

**The Theory Practice Divide in Nursing  
Education: a Theoretical Review and an  
Empirical Study**

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University of Edinburgh  
2004**

**I confirm that this thesis has been composed by me, is all my own work and has not been submitted for any other degree or professional qualification.**

**Signed:**

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**Date:**

16<sup>th</sup> June 2004

**In memory of my parents**

**Acknowledgements:**

**The author gratefully acknowledges:**

Professor Noel Entwistle for his inspiring support throughout this thesis.

Robin MacCormick for proof reading and for patiently putting up with all the disruption to his life.

Caroline Maloney for typing the final manuscript.

**The study was financially supported by:**

The National Board for Scotland for Nursing, Midwifery and Health Visiting  
The Royal College of Nursing  
The Nightingale Fund Council

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## Abstract

The gap between what is taught in college, and its application in practice, is the subject of much debate in the nursing literature. The reform of pre-registration nursing education, known as Project 2000, was the latest professional attempt to close this gap. There has, however, been very little in-depth debate about the degree of curriculum integration, the extent to which the internal logic of the contributing disciplines should be maintained, and the responsibility for teaching them. This study seeks to illuminate this problem by using research methods which will uncover student and teacher conceptions of learning to integrate theory and practice. Contextual analysis, a methodology within the phenomenographic tradition developed by Svensson (1976), was chosen as the research approach. It assumes that the meaning of the data depends on the context in which they were collected. The students in the study say that their learning is enhanced by teachers who have subject expertise, whether in nursing or the contributing disciplines; that they can learn better from their peers than from their teachers; and that they need to develop a base of knowledge of the contributing disciplines before they can go on to integrate them. These are complex issues, however, and there is a need for further exploration and clarification but the conclusions from this study will contribute to the debate and can help the development of nursing curricula which will present theory and practice as an integrated whole.



## **Chapter 1**

### **Background to the Study**

Nursing has always striven for full recognition as a profession. Though a significant proportion of nursing work is still prescribed by doctors, there have been constant attempts to move away from the view of the nurse as doctor's helper to that of collaborator with a unique body of knowledge and skills. Nursing practice is connected to that of doctors but is distinguishable and exists in its own right (Wall and Owen 1999). One of the consequences of this desire for professional status has been separation and division between clinical practice, nursing research and nursing education.

In Etzioni's classification, the marks of a profession are a distinct body of knowledge which professionals are employed to exercise; the knowledge and skill recognised by a professional qualification which is either instead of or in addition to a university degree; and a governing body to control the knowledge needed to gain this qualification (Etzioni 1969). The governing body for nursing, since 2002, has been the Nursing and Midwifery Council, but was formerly the United Kingdom Central Committee for Nursing, Midwifery and Health Visiting, and before that the General Nursing Council. The criteria for professional qualifications and a distinct body of knowledge and skill, however, are not without problems.

Clinical nurses require a sound and up to date theoretical base for their practice, as without the application of knowledge in practice, the enhancement of nursing care is impossible. A distinct body of knowledge, however, has always been an issue in nursing as a practice discipline, in which theory from a variety of external sources is used. Nursing practice is informed by different disciplines within the biological, behavioural and social sciences. Much of the knowledge, used to underpin nursing, has often been poorly understood and misapplied, with little attempt to integrate it. The gap between what is taught in college, and its application in practice, is the subject of much debate in the nursing literature. There is very little in-depth debate about the degree of curriculum integration, the extent to which the internal logic of the contributing disciplines should be

maintained, and the responsibility for teaching them.

The movement, towards academic and professional respectability, has resulted in a continual taking up of ideas and theories from other disciplines, which are then applied to nursing in an uncritical way. There have also been attempts to develop a body of nursing theory, notably the development of models of nursing, many of which were developed in the different ethos and context of the United States. These were largely developed by academically based theorists and promoted by educationalists, but practitioners have retained a mistrust of such theories, because they appeared to have little to do with the realities of practice. There is a growing body of nursing research from all paradigms, but less evidence of its use in practice. Researchers formulate theories which they expect teachers to teach and practitioners to use, but the practitioners do not understand the language of research, and find that research conclusions are of little use in practice.

Before the 1982 reforms of nurse education, which came to be known as Project 2000 (P2000), nurses were first taught in schools of nursing attached to hospitals, and thereafter in colleges of nursing. The qualifications were of a low academic level, with nurse teachers teaching the entire syllabus with occasional sessions taught by visiting lecturers, mainly doctors. Nurse teachers were not obliged to have a degree, but all were required to have a teaching qualification, awarded by a college of education. They did not attend courses with students from other disciplines, however, but had special nurse teaching courses provided for them. Before Project 2000, the teaching of nursing was divided into clinical and theoretical components, with clinical teachers responsible for the teaching and supervision of students in clinical areas. Clinical teachers had what was regarded as a lower level of teaching preparation, which was taught apart from theoretical teachers, as well as from other students. Clinical teachers were regarded as being of lower status than the college teachers, but were never fully accepted by the clinical staff, who considered that they were trying to promote an idealistic view of nursing, incompatible with practice. This division in the teaching of nursing students was thought to be responsible for the deficits in the application of theory to practice by the students.

Teaching in the clinical area has now largely been devolved to mentors, who are registered practitioners employed by the healthcare institution. Usually, they are without a teaching qualification, and have often been educated to a lower level than the diploma level students they are mentoring. The clinical workload of such practitioners has also increased as a result of a scarcity of resources in the health services, rapid advances in healthcare technology and an ageing and increasingly dependent population. Their first responsibility, however, is to the patient rather than to the student. Project 2000 stipulated that all nurse teachers must have a clinical commitment, recommended to be up to twenty percent of their time. The exact nature of the commitment is unclear, however, and it is often merely a formal link, with occasional visits, rather than close involvement in clinical care.

The reforms of nurse education were intended to prepare nurses, able to respond to the changing health needs of the new century, by raising the level of education, giving student nurses student status and bringing nursing into mainstream higher education. Evaluations of the impact of Project 2000 so far, however, have indicated that the division between what is taught in college and what is needed for practice, has not disappeared. Government and UKCC documents since the introduction of P2000 still assert that problems with the theory practice gap remain (DOH 1989b, UKCC 1992, NHSE 1994). Details of these reports will be discussed later.

There is a need, therefore, to view the issue of theory-practice integration from a different viewpoint. The literature reviewed revealed many studies concerning the implementation of innovations designed to support the theory and practice integration. These include nursing models, mentorship, link teachers, reflection and problem-based learning. There is no evidence, however, that the problem has been intensively explored from the student perspective. Much current research into student learning in mainstream higher education concentrates on the exploration of student conceptions. Insight into the conceptual framework can help teachers understand how students learn and can consequently help them to plan appropriate teaching and learning strategies. This study, therefore, aims to use the second order approach of contextual analysis, a method within

the phenomenographic research tradition, to identify the conceptions of theory and practice integration held by pre-registration nursing students in two colleges of nursing. The participation of teachers in the study will give them an opportunity to reflect on their own theories-in-use, and the effect that these have on student learning. The definition of the curriculum, as that which an individual learner experiences as a result of schooling, underpins the thesis (Marsh 1997a). The study will therefore look at the effect that different aspects of the curriculum have on student and teacher experience of integration. To ensure a wide variation in the data collected, two quite different programmes, both leading to nurse registration, in contrasting departments of nursing, will be selected. One is a degree course in a well established institution of higher education and the other a Project 2000 course delivered by a department which has just become part of an institution of higher education.

The review of the literature takes the form of a theoretical analysis of the theory-practice divide and explores the general educational literature followed by the nursing literature. Chapter 2 investigates the literature on the curriculum, looking at curriculum definitions, conceptions of the curriculum and issues of integration. The framework of Habermas describes different perspectives of the curriculum (technical, practical or emancipatory) and is used to guide the analysis (Habermas 1971, 1972). The characteristics of the nursing curriculum are likewise explored and the curricular factors which have an impact on the integration of theory and practice identified. Chapter 3 focuses on the problems of professional education, and analyses the many attempts to solve the issue of theory and practice integration. The reforms of nurse education, known as Project 2000 (P2000) are the most recent attempt to achieve this, and the ways in which integration is addressed in the new curriculum are scrutinised. The theoretical analysis continues in chapter 4 by examining the learning environment and the effect of the different elements of the environment on student learning.

The conclusions from the analysis of these three areas of literature are then used to inform the methodology and the design of the study. Little evidence of the student view of the theory-practice gap and ways of closing it was found in the literature. Exploration of the student conceptions of learning to integrate theory and practice, however, requires

a method which takes a second order approach and is non-dualist. Phenomenography has been widely used in research into student learning in higher education and is an appropriate choice for a study which investigates the learning of student nurses. As the learning context is an important aspect of learning the data analysis will be informed by contextual analysis. This approach distinguishes between the different elements of the context and the relationships between these parts. The perspective of the teachers will also be explored, particularly the ways in which they promote integration of the curriculum. The College documents will be analysed for evidence of the ways in which an integrated curriculum is delivered.

Separation and division have been a constant theme throughout nursing history. The profession is diverse and fragmented, with divisions among practitioners, theorists and teachers and between clinical and theoretical teaching. Project 2000 does not appear to have solved the dilemma of the theory-practice gap. To provide high quality nursing care, however, the use of theory to inform practice is even more essential in a world of rapidly changing and challenging healthcare. This study seeks to illuminate this problem by using research methods which will uncover student and teacher conceptions of learning to integrate theory and practice. The conclusions will help to illuminate the development of nursing curricula which will present theory and practice as an integrated whole.

## Chapter 2

### The Curriculum

#### Introduction

One of the changes made as a result of the reform of nurse education was the introduction of a different curriculum, which would move away from the traditional nursing emphasis on the technical requirements of the job and the specification of narrow behaviourist objectives. The curriculum would be at a higher academic level and would include a wider selection of academic disciplines appropriate for the practitioner of the future. The integration of theory and practice within the nursing curriculum has always been a concern of the nurse teachers and the employers and integration was one of the main aims of the new curriculum. This chapter, therefore, will analyse the literature on the curriculum, examining definitions and conceptions of the curriculum, and the different perspectives of the curriculum within the literature, using the work of Habermas as a guide. The analysis continues by exploring the literature on the nursing curriculum, particularly the research on the outcomes of the new curriculum, again using Habermas as a guide.

The curriculum reflects the aspirations, activities and interpretations of society as a whole. It is not a planned entity, however, nor is it a construct of professional and educational knowledge but is the result of historical movements and pressures (Longstreet and Shane 1993, Caldwell 1997). The lack of some overall rationale for curriculum development (Kelly 1989) has led to what Taba (1962) calls:- "*the amorphous product of generations of tinkering*" (page 8). The curriculum is not a neutral entity, but a highly charged political one, and what is left out of the curriculum, is as significant as what is put in (Barrow 1976). Approaches to the curriculum inevitably involve a view of what is worthwhile (Hirst 1974, Barrow 1976), but the dilemmas to decide whose view of what is worthwhile should prevail. Popkewitz (1997) sees the curriculum as a practice of social regulation and power, consisting of a particular organisation of knowledge, by which individuals regulate and discipline themselves as members of a community or society. The values enshrined in the curriculum, therefore,

stem from the values of society at large, and are determined by the relative power of the dominant forms of ideology. There is a tendency for the interests of dominant groups to be sustained, with reproduction of the social structures from which these groups benefit (Carr and Kemmis 1986, Giroux 1990, Goodson 1994). Conflict, as a result of competing ideologies and the changes of ideology which come with changes in the ruling elite, can give an unclear framework to the students and other stakeholders in the curriculum (Moon *et al.* 1989, Caldwell 1997). It is possible, therefore for the curriculum to be an instrument of control, and as such, open to abuse and manipulation. On the other hand, it is also true that it is difficult to control the curriculum completely. The intentions of the curriculum planners are not necessarily reflected in the reality of the outcome (Stenhouse 1975). A driving ideology which is divorced from the social realities, inspirations which are not underpinned by appropriate resources and rigid practices in the institution or lack of comprehension by those implementing the curriculum, can all result in an actual curriculum which bears only a slight resemblance to the original intentions. The formal curriculum is also only part of the total learning experience. Organised education is important but is not the total of life experiences. To be of value, the curriculum should open up opportunities for students and teachers, rather than present limitations. It cannot be too prescriptive, but should be open to different interpretations and dynamic enough to meet the changing needs of society (Goodson 1994).

The gap between intentions and reality will also be aggravated if those implementing the curriculum are not involved in the planning, which is a common feature of a centralist curriculum. Involving others in the process of curriculum development is to risk losing control. In non-compulsory education, consumer involvement is an issue. Tension in the curriculum is a result of separation between planning and implementation, without dialogue or consultation, and the nature of the curriculum will be unclear to teachers (Johnston 1994). Many teachers do feel that the curriculum is apart from teaching, and can constrain what they wish to accomplish in the classroom (Connelly and Claudinin 1988). If the curriculum plan is devised by one person or by a group, but the same outcome can be produced by anyone with the same skill who follows the plan, the role of the teacher is diminished. If teachers do not have responsibility for curriculum decisions

at all levels, but merely implement the decisions of others, they become merely organisers of education (Connelly and Claudinin 1988).

## **Definitions**

There are difficulties in defining the meaning of curriculum (Reid 1992, Johnston 1994). Goodson (1994) called the curriculum:- “*an elusive and multi-faceted concept*” (page 5). Shifts in definition and terminology reflect broader and less dogmatic views and conceptual progress (Tanner and Tanner 1980) over time from the rather rigid ‘fixed course of study’ to the broader ‘learning opportunities’ (Jackson 1992).

Marsh (1997a) gives a selection of definitions of the curriculum as:-

- that which is taught in school
- a set of subjects
- content
- a set of materials
- a set of performance objectives
- that which is taught inside and outside school and directed by the school
- that which an individual learner experiences as a result of schooling
- everything planned by the school personnel

The structure and foundations of the curriculum are often confused, and the curriculum is regarded merely as a set of plans contained within a document. Grundy (1987) denies authority to curriculum documents and takes an interpretive view of the curriculum, as requiring teacher judgement. To find out about the curriculum, she says that it is necessary to look at the people and the institution, rather than at the documents. Stenhouse (1975) uses the term hypothesis to denote this interpretation and making-meaning of the curriculum. He sees the curriculum as a provisional specification, rather than as a set of documents.



The terms, curriculum and syllabus are also often used as though they were the same thing. Teachers often believe that the curriculum refers only to one particular area or discipline (Johnston 1994). The syllabus is one aspect of the curriculum, however, and it is limiting to think of the curriculum merely as a body of knowledge to be transmitted (Kelly 1989, Marsh 1997a). Hirst (1974) sees the curriculum largely as knowledge, with the structure and organisation of knowledge universal rather than cultural. Hirst attempts to ground the curriculum in knowledge itself. Stenhouse (1975) says that assumptions about the structure of knowledge are implicit in the curriculum, and one aspect of thinking about the curriculum is thinking about knowledge. This is problematic, however, as he acknowledges that knowledge is transient, shifting and socially determined by the most powerful groups.

Many writers give definitions which emphasise the importance of planning (Neagley and Evans 1967, Marsh and Stafford 1984, Barrow 1984), but to others (Grundy 1987) this implies that a product results from the implementation of the plan. To see the curriculum as a set of performance standards to be achieved is to reflect the behaviourist perspective of learning as a measurable change in behaviour. Opponents of this product-orientated view believe that, as the aim is to reproduce students in the image of the curriculum plans without creativity or innovation, education is consequently limited (Stenhouse 1975, Grundy 1987).

Putting emphasis on the curriculum as the planned and guided activities of the institution (Kerr 1968) leaves out all those other informal learning experiences which are not the intentions of the curriculum planners, often termed the hidden curriculum (Pollard and Tann 1987). However, Barnes (1976) believes that, though the values and attitudes learned via the hidden curriculum may be unintended, teachers should be aware of this and prepared to take some responsibility for this unplanned learning. A distinction is also made between the official and actual curriculum as the difference between the intention and the reality (Stenhouse 1975, Kelly 1989). Both aspects must be taken into account if the theory and practice of the curriculum are to be linked.

Walker (1990) says that, if a definition of curriculum is to be of use, it should be in terms

of matters that teachers and students attend together, that students, teachers and others recognise as important to study and the manner in which these matters are organised. As the curriculum is such a complex field, however, it is inevitable that terms and definitions will be used in a variety of complex and potentially contradictory ways. A definition which covers more than what is actually planned is needed (Holly 1973) but it is not helpful to have so broad a definition that the curriculum is equated with education itself (Kelly 1989). Pinar *et al.* (1995) believe that the difficulty with establishing a definition of curriculum should not be seen as a problem, but just as a fact which must be acknowledged.

### **Conceptions of the Curriculum**

Pratt (1992) defined conceptions as:- *“specific meanings attached to phenomena which then mediate our response to situations involving those phenomena. We form conceptions of virtually every aspect of our perceived world, and in so doing, use those abstract representations to delimit something from, and relate it to, other aspects of our world. In effect, we view the world through the lenses of our conceptions, interpreting and acting in accordance with our understanding of the world”* (page 204).

Goodlad (1979) thinks that definitions are the starting point for curriculum study, but others believe that there are important concepts or considerations which give insights into aspects of curriculum study and which arise from particular value orientations (Marsh 1997a). An awareness of different conceptions of the curriculum can therefore help to make sense of the curriculum. The opposite point of view is taken by Pinar *et al.* (1995) who believe that conceptions are largely stereotypes and consequently of little value.

Marsh (1997a) discusses forty-four major concepts of the curriculum which were identified as a result of studying major curriculum texts. Key concepts were within the broad categories of:-

- conceptions of curriculum/models/approaches
- curriculum history
- curriculum policy and policy makers/politics of curriculum

- curriculum development procedures/change/improvement/planning steps
- issues and trends/problems/future directions

However, writers on the curriculum disagree about the relative importance of these categories, with some writers giving equal importance to all categories, while other writers concentrate on one or more to the exclusion of the others, making it difficult, therefore, to compare and evaluate different types of curricula.

### **Integration**

Kelly (1989) believes that man has always integrated knowledge to focus on things of importance. The present interest in curriculum integration, which is variously termed thematic, interdisciplinary and problem-based learning (Marsh 1997a), arises from the concern that knowledge must be more focused to deal with rapidly changing situations in a modern age. This leads to increased interest in the application of knowledge, rather than knowledge as an end in itself. In a more egalitarian society, knowledge is no longer confined to certain groups and kept safe by specialists. Authority, therefore, is weakened by education which is broad rather than deep (Kelly 1989). The curriculum must address complex real life problems (Stenhouse 1968) and teaching different subjects as totally distinct entities could work against the development of comprehensive and multi-dimensional perspectives (Barrow 1976). Musgrave (1973), however, argues that eroding boundaries between specialist subjects can lead to a reduction in quality, as teachers need to develop expertise in narrow areas of knowledge. This is a possibility if integrated schemes lose sight of their purpose and theoretical base (Kelly 1989).

There is much support for an integrated curriculum and many advantages are claimed. It is claimed that integration can be a way of avoiding alienation from education and from charges of irrelevance by encouraging enquiry-based methods of learning and enabling students to organise knowledge in ways that are meaningful to themselves and to society (Whitehead 1932, Kelly 1989).

As the students' view of the world is unlikely to be divided into subject areas, a curriculum which is divided into subjects can take insufficient account of the needs of the learners. Practical and interdisciplinary concerns are not accommodated, links between subject matters are not made and there is little support of one subject by another (Pring 1976 a, b). An integrated vision with inter-related knowledge should lead to more meaningful learning for the student (Marsh 1997a, Eisner 1991) and so the activities designed for these enhanced learning possibilities should be interdisciplinary and grounded in the students' own concerns and real experiences.

The principles of expediency, social integration, meaning, motivation and needs are cited by Pring (1971b) as necessary for successful curriculum integration. A careful analysis of the purpose, the principles and the theoretical model of integration is necessary and planning should reflect the contextual requirements (Kelly 1989). Areas of study should have an internal logic and coherence, with themes which seem inevitable rather than based on casual associations. Possibilities should be opened up by discussions, which are not merely an exchange of views but rather an interpretation of the evidence (Stenhouse 1968).

Integration can, however, mean different things (Barrow 1976):-

- a programme that seeks to relate the independent study of various disciplines
- an integrated course seen in terms of theme teaching
- a totally unstructured entity in which subjects do not make an appearance at all

Pring (1976b) suggests four ways of integrating the curriculum:-

1. Integration in the correlation of distinct subject matters which takes for granted that the subjects are different.
2. Integration through themes, topics and ideas and through inclusive principles and concepts.

3. Integration in practical thinking
4. Integration in the learner's own interested inquiry.

Barnes (1982) accepts Pring's categories but with modifications:-

1. Integration in correlating distinct subject matters
2. Integration through themes, topics ideas
  - a. Through loose focus of activities on a topic
  - b. Separate specialisms co-ordinated by a common topic
  - c. Subject matters closely integrated through over-arching principles
3. Integration in practical thinking
4. Integration in learner's interested inquiry
5. Integration in name only as the subject matter remains effectively separate.

Finding over-arching principles is only one of the problems of curriculum integration. Hirst's (1969) theory of knowledge, as logically discrete forms of rational understanding, is opposed by those who view subject boundaries as arbitrary, a consequence of history, and believe that the curriculum should be organised in ways that cut across subject boundaries (Barnes 1982, Barrow 1984). For those who believe knowledge is man-made and hypothetical, too rigid a view of the nature of knowledge or adherence to one theory of knowledge, makes integration of the curriculum a problem, particularly when disciplines rather than subjects are integrated (Kelly 1989). Integration can also be affected adversely by practical and administrative problems caused by resource shortages, lack of teacher training and support, and difficulties in team teaching (Marsh 1997a).

One major innovation which can have an impact on curriculum integration is modularisation. It became a feature of educational institutions in the 1980s and 1990s and, though the move was largely driven by cost and efficiency savings, supporters

believe that it is in line with adult learning theory, as it allows for flexibility and enables students to make informed choices about their own learning needs (Jarvis *et al.* 1998). In spite of these alleged educational reasons, modularisation also has the potential for erosion of the curriculum, where students are not guided through the acquisition of knowledge in a logical sequence, and if they are able to choose a programme composed of modules which have no relationship to each other. The role of the teacher is an important issue as modularisation usually means a move from didactic teaching towards the organisation of student learning and more student self-direction. Sound quality assurance procedures are also vital to ensure that fragmentation and a lack of coherence are avoided (Raffe 1992).

### **Habermas as a Framework for Curriculum Study**

It can be seen that, as there is a lack of consensus over what constitutes the curriculum, and how integration of the curriculum should be handled, there are difficulties in the study of the curriculum. A central aspect of curriculum theory, however, is the nature of knowledge and how it interacts with action to produce an educational experience. Habermas (1971, 1972) has differentiated three primary generic cognitive areas in which the human interest generates knowledge. These areas determine categories relevant to what is interpreted as knowledge and, as they are all areas of cognitive interest and forms of knowledge which must be acquired by the nursing profession (French and Cross 1992), they can be used as an appropriate framework for the investigation of differing perspectives of the curriculum. The three basic cognitive interests which influence the nature of knowledge as identified by Habermas are:- the technical, where knowledge is based on empirical investigation and governed by technical rules; the practical which is concerned with social interaction and is generally contained within the historical and hermeneutic disciplines; and the emancipatory, which identifies critical self-knowledge (Habermas 1971, 1972).

### **Technical/Rational - Product Orientated**

The technical interest, as described by Habermas, is concerned with the empirical and the

formation of laws, which form a basis for prediction. The ability to predict is a powerful tool which can give controlling power to those able to make the predictions. The technical-rational influence on educational theory attempts to produce the precision of science and technology, by pre-specifying objectives, and by testing performance and outcomes (Kelly 1989).

In the United States, Bobbitt (1918) deplored the vagueness of much teaching, and suggested that teachers be required to write clear statements of intent. Tyler (1949), however, had perhaps the greatest influence on curriculum planning, and in an attempt to bring order to the educational process, he looked for answers to the following questions:-

- What educational purposes should the institution seek to achieve?
- What educational experiences can be provided that are likely to achieve these purposes?
- How can these educational experiences be effectively organised?
- How can we determine whether these purposes are being achieved?

Curriculum planning thus became linear, with goal-setting and the devising of learning experiences to meet the goals. The emphasis was on control of the end-product, with objective-setting the main tool to determine teacher action (Taba 1962, Wheeler 1967, Rowntree 1982, Reid 1993, Tyler 1951). The behaviour of students was, therefore, to be modified in line with the dominant behaviourist school of psychology, which saw learning as a form of behaviour modification (Skinner 1968). The success of the curriculum depended on the similarity between the original intentions and the final product (Kelly 1989). This 'mechanical' approach to the curriculum was welcomed by systems theorists and those perceiving curriculum design as a form of engineering (Pratt 1980). In the same tradition, Bloom, attempting to develop a neutral technique which might be applied to any curriculum (Barnes 1982), devised a hierarchy of learning objectives, which attempted to describe a mastery of sequential learning. This came to

be considered by some as having almost scientific status. A classification of learning objectives was introduced, with three categories of behaviour in the cognitive, affective and psychomotor domains (Bloom 1956, Bloom *et al.* 1964, Kratwohl 1965) and behaviourist objectives were taken seriously in the United Kingdom in the 1960s, when the Schools Council was established, and the Plowden Report criticised the lack of direction and clarity of much contemporary educational practice (Kerr 1968, Kelly 1989).

Support for the technical-rational approach to education has been summarised under four headings, namely logical, politico-economic, scientific and educational (Kelly 1989). Logically, education is an intentional and rational activity and must, therefore, be goal-directed, with objectives efficiently providing the direction (Tyler 1949, Gagne 1985, Hirst 1969, Peters 1972, Kliebard 1977). Those who value scientific accuracy and precision approve of this approach, and stress a certain relationship between educational inputs and student achievement (Davis 1984). The politico-economic argument is that, as the state pays for most educational provision, it must have a clear way of accounting for this expenditure. Accurate evaluation of expenditure relies on a clear statement of intentions with the related outcomes. From this perspective, therefore, it is impossible to evaluate a curriculum without pre-stated intentions (Taba 1962).

Technical-rational education, in line with the traditions of behaviourist psychology, does not take account of human nature and individual differences in learners and teachers. Education is not seen as an end in itself, rather as a modification of behaviour and a utilitarian view of knowledge (Dewey 1931, Pring 1971b).

The separation of knowing and understanding in Bloom's taxonomy (Bloom 1956, Bloom *et al.* 1964) and the specification of objectives is questioned by many writers who believe that this reveals a flawed view of knowledge, with the resulting education becoming a limiting, rather than an inspiring activity (Giroux 1983, Pring 1971a, Barrow 1976). The pre-specification of goals means that success in this mode means producing exactly what was predetermined by the objectives, without scope for innovation or creativity (Apple 1982, Grundy 1987, Reid 1993). It is the evaluation of the achievement of the objectives, rather than evaluation of the objectives themselves, which dominates



of the objectives, rather than evaluation of the objectives themselves, which dominates the technical-rational school of thought (Stenhouse 1975). Students do not usually have any control over objective-setting and so, this is an ideology which contradicts the notion of a liberal education by rendering them passive recipients of knowledge and practice (Grundy 1987, Swartz 1996). Supporters of this approach claim that objectives are a value-neutral framework for the curriculum (Kelly 1989), but objectives inevitably reflect the values of those setting them (Barnes 1982). The danger of objective setting, therefore, is that it can lead to a trivialising of education, and an assumption that all behaviours are measurable, which can result in the setting of objectives which can be easily operationalised and measured (Stenhouse 1975, Reid 1993).

The narrow focus of technical-rational education, and the dominance of objectives is thought by some to perpetuate power relationships and existing frames of reference, especially those defined by educational bureaucracies (Hlebowitsch 1992). Independence is facilitated only for those in positions of dominance, who regard humans and the environment as objects to be controlled (Grundy 1987). An objectives-led educational system can be deceptively simple and a powerful case can be proposed in support of it. Such a framework is suitable, however, only for low-grade mechanical activities or basic skills or where control of the learning is thought to be essential or desirable (Kelly 1989). Attempting to mould people without taking account of their nature, wishes or values can be construed as an attempt at indoctrination. The current literature on the Tyler school of thought is critical, but Hlebowitsch (1992) considers the case against it overstated as Tyler argued for a small number of objectives at a high level of generalisability, without being too rigidly linear and stepwise and he also made a case for mediating elements such as the nature of the learner and society values.

### **Practical Interest - Process Orientated**

The knowledge which is associated with the practical interest as described by Habermas (1971, 1972) is the kind of knowledge which comes from an understanding of the environment through interaction with it. This kind of knowledge is social knowledge which depends on shared meanings as a result of human interaction and communication

and is determined by agreement and acceptance of social norms. Many of the historical-hermeneutic disciplines were classified by Habermas as belonging to the practical interest, and the method of enquiry associated with these emphasises the importance of subjective understanding based, not on observation and the formulation of rules, but on a consensual interpretation of rational and moral action. Social knowledge is therefore an active process and the curriculum associated with this viewpoint is not a physical entity, but is the sum of what happens in the classroom and what is done as preparation and evaluation.

Bruner's view of education is the facilitation of cognitive growth, as a way in which individuals gain mastery over a complex world. The student is seen as an active participant, constantly reconstructing knowledge and generating new thinking strategies to resolve environmental problems (Bruner 1966). Curriculum planning in this mode is concerned with personal growth (Kelly 1989), with content selected and arranged to produce cognitive development (Dewey 1938). Aims and processes are inseparable, so the curriculum is viewed not merely as content or outcomes (Kelly 1989). Curriculum plans do not reject subjectivity, they put judgement as the central tenet (Grundy 1987). This approach concentrates on means, rather than ends, and has influenced the development of a process model of curriculum which rests on teacher judgement rather than teacher direction. Teachers who develop their own understanding and act as co-learners, can formulate plans for the improvement of their own practice and the promotion of meaningful learning for the students (Stenhouse 1975). In the hermeneutic tradition, knowledge and rules are considered an inadequate basis for action, and decisions about the meaning of the rules are necessary prerequisites for the exercise of judgement and the consequent action (Gadamer 1970, Grundy 1987).

Alternatives to the behavioural objectives focus on ways of learning appropriate to different kinds of knowledge, with implicit principles of procedure which govern learning and teaching (Eisner 1969, Stenhouse 1975, Barnes 1982). Eisner (1969) distinguishes between instructional and expressive objectives to take account of both simple and more complex educational situations, and claims that what he calls expressive objectives describe an educational encounter in which learners are active contributors,

this context is misleading and that any attempt to resolve the fundamental contradiction in setting educational goals is misguided. There is much discussion about what to put in place of objectives, and confusion over the many terms in use such as aims, short and long term, guidelines, principles and process objectives (Eisner 1969, Kelly 1989). A more flexible and less dogmatic approach to curriculum planning is desirable, with guidelines based on broad principles and values, rather than on the writing of prescriptive objectives (Stenhouse 1975, Pring 1973, Kelly 1989). Bruner (1960) believes that the integration of theory and practice depends on the transferability of learning and that this is the essence of the process curriculum. He proposes a spiral curriculum for a practice discipline (Bruner 1966), while Rolfe (1996) takes this further by proposing a reflective spiral curriculum model of education, rather than the traditional linear, hierarchical curriculum, which progresses from pure theory to applied theory to practice. For the practitioner, theory and practice do not conform to a linear relationship but to a cyclical one, where theory is constructed from practice and then applied back to practice in a reflective learning cycle (Kolb and Fry 1975).

The supporters of the process curriculum see it as a provisional blueprint for a way of teaching, rather than as a rigid structure vested in a set of documents. The content is selected to illustrate key processes, concepts and criteria, rather than the achievement of a predetermined outcome (Stenhouse 1975). The process of learning must be rooted in reality and is more important than the content (Peters 1966, Hirst 1974). If meaning and interpretation are emphasised, content will be integrated and holistic, rather than fragmented and subject-specific. The aim is not only to impart knowledge, but also to create situations in which knowledge can be developed from the understanding which arises from action and reflection. Reflection can bring to consciousness that which is implicitly and unquestioningly accepted. To Stenhouse (1975):- *“the ideal is that the curricular specification should feed a teacher’s own personal research and development programme through which he or she is progressively increasing understanding of his or her own work and hence bettering his own teaching”* ( page 14).

A major weakness of the process model, however, is the extent to which it depends on the quality of the teacher (Stenhouse 1975). Uncovering the unconscious assumptions which guide teachers’ decision-making implies considerable reflective skill (Connelly

which guide teachers' decision-making implies considerable reflective skill (Connelly and Claudinin 1988, Shkedi 1996), and Barrow (1976) notes that, though teachers often talk about the desirability of fostering critical and questioning minds, able to solve problems, these very attributes are often conspicuously absent from their own practice. Teacher responsibilities include not only planning and teaching, but also the justification of contents and methods, and articulation of the criteria being used (Barnes 1982). Teachers should have freedom to teach within broad principles, even though there is a risk that this autonomy will be abused (Stenhouse (1975, Blyth 1974). Though the practical interest curriculum emphasises consensual meaning and understanding, there is also a potential danger of manipulation of the consensus by powerful interests in society (Grundy 1987).

### **Emancipatory Interest**

For Habermas (1971, 1972), emancipation is a state of autonomy and responsibility linked to concepts of justice and equality. Though an individual experience, it cannot be separated from the freedoms of others. Authentic meaning rather than false consciousness is desired and this comes from authentic, critical insights into the social construction of human society (Grundy 1987). Freedom of action is based on decisions which may come from critical theory, and have been authenticated by individual experience, leading to critical self-reflection or, as Habermas terms it, authentic insight.

A major exponent of emancipatory education is Freire who takes a transactional view of learning (Freire 1972). These ideas have echoes in, for example: Lewin's (1951) Field Theory which recognises the need for active involvement of the learner; Jackson's (1986) transformative instruction which facilitates change in understanding and requires active student participation; Rogers' (1983) goal of self-actualisation; and Schon's (1983, 1987) work on the reflective practitioner. Freire believes that learners should be active participants in knowledge creation along with the teachers, rather than passive recipients of knowledge. The learning experience should be meaningful, with a critical focus. As a result of this active engagement, students will become critical agents, and, learning how, rather than what, to think, will be able to combine scholarship with personal and cultural

knowledge. Thus they will recognise distortions of the truth and become empowered, able to develop the awareness and ability needed to change the institutional structures which impede freedom and progress (Freire 1972). For Hodkinson (1994), the three dimensions to empowerment are:- personal effectiveness, which is the ability to act for oneself; critical autonomy, which includes critical thinking and thinking for oneself; and community, without which the other two dimensions can be dangerously individualistic.

The relationship between reflection and action is vital in the emancipatory curriculum. Critical reflection on knowledge is needed to distinguish what is real and what is artificial, enabling students to challenge the meanings of the curriculum planners. Curriculum construction and implementation are not different entities but are inseparable within a learning environment, which supports teaching and learning as a dialogue rather than a hierarchy (Grundy 1987).

Swartz (1996) believes that what he calls the false stability and narrow intellectual confines of the closed efficiency-seeking curriculum are counteracted by the emancipatory interest. Emancipatory pedagogy is a process of teaching and learning which involves multiple ways of knowing, and centers learners (and teachers are also learners) in teaching and learning based on the solving of real problems, not only on transmission and reproduction. If control of learning is shared by involving students in curriculum construction and discussion of learning theory, real choice is possible. Students can then develop their own appropriate learning experiences and free themselves from dependence on the teacher (Boomer 1982).

Emancipatory education considers knowledge to be culturally situated and, by emphasising critical self-understanding and self-empowerment, it can liberate students by helping them, not only to function in their own world, but also to change it (Habermas 1971, Freire 1972). This challenge to education to provide a liberating experience is in line with the Western ideal of higher education, with its emphasis on investigation and respect for differing perspectives (Roberts 1996, Barnett 1990, 1994).

Emancipation, however, can be risky and safeguards are necessary. Learning must be

and the teachers. Students are not, however, absolved from responsibilities in the learning situation (Habermas 1971). The rules which determine knowledge must stand up to critical scrutiny, and should involve students in the construction of knowledge, which must be learned cognitively, personalised and recognised as authentic by the student (Polanyi 1958).

Buckingham (1996) believes that the liberating potential of emancipatory pedagogy is overstated. Meaningful educational theory must take account of classroom realities, but emancipatory theorists appear unwilling to address practice and its dilemmas, exemplified by the view of Giroux (1992) that emphasis on the classroom is anti-intellectual. A curriculum influenced by emancipatory ideals has problems in that the roles of the planner, teacher and student merge, though the teacher still carries the main responsibility (Boomer 1982). The burden of change is on the teachers but they lack guidelines on how to accomplish it (Gore 1993). Others wonder if it is truly possible for critical learning to take place unless the learning community is critically conscious and determined to learn rationally from each other (McTaggart and Singh 1986).

There is a fundamental ideological dilemma in the structuring of the classroom in an egalitarian way. Teachers are to empower the students but cannot impose their authority, which poses a problem if students do not wish to be liberated. Students do not always welcome autonomous learning and the breaking down of the conventional barriers in education (McTaggart and Singh 1986). To the emancipatory theorists, however, the more the students resist, the more in need of enlightenment they are (Simons 1994), resulting in a situation which reinforces the power and control of the teacher (Gore 1993). To counteract this criticism, Giroux uses the term emancipatory authority by which authority, though not authoritarianism, becomes a political necessity. His answer is self-reflexivity, where the authority of the teacher is made visible and can become an area for discussion and dispute (Giroux 1988c). White (1997) thinks this is an unsatisfactory solution, as it means that emancipation is good for some but not for all. Most students know what they want out of a course, but are usually content to let others decide the composition of a worthwhile course. Steering students towards even worthy goals like self-understanding without their previous awareness could be considered

goals like self-understanding without their previous awareness could be considered unethical.

The position of teachers is also contradictory, as they are employed by the institutions, which are portrayed as oppressive and rigid. Empowering students to overthrow the very institution which employs the teachers puts the teachers in a difficult position. Boomer (1982), however, says that teachers must be ready to challenge the context, if it prohibits students from becoming autonomous learners. Such difficulties are not addressed, however, confirming the disparity between the vision and the restraints of the real world, that could prove disempowering for teachers (Gore 1993, Buckingham 1996).

Marxists and Neo-Marxists (Giroux 1983, Apple 1982, 1982, McLaren 1986 as cited by Kincheloe and McLaren 1994) question many of the assumptions and tenets of traditional curriculum theory, but fail to provide a framework for the implementation of their own ideas. And, indeed, a serious claim against emancipatory theory is the failure of its supporters to open their own pedagogy for scrutiny and the lack of criteria by which their practice can be judged (Grundy 1987, Buckingham 1996). Buckingham (1996) also believes that these theorists use language as a form of oppression. No rational person would be against ideals of freedom and emancipation but the self-reflexivity which they call for does not extend to their own language.

## **The Nursing Curriculum**

### **Background to the Project 2000 Reforms**

The apprentice system prevailed in nursing until the 1990s when the movement for educational reform, known as Project 2000, came to fruition in the form of the Diploma in Higher Education in Nursing. Students were part of the workforce, with a minimum of 24 weeks for theoretical learning within 3 years (GNC 1977). From the 1940s onwards, withdrawal from the wards for blocks of study was the norm but, as service requirements had priority, subsequent placements could bear little or no relationship to the theoretical input. Modular schemes of training were introduced from the 1970s onwards, with theoretical teaching related to clinical placements, in the belief that this would bridge the

perceived theory-practice gap, but there were claims that the students were still not well prepared for clinical practice (Pines and Kanner 1982). Concern about the adequacy of pre-registration training continued, with accumulating evidence that the employee status of students was compromising educational standards (While *et. al.* 1995, Reid 1985). An evaluation of nurse education in the 1980s concluded that the pre-registration preparation of nurses was not an educational experience. The curriculum was not suitable for the preparation of practitioners able to make decisions using critical thinking, forms of knowledge which emphasised know-how, interpersonal skills, and self-awareness. Additionally, teacher-student relationships were incompatible with the development of person-centred practitioners (French 1992). There was the feeling that oppressive practices in nurse education remained, with the curriculum thought of as the property of the teachers and delivered to the students, with the lecture the dominant method of transmission (Bevis and Murray 1990, Darbyshire 1993). The authoritarian nature of much nursing education, therefore, had the effect of turning many intelligent and sensitive students off education (Allen 1990a, b, Kramer 1974).

### **Behaviourist Traditions : The Technical Curriculum**

A curriculum model based on the work of Tyler (1949) has been widely used by nursing educators since the 1970s when the General Nursing Council required Schools of Nursing to write learning objectives for each clinical placement (GNC 1977). The desire to legitimise nursing as a profession influenced the adoption of a technical curriculum which could demonstrate levels of competence in the empirico-analytic tradition (Murdoch 1983). Clear specifications in the form of behavioural objectives appeared to be a certain way of producing competent practitioners and were considered an improvement on previous practice (Hume 1981, Diekelman 1988). Perry and Moss (1989), however, viewed this curriculum as a way of measuring student attainment of the characteristics which were determined desirable by those in authority only.

In the 1980s and 1990s, however, nursing theorists increasingly advised against this model, deeming it limited and unsupportive of the educational preparation of the modern professional nurse (Quinn 1995, Bevis and Watson 1989, Tanner 1990 a, b, Glen 1990,



Jones and Brown 1991, MacLean 1992, Owen-Mills 1995). The technical curriculum did not encourage students to develop their knowledge beyond the set goals (MacDonald 1992, Sutcliffe 1992), conformity and compliance were promoted, the development of creative, independent thinking was suppressed (Bevis and Clayton 1988, Rush *et al.* 1991), and affective and cognitive skills were neglected at the expense of more easily measured behaviours (Stenhouse 1975, Rush *et al.* 1991). There was support, however, for this model in the teaching of psychomotor skills (Arthurs 1983, Bevis and Clayton 1988, Sheehan 1986, Crotty 1989).

### **Project 2000**

The reform of nurse education had been the subject of discussion, reports and recommendations going back over many years. The Platt report (RCN 1964) and the Briggs report (DHSS 1972) are examples, but few appear to have had much effect on nursing policy and action (Lathlean 1989). The United Kingdom Central Council (UKCC), which was established in 1979 to replace the eight existing bodies overseeing nursing education stated in its first annual report that there was a need to establish education needs for professional nursing in the 1990s and beyond (UKCC 1980). A substantial review of nurse education was delegated by the UKCC to its Educational Policy Advisory Committee (EPAC), which became the project group for the new development (While *et al.* 1995). The project group considered the future of nurse education against a background of changes in demographic and epidemiological trends, and the consequent changes in health care provision. The result was the Diploma of Higher Education in Nursing Studies (UKCC 1986, 1988) which was enshrined in the Nurse, Midwives and Health Visitors Act of 1979. It was launched in 1989 as a major reform of the preparation of registered nurses, bringing about a far-reaching effect on nursing education and policy.

The aim was an education-led preparation with the idea of the knowledgeable doer, and the reflective practitioner, based on the work of theorists such as Schon and Benner, as central themes. The knowledgeable doer requires a broader knowledge base for practice, and an ability to make informed decisions based on research, rather than custom and

practice. The reflective practitioner is accountable and autonomous and able to be self-critical, self-directed and analytical (Bevis and Clayton 1988, Jinks 1991, UKCC 1986, Crotty 1993a, Benner 1984, Benner and Wrubel 1989, 1992, D'Cruz and Bottoroff 1986, Davies 1995).

The EPAC proposed that nurse education should be at diploma level, with colleges of nursing forming links with higher education. Instead of the traditional specialist three-year course, an eighteen-month Common Foundation Programme (CFP) was introduced, with Branches of specialisation for a further eighteen months. These Branches are Adult Nursing, Mental Health Nursing, Mental Handicap Nursing and Children's Nursing. Learner nurses became students with bursaries and were to be supernumerary for twenty percent of the practice placements, rather than part of the workforce. The philosophy of nurse education was to change, from an emphasis on ill health with a mainly institutional focus, to an emphasis on health and holistic care, to be delivered in a variety of settings, in institutions and in the community (Jowett *et al.* 1994). The new programmes were implemented in England and Wales in late 1989 and early 1990, and in Scotland in 1992. The wider content of the new programme was to include seven themes: the theory and practice of nursing; social and behavioural sciences; life sciences; communication; professional, ethical and moral issues; health education and promotion; and organisational structures and processes of care provision.

To prepare practitioners for uncertainty, structures thought to be capable of adapting to rapid change were developed (UKCC 1986). These included organising smaller modules of learning, making them as accessible as possible, allowing students to progress at their own pace and creating a system of credit transfer (MacNeil and Cavanagh 1995). The reformed educational preparation for nurses was intended to facilitate student learning and to be education-led, research and practice-based, with continuous assessment of students. It included educational concepts new to nursing, such as reflection and a research base for both theory and practice, which were to be integrated (May *et al.* 1997). An overt health focus to prepare nurses to function effectively as health educators and promoters of health, rather than carers of the sick, involved a fundamental shift in the nursing curriculum. The wider curriculum emphasised health, rather than sickness,

represented a move away from the medical model and had to reflect the reality of both educational and clinical settings ( UKCC 1986, NBS 1990, Gott 1990, MacLeod Clark 1993).

### **The P2000 Curriculum - a Process Approach**

The P2000 programme involved a change in the educational philosophy of nurse education and a move from a training model of education to a professional one (Bevis and Watson 1989, Rush *et.al.* 1991, Clare 1993b, Crotty 1993c). Education was to be developmental and a preparation for life-long learning (Jinks 1991). The new curricula had many of the characteristics of the process curriculum, with a change from content alone to interaction around that content, necessitating the development of reflective skills (Ashworth and Saxton 1992). A higher priority was given to academic learning, however, which resulted in shorter placements (MacDonald 1992) and the development of theoretically based practice to make the clinical experience meaningful (Ashworth and Saxton 1992). Student-teacher contact time was increased (MacDonald 1992) and there was a need to develop well qualified teachers with a deeper knowledge of the underlying structure and principles of their subject (Edwards 1983, Wells 1987, Crotty 1993a, Robinson and Hill 1995). In addition to staff development, student support and a high student-staff ratio, a greater diversity in educational strategies was needed to respond to a widening of the entry gate, a feature of P2000. As students would have a greater variety of ability and backgrounds, teachers with a more humanistic view of different learning styles, personalities and abilities were also necessary (Edwards 1983, Sheehan 1986, Bevis and Watson 1989, MacLean 1992).

Though the nursing curriculum changed from a behaviourist one, to one with many characteristics of a process model, there is still some tension and confusion in the literature, as some writers argue against a behaviourist perspective, while simultaneously espousing behaviourist teaching and assessment methods. A process model does not sit well with the competencies stipulated by the UKCC in Rule 18 (UKCC 1983) or with the Nurses, Midwives and Health Visitors Approval Order (UKCC 1989), which states clearly the 13 'outcomes' to be achieved at the end of a P2000 programme. Some writers

view this competence model as a behaviourist, technically orientated way of thinking, inappropriate in nurse education (Ashworth and Morrison 1991). An interpersonal-epistemological model proposed by French and Cross (1992), takes the students through a series of cognitive interests, with an emphasis on technical skill, then knowledge for interpersonal actions and relationships, and lastly knowledge for emancipation to enable students to become change agents (Habermas 1971). There is little evidence that such a curriculum has been implemented, however, and a middle course is more common, with a process-orientated curriculum, which retains rating scales for the evaluation of technical skills. It is claimed that a licence to practice makes this compromise necessary (Henfield and Waldron 1988, Peate 1998, Crotty 1989, Cernik and Evans 1992). Assessment in a truly process-orientated curriculum should be continuous rather than by final examination, involving self-assessment, reflection and review but the public, and the registration bodies, require dependable evidence of competence (Crotty 1989, Cernik and Evans 1992).

The original modularisation system in nursing, recommended by the report of the Nurse Tutor Working Party (DHSS 1970), stipulated that theoretical teaching and the appropriate clinical experience should be concurrent, as in an integral conventional nurse education, in that the needs of the students were taken into account, resulting in more meaningful learning (Warcaba 1976). A further recommendation that the modules could be taken in any order, to provide maximum flexibility, meant, however, that the modules were not progressively challenging (Moon 1988).

The P2000 reforms aimed to bring about a wider curriculum with democratic content, an integrated and holistic framework of theory and practice, and a model of care based on negotiation with the patient (Hoy *et al.* 1986, Greaves 1987, Robinson and Hill 1995, Peate 1998). To accommodate these aims, a change from a linear structure to a more complex one, with vertical and horizontal linking of subjects, is needed to enable learning to become more integrated and more meaningful (Peate 1998). The challenge was to ensure vertical cohesion and academic progression, within a course structure which allowed for discrete units of social and health sciences (Smith M. 1992). To prepare practitioners for uncertainty, structures thought to be capable of adapting to rapid

change were developed (UKCC 1986). Smaller units of learning allowed students to progress at their own pace and created a system of credit transfer (MacNeill and Cavanagh 1995, Peate 1998). The widening of the theoretical basis, brought a concern that the move to higher education could create an even wider theory-practice gap, with theory even more detached from practical action (Ashworth and Longmate 1993). As the available experience varies, adjustment to the theory is necessary (Warcaba 1976). The supernumerary status of the P2000 students was thought by some to be the solution to the theory-practice gap (Webster 1990). Clinical placements were to be planned systematically, with carefully identified experience, so that theory could be applied critically by the students (UKCC 1986).

Though the modular system is claimed to be cost-effective, with reduced administration (Smith M 1992), it can result in disintegration, if presented as discrete packages without an overall picture (Alonso 1984). Integration is enhanced by teaching staff who are aware of the course aims and what is being taught in other modules but making discrete units relevant is difficult without cross-disciplinary co-ordination. Without collaborative planning and consensus between teachers and clinical staff, the outcome can be student confusion (Peate 1998, Weatherston 1981, Bell 1982, Docking 1987, Ferguson and Jinks 1994). The discipline of nursing and the articulation of the problems of practice must take the leading role in nurse education (Usher and Bryant 1989). If each module is assessed as a separate entity, however, there is a danger of over-assessment, and so a cross-modular approach is needed to reduce the number of assessments, and to promote integration (Smith M 1992, MacNeill and Cavanagh 1995). Careful curriculum planning is needed to ensure integration, and the lived experience of the student throughout the course must be monitored (Phillips *et al.* 1996).

### **An Emancipatory Curriculum**

In the United States, where the nursing curriculum has also long been the subject of debate (de Tornay 1990a,b,c), a resolution on Caring in Nursing was passed by the National League for Nursing. This became known as the curriculum revolution, and called for caring to become a core value in nurse education (Tanner 1990). It was argued

that the authoritarian atmosphere of US nursing schools and a behaviourist curriculum model, focusing on the control of learning rather than its enhancement, reinforces a passivity among the students that prepares them to be compliant workers (Thompson 1987, Moccia 1989, 1990, Allen 1990a, b).

The new focus was to be empowerment and development, rather than control of others, in line with Rogers' goal of self-actualisation, requiring a nurturing, caring environment with trust, openness and genuineness (Rogers 1983, Hokanson Hawks 1992, Chavasse 1992). It was claimed that transformation of the power relationships within schools of nursing would bring about the emancipation and empowerment of teachers and students within a more supportive climate based on egalitarian relationships (Thompson 1987, Moccia 1990, Pill *et. al.* 1998). Curricula focusing on relationships rather than content and matching the teaching of caring with teacher behaviour would be needed as if, students are to become empowered to transform practice, teachers have first to demonstrate how this can be done (Clare 1993a, b, Moccia 1989, Wheeler and Chinn 1989, Bevis and Watson 1989, Diekelmann 1990, Allen 1990a, b, Leininger and Watson 1990, Bevis and Murray 1990, Perry and Moss 1989).

Some writers believe however, that the oppressive, controlling nature of the student-teacher relationship is simply recreated (Bevis and Watson 1989, Clare 1993a, b). Chavasse (1992) believes that nursing departments in the US genuinely seek to empower students but that these values are not shared by hospitals and educational hierarchies.

Though there is no such radical movement in the United Kingdom, echoes of the US curriculum revolution can be detected in the Project 2000 attempt to move away from a technical curriculum. Some writers believe, however, that the lack of emancipatory knowledge is the greatest omission, with no intention of addressing power and policy issues outside the profession (French and Cross 1992, Casey 1996). The greater emphasis on student involvement and self direction in learning in P2000, however, is in line with the principles of theorists such as Freire (1972) that learners should be active participants in knowledge creation with the teachers, rather than passive recipients. Attempts to make learning more meaningful include the establishment of student, rather

than employee, status and a preparation for practice which is education-led. The critical focus on learning, an important aspect of the emancipatory curriculum, depends on the relationship between action and reflection. P2000 highlights the development of practitioners, able to reflect critically on practice, and to take appropriate action (Grundy 1987). Reflective education is concerned with learning how to learn, the development of transferable skills, and lifelong learning. Practitioners cannot be fully developed by a predominantly theoretical course, students must be equipped with the skills to develop their own expertise, and to become autonomous and emancipated professionals (Rolfe 2002). P2000 also put curriculum planning into the hands of the teachers, rather than a central body (Grundy 1987). If critical awareness, therefore, and the devolvement of curriculum planning can lead to a radical change of perspective and thence emancipation, then it can be argued that P2000 does possess some of the characteristics of an emancipatory curriculum.

The opposite view can also be found. Though the curriculum strives to produce a knowledgeable questioning practitioner, the hidden curriculum aims for a compliant novice who will facilitate the smooth running of the institution (Thompson 1987, Holloway and Penson 1987, Cook 1991). Constraints in the implementation of the P2000 principles, however, include the organisation and power structures in which nurse education resides. The notion of academic freedom, and the satisfaction of intellectual curiosity are affected by the management hierarchy and excessive bureaucracy of nursing departments, the rules and regulations of higher education institutions and the constraints of professional and validation bodies (Hamill 1995, Banks 1995, Casey 1996). Many nurse teachers comply with the dominant ethos of the time and see organisational constraints on nursing education and practice as inevitable and unchallengeable (Clare 1993a, b). If the teachers are unable to act as role models and change agents, however, it is unreasonable to expect the student to become emancipated practitioners, able to transform practice by overturning convention. Rolfe (2002) believes that it is actually more difficult than ever for nurses to take a radical stance as, instead of being subservient to the doctor, they have become more constrained by the dictates and policies of government.

## **Evaluation of Project 2000**

In a departure from previous practice in nursing education, when the curriculum was centrally determined by the General Nursing Council, the responsibility for the development of the new curricula was devolved to the college staff. The short timescale for course submissions, however, made curriculum planning very rushed, with colleges of nursing simultaneously writing the new course, running the previous course and trying to develop their staff for educational provision at a higher level. This gave little time for teacher development, or for collaboration with institutions of higher education in the preparation of validation documents. More effort was put into delivering the course than into ensuring integration and staff were expected to understand the whole course, while being responsible only for a part. Jowett *et al.* (1992, 1994), who carried out a major evaluation of the implementation of Project 2000 in England and Wales funded by the Department of Health, found the P2000 curriculum to be unsatisfactory, in that it offered a very superficial look at complex issues. There was also some concern in the Higher Education institutions about the broadness, and consequent superficiality, of the courses. Some uncertainty came from the problem of trying to translate, the knowledgeable doer, and the reflective practitioner into actual learning experiences (Jowett *et al.* 1994).

Student expectations of P2000 were not always realised, as students found that they were being offered an education for nursing, rather than being taught how to nurse (Robinson and Hill 1995, Robinson and Elkan 1995). One concern was for relevance in classroom learning and the inclusion of purely academic subjects, which were not perceived as related to nursing, perpetuated the theory-practice gap (Jowett *et al.* 1992, 1994, Castle *et al.* 1998). Concern was expressed about the content, relevance and accessibility of the course, especially the Common Foundation Programme (CFP), which lasted for eighteen months. Areas of study were not always presented in logical order and a lack of background and contextual information made them difficult to relate to. Students became alienated with less commitment to the course, when they perceived the teaching as irrelevant, but they became content and receptive when they perceived it to be related to nursing (Jowett *et al.* 1992, 1994). Jowett *et al.* (1994) attributed the apparent lack of relatedness to nursing of many of the subjects to the difficulty of covering such a wide



range of subject areas for a vocationally focused group. It was recommended that a review be undertaken of the structure and format of the P2000 curricula, especially the length and content of the CFP (White *et al.* 1993). The branch programmes were well received by the students and considered relevant, but it was suggested that these programmes were actually a return to the structure and ethos of previous courses. If this were the case, then it would be difficult to maintain that nurse education had embraced the aims of Project 2000 (Jowett *et al.* 1992, 1994).

The emphasis on health seemed unduly lengthy in the CFP (Jowett *et al.* 1994). Evidence suggests that the interrelationship between health and the social sciences is far from clear to students. Their ability to link theoretical concepts to nursing practice was lacking (Goad 1992). Lask *et al.* (1994), however, concluded that a philosophy of health had not been incorporated into the P2000 curricula, as health promotion was not fully integrated and the emphasis on health issues in the CFP tailed off thereafter. Health promotion was better integrated in centres where health promotion was taught by a generalist rather than a specialist teacher. The understanding of students was shown to reflect the views and knowledge of the teachers, who commonly received no particular preparation for teaching health promotion and Macleod Clark and Maben (1998) concluded that nurse teachers appear to be unaware of current thinking on health promotion.

Most of the teaching was found to be carried out still by nurse teachers (Sweet 1992, Banks 1995) but, as they were not accustomed to having to justify all curricular decisions and to adhere to validated course documents, they felt that they had lost control of the curriculum (Jowett *et al.* 1994). It appeared that the nurse teachers had not fully embraced the new principles of self-direction and autonomy for students (Crotty 1993b, Crotty and Butterworth 1992, Robinson 1991, Jones and Brown 1991). Students consistently voiced concerns about group-work and self-directed study and were dissatisfied with the ratio of set work and independent study, resulting in a lack of morale and motivation (Jowett *et al.* 1992, 1994). Hamill (1995) also found students stressed by the lack of conditions conducive to learning. They felt that they lacked control over their own learning, were stressed by waiting for assignment results and emphasis on passing

them, and confused by the inconsistency of advice and a lack of freedom in studying.

Crotty, however, did identify a move away from the traditional behavioural approach, to an educational philosophy which valued the worth of the individual, adult learning theory and the promotion of the student as a knowledgeable doer (UKCC 1986). Her study did find a process approach to curriculum development, reflecting humanistic values, the value of experience and the progression of learning. Curriculum models appeared to be used as a guiding philosophy, rather than as a rigid framework (Bevis 1982, Bruner 1972, Steinaker and Bell 1979, Kolb 1981). Crotty concluded that there had been a long awaited conceptual shift in nurse education which could facilitate the development of a critical, analytical, self-directed practitioner (Crotty 1993a, b, c).

### **Integration**

The P2000 curriculum was to be presented as a whole, rather than as discrete units, with interaction between all elements (CNA/ENB 1992), but Jowett *et al.* (1994) found a need to review the ways in which more sharply focused parts could be integrated into the whole. The nurse teachers, however, reported too little consultation between the subject groups, resulting in disjointedness and duplication. The students wanted more cohesion and unity and regarded course subjects as separate boxes, with overlap rather than true integration. Students also expressed a desire for more anatomy and physiology but there was competition between nursing-related and pure nursing subjects and a need to resolve the competing goals of breadth and depth (Jowett *et al.* 1992, 1994). In the English evaluation studies, the contribution of significant specialist input was unclear as, though the nurse teachers were very strident in their defence of teaching qualifications, they did not appear to value subject qualifications (Jowett *et al.* 1992, 1994). Non-integration with higher education resulted in stress for Project 2000 students, since they saw the ethos and teaching styles of higher education and nursing colleges as very different (Hamill 1995). Higher education institutions were accused of making the curriculum too academic and remote from practice (Castle *et al.* 1998). The staff from higher education were concerned about their role in nurse education and differences over assessment, course structure and integration remained unresolved (Jowett *et al.* 1994). A study of the

use of scientific knowledge (biological, behavioural and social sciences) for the English National Board (Alderton *et al.* 1995) concluded that an overall plan for co-ordinating the different parts of the programme was needed. Clear links between specialist scientific knowledge, the holistic delivery of care, and various forms of book-based and experience-based knowledge were essential. These links should be built into the curriculum but, in all except one of the programmes studied, these were found to be insufficient to integrate practice with the relevant scientific knowledge. Some teachers accepted responsibility for linking scientific knowledge with professional practice but they had very little time for teaching of this kind (Alderton *et al.* 1995).

Students in all the areas studied felt that a gap existed between good practice, as promoted by the college, and actual practice in the clinical areas (Jowett *et al.* 1992, 1994) and they were concerned that practice was secondary to theory (Elkan & Robinson 1995, Twinn & Davies 1996). Short practice placements with limited opportunity to practice skills, and a lack of timely and relevant theoretical insights on which to reflect, made students apprehensive about their low level of skill development. They felt that learning clinical skills much earlier in the course would enable them to integrate better with the course team and result in less stress (Phillips 1989, Hawkett 1990, Jinks 1991, Hamill 1995, Jowett *et al.* 1992, 1994). As a result, it was recommended that the time spent in placements should be examined critically for educational integrity and relevance (White *et al.* 1993, ENB 1993). Jowett *et al.* (1994) found that the theory-practice gap seemed to revolve primarily around the unsatisfactory sequencing of practical placements with the appropriate academic input, though it was thought that this could be resolved through better channels of communication.

The tension between explicit curriculum aims and practical application on the wards remains the student's daily experience, as teachers are intent on fostering self-directed learning and the service staff on developing practitioners with safe practical skills (Elkan and Robinson 1993, Andersson 1995). Joint planning is fundamental, therefore, with a common philosophy for both curriculum and practice models. Clinical responsibility for teachers and more involvement of clinical staff in classroom could help to reduce the social and value differences between the academics and the practitioners (Weatherston

1981, Miller 1985, ENB 1985a,b, UKCC 1986). Bringing the researchers and practitioners together would also reduce the inaccessibility of theory to practice, and the lack of application of research findings (Phillips 1989, Castle *et al.* 1998).

### **Project 2000 in Scotland**

Project 2000 was not introduced in Scotland until 1992, so Scotland had an opportunity of learning from the English experience. An evaluation in 1997 found that innovative curricula had been successfully implemented and continuously developed as problems were identified. Curriculum documents were said to have developed according to educational considerations, though it was not made explicit how this was done. Adult learning was cited as the basis for teaching and learning with many strategies which claimed to be student-centred (May *et al.* 1997).

The Scottish course documentation highlighted the need for integration and avoidance of a theory-practice gap. However, differing levels of staff had been involved in curriculum design, with the contribution of practitioners being especially problematic. Teachers who were not involved found that they lacked understanding of the curriculum as a whole, and the relationship between the themes and their teaching role suffered accordingly (May *et al.* 1997).

A variety of strategies to relate the different themes and elements of the new programmes were found. These included:-

- tutors contributing across subject themes and programme elements
- the organisation of theory and practice time
- the preparation of students for specific placement experiences
- timetabled opportunities for students to report, to reflect and to link placement experiences with theory elements of the programme
- opportunities for tutors and mentors to model the relationship of theory and practice

Integration was achieved by cross theme teaching, the use of link tutors in placement settings and assessments which combined a number of themes. Longer blocks of placement were crucial for integration and opportunities for reflection. There was an unresolved issue, however, in respect of the facilitation of reflection which is student-centred, is student-led, is at an appropriate level and involves challenging, but not inquisitorial, questioning (May *et al.* 1997). Though this evaluation found many practices which enabled students to relate theoretical knowledge to practical experience and to reflect on this experience, few reports of theory being subjected to critical scrutiny were found and no generation of theory from practice. Discontinuity between the theories and models of care as taught in the college and care practices observed in practice was commonly reported. One strategy used by students was to avoid exploring this in clinical areas for fear of being seen as critical and risking an adverse assessment. Some of the students in this study, however, said that some of their teachers would not accept that they had had negative experiences in practice and that their criticism would affect their assessment (May *et al.* 1997).

A Scottish study (Hislop *et al.* 1996), however, exploring the way in which P2000 students relate theory to practice, and in particular how they relate the content of their college programmes to placement experience, found that the majority had difficulty in relating the college course to practice, except when it came to very specific aspects, such as basic medical procedures. Only a minority could integrate the broader aspects of the course to practice, principally because of the time-lag between theory and practice. The juxtaposition of theory and practice was still problematic, and the dominant view was that theory and practice were only integrated when linked closely in time. This limited study supports the idea that theory loses meaning out of context, and that integration depends on careful phasing of coursework and placement.

The Project 2000 reforms set out to enhance educational standards and to improve links between theory and practice by bringing about a more constructive relationship between education and service (UKCC 1986). This was a major innovation in nurse education but profound educational questions remain unanswered (Jowett *et al.* 1994, Jowett 1995, Le

Var 1997). Recent studies show that the theory-practice gap remains a problematic issue in nurse education which P2000 does not appear to have resolved. It is not yet clear whether an academic preparation produces better practitioners than the former apprentice system, as students still have difficulties in applying theory to clinical practice and do not feel prepared for the realities of practice. Employers also complain that students do not have the requisite skills for use in practice. The difficulty of reconciling educational goals and values with the requirements of a vocational course in which a competence to practise is essential does not appear to have been resolved by P2000 (Castle *et al.* 1998, Fulbrook *et al.* 2000).

## **Conclusion**

Conflict over what constitutes the curriculum is reflected in differing definitions, which range from curriculum as a set of documents to everything that is planned by the institution. The definition used to guide this study is that the curriculum is all that an individual learner experiences as a result of enrolment on the course (Marsh 1997a). Within this definition, the curriculum is seen as a complex entity, composed of a number of different inter-connected elements, not all of which have been planned by the teacher. The selected research approach must therefore be able to distinguish between different parts of the curriculum as experienced by the students, and the relationships between these parts.

The literature on the curriculum reveals it as a political entity, associated with a struggle over ownership, and the power to decide what is acceptable and desirable as knowledge and skill, and how these should be transmitted. Though the current dominant group tends to determine the composition of the curriculum, it is still difficult to be certain of curricular outcomes, as these are affected by the hidden curriculum and by separation of the curriculum planners and the teachers. The official curriculum will be found in an examination of the course documents, and as students and teachers will be participants in the research, it should be possible to explore conceptions of both the official and the hidden curriculum. Project 2000 brought a change from a centrally determined curriculum to one which is planned by all the teachers who will deliver the course. The

study will therefore be carried out as a critical time for nurse education as the non-degree nursing courses have moved to higher education, where teachers other than nurse teachers are involved in course planning and teaching. As both nurse teachers and non-nurse teachers will be interviewed in this study it will be possible to explore aspects of control of the course and the possible effects on course integration.

The degree to which the curriculum should be integrated is another continuing debate, and one which is of particular interest for a practice discipline. One view is that the internal logic of all disciplines must be maintained and coherent, while the opposite view is that the curriculum should take account of students' learning needs, by taking the problems of practice as the starting point. The rationale for this view is that the problems of practice are usually multi-disciplinary. There is much discussion in the literature on different models of curriculum integration but few empirical studies showing the effect of these different models on student learning. The student view is particularly absent from the literature. There are claims that the implementation of modularisation in higher education has brought the advantages of flexibility and student choice to the educational system, but there is also the danger that it will add to the problem of integration. No evidence was found to show the effect of this innovation on student learning and it is hoped that this study will provide some insights. The study will explore the viewpoints of the course planners, as revealed by the course documents and contrast these with the views of the students and teachers. The extent to which curriculum integration affects student learning will be a major influence on the selection of the research questions.

The framework of Habermas has been used as a framework for exploring the literature on different perspectives of the curriculum, derived from views of the nature of knowledge, which Habermas identifies as being derived from technical, practical and emancipatory cognitive interests. To answer criticisms of the pre-P2000 curriculum as a technical curriculum, the P2000 curriculum is composed of a wider variety of disciplines and concentrates on both the process of education as well as the product. Nurses, however, require both technical skills and interpersonal skills and there is some evidence that the new curriculum has had an adverse effect on the acquisition of technical skills. The research questions will explore the consequences of introducing a wider curriculum from

both the students and teacher perspectives. The literature shows that there was little time to prepare the nurse teachers for a process curriculum which places different demands on the teacher and the conclusions from this study will add to this debate. Much has been written on the curriculum from the point of view of those in favour of an emancipatory curriculum. There is much rhetoric and many unrealistic claims have been made but empirical data is lacking about the implementation of such a curriculum and the effect on teaching and learning. Nevertheless, the P2000 curriculum contains some of the elements of an emancipatory curriculum and the outcomes of this will be explored within the study.

As well as being implemented very quickly with very little preparation for the changes, especially in England and Wales, the new curricula were developed by novice course developers, who were simultaneously gaining qualifications themselves and dealing with the additional demands of the move to higher education at a time which was one of change for the higher education institutions themselves. The evaluations of P2000 identify many positive features, though the aims of the reforms appear to have been met more completely in Scotland, which had the benefit of later implementation. Many questions remain, however, concerning the preparation of the students for practice, with issues such as the relevance of curricular content, the role of the teacher and the integration of theory and practice still to be resolved. The literature contains evidence of student consultation regarding the outcomes of the curriculum but no evidence of student involvement in the planning or delivery. Students identify a theory-practice gap but there is little evidence in the literature of any in-depth exploration of students' conceptions of integration and how this affects their learning. The review of the literature on the curriculum shows that a research approach which distinguishes between the different elements of the curriculum and the relationships between these parts is required. As the study seeks to explore the conceptions of both the students and the teachers, a second order data collection method will be selected. More research in this area is required if the goals of P2000 are to be achieved and sustained, and this study seeks to contribute in this way.



## **Chapter 3**

### **The Education of Professionals: Theory and Practice**

#### **Introduction**

The question of how to prepare practitioners for professional practice continues to be of concern. An appropriate body of knowledge must be accompanied by the ability to use this knowledge in practice, so understanding and action are both necessary. As successful practice requires knowledge from a variety of sources, integration of knowledge is an important issue for course developers. It is claimed, however, that the technical-rational curriculum has failed to provide ways of integrating these divergent forms of knowledge, and to ensure that students can transform their knowledge into action.

This chapter traces the origins of the dualism of theory and practice, and discusses the ways in which this has been perpetuated by the prevailing models of professional education. The work of theorists, such as Schon and Argyris, has focused on ways of overcoming the difficulties in integration by reconceptualising the relationship between theory and practice. Reflection, a strategy first mooted by Dewey, was further developed as a tool for uncovering the personal knowledge of the practitioner. This personal, or practice knowledge became valued, and the relationship between practice knowledge and theory acknowledged as complementary, rather than hierarchical. There are many criticisms of practice theory, however, and the limitations are discussed in this chapter along with counter arguments. Other solutions for the dilemma of integrating theory and practice are discussed, notably problem-based learning, which has been widely implemented in medical education.

The nursing literature is similarly explored. The issue of integrating knowledge from the traditional disciplines with nursing has been a constant theme in the nursing literature for several decades. Changes in the predominant perspective on the theory and practice of nursing are outlined, as are the attempts made by nursing to secure academic and professional credibility, by developing its own body of theory. Nursing models and the

use of reflection to uncover personal knowledge for practice have been proposed as ways of closing the theory-practice gap. Nursing is now following other practice disciplines, notably medicine, in the introduction of problem-based learning, as the latest educational solution for the integration of knowledge, and the promotion of student understanding.

### **Theory and Practice**

The origins of present day concepts of practice and theory can be traced from the distinctions made by the Greeks. Practice referred to a way of living in pursuit of human good, while theory was the contemplative way of life of the philosopher and scientist. Aristotle distinguished between practical reasoning and technical reasoning. Practical reasoning concerns choice and judgement, which play a crucial role, as the outcomes of practical action are uncertain. On the other hand, technical reasoning considers the relative effectiveness of action as a means to some known end (Carr 1993).

The term 'practice' can mean an activity undertaken to acquire certain capacities and skills, e.g. 'teaching practice', or it can describe a state in which such capacities have already been acquired as in the term, e.g. 'good practice'. Carr (1993) distinguishes these two meanings from one another. Hirst (1974) considers that, rather than being the acceptance of shared aims, practice is the initiation into a tradition with its own practical knowledge and standards of excellence. Practical theory is concerned with improving and guiding practice to achieve rational action, although Margetson believes that it is a misconception to separate understanding from action and sees practice as a "*socially recognised, comparatively stable enduring and distinct pattern of action*" (Margetson 1999, page 360).

To Jarvis (1992a), practice means acting in a professional capacity within a specified field. A field of practice contains the practice of skills, the use of tacit knowledge (which Jarvis says can only be learned by observation), the use of knowledge about the skill and also the use of knowledge of the field of practice. The parameters of a field of practice can be problematic, however. There is an assumption that they form a unity, which can be practised by any qualified member, rather than individual segments with their own

knowledge, skills, attitudes and values, only some of which are overlapping. The term practice, therefore, refers to a form of action, which occurs in a limited and expert context and is the performance of a professional role within specific branches of a profession.

A body of theory, on the other hand, contains knowledge of the skill and knowledge of the field of practice, as perceived by other disciplines. Theory can be learned before, during and after practice, and knowledge about practice can be learned during and after practice (Jarvis 1992a). Theory is for the achievement of rational understanding and the explanation of phenomena. As theoretical knowledge is considered neither situational nor action-orientated, it takes no account of the context of practice, where flexible and sensitive responses, rather than scientific rigour, are essential. Where human activities are involved, however, beliefs and values, reasons as well as causes, and mental as well as empirical concepts should be taken into account (Carr 1993, Hirst 1974). To Hammersley (1990), theory is not restricted to science but has its origins in common-sense knowledge and, like other types of theory, social theory also reacts back on common sense.

Practice, therefore, is about taking action in a particular context, while theory, whether implicit/tacit or explicit/overt, is always a set of general beliefs which are used to develop explanations for events and are about cause and effect (Carr 1993). Practice is often falsely assumed to be an unchanging concept whose meaning can only be determined by clarifying its relationships to theory (Bohme 1983). The relationship is often portrayed as one of opposition, with the concept of theory as abstract ideas, versus the concrete realities of practice (Carr 1993). Carr has summarised what he sees as the most commonly held positions on the theory-practice relationship. The common-sense position sees theory as derived from practice and then used to drive practice. Within an applied-science approach, theory is seen as abstract principles, which can be used to guide practice, whereas, within the practical approach, practice is an ethical activity which offers practitioners the right way of doing things. The critical approach, which views practice as problematic, seeks to bring together both the applied-science and the practical approach. Practitioners can become critical self-reflectors, thus increasing self-

knowledge and rational autonomy (Carr 1986).

The theory-practice gap is usually seen in terms of how it can be bridged by communicating it more effectively to practitioners or by implementing theory more effectively in practice (Carr 1980). Practice, however, originally preceded theory and the relationship between theory and practice is a social construct, which has become a problem only as practice has become an object of academic study (Cervero 1991). The gap is often attributed to the positivist technical-rational model, which assumes that professional knowledge is based on theory, from which principles are derived, and is therefore seen as the foundation for practice (Schon 1983, Jarvis 1992a). Margetson (1994) attributes the issue of the gap to the Platonic-Descartian dualistic view of opposites in which one side of the dichotomy is thought to be primary. This dualistic view is unsatisfactory, however, when applied to a practice discipline such as nursing or teaching. Assuming that all practice is non-theoretical and that all theory is non-practical underestimates the extent to which practitioners must reflect upon and, hence theorise, on what they are doing. The important conceptual distinctions are not those between theory and practice, knowledge and action, knowing how and knowing that, but the distinction between different kinds of action and the forms of knowledge appropriate to them. The guidance given by theory, therefore, has to be modified in the light of judgement about the extent to which the theory is appropriate in a concrete case (Carr 1993).

Cervero (1991) sees theory and practice as indivisible and part of a constructed social reality, from which people are emancipated only when they come to realise this. This emancipatory perspective is criticised by Jarvis, as there is no attempt to analyse, or to solve the problem. He believes that, though theory and practice contribute to the growth of each other, there can never be a perfect integration between them. Theoreticians and researchers use a variety of different theoretical approaches to analyse practice but remain unaware of the tacit or practical knowledge of the practitioner. As outside variables cannot always be controlled or the outcomes of intervention predicted, practice is always based on a degree of probability. The integration of theory and practice is possible only if the practitioners themselves keep up with developments in theory and

have developed their own practice (Jarvis 1992b).

### **Knowledge for Professional Practice**

Definitions of professional practice include the possession of specialised knowledge drawn from a variety of sources, not only knowledge drawn from the traditional disciplines with a positivist paradigm. A divergent knowledge base composed of a variety of conceptual frameworks which are not in harmony with issues of practice, and which can contradict one another, poses difficulties when decisions have to be made regarding a choice of theory (Dewey 1933, Schon 1983, Carr 1982, Rice & Richlin 1993). Practice, however, does have a unified set of principles, rather than being an integration of all the contributing disciplines (Carr 1982), and a broad framework is needed to study the creation of professional knowledge and to clarify the need and use of different types of knowledge, and the effect of the context of learning. Eraut (1985) considers the role of theory, and the generalisability of practice knowledge, as central to any analysis of professional knowledge. There are difficulties, however, in classifying knowledge by its source alone and the mode and context of knowledge are equally important. It is often assumed that practical knowledge is context-bound, while theoretical knowledge is comparatively context - free, but the context is equally important, as using theoretical ideas in an interpretive mode involves intellectual work which is strongly influenced by the context of use. Practitioners, therefore, have to learn to synthesise knowledge, to look for new relationships and to develop patterns of meaning that cannot be seen through the traditional disciplinary lens (Rice & Richlin 1993). Roles in professional practice, however, are characteristically differentiated into teacher-researchers, practitioners and managers, with the result that practitioners use knowledge, but teacher-researchers pursue it. Consequently, knowledge comes to be regarded as discrete packages of scientific or technical information, with academic knowledge and research more highly rewarded within discipline-specific structures which are in line with scientific and research priorities (Freidson 1986, Cavanagh 1993).

Eraut (1985) distinguishes between discipline-based theories and concepts; generalisations and practical principles; and specific propositions about particular cases.

Discipline-based theories and concepts derived from bodies of coherent, systematic knowledge do not depend on the field of practice, and are often taught by experts who are not members of the profession. As they have to be adapted rather than applied direct, Eraut believes that their relevance to practice is often difficult to establish. The functional relevance of this knowledge also depends on the willingness of the professional to use it and the way in which it was originally introduced, and linked to professional concerns. The validity of generalisations and practical principles is often questionable. Much of this knowledge comes from previous experience and involves generalisation, but it is difficult for the professional to articulate. For a professional knowledge base, however, this generalisation process must be refined and studied but such systematisation is not normally part of the practitioner's role nor an academic pursuit.

Propositional knowledge is that which is published in the educational literature, while practice know-how is the personal knowledge of practice which informs decision-making, and becomes part of the professional's performance (Eraut 1985). Publicly published knowledge is termed inert knowledge by Whitehead (1932), as, though people have been exposed to it, they are unable to locate it for spontaneous action and it must be transformed before it is useful. Personal knowledge, however, becomes integrated into the cognitive strategies and comes to mind automatically when needed (Eraut 1994).

### **Issues in Professional Education**

The nature of professional practice as applied science, as a practical craft or technical expertise or as the achievement of a tradition, is a matter of debate (Eraut 1985, Harris 1993, Carr 1993). Bines and Watson (1992) have identified different models of professional education. The pre-technocratic, or the apprenticeship model, is characterised by an emphasis on instrumental competence, with most of the training carried out on-the-job and with minimum contribution from an educational institution. The technocratic model, which typically takes place in an educational institution, is the

present dominant form of professional education. The curriculum is commonly composed of a systematic knowledge base composed of theoretical studies from foundation disciplines, professional studies in which this knowledge is applied to practice, and then supervised practice in the workplace (Usher and Bryant 1989, Bines and Watson 1992). A lengthy theoretical phase, when basic knowledge is acquired, and a second phase, when this knowledge is applied, can lead to the view that knowledge is basic information, and education the transmission of knowledge (Margetson 1994). Experiential learning, which is usually situated at the end of the programme, or intermittently throughout, is thought by some to be inadequate, and also has the effect of separating professional education into foundation learning, and practical applications, and also university-based academics from rank and file practitioners (Cavanagh 1993, Curry and Wergin 1993).

There appears to be a fundamental mismatch between the content of a professional curriculum and the needs of students and professionals. Though the rationale for professional education is usually expressed in terms of improving practice, the curricula emphasise theory, with the result that the practical aims are not realised. Students feel that they have learned nothing of use to practice, while practitioners use only part of their knowledge, and researchers believe that teacher-espoused theories are too simplistic for real-life problems. Professional knowledge has been undervalued, contributing to a crisis of confidence in professionals, as they see the mismatch between the espoused theories of professional knowledge and the reality of the theories-in-use of practice (Argyris and Schon 1974, Schon 1983, Dahlgren and Pramling 1985, Eraut 1985, Usher & Bryant 1989). Academic perspectives often conflict with those of practice and professional education is usually sited within academic contexts, which cannot respond to non-academic service-orientated practice (Dinham and Stritter 1986, Cavanagh 1993, Brown *et al.* 1989, Usher and Bryant 1989). A major problem is that certain ways of thinking come to dominate and are passed on unchallenged, thus limiting the potential of theory to improve practice (Jacono and Jacono 1994). Intellectual effort and a supportive work setting are needed to make use of concepts and ideas. Students must be encouraged to work with ideas and the process of practical reasoning (Eraut 1985, Dinham and Stritter 1986, Cavanagh 1993). Bines and Watson (1992) believe that a post-technocratic model,

focusing on partnerships between the educational institution, the employers and the students, is needed to address the perceived weaknesses of the technocratic model. Critical theory has also been proposed as a possible framework for bridging the gap, by liberating individuals from the constraints of ideology and the social structures that perpetuate these social conditions (Habermas 1971, Carr and Kemmis 1986).

The organisation by discipline is thought to be another reason for the lack of integration in professional education. Courses which are loose aggregates of discipline-specific components, with each part addressing a specialised body of knowledge, are taught as though students were preparing to become specialists in that field. Professional curricula are not usually functional, and so students, who will practice in problem-orientated environments, study in discipline-orientated environments (Cavanagh 1993). Bruner, however, maintains that active involvement, as though a specialist in the discipline, is a means of learning the discipline (Bruner 1960). Scholars from other disciplines bring to practice approaches appropriate to the internal logic of their perspective. The articulation of practical knowledge within the framework of academic disciplines can result in a systematic framework which makes practical knowledge artificial and removes theory even further from practice (Jarvis 1992a). To close the education-practice gap, greater importance should be given to the support of mechanisms for life-long, self-directed learning than to technical learning. Cavanagh (1993) believes, however, that the contextual divergence between education and practice will not be diminished merely by cosmetic innovations, like case-based or problem-based learning. If the structure of the curriculum, and the teaching and learning approaches remain fragmented by a disciplinary structure, academically-orientated knowledge will continue to dominate student learning.

### **The Development of Theory from Practice**

The response to the difficulties raised by the practice-theory dichotomy has been the development of theories of practice (Argyris and Schon 1974, Argyris 1976, 1980, 1982, 1985, Kemmis 1985). Schon in particular has supported an epistemology of practice characterised by judgement and the use of practical and reflective knowledge, and has



argued against the view that practice is the solving of technical problems through technical decision-making, which can only be justified if underpinned by theory. Theory becomes high-status knowledge, while practice is seen merely as a set of skills, with real knowledge applied to the solving of problems. The consequence of this stance is the separation of practitioner and theorist, with the theorist only having access to high status knowledge. The practitioner becomes downgraded to the position of skilled craftsman, a passive implementer of pre-determined activities (Schon 1983, 1987).

The idea that externally generated theory is not useful for solving practical problems is not new, as Lewin suggested that theories could be made more accessible to practice by rooting scientific work in practice and practical problems (Lewin 1947, 1948). Schon, however, demonstrated most clearly that theory is derived from practice and should be located in practice, and that the actions of the practitioners should be examined as valid and creative. The theory-practice relationship is therefore no longer considered to be hierarchical, with research and theory standing above practice. The process which involves both reflection and reflexivity is known as praxis. Practice generates theory, theory modifies practice, which in turn generates new theory. Implicit theory is brought to consciousness and changes as practice changes and informal theory is modified (Argyris and Schon 1974, Argyris 1982, Schon 1983, Usher and Bryant 1989, Jarvis 1992b, Rolfe 1993a, 1996, Rice and Richlin 1993, Carr 1993).

Conscious decision-making and action must be located within a conceptual framework and, as practice is an intentional activity, it cannot merely be the exercising of routine skills, but must have meaning (Woods and Barrow 1975, Pring 1970, Carr 1980, 1986). Hirst (1993 as cited by Hirst *et. al.* 1993) rejects his former rationalist stance, that abstract and dissociated disciplines can justify principles for specific practical activities. In support, he cites Oakeshott (1962) and Ryle (1949) and Polanyi (1958), who all reject the idea that rational action is predetermined and justifiable. Principles and rules can be formulated only after action has been understood and analysed, to determine whether it has been successful. Rational practice comes, therefore, from an examination of current practice. Knowing the rules and principles is not enough. Practice knowledge is not abstract and decontextualised but about making correct judgements within a framework

of situational values and frameworks (Polanyi 1958, Usher and Bryant 1989). The knowledge contained in informal theory, therefore, cannot be systemised or used as prescription (Carr and Kemmis 1986). Practical principles are valid only if abstracted from practice, rather than from some independent theory. Knowing how logically comes before knowing that, and so, practice preceded theory, as study of the field of practice only emerges after the practice is well established (Ryle 1949, Cervero 1991). Jarvis disagrees with Ryle (1949), who suggests that practical knowledge and actual skill are the same things, so that it could be claimed that practical knowledge is the knowledge of how to perform in the professional situation and skill is the actual performance of the role (Jarvis 1992b). Theory and practice, therefore, are conceptually linked and the perceived dualism of theory and practice gives way to the notion of theory being grounded in practice, rather than being applied to it (Usher and Bryant 1989).

This type of theory is variously known as tacit knowledge (Polanyi 1958), implicit or informal theory (Pring 1970, Schon 1983, Usher & Bryant 1989) or practice theory (Carr 1980, 1986). Polanyi (1967) suggests that this knowledge is pragmatic and accepted because it is known to work. If personal theories were articulated, however, they would be integrated rather than in separate disciplines. Argyris and Schon (1974) distinguish between theories-in-use, which are the theories actually used by professionals, and espoused theories, which are the theories which they say that they use. They believe that making theories-in-use explicit and open to criticism is the key to professional education. Public theories tend to be valued above personal theories, but personal theories have a more powerful effect on practice. If practitioners, who are continually developing and refining their own implicit theory, are encouraged to make it explicit, it can then be made public theory (Griffiths and Tann 1992). Critical social theory makes the assumption that practitioner-derived knowledge is trustworthy and relevant (Smyth 1989), but practitioners need to become more aware of their actions, so that they can recognise the need for change and implement it more appropriately (Carr 1986). Harris (1989), however, is critical of the importance attributed to practice by Schon, at the expense of the traditional knowledge of the professionals from the disciplines. He believes that practical knowledge and disciplinary knowledge are essential and complementary, though their relationship in reflective practice is different from that of technical-rational

practice.

Dewey (1933) described a strategy, which he called reflective thinking, used by experienced professionals to approach problems. Experience plays an important part in professional education and doing must be accompanied by thinking (Boud *et. al.* 1985, Schon 1987, Wallace 1996, Baker 1996). Reflection on professional practice has come to be seen as the key to professional development (Schon 1987, Kremer-Hayon 1990). Reflection is also important in experiential learning and is the subject of a substantial body of literature (Kolb 1984, Knowles 1970, Mezirow 1981, Schon 1983, Aitkens and Murphy 1993, Miller and Boud 1996). Schon (1983) identified reflection-in-action and reflection-on-action, which Greenwood (1993b) calls a cognitive post-mortem, as two aspects of the process which puts the actions of the reflective practitioner above those of the technician. Schon and his colleagues suggest that reflection in action should replace knowing in action as the focus for healthcare professional education, as practitioners can take decisions and use skills for which they cannot state the criteria or procedures/rules. The relationship between action and reflection is transactional and interactive, as understanding the context through action leads to a change with new understandings and action. This leads to a constant generation of new theories of action, which are contextually specific about what works in reality (Brookfield 1986, Carr 1980, 1986). Eraut (1985) considers that this experience-derived knowledge, used intuitively by practitioners, is superior to theoretical knowledge in professional contexts.

### **Limitations of Practice Theory**

Lauder (1994) believes that reflective practice actually perpetuates dualism of thought and action, as reflection remains in the cognitive rather than the practical domain. The strength of practice or informal theory is that it is grounded in practice but the knowledge gained from experience still has low status, and is often taken for granted. The weakness is that, without challenge and critical scrutiny, it remains anecdotal. Professionals need credibility and confidence, but critical analysis can damage confidence without actually changing practice. Informal theory is not always recognised by practitioners and, as it is rarely articulated, must be uncovered by reflection. This can be difficult and even

painful, as it is so much embedded in personal values and habits and professional traditions (Usher & Bryant 1989, Hammersley 1990, Brookfield 1993a, Eraut 1985). Reflection-in-action is a risk-taking strategy, leading to uncertainty, anxiety, and fear of loss of control. A safe environment is necessary as sincere reflectors are vulnerable (Schon 1983, Pierson 1998). Even when practitioners do reflect, however, they often do not find justification for their actions, as self-knowledge of performance is difficult to acquire and tends to be self-justifying, rather than critical. Discrepancy between comment and action is also common, even in the same person (Argyris and Schon 1974). Practitioners are more likely to be more concerned with pragmatic solutions to immediate problems. Assumptions can go unquestioned, with acceptance of the most obvious simple and linear solutions, rather than multi-causal and interactive ones (Pring 1977, Squires 1982, Eraut 1985, Carr and Kemmis 1986, Usher and Bryant 1989). Eraut, however, warns against monitoring systems, which can alienate professionals, and reduce their commitment to personal accountability for their practice. If personal theory is so important for the development of successful practice, assessment can also become problematic. Fitness for autonomous professional practice must be assured, and the fulfilment of the public trust is essential, but licensing agencies must be satisfied. Methods of evaluating the learners should closely resemble what practitioners actually do in practice. A profile of skills, knowledge, attitudes, and other achievements are appropriate examples, but more research is needed into judging the responses of students to professional problems, which are often ill-defined (Eraut 1994).

Schon, however, disagrees with those who maintain that practical theory cannot function in a regulatory mode. Practice is a reflective dialogue, in a unique situation, where past understanding is the initial point of reference. Knowledge is a repertoire of choices, based on past successful decisions, rather than a set of assumptions grown out of habit and tradition. Within an interpretive paradigm, rigour lies, not in the control of the situation, but in the quality of the understandings and the resulting actions. Theorising thus goes beyond routine, and can become a creative process (Schon 1983). To open practice-derived theory to critical scrutiny, Schon proposes the practicum, a virtual world in a safe environment for reflection and analysis, as a forum for the development of professional practice. It can provide opportunities for practitioners, both experts and

novices, and teachers and students to use case studies or demonstrations for reflection on problems and for sharing and analysis of mutual understandings (Schon 1987, Harris 1993).

Carr (1993) also defends the notion of practice as a tradition which embodies the process of critical reconstruction, so that the tradition evolves, rather than being static. Traditional practical knowledge is not simply reproduced, but is constantly re-interpreted and revised through dialogue and discussion about the achievement of the practical goals which constitute the tradition. Hirst says that rational critique of practice is possible only when the concepts of parameters are accurately articulated. The inability of practice to provide a satisfactory and explicit rationale for action does not mean that practice is unsuccessful (Hirst 1993 as cited by Hirst *et. al.* 1993).

Greenwood (1993a) acknowledges the need for illumination and critique of professional education, but finds inconsistencies and weaknesses in the work of Argyris and Schon (Argyris and Schon 1974, Schon 1983,1987). One criticism is that Schon fails to recognise the impact of reflection before action. Action, before a check has been made of the conceptual repertoire that underpins the action, can activate inappropriate concepts and lose a significant opportunity for feedback. It seems to Greenwood more reasonable to require students to articulate their intentions and rationale before actually taking action. In this way potentially incorrect or even dangerous strategies can be corrected or modified. Similarly with reflection-on-action, if it is not undertaken immediately following action and in the presence of nurse teachers who have shared the same experience and can verify it, there is a real risk that students will activate and articulate the conceptual underpinnings which they think the nurse teacher wishes to hear, i.e., those appropriate for assessments and assignments. Greenwood thinks that this will consolidate the theory-practice gap (Greenwood 1993b). Boud *et al.* (1985) find that the final stage is the most difficult and most neglected part of experiential learning. The importance of feedback for students is underestimated, as returning to evaluate the experience should be an integral part of reflection (Greenwood 1998). There is also a lack of reference to socio-political factors which could have an impact on the context where the meaning is made (Rafferty *et al.* 1996). Newell (1992), from a background of

cognitive psychology, identifies the effects of memory constraints on the reflective process. Remembering is a re-constructive process, so objective facts become altered by a person's cognitive processes.

The broadening of the conception of scholarship to include practice could reconcile the traditions of higher education and the needs of professional education. The traditional way of influencing practice by conducting research, formulating theories or principles based on the findings of well-controlled studies, and then prescribing these principles as the proper basis for practice, is not appropriate. More flexible structures for developing multidisciplinary programmes and for rewarding integrative scholarship are also needed (Rice and Richlin 1993). An alternative approach is to employ action research techniques (Lewin 1951), which start with practice, and attempt to understand how complexity and nuance are encompassed within creative practice. Interchanging the practitioners and theorists could be another way of improving the theoretical basis of practice and the practical utility of theory. Educators, however, need to value the integration and synthesis of knowledge as a way of advancing practice (De Castrell and Freeman 1978). There is also a need for education to support reflection but Curry and Wergin (1993) believe that this is inhibited by the political culture of institutions of Higher Education, which puts up barriers to appropriate evolution. Profound change in the organisation and education of professions is needed, rather than mere tinkering with adaptations. There is a risk that, if professions do not change, they will become increasingly vulnerable targets of a sceptical society.

### **Problem-Based Learning (PBL)**

There is some evidence that some of the traditional teaching methods used in Higher Education promote surface learning, bringing a danger that students who adopt a predominantly surface approach to learning will continue this approach in later life (Biggs 1994, Margetson 1994). The traditional curriculum based on the empirical-rational work of Tyler (1949), Bloom (1956) Bloom *et al.* (1964) emphasises the recall of theoretical knowledge, uses didactic and directive teaching methods and so, only partially addresses the range of problems of professional practice (Bligh 1995, Mann and

Kaufmann 1995). In addition to specialised knowledge, reflective and practical skills are needed and these develop more effectively through experience of the problems of practice, and reflection on these problems.

In line with the belief that the separation of professional education into foundation knowledge, followed by practical applications hinders the integration of theory and practice (Margetson 1994), problem-based learning (PBL) has been increasingly implemented as a strategy for ensuring the integration of learning (Albanese and Mitchell 1993, Norman and Schmidt 1992 Walton and Matthews 1989). Boud and Feletti (1997) see PBL as the most significant innovation in education for the professions for many years, though Chadwick *et al.* (2002) find it ironic that PBL has been so widely adopted by the medical field, which places such emphasis on scientific method. In the mid-60s, the McMaster University Medical School and Michigan State University introduced a curriculum in which medical problems were used as a framework for the organisation of student learning. As interest in PBL became widespread in many institutions offering professional courses, it became an acknowledged methodology in many medical schools worldwide and was also recognised by the World Health Organisation as a valuable educational strategy in health sciences, if relevant issues are addressed (Schmidt 1983, Walton and Matthews 1989, Yang and Zhang 1991, Newble and Clarke 1986, Thomas 1992).

The principles of PBL are the activation of prior learning, and the design of problems which are similar to actual situations, so that transfer is facilitated, and knowledge elaborated, via discussion and reflection. Supporters maintain that it gives a coherent experience of learning, unlike a subject-based approach, which works against integration, and it is claimed that the curriculum guidelines are consistent with the development of the requirements for professional practice (Schmidt 1983, Albanese and Mitchell 1993). A tutorial format, similar to Schon's reflective practicum (Schon 1987), is used in the original version of PBL, with the students and a teacher working together over case studies with simulated patients. The learning of contributory disciplines, therefore, takes place within a series of increasingly complex clinical problems. It is claimed that practice can be improved, by restructuring the professional curriculum from disciplinary

to interdisciplinary in the light of whatever is needed to solve the problem. The knowledge base is constructed so that the students learn, not by being told things, but by learning to pursue inquiry effectively, using time more effectively, participating actively and co-operatively, and thus becoming responsible for their own learning. It is claimed that PBL is an anti-paternalistic way of taking knowledge more seriously, as lectures and seminars are largely a performance by the lecturer, rendering the students passive. Motivation is increased as the emphasis is on student concerns and student-identified problems, rather than on the task of acquiring basic knowledge. Greater subject integration also supports deep learning and promotes tolerance of complexity. The context of practice is emphasised and learning about the realities, and problems of practice comes earlier. Research includes the codification of the principles and strategies embedded in skilled practice (Harris 1989, Albanese and Mitchell 1993, Bligh 1995, Margetson 1994).

### **Claims**

Many studies claim that PBL has advantages over the traditional curriculum (Alavi 1995, Hughes and Lucas 1997). It is said to be student-centred and to promote critical thinking and active self-directed study (Harris 1989, Bernstein *et al.* 1995, Mann and Kaufmann 1995). It encourages deep approaches to learning by increasing motivation, student-centred group working and active learning (Coles 1985, Newble and Clarke 1986, Pereira *et al.* 1993, Sobral 1995a). There is greater retrieval and retention of information with an integrated knowledge base (Sobral 1995a, Charlin *et al.* 1998). Team working and lifelong learning skills are both enhanced by PBL and staff/student contact is greater (Neufeld *et al.* 1989, Bernstein *et al.* 1995, Sobral 1995b). Sobral (1995b) also found that students say that PBL tends to enhance the quality of the learning environment.

There is now a good deal of doubt regarding the general effectiveness of PBL. Patel *et al.* (2002), however, encountered more difficulties with PBL than could be attributed to organisational change alone. The teachers experienced a loss of coherence and student contact, while students reported difficulties in maintaining sufficient continuity of focus in both clinical and academic learning. They concluded that horizontal integration can



cause feelings of disintegration for both teachers and students, as not all disciplines have enough in common for full curriculum integration. First year students in one study found the traditional approach to learning more beneficial, though they did find PBL more motivating. O'Hanlon *et al.* (1995) found that other students had difficulties with integration in their later clinical years and proposed integrated clinical teaching teams and task-based learning as solutions. Task-based learning, where the tasks carried out by the doctor are the focus for learning, was the preferred strategy (Harden *et al.* 2000). As PBL is constructionist in nature, the resulting understanding is unique to the individual (Savery and Duffy 1995) but Perkins (1991) believes that constructionism makes harder demands on students and poses problems for those who do not identify with the PBL concept. PBL can also increase cognitive complexity, if the students do not have enough knowledge of the contributing domains and need time to develop the task management skills needed for PBL.

Albanese and Mitchell (1993) noted some concern in the literature that PBL students do less well in exams but Drinan (1991) suspects that PBL requires a degree of maturity which undergraduates have not yet developed. Some research finds that PBL has yet to show much difference in learning outcomes (Chadwick *et al.* 2002) but this is contradicted by others (Sivam *et al.* 1995). In written exams in Canada, the students were found to be more knowledgeable, with better cognitively related patient management skills than their traditional counterparts (Finch 1999). United States medical examination results were similar for both curricular groups and Enarson and Cariaga-Lo (2001) concluded that PBL provides students with enough knowledge for subsequent phases of their medical education. Smits *et al.* (2002) found that students prefer PBL and perform well on clinical performance, but less well in traditional examinations of basic knowledge. Feedback is an important component of all learning, and Parikh *et al.* (2001) found that most students in their study found individual feedback the most helpful. Although there was also a strong preference for peer and group feedback, these were not widely reported. Significant differences in the amount of feedback, amount, type and immediacy were reported by different institutions in the study.

## **The Role of the Teacher in PBL**

In traditional teacher-centred education, the expertise of the teachers is often seen as more important than published knowledge (Kember and Gow 1994). The teacher role in PBL, however, is that of a facilitator who supports group processes, not that of an expert (Maudsley 1999, Wolfe and Rideout 2001). One study found that tutors stimulating the group process were perceived as more effective than those with expert knowledge only (De Grave *et al.* 1999) and another that scores for meaningful learning and group-work were higher in peer-tutored groups than in teacher-tutored ones. However, almost a quarter of the students in this study said that they needed more instruction (Sobral 1995b). Data collected by observation in one PBL study were found to differ from the reports of the participants. It was observed that not all the students were actively involved and not all the tutors facilitated reflection (Tipping *et al.* 1995). Differences in socio-economic or religious understanding affected tutor ratings in a study carried out in the United Arab Emirates, so there was a need for tutors to develop different strategies for the different groups of students. The students expected more support, while the tutors expected more self-directed learning (Das *et al.* 2002). Finucane *et al.* (2001) found that teachers enjoyed the PBL process and continued their involvement, though the PBL tutoring workload was not distributed evenly. The expected positive benefits of group work do not always occur in PBL, however, as teachers sometimes implement solutions which are familiar from their own experience, rather than those in line with PBL philosophy. For successful PBL, teacher actions should be consistent with the PBL philosophy, with shared goals and interpretation of self direction in learning (Mifflin *et al.* 2000, Dolmans *et al.* 2001). If the role taken by the teachers is an important part of the success of a problem-based education, much more research in this area is needed (Sobral 1995a,b, Alavi 1995).

## **Limitations of PBL**

There is some criticism of the fundamental perspective of PBL, which characterises life as problem-governed and professional practice as problem-solving. Fenwick and Parsons (1998) believe this narrow approach is inconsistent with the reality of professional

practice, as problems are considered out of context, and it is problem-framing which actually shapes professional practice but the time given to determining what is normal and what is deviant reinforces the dualist position of the traditional curriculum. The dominance of the professional elite is also enhanced, as they determine what is legitimate knowledge, and it is the authority of their knowledge and viewpoint which is reinforced in problem solving. If the professional is the active problem-solver, the patient becomes the passive receiver of care (Hay and Katskis 2001). The use of pre-shaped problems, and their assumptions, are also questioned. Pre-determined cases conceal the process of construction but students need to listen to divergent perspectives and to address conflicting priorities for themselves. The authenticity of problem cases is another issue, as consideration of a single problem, from a detached stance, can produce a fundamentally different choice from the consideration of real problems. Alternative methods of educating professionals should promote ways of dealing with situations which are multi-layered and dynamic, of confronting problematic situations from different perspectives, and of collaborating with those they seek to help. Fenwick and Parsons (1998) believe that the culture of PBL is one of performance, control and measurement, and this should be resisted. Another view, however, is that the focus of PBL is not only things that have gone wrong, as PBL is a way of striving for continuous improvement. Problem-focused learning is considered a more appropriate term (Margetson 1994). Though problem-solving may involve technical knowledge, Schon (1983) sees it as a creative and intuitive activity and a central tenet of practice. Freire (1973) takes a similar view, and supports what he calls problem-posing, which pre-dates problem-solving, and involves professionals in establishing priorities for action in contexts which they understand (Brookfield 1986). Sobral (1995b) emphasises the need to ensure authenticity in problems but Finucane and Nair (2002) did find that the problems tended to concentrate on acute cases, and in the young, rather than the elderly and chronic sick. There is a danger that this could lead to future negative attitudes to the elderly and the chronic sick.

Major evaluations of PBL were inconclusive, however, and it was not clear whether PBL really is an improvement on traditional education (Albanese and Mitchell 1993, Vernon and Blake 1993). One of the difficulties of research into PBL is the number of differing

definitions in use (Barrows 1986, Albanese and Mitchell 1993). Colliver (2000) believes that PBL has not lived up to expectations and that PBL students perform little better or worse, than those following conventional courses. There were small, but significant, improvements in clinical reasoning and consistent benefits in satisfaction. Albanese (2000) accepts the conclusions of Colliver but believes that the effect of PBL was originally overestimated and unrealistic. Students, who had been groomed in the traditional system for many years, were then expected to perform even better in another system. Norman and Schmidt (2000) find Colliver's conclusions pessimistic but also agree that the promise of PBL, for acquisition of basic knowledge and clinical skill, needs to be rethought. PBL does not result in dramatic results nor enormous benefits and the resource costs have largely been ignored. The concept of contextual learning, promoted as the theoretical basis of PBL, is said to be drawn from a weak research background. Contextual learning theory states that, if material is learned in the context in which it will be used, learning and the ability to use the material is enhanced (Colliver 2000, Albanese 2000). The information processing theory, cooperative learning, self determination theory and control theory, are more appropriate but much more research is needed to understand what is really happening in PBL (Albanese 2000).

Margetson (1999), however, attributes the relative lack of success of PBL to the perpetuation of the traditional curriculum by what he calls a transitional semi-problem-based curriculum, in which there is a misconception that problems are pegs on which to hang basic scientific knowledge, which is later applied by the students in actual clinical situations. Theory and application are still separated in a reductionist way, as understanding is associated with theory, and application with practice, thus upholding an atomistic view of clinical education (Svensson 1976). Though the transitional course is an improvement on the traditional course, a rigorous problem-based curriculum with an integrated, coherent 'growing web' of understanding, knowledge and skill in practice, in which understanding is not separate from action, is needed (Margetson 1999). There is some agreement that PBL cannot reach its full potential until the educational process is changed, as it is unrealistic to treat PBL as one educational intervention (Albanese 2000, Norman and Schmidt 2000). There is difficulty, however, in implementing PBL in traditional institutions (Pereira *et al.* 1993). Performance measures are often designed

for the previous curriculum and students will forgo PBL activities in favour of the assessment demands of the traditional curriculum (Albanese 2000).

However, Albanese (2000) thinks that the spread of PBL has generated a sense of excitement. Students and staff enjoy PBL more than traditional teaching methods, so improving the work environment is worthwhile, even if knowledge acquisition and clinical skills are not improved. Norman and Schmidt (2000) also see PBL as a more enjoyable and challenging approach, which may be a reason in itself, if the implementation cost is not too great. One of the consistent findings in research into PBL is the promotion of collegial interactions promoted by a humane learning environment, which is a better preparation for professional practice, with the requirement to work through disagreements and solve problems jointly. Though PBL may not produce the expected gains in technical clinical expertise, it is possible that peer collegiality is more important in the long run (Albanese and Xakellis 2001).

## **Theory and Practice in Nursing**

### **Knowledge for Nursing**

Though it is irrefutable that knowledge is needed for nursing, there is no professional consensus as to the exact nature of the necessary knowledge (McFarlane 1977, Manley 1997, Perry 1997). The work of Carper (1978), however, has particularly influenced the nursing view of knowledge and raised awareness of the different kinds of knowledge necessary for practice. She described four patterns of knowing as essential for the mastery of the discipline, namely aesthetic, empirical, personal (including experience and intuition) and ethical. Carper believes that an awareness of the different kinds of knowing which inform the perspectives of a discipline, lead to an increased awareness of the potential richness of nursing knowledge.

Nursing practice uses principles or laws from different disciplines within the biological, behavioural and social sciences, but the dominant paradigm of the time determines which issues are relevant (Rines and Montag 1976, Perry 1997, Manley 1997, Copnell 1998, Heath 1998a). Contemporary debate reveals a continuing tension between objective and

subjective epistemologies (Booth *et al.* 1997). The relationship between nursing and other disciplines is unclear and, as guidelines for integrating this knowledge into nursing are lacking, nursing is open to the theoretical and philosophical concerns of other disciplines and disagreements over the appropriateness of different theories of knowledge and methodological approach (Booth *et al.* 1997). It is the application of the concepts, theories and principles of the contributing disciplines which makes them part of nursing theory. The integration of these differing perspectives is essential, but there are difficulties in that they are often expressed implicitly rather than explicitly. Knowledge derived from different perspectives is inconsistent with holism, however, and can be a cause of discord in nursing (Reilly 1975, McFarlane 1977, Emden 1991a, Fealy 1997, Spouse 1998).

### **The Problem**

Official reports and many writers have noted over several decades that the theories proposed for nursing do not actually reflect the realities of practice (Nuffield 1953, RCN 1964, DHSS 1972, McFarlane 1980, ENB 1985b, UKCC 1985, RCN 1985a, MacGuire 1966, Birch 1975, Alexander 1980, Lewin and Jacka 1987, Gott 1984, Cormack and Reynolds 1992, Hewison and Wildman 1996). Specific recommendations for integration have been made by the Platt report (RCN 1964), the Briggs report (DHSS 1972), the P2000 documents (UKCC 1986) and the P2000 evaluations (Jowett *et al.* 1992, 1994, May *et al.* 1997) but discrepancies between what is taught to students in the classroom and what they see practised in the clinical area have been continually noted in the literature (Hunt 1974, Bendall 1975, Wong 1979, Powell 1982, Fretwell 1982, Alexander 1983, Davis 1984). Much research into nurse education reveals ideological differences between the colleges and the clinical areas. The nursing practice encouraged by colleges is founded upon academic nursing theories and holistic care in ideal conditions, posing a powerful contrast with the occupational ethos of practice, which deals with demands in pragmatic and traditional ways. The students have to face the conflicting demands of implementing the theory of college, whilst conforming to the constraints of practice (Holloway and Penson 1987, Draper 1990, McCaugherty 1991b, Melia 1982, 1983a, Elkan and Robinson 1993, Bendall 1975, Miller 1985, Rolfe 1993b). The strong

socialisation effect and the hidden curriculum of practice placements mean that students who question, or who try to work as taught, risk rejection by the ward staff (Fretwell 1983, Walker and Kerr 1994, Treacey 1987, Melia 1983a). Nurse teachers may have more sophisticated ideas about the nature of theory but the students must develop their skills in an atmosphere often antithetical to classroom learning (Ashworth and Longmate 1993). These contradictions can give both teachers and practitioners a feeling of powerlessness to transform their practice, especially as nursing practices may also be derived from a theoretical framework designed to benefit the institution rather than the patient (Hewison and Wildman 1996, Clare 1993b). Considerable difficulty has been experienced, therefore, in achieving what is regarded as a major goal of nursing education (Novak and Gowan 1986, McCaugherty 1991b).

Theorists and researchers in nursing have always been separated from the practitioners, while there has been physical, and often ideological, separation of the teaching of theory and practice. The clinical teacher grade was abolished in the 1990s, leaving the teaching of clinical practice to the nurse teachers and practitioners (Alexander 1993, Elkan and Robinson 1993, Rolfe 1993b, Ferguson and Jinks 1994). It is unrealistic to expect one person to give practical service, produce theory and engage in explicit research (McFarlane 1977) but bringing researchers and practitioners together could increase the compatibility between theoretical frameworks and practice, and make theory more accessible to practice (Phillips 1989, Hawkett 1990). Rolfe (1993a, 1996) disagrees with the notion that the theory-practice gap is a result of practice failing to live up to the high standards set by theory or of practising nurses failing to implement research findings. In spite of the growing body of nursing research grounded in phenomenology, he believes that the scientific paradigm is still largely accepted. The elevation of theory above practice means a differentiation between the scientist or researcher who makes the discovery and the technician who develops the practical implementations. The integration of practice and theory will remain problematic if practitioners are only involved in the implementation of theories which they have not helped to develop (Lewis 1988, Ramprogus 1992, Rolfe 1993b, Tolley 1995).

Theory and practice in nursing are usually seen as two separate activities, with nursing

practice rarely considered appropriate for theory development. The term 'theory' is often used to denote the opposite of practice and is considered to be of lesser status, while theory is the province of academic settings (Polit and Hungler 1997, Lindsay 1990, Chinn and Kramer 1995, Chapman 1985, Moody 1990, Bond 1993). The higher status of theory is one consequence of the technical-rationality perspective, which upholds a theory-practice dualism and assumes that theory is applied to practice (Hewison and Wildman 1996, Pryjmachuk 1996, Fealey 1997). Theories used in nursing should be relevant to patient care, should solve problems, and should ask questions about knowledge to guide practice (Draper 1990), but the dilemma is that theoretical knowledge is often of limited use in the reality of practice (Hewison and Wildman 1996). The development of theory can be constrained by irrelevance, by remoteness from context, and by the assumptions of the theorist (Watson 1981). Practitioners often regard theory as unengaged spectatorship or as abstractions which require clarification and translation to a specific context for practice, of use only if they can be integrated into practice (Lutjens and Horan 1992, Ashworth and Longmate 1993, Alligood & Choi 1994).

The confusion about theory and practice continues and pervades the profession as well as the press (Craig 1980, Miller 1985, Clarke 1986, Ingram 1991). The use of theory in nursing practice is not widespread (Silva 1986, Moody *et.al.* 1988, Jaarsa and Dassen 1993) and there is also some evidence of resistance to the acquisition and use of new knowledge by nurses (Jordan and Hughes 1998). In spite of the growing emphasis on practical knowledge, nurses still denigrate their own intuitive knowledge by implying that nursing is common-sense (Watkins 1997). Academic writers continue to complain that practice should conform to theory and to blame practitioners for failing to implement research findings (Rolfe 2002, Fulbrook *et al.* 2000). A perfect integration between theory and practice is unlikely, however, if theoreticians and researchers use a variety of different theoretical approaches to analyse practice, but remain unaware of the tacit or practical knowledge of the practitioner (Jarvis 1992b). A perfect fit between theory and practice would also reduce incentives to change and reduce professional progression (Rafferty *et al.* 1996).



## **Nursing Theory**

The history of nursing has been full of attempts to achieve a unified theory of nursing which would describe a unique discipline, but the lack of consensus about the nature of nursing has brought a range of theories of nursing, rather than one unitary theory (McFarlane 1977, Booth *et al.* 1997). Various theorists have also tried to describe a hierarchy of nursing theories, but there is little evidence that these have had any effect on education or practice (Dickoff and James 1968, Hesook 1993, Walker and Avant 1988). Changes in the definition of theory in the nursing literature mirror the tensions in nursing thought between the perspectives of logical positivism, interpretation and critical theory. Theory is seen as a logically interconnected set of propositions which are used to describe, explain and predict a part of the empirical world (Riehl and Roy 1980, Robinson 1993) or a scientific effort to explain phenomena, make sense of observations and suggest relationships (Polit and Hungler 1997). Hesook (1993), an American writer, believes that the progress in nursing science and the increase in scientific knowledge available to nurses should result in the grounding of nursing in a scientific base with a positive linear relationship between theoretical development and improvements in nursing practice. An attempt to encompass both approaches defines theory as a systematic abstraction of reality that serves some purpose (Chin and Kramer 1995, Manley 1997). For Watson (1981), the purpose of theory is to understand and illuminate while, to Jarvis, theory is a combination of different forms of knowledge, some drawn from practice, some drawn from other disciplines (Jarvis 1992a). Some writers maintain that theory and practice are inseparable, with theory the framework for enquiry and practice the medium for interaction with theory. Theory guides conceptualisation of the problem and generates researchable questions, which are explored by researchers and tested by practitioners. Both theory and practice thus form the basis from which nursing creates and expands its knowledge. It is a cyclical process: practice is the catalyst, questions are asked and then hypotheses derived (Allen *et al.* 1986, Lutjens and Horan 1992, Walker and Avant 1988, Jarvis 1992a).

There is another view that tension among theory, practice and research can be usefully employed in education, as student nurses who are introduced to the debates surrounding the generation of nursing knowledge, can come to appreciate what counts as nursing

knowledge at different times and the politics which drive the legitimisation of theory and practice. They can then come to terms with the 'reality shock' and the uncertainties of professional life (Webb 1990, Rafferty *et al.* 1996). Hislop *et al.* (1996), however, found that students were able to use theory only at a basic level, and then only in individual cases. The difficulties experienced by students in using theory in practice were attributed to the notion of inert knowledge, which is available for explicit reasoning but not spontaneous problem-solving (Whitehead 1932). Walsh and Ford (1989) found that non-academic nurses do not appear to use theory as they see it as a threat.

One consequence of the striving for academic respectability and for nursing to develop its own body of theory led to a proliferation of nursing models and conceptual frameworks, many of them originating in North America. Models were considered, by theorists and academics, as a welcome professional development, which stimulated debate about the nature of nursing (Cormack and Reynolds 1992, Johns 1994a). It was thought that models, whether designed specifically for nursing or borrowed from other disciplines, would provide a structured and scientific base for clinical practice. Knowledge from diverse sources would be integrated to provide a nursing focus, rather than that of the medically focused, disease-orientated model. The practice of students and the inexperienced nurse would become more structured, holistic, health-orientated and patient-centred (Stevens 1979, Smith 1982, Johns 1994a). Clinicians have, however, tended to resist nursing models (Hawsett 1990, Jacono and Jacono 1995). One reason is thought to be the imposition of models by managers on unwilling, uncomprehending staff. Many models are of North American origin and are often so theoretical, abstract and impossible to apply, that there is a large gap between their ideals and the realities of nursing (Miller 1985, 1994, Luker 1988, Robinson 1990, Draper 1990, Salvage and Kershaw 1990).

### **Theory from Practice**

Nursing theorists began increasingly to take account of nursing as a complex social practice (Heath 1998a, b, Fealey 1999) and turned to mainstream educational theory and the theories of Schon, in suggesting that science, and intuition, are both essential in a

practice discipline (Schon 1983, Dreyfus and Dreyfus 1985, Diekelmann 1992, Rolfe 1993a, Wilson-Thomas 1995, Rafferty *et al.* 1996, Booth *et al.* 1997). The development of knowledge through professional practice was enthusiastically accepted as a way of closing the theory-practice gap, as it is based in the real world, rather than in the ideal world of nursing theory (Miller 1985, Ramprogus 1992). If innovative ideas from practice stimulate theory, nursing theory could then be owned, understood, and therefore accepted by nurses, who can then translate their beliefs into a working philosophy (Benner 1984, Draper 1990). As nursing theory and research deal with probabilities and significant differences rather than predictions, a re-examination of the nature of nursing theory could describe, explain and predict the idiosyncrasies of individual encounters between patient and nurse. Nurses who are aware of their own implicit theories of action would be able to use them creatively, especially in divergent situations. Theories emanating from nursing would thus be tested in nursing situations, though some writers doubt whether theory-testing is actually feasible in the practice setting (McFarlane 1977, Wilson & Thomas 1995, Walker 1971, Meerabeau 1992, Rolfe 1998a,b). A paradigm of theoretical research, based on the individual nurse-patient relationship and carried out by the practitioners themselves, would demonstrate the respectability of nursing theory, ensure the survival of nursing as a separate discipline and present an alternative, to the growing emphasis on business efficiency, which is increasingly pervading healthcare (Dickoff and James 1968, Jacox 1974, Craig 1980, Meleis and Price 1988, Nagle and Mitchell 1991, Lujens and Horan 1992, Ashworth and Saxton 1992, Rolfe 2002).

The work of Patricia Benner, which draws on the works of Kuhn (1970), of Polanyi (1958) and of Heidegger (1962) as interpreted by Dreyfus (1991) in his model of skills acquisition, has been particularly influential. It is concerned with the difference between practical and theoretical knowledge, the development of expertise in nursing and the relationship of intuition to professional judgement. She concluded that theory may point the way forward, but only experience can produce the expert practitioner whose unique knowledge is thus largely contextualised. To recognise patterns in a holistic way, a sound knowledge base, experience and a deep understanding of the situation are needed by practitioners (Benner 1984). This practical understanding is related to the notion of personal knowledge of Polanyi (1958), and is generated through reflection, when

previous experience interacts with a particular situation, and is meaningful only in a specific context (Dreyfus (1991, Cash 1995). Benner's work, by moving the emphasis towards the practitioner and practice, means that the practitioner has become valued as a theorist, with reflection a valid method for generating knowledge (Benner and Tanner 1987, Benner and Wrubel 1989). Benner's work has been challenged, however. Cash (1995) believes that it is difficult to accept Benner's assertions that context is important, when the individual expert is characterised by a specific way of thinking. It is not clear whether it is only the expert who thinks intuitively as, in Benner's study, expertise was determined by dominant groups who were not necessarily nurses. There is also some unease about the rigour of intuition and the lack of a framework for critical analysis (Jarvis 1992b, English 1993).

## **Reflection**

As a result of the influence of the work of theorists such as Schon and Benner, the place of reflection in the development of professional knowledge has become a dominant theme in nursing (Benner 1984, Benner and Tanner 1987, Fish *et al.* 1989, Powell 1989, Gallego and Walters 1991, Glen *et al.* 1995, Graham 1995, Johns 1995a, 1997). Unlike models, which try to impose an ideal, reflection focuses on reality and aims to enhance practice from that starting point. It has been enthusiastically adopted as an educational strategy and as a means of promoting professional practice (ENB 1991, WNB 1990 McCaugherty 1991a, Reid 1993, Shields 1995, Richardson and Maltby 1995, UKCC 1986, Johns 1996 a, b, Mackintosh 1998). The Project 2000 educational reforms also emphasise the development of the reflective practitioner as the nurse of the future (ENB 1989a, UKCC 1986, UKCC 1990) and it is envisaged that reflective practitioners will be independent and self-directed adult learners who are self aware, self confident, and sensitive with cognitive and affective skills as well as critical thinking and analytic skills (Mezirow 1990, Atkins and Murphy 1993, Jarvis 1992a,b, Castle 1996, Lowe and Kerr 1998). It was also thought by some that learning through reflection would be emancipatory, as nurses explore and come to understand the nature and boundaries of their own role, and that of other health professionals, leading to an understanding of the context of practice and of the barriers that limit the practitioners' therapeutic potential

(Emden 1991b, Johns 1994b, 1995b). Critical reflection is one way of empowering nurses to challenge traditional thinking and leads to greater autonomy and responsibility (Wilson-Thomas 1995, Rafferty *et al.* 1996, Rolfe 1997a,b). Other writers, however, believe that the obsession with reflection is a result of a loss of confidence in professionals (Illich 1977, Jarvis 1991).

Though there are many descriptions of strategies to facilitate reflection in the literature, specific strategies to facilitate the development of critical reflection and the implications for nursing education are much less clear (Williams 2001). The term 'reflection' has been criticised for lacking clarity (Atkins and Murphy 1993, Jarvis 1992b, James and Clark 1994, Reece Jones 1995, Morgan 1996, Andrews 1996, Paterson 1995, Shields 1995, Baker 1996, Gallichan 1997) and there is no unanimity of opinion regarding the concept of reflection, and how reflective skills are learned, taught and implemented (Newell 1994, Pierson 1998). Reflection was found to be difficult for those trained in the technical-rational mode of teacher education where the skills for effective group facilitation were usually not addressed. Nurse educators were unclear about the relevance of reflection to clinical practice and vague about how they taught it to students (Burnard 1995, Wallace 1996). Reflection presented a challenge to pre-registration students who had difficulty in critically examining their experiences and, as they lack knowledge, they have little to reflect on (Smith & Russell 1991, Paterson 1995, Burrows 1995, Lyons 1999). Pietroni (1992) believes that reflection, if uninformed by the perspectives of other disciplines, is unlikely to make available to patients alternative aspects of care. Hindsight bias is another problem. Reece Jones (1995) noted that nurses made sense of what they thought had happened, rather than analysing the available data independently. When reflecting in hindsight, it is difficult to dismiss knowledge of the outcome, and the extent to which nurses rely on the medical label when making nursing assessments is another issue.

The literature contains a range of educational strategies for developing reflection which are said to represent a move away from product to process based education. These include the writing of journals or diaries as learning tools for the promotion of reflective skills (ENB 1992, Sheehan 1986, Burnard 1988, Cameron and Mitchell 1993, Lister

1989, Lyte and Thompson 1990, Davies 1995, Graham 1995). Reflective groups are a common strategy for the promotion of student reflection, but some students feel that reflection sessions became repetitive and predictable (Cruikshank 1996). Changes in the levels of student thinking are claimed to result from reflective group-work and the mutual support of a cohesive group but the cohesiveness of the group affects the willingness to share experience (Smith 1998). Wallace (1996) suggests that writers are reluctant to discuss the negative aspects of reflective group work, such as 'savage group dynamics, sensationalist story telling, the taking-over of groups by more forceful characters and the natural inclination of novice nurses to be over-critical'. Smith (1998) found that students preferred to use their own experiences and those of others to examine meaning, in preference to formal theoretical explanations. Much of the support for reflection is anecdotal or descriptive (Mackintosh 1998) but there is some evidence of the enhancement of students' reasoning ability regarding patient needs (McCaughterty 1991b, Smith 1998) and their ability to be critical and take appropriate action (Green 2002). Students have reported that reflection is a way to bridge the gap between theory and practice and that they valued reflection as a means of learning (Shields 1995, Severinsson 1998).

Nursing does have a long history of emphasis on doing and on concrete thinking, rather than on scholarly introspection (Pearson 1992, Reed and Proctor (1993a, b). Reflection could be another example of the nursing tendency to take up ideas uncritically and to use them without serious consideration and evaluation and as another way of enhancing professional status (Jarvis 1992a, James and Clarke 1994, Burnard 1995). Mallik (1998) also believes that the growth of reflective practice is threatened by the shortage of resources in the universities. Rolfe (1994, 2002), originally an enthusiastic supporter of reflection, has come to believe that reflection which was once seen as a radical alternative to technical-rationality has become merely a tool to meet mandatory requirements for post-registration education, or as one of a number of ways in which nurses can enhance the quality of care (DOH 1999).

The growing movement for evidence-based nursing practice (Thompson 1998, Dicensio *et al.* 1998) currently causes Rolfe (2002) some concern, as the randomised controlled

trial is taken as the gold standard for practice, with a consequent devaluing of the use of intuition and practice knowledge. The evidence-based nursing rationale is to ensure the quality of the nursing intervention, but Rolfe sees it as a way of exerting control over practitioners by ensuring that they all respond in the same way to the same clinical situation. A strategy such as this might serve to regulate nursing practice but risks alienating the practitioners (Rolfe 2002).

### **Problem-Based Learning in Nursing (PBL)**

Problem-based Learning has been enthusiastically proposed by nursing writers and a growing number of educators as the latest solution for addressing limitations in teaching and learning, and a curriculum perceived by students to be fragmented with much irrelevant information. An international increase in PBL in nursing curricula has great expectations for benefits in professional nursing practice. The United Kingdom Nursing strategy (DOH 1999), included recommendations for development of PBL in pre-registration nursing education, and the Peach Report recommends that practice placements should use PBL (UKCC 1999), reflecting the growing number of problem-based learning methodologies which are being introduced within contemporary nursing curricula (Frost 1996, Milligan 1999).

Morales-Mann and Kaitell (2001) believe that PBL has liberated teachers from the traditional role of content expert and super-consultant, but research into preparation for the teacher/facilitator role is still needed (McMillan and Dwyer 1989, Creedy and Hand 1994, Haith-Cooper 2000, Johnston and Tinning 2001, Barrow *et al.* 2002). There is a lack of consistency within the literature concerning the level of intervention within the tutorial groups, and there is difficulty in achieving a balance between a) non-participation and active facilitation, and b) tactical intervention and an overly didactic approach. The relationship with students needs to be redefined, and further research regarding the resources is also needed (Doring *et al.* 1995, Andrews and Jones 1996, Biley and Smith 1999, Barrow *et al.* 2002).

There is, so far, little empirical evidence to support expectations for PBL in nursing. The

justification for the introduction of PBL into nursing education is largely the extrapolation of results from research into the medical experience. Nursing research into PBL has concentrated more on implementation, and there are few studies which are evaluative rather than descriptive and prescriptive (Biley and Smith 1998, Rideout 2001, Barrow *et al.* 2002). The hypothetical skills and abilities of practitioners graduating from PBL courses are studied, not the actual skills and outcomes (Biley and Smith 1998). Although there are reports of a positive response to PBL by both teachers and students (Frost 1996, Cooke and Moyle 2002, Barrow *et al.* 2002), students felt that their learning had been greatly enhanced, with group cooperation and cohesiveness significant factors in the learning process (Cooke and Moyle 2002, Barrow *et al.* 2002, Bechtel *et al.* 1999), though Barrow *et al.* (2002) also found that it was initially stressful for many students, with ambiguous scenarios and requirements for self-directed learning.

Biley and Smith note that it seems to be assumed in the nursing literature that the benefits of PBL are transferable to nursing education, but Milligan (1999) thinks that PBL implicitly supports the medical model at a time when the limits of this are becoming increasingly clear. He also believes that it is inappropriate as a curriculum model as it works against emancipatory education, does not offer the diversity required and does not respond appropriately to different learning styles. Medical studies seem to claim student satisfaction as a valid reason for PBL, but without comparison with traditional courses. It is unreasonable to claim PBL as a viable option on the sole grounds that students like it. PBL may be appropriate for nursing education, but it should be supported by reference to the nursing, rather than the medical literature (Biley and Smith 1998).

## **Conclusion**

The dualism of theory and practice originates from the work of Greek philosophers who viewed thinking as higher than action. This chapter traces the way in which this viewpoint is still prevalent in current educational practice and has resulted in a continuing professional concern over what is perceived as an unacceptable gap between theory and practice, exacerbated by the difficulty in integrating knowledge from a variety of sources. The problem is compounded by the separation of theorist, teacher and



practitioner, which is commonly found in practice disciplines. Many of the models used for professional practice continue to separate the knowledge base from the practice, with academic institutions giving greater priority to the acquisition of knowledge, rather than the skills of practice. Professional curricula are also commonly divided by contributing disciplines which are taught as discrete entities.

The lack of integration in the nursing curriculum has long been a concern expressed by countless official nursing reports and research studies and there is still much evidence that a lack of integration is still an issue. Another view expressed within the literature, however, is that the gap will always exist, and that it provides a useful way of introducing students to the inconsistencies of practice. It is not clear whether this view is really compatible with the need to provide the best possible nursing care for patients and clients. One of the aims of the reforms of nursing education is the promotