the outset of the programme each student is obliged to maintain a personal journal which is used to trace their personal understanding of nursing from naïve preconceptions to professional awareness. In conjunction with the entries made in that journal, significant time must be allocated for regular, open and supported discussions so that students may share their preconceptions and personal values with other students. In addition to these initiatives, and within the constraints of a programme driven by professional competencies, significant time slots should be allocated on the timetable for students to determine their own learning needs. To facilitate individualised learning some of the subject driven content of the nursing programme should be replaced by learning experiences that enable students to develop this reflective skill. For example, the personal development that is associated with already established models of clinical supervision, prevalent in many of the helping professions including nursing, should become a core component of an undergraduate nursing degree (Butterworth, Faugier & Burnard, 1998; Hawkins & Shohet, 2000; Morton-Cooper & Palmer, 1994; Van Ooijen, 2003).
The need to differentiate between different types of theory

There is usually some theory why we do things even if it is 'because we've always done it this way'. Every time someone thinks about their practice, reflects upon it, asks why they do it they are theorising.

'Wisdom' is not always relevant to theory -- the exploration of others' wisdom can increase awareness of theory -- critical evaluation and interpretation of theory. (NL)

The second lesson that arose from this study for nursing education, was that the differences between different types of theory was interpreted by students as a conflict between those sources of theory, not as a possibility that there may be other alternative and complementary sources of theory in that: "Truth or reality is restricted to the context applicable to the event under consideration, recognising that no theory or knowledge of nature should be understood as final" (Good, Wandersee & St Julien, 1993, p. 80).

However, in the educational culture at the college the desire to meet the requirements of the Nursing Council of New Zealand with respect to curriculum content meant that the content of the nursing programme took precedence over the processes by which nursing was learned. The data indicated that the nursing lecturers were aware of the existence of knowledge sources other than formal or propositional knowledge. However, that awareness was not shared with the student nurses in any formalised way. In fact, the inability of student nurses to discriminate between the personal, practical or formal theory that registered nurses drew upon in the conduct of nursing care, was a feature that made a major contribution to the perception of dissonance. The data demonstrated that in the absence of a clear explication of the different types of theory available to registered nurses, students resorted to the most readily available explanations provided by the orthodox position. Namely, that there was a gap between the theory and the practice of nursing, and that theory and practice were experiences of a very different kind. The ease with which the students attributed the difference between theory and practice to the
existence of a gap in lieu of other explanations was illustrated by the following series of exemplars.

Irene was asked to recall an illustration of a gap between theory and practice. For her illustration she selected an occasion when she realised that her assessment of a patient’s health status was inadequate:

When I went home that night I actually got into my books and I looked up what septicaemia was what the signs and symptoms if it were and what I was to look for and how it was to be treated and so the next time it happens I’m going to know. (Irene 300 level)

In this example the theory was correct and the practice would have been correct if Irene had known the relevant theory at the time. In short, there was no gap between theory and practice; contextual factors had prevented Irene from applying the relevant theory. Irene conceded that it was her formal knowledge base that was deficient; it was formal theory to which Irene turned in an effort to resolve her discomfort.

In another example Bernadette perceived a gap between theory and practice when she noticed that the nurse who cared for her husband did not adhere to some basic theoretical principles associated with hygiene:

She hasn’t washed her hands and yet she came straight in from heavens knows where and was handling equipment and him [her husband] and that was one of the first things we were taught. When you go into a clinical setting environment wash your hands between patients. (Bernadette 100 level)

In this illustration, the nurse in question had deliberately chosen to disregard formal theory and behaved inappropriately. For the situation in which the nurse found herself, there was ample theory available to draw upon that was both accurate and relevant. The omission on the part of the nurses was intentional, and it cannot be construed that because the nurse ignored formal theory that there was a gap between the theory and her practice. Experienced practitioners were often faced with situations in which they drew upon theory that had developed as a result of their experience (Benner, 1984). A registered nurse provided an illustration of how the care of a dying patient was influenced by private theory:
I watched a man meet eternity, and all I did was let him be with his family. This was never in a book or research project, and I have no idea why what we did worked. It might not for another client, or at another time... It was luck... grace. (RN)

In another example, an experienced nurse used practical theory which had emerged from her own clinical experience as the rationale for an intervention:

There is a theory that some clients in the mental health setting need to be nursed in a "de-stimulated setting" because it is thought that their internal thought processes being chaotic combined with a highly stimulated setting makes things worse. My experience is that often it makes things worse, imagine being alone with your confused, disorganised thoughts. In my practice careful management of the environment the person is in and helping them manage the impact is the thing to do. (RN)

The basis of the practical or situational theory was often difficult to articulate, as it was a form of theory that may have derived from experiences that were either personal or professional in origin. Although they did not use the terms practical theory and private theory, Chenitz and Swanson (1984) alluded to those notions when they argued that: “the detailed descriptions and explanations of nursing process were...submerged in practice” (p. 206). To surface those explanations they considered that a change to theory generation was required whereby: “...attention to theory development is given to generation of theory through analysis of data systematically collected from observations of nursing as it occurs” (Chenitz & Swanson, 1984, p. 208).

**Recommendation**

Student nurses will only be able to make the distinction between the different types of theory that experienced practitioners used in practical contexts if they understand that there were different forms of theory in the first instance. Student nurses will only consider different forms of theory as valid, if the validity of those forms of theory was made explicit to them. Their ability to differentiate types of theory could be heightened if from the outset of their programme the epistemology and validity of those theories is made clear to students. Further, if student nurses understand that there
are other explanations for the apparent differences in nursing interventions they would be better equipped to explore the reasoning behind those nursing interventions. If these targets are to be achieved, from the outset a nursing programme must include a discrete component of learning that makes the epistemology of the different types of theory explicit. That component should thread throughout the programme as the student encounters more and more contexts in which different forms of theory are surfaced. Furthermore, when students raise concerns about the differences that they perceive between theory and practice, those concerns should be addressed in an atmosphere free of blame.

**The role of assessment in practicum**

I agree it takes time to integrate theory into practice and for some subjects this integration may be a few years down the track. (NL)

At the time that this study was conducted the Nursing Council of New Zealand had an expectation that most student nurses would complete their nursing degree within three years of their first enrolment (NCNZ, 2002:2004). In addition the NCNZ prescribed a minimum time scale of 1500 hours, during which it was expected that student nurses would gain practical experience in seven discrete clinical contexts (NCNZ, 2002:2004). The timescale in which the programme must be completed and the variety of placements that a student must have, were factors that directly influenced the structure of undergraduate nursing programmes in New Zealand. These two factors contributed to a powerful illusion that it was possible to learn the knowledge, attitudes and skills central to nursing practice in a manner that somehow be controlled, tallied and assessed in a linear and logical manner for which: "Learning is presumed cumulative and knowledge incremental" (Brew, 1993, p. 87). Evidence to support the presence of these objectivist principles, central to the orthodox position, was found in many aspects of the undergraduate nursing programme. What was of a particular interest in the context of this study was the role that assessment had on the ability of student nurses to apply theory in practical contexts during a practicum.
Over the course of the three years of their degree, the population of student nurses from whom the participants were drawn, pursued a programme in which students were allocated to eleven separate practicum placements. The minimum period of time in each practicum was five days, the maximum period 40, and the most usual period 15 days. In each practicum the performance of the student was summatively assessed, for which nursing interventions, including those of a holistic nature were dissected into observable external behaviours that were considered to be amenable to description and measurement. To be judged successful in a practical assessment the student was expected to either demonstrate a range of practical skills to a third-party, or alternatively offer an oral or written explanation. The regular and frequent summative assessment of students during the programme raises concerns as to educational purposes and educational relevance of assessment during a practicum (Rowntree, 1987). The practicum, it could be argued, was a multi-faceted experience that had multiple purposes. However, the primary educational purpose of the practicum was an opportunity for the student to learn nursing in the clinical setting. For many students the multiple challenges that were presented by having to conform to the work place culture, learning new topics, consolidating previous learning and appreciating the application of theoretical principles in practice, were collectively unreasonable targets to achieve in a relatively short period of time:

Practice is going out into the hospital, community or wherever and trying to learn things as well as doing assignments, learning objectives and attempting to pass the placement. (SN3)

The frequency and intensity of assessment meant that in order to pass the placement some students had to compromise other aspects of clinically-based learning. One such compromise was the opportunity to gain a more complete understanding of the relationship between theory and practice. It was noted that the learning that eventuated from merely wanting to be successful was more likely to be of a superficial nature than of a deep nature (Marton & Saljö, 1997). For nursing education, the ability to understand the relationship between theory and practice in nursing required that students made links between different notions and concepts. This form of understanding was one that required learning at a deeper
level (Hillier, 2002). Furthermore, it was noted that assessment invariably detracts from deep learning as the student only learned that which they need to know in order to pass (Biggs, 2003; Hillier, 2002).

Traditional forms of practice–based assessment placed a high level of confidence in the close relationship between explanation and understanding. For example, if a student was required to demonstrate that they could effectively counsel a patient, that student might be asked to explain the psychological principles associated with the concept of counselling. However, this would only provide insight into the ability of a student to recall theory and would not provide adequate evidence of the student’s ability to relate theory to a practical situation. Student nurses who were studying counselling theory might be able to recall the theory associated with being an active listener, understand how to phrase questions, how to encourage the speaker to continue, and how to bring about timely closure. However, that student might not be able to demonstrate application of counselling theory in a practical situation whilst achieving high academic grades in counselling theory. The ability to demonstrate or explain should not be construed as confirmation of synergy between thought and action or of the ability of the individual to be able to link theory with practice:

A third difference between knowing by apprehension and by comprehension is most critical for our understanding of the nature of knowledge and its relationship to learning from experience. Apprehension of experience is a personal subjective process that cannot be known by others except by the communications to them of the comprehensions that we use to describe our immediate experience (Kolb, 1984, p. 105).

In addition, the ability to perform competently does not always mean that a person could articulate the relevant theoretical explanations (Sandelands, 1991; Wittgenstein, 1953). In practical forms of assessment the student would only perform to the level that they needed to perform to pass the particular assessment. What happened before and after the assessment might or might not be different, but it would almost certainly be a different type of performance (Biggs, 2003). Finally, the assessment of practice was a subjective act, and it was an act of observation in which
the observer was as much part of the activity as the observer and the observed (Maturana, 1987).

The ways in which students were assessed at the college were based upon the principles of the orthodox position. These were principles that pervaded many aspects of the design of the conventional professional curriculum, and they contrasted with more constructivist notions of learning in which the student was regarded as an active participant in their own learning. When student nurses learned in a workplace they made their own choice of what would be learned in that: “He need not, when he wants learn a certain procedure wait until its time in a prearranged schedule; nor need he learn something he is not ready for, thinks uninteresting, frightening or unnecessary. The learner makes his own curriculum” (Becker, 1972, p. 99). It was evident in the data that in practical settings, students intentionally selected that which they learned. By the same token it follows that those students should be equally as able to select that which will be assessed, the frequency by which they will be assessed, and the means by which they should be assessed.

Recommendation
In relation to the purpose and process of assessment, the role of assessment during practicum should be reviewed and the following important considerations incorporated into the specific methods by which practical nursing is assessed. First, the practicum must be viewed primarily as a learning experience and therefore, summative assessment whilst the student is still in the process of learning, should be kept to a minimum or even discarded altogether. This is because regular and frequent summative assessment served to increase anxiety, and the fear associated with failure appeared to distract from the learning that eventuated from practical nursing. Anxiety and fear were negative emotions that impacted upon deep learning which in turn contributed to the experience of dissonance between theory and practice. Therefore, unilaterally determined criteria should not form the basis of assessment. Instead, when nurse educators devise methods to assess the practice of student nurses they must involve the student as an active partner. Notwithstanding the mandatory requirements of formal assessment, the individual student should be more
able to be involved in the selection of a range of assessment of methods and determine the timing of an assessment.

The importance of emotions in learning

We often confront students at a vulnerable time and place and make them feel silly—we need to establish a safe space for learning and acknowledging gaps in knowledge (NL)

The practicum did not take place in a simulated environment, it occurred in the places in which nurse’s work. In a very similar manner to their historical counterparts the student:

... Learns on the job, in a place where people do in a routine way whatever members of his trade do. He finds himself (sic) surrounded from the outset by the characteristic sights, sounds, situations, activities and problems he will face if he remains in the trade (Becker, 1972, p. 98).

For student nurses, the practicum was an authentic form of experiential learning which is understood as a form of learning in which: “...individuals have, or are given in the teaching and learning process, a direct or simulated encounter with the external world” (Jarvis, Holford, & Griffin, 2003, p. 55). As a holistic experience student nurses not only learned the knowledge and skills essential to nursing, they also learned how to become a nurse in that:

And, as everybody starting work soon realizes, there is a world of difference between abstract knowledge in books and the practical knowledge required for, and acquired in everyday experience-between reading what to do, seeing others do it, and doing it for yourself hasten to add that I am not intending to denigrate abstract knowledge or books here...My aim is to suggest that much of our holistic knowledge of our social world may be based upon direct understandings that are acquired through our bodily experiences in that world (Dey, 1999, p. 101).

For the student nurse at the college, the practicum was in many ways a more regulated learning experience than was the case in the period when
student nurses were apprentice employees in the clinical setting. However, there continued to be many similarities between the two eras. The most noticeable of which were that both sets of students learned from their exposure to the real work of nursing, were exposed to other health professionals and most importantly engaged in the care of actual patients. These factors constituted a very powerful form of experiential learning. In experiential learning emotions are regarded as very important component of learning and not merely adjuncts to learning. Emotions are considered a central component of the total learning experience (Benner, Tanner & Chesla, 1996; McClelland, Dahlberg, & Plihal, 2002) and if student nurses could be assisted to understand how to utilise emotions that would benefit their learning. Emotional responses should be not viewed as a barrier to learning. Instead emotions should be utilised in a manner similar to the way a registered nurse moved from advanced beginner to competency. In this process it was noted that the nature of the emotions changed and that:

  Emotional responses are no longer characterized by diffuse or global anxiety. Instead competent nurses’ emotional responses to a situation now give them better access to what is happening to the patient. Emotions in practice thus begin to be a screening or alerting process rather than a perceptual impediment or block (Benner, Tanner & Chesla, 1996, p. 88-89).

In the more structured learning environment of an educational institution, when educators, including nursing educators, facilitated experiential learning they were advised to take significant steps to ensure that any strongly felt emotions evoked during a formal learning experience were used to maximise learning (Brackenreg, 2004). The facilitator might consider that some emotions were so powerful that they could remain long after the intended learning has been facilitated. Should such an occurrence arise the skilled facilitator usually ensured that potentially negative emotions were dissipated by using debriefing exercises before closing the session (Brackenreg, 2004; Morrison & Burnard, 1997; Heron, 1992). However, for student nurses the experiential learning that eventuated as a direct result of a practicum was not subject to the same degree of control as experiential learning that occurred in a classroom or simulated
environment. In the clinical setting major incidents such as the sudden and unexpected death of a patient or a violent incident were events that were usually followed by a post-incident debriefing session. However, most of the time, potentially uncomfortable learning experiences, such as those that the students recalled in the data, remain unnoticed by the clinical team and the opportunity for students to talk about those experiences was more likely to be in an informal setting:

There is nowhere to go to vent your feelings while on placement except to each other, if you try to talk to the lecturer you are scared of failing. (SN3)

[I] usually discuss with other students at lunch time and have a big bitch session. (SN3)

Furthermore, it was unlikely in the clinical setting that the relatively mundane experience of a student nurse perceiving a gap between theory and practice would be of sufficient concern to warrant any extended discussion amongst the clinical team. However, for the student nurses there were some particular experiences during a practicum that contributed to the intensity of emotions that students felt whilst attempting to learn.

The first of those experiences was the possibility that the students may cause harm to patients by not performing correctly or by failing to take any action:

I had a student who thought she had broken the bounds of safe practice when she responded to the hug of an elderly woman (NL)

A second important experience found in the data that contributed to the emotions experienced by students was the sense students had that their performance was constantly being observed or tested. Of particular note were those experiences of being observed that were associated with formal assessment:

Each lecturer has a different method and states that their method is the one and only correctly researched based method and that it should only be done that way. Thus students are constantly trying to learn each lecturer’s requirements so that they can perform this way for that lecturer. (SN3)
The third experience that evoked strong emotions was the desire of students to be part of the clinical team:

I challenged an awful lot of people and I rocked that boat.
And being in nursing as a student rocking the boat is terrible [Her intonation indicated a high level of discomfort]. (Margot 200 level)

However, in the orthodox position the emotions associated with learning to apply theory in practical contexts were afforded less attention than other aspects of learning. To consider the relationship between theory and practice in solely Cartesian terms was to render the relationship as an emotionally neutral experience. This is particular conceptualisation that contrasted sharply with the analysis of the data from this study, in which the relationship between thoughts and actions was found to be a holistic experience. Moreover, it was an experience in which the perception of dissonance for the students in particular was an emotionally charged experience.

Recommendation

As the process of learning to apply theory in practical contexts was an experience that always involved emotions, educators must clearly acknowledge the importance of emotions in learning and provide the student with ample opportunity for intra-practicum and post-practicum debriefing. In the most usual of circumstances emotions should be used to enhance learning, as opposed to being disguised or repressed. For that enhancement to be successful, the process of learning from experience required an opportunity for the student to engage in structured reflection (Beard & Wilson, 2002; Kolb, 1984). With specific reference to the assessment of practice, the role the educator during a practicum should be one that focuses less on assessment and more on guidance and support (Severinsson, 1998; Spouse, 2001). The theory, 'Negotiating Different Experiences', contends that the emotions associated with the perception of a gap between theory and practice were more than a product of that perception. Instead the emotions were part of the dissonance. Therefore if the unpleasant emotional content of dissonance was reduced, then the perception of a gap between theory and practice would correspondingly be
reduced. The student nurse should be enabled to facilitate reflection for which a number of strategies including: learning circles (Hiebert, 1996); reliving practicum experiences in the form of educationally focused drama (Ekebergh, Lepp & Dahlberg, 2004) or clinical supervision (Severinsson, 1998; Spouse, 2001) were recommended strategies. As a consequence of reflection, the student would be in a better position to appreciate the rationale behind nursing interventions that they had previously perceived as based upon inappropriate theory or interventions that had no theoretical basis at all. Therefore, as nursing educators strive to enhance the relationship between theory and practice, they should seek to lessen the frequency and intensity of those events which produce the negative emotions that students associate with the experience of dissonance and to maximise the positive emotions that accompany learning.

**Conclusion**

The data for this study was gathered from the students, lecturers and clinicians who formed part of the population of one specific educational site, and over a specific period of time in the history of nursing education in New Zealand. As such the data and the subsequent analysis of that data were a reflection of the perceptions of those, and only those, who chose to participate in this study. However, and with the above caveat firmly in mind, the undergraduate nursing degree and the experiences of student nurses at the college bore many similarities to other nursing programmes in New Zealand and other countries in the western world.

The degree of relevance in respect of the recommendations made in this chapter should be conceived as a series of concentric circles, at the core of which is the lessons that emerged from this study. In the outer circles are the populations for whom the theory has relevance. The closer a population is to the core; the more direct is the relevance of ‘Negotiating Different Experiences’.

The circle nearest the core contains those who participated in this study, the next circle the students and educational staff at the site at which the study was conducted. As the circles move further away from the core, the next two circles are the system of nursing education in New Zealand and
Zealand and the systems of nursing education systems in other western countries respectively. In the most outer circle are other forms of vocational education for which it is acknowledged that students experience similar problems in attempting to understand the relationship between theory and practice in their respective disciplines.

In the opening chapter it was argued that in general, nurses believed that the gap between theory and practice was an inevitable and undesirable by-product of the process of learning to assimilate concepts from two separate domains of experience. However, this study has demonstrated that any failure to align theory and practice did not lie exclusively in factors that were external to the student. A complementary analysis of that experience has shown that the personal biography of each student was also an intimate part of the process of learning to apply theory in practical contexts. Therefore the recommendations from the lessons contained in this final chapter require a primary focus upon the individual student and not the external environment in which the student learned. As these recommendations concern the ways in which nursing is learned, they are recommendations that can be introduced to nursing education without the need for an extensive reorganisation of the curriculum. Instead educators can continue with those educational innovations focused on external factors whilst at the same time attending to the process by which individual students learn to apply theory in practical contexts.
References


Birch, J. (1975). *To nurse or not to nurse: An investigation into the causes of withdrawal during nurse training*. London: Royal College of Nurses


Appendix I

Information Sheet for Participants

Research Study—‘Re-thinking the gap: Investigating the theory-practice relationship in nursing’:

Dear,

My name is Peter Gallagher and I am currently a Ph.D. student at the School of Education, Victoria University of Wellington. I am also a Registered nurse and a lecturer at the [name of college]

As part of my degree, I am undertaking a study to find out more about how student nurses experience the relationship between theory and practice.

The study has received approval from the following:

• The Victoria University Human Ethics Committee (HEC)
• The Universal College of Learning Ethics Committee

I am writing to ask you to participate in a small discussion group that will last no more than two hours. Your contribution will enable a greater understanding of how student nurses experience the relationship between theory and practice.

You do not have to agree immediately and may take your time reaching your decision to take part or not. If at any time during the study you wish to withdraw that is perfectly acceptable.

As part of the discussion, I will be asking you to record some of your ideas on a computer. I assure you that any information that you provide will be confidential and any transcripts and recordings that are made from the discussion will be confidential and stored in a secure location until the study is completed.

Please note that your willingness or not to participate will in no way affect your results in the courses you are studying at [name of college]. This research is an entirely separate initiative.

The only people who will have access to the material are myself and my academic supervisors at Victoria University of Wellington School of Education, Professor Cedric Hall and Dr. Jim Neyland.
As I am a part time doctoral student, the study will not be completed until 2005 at the earliest. At that point, I will, should you so wish, provide you with a summary of my findings.

If you agree to participate in the study please telephone me at work on 952 7412 or send an email to me at:
peterg@[name of college].ac.nz
If you want any more information about the study, please do not hesitate to contact me directly.

Peter Gallagher (Research Student).
Appendix II

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

Information Sheet for Participants

Research Study-‘Re-thinking the gap: Investigating the theory-practice relationship in nursing’.

My name is Peter Gallagher and I am a Ph.D. student at the School of Education, Victoria University of Wellington. I am also a Registered nurse and a lecturer in nursing at the [name of college].

I am currently undertaking a study, the aim of which is to understand more about how student nurses experience the relationship between theory and practice.

This study has received approval from the Victoria University Human Ethics Committee (HEC) and the Universal College of Learning Ethics Committee.

The study has two phases of data collection. These are:

i. Three focus group discussions
ii. Individual interviews with student nurses

If you agree to participate in this study, I would like you to take part in the second phase of the research (ii), which will take the form of an interview between you and myself. The interview will take place in one of the designated meeting rooms on the [name of college] campus. I anticipate that the interview will last no more than one hour. Your contribution will enable a greater understanding of how student nurses experience the relationship between theory and practice.

During the interview I will use an audiotape to record your comments and may also make brief notes. The taped interview will then be converted into a written transcript. If you wish you may also have a copy of the audiotape and the transcript.

I assure you that any transcripts that are made from the discussion will be entirely confidential, will be stored in a secure location and will be destroyed within thirty days of my Ph.D. thesis being placed in the Victoria University library.

If at any time up until the data analysis phase of the study you wish to withdraw that is perfectly acceptable. If you have any questions concerning the manner in which the project is discussed you may discuss it with me or my academic supervisors, Professor Cedric Hall and Dr. Jim Neyland.
(04-463-5348, Facsimile +64-4-463 5349
Email education@vuw.ac.nz).

As I am a part time doctoral student, the study will not be completed until 2005 at the earliest. At that point, I will, should you wish, provide you with a summary of my findings.

If you want any more information about the study please telephone me at work on 952 70012 or send an email to me at:
peterg@[name of college].ac.nz

Peter Gallagher (Research Student).
21. Highfield Road Feilding 06-323-5656
Letter of introduction- Registered Nurses

Rethinking the gap: Investigating the theory-practice relationship in nursing

Dear,

My name is Peter Gallagher and I am currently a Ph.D. student at the School of Education, Victoria University of Wellington. I am also a Registered nurse and a lecturer at the [name of college].

As part of my degree, I am undertaking a study to find out more about how student nurses experience the relationship between theory and practice.

The study has received approval from the following:

- The Victoria University Human Ethics Committee (HEC)
- The Universal College of Learning Ethics Committee

I am writing to ask you to participate in a small discussion group that will last no more than two hours. Your contribution will enable a greater understanding of how student nurses experience the relationship between theory and practice.

You do not have to agree immediately and may take your time reaching your decision to take part or not. If at any time during the study you wish to withdraw that is perfectly acceptable.

As part of the discussion, I will be asking you to record some of your ideas on a computer. I assure you that any information that you provide will be confidential and any transcripts and recordings that are made from the discussion will be confidential and stored in a secure location until the study is completed.

The only people who will have access to the material are myself and my academic supervisors at Victoria University of Wellington School of Education, Professor Cedric Hall and Dr. Jim Neyland.

As I am a part time doctoral student, the study will not be completed until 2005 at the earliest. At that point, I will, should you so wish, provide you with a summary of my findings.

If you agree to participate in the study please telephone me at work on 952 7412 or send an email to me at:
If you want any more information about the study, please do not hesitate to contact me directly.

Peter Gallagher (Research Student).
Appendix IV

Rethinking the gap: Investigating the theory-practice relationship in nursing
21, Highfield Road,
Feilding
06-323-5656
Dear Ms Wood,
My name is Peter Gallagher and I am currently a Ph.D. student at the School of
Education, Victoria University of Wellington.
As part of my degree, I am undertaking a study to find out more about how
student nurses experience the relationship between theory and practice.
The study has received approval from the following:
• The Victoria University Human Ethics Committee (HEC)
• The Universal College of Learning Ethics Committee
I am writing to ask if I may approach a small number of Registered Nurses
(RN's) at Midcentral DHB to participate in a focus group discussion that will last no
more than two hours.
The contribution from the RN's will enable a greater understanding of how
student nurses experience the relationship between theory and practice.
The only people who will have access to the material are myself and my
academic supervisors Professor Cedric Hall and Dr. Jim Neyland at Victoria
University of Wellington School of Education.
As I am a part time doctoral student, the study will not be completed until 2005 at
the earliest. At that point, I will, should you so wish, provide you with a summary
of my findings.
I would like to meet with you to discuss my request and I will be making an
arrangement via your office. If you want any more information about the study,
please do not hesitate to contact me directly.
Yours Sincerely

Peter Gallagher MA RCPN RGN RMN RNT PGCE (London) Dip Nursing (London)
06 952 7412 or Email peterg@[name of college].ac.nz
Consent Form for Participants

Rethinking the gap: Investigating the theory-practice relationship in nursing

Principal Researcher          Academic Supervisor          Academic Supervisor
Peter Gallagher              Dr Jim Neyland              Professor Cedric Hall.
Ph.D. Candidate              School of Education          School of Education
21, Highfield Road          Victoria University of Wellington
Feilding                      Victoria University of Wellington
Phone 06-323-5656

Please respond to the following statements by putting a tick (✓) in the appropriate box.

I have been given a copy of the information sheet for volunteers taking part in this study which seeks to understand more about the experience of the theory-practice gap for student nurses.
Yes ☑ No. ☐

I have had the opportunity to discuss the study with the researcher, and I am satisfied with the information that I have been given.
Yes. ☑ No. ☐

I understand that I am able to ask any further questions as the study progresses and I know whom to contact if I require further information or if I want to make a complaint.
Yes ☑ No. ☐

I understand that the following ethical committees have approved the study:
The Victoria University Human Ethics Committee (HEC)
The Universal College of Learning Ethics Committee
Yes ☑ No. ☐

I understand that my participation in this study is confidential and that the ethics committees listed above have approved the study.
Yes ☑ No. ☐

I understand that there may be a significant delay between the collection of data and the publication of results.
Yes □ No. □
I would like the researcher to provide me with feedback from the study.
Yes □ No. □
I hereby consent to take part in the study.
Yes. □ No. □

Full name of participant________________________________________

Signature____________________________________________________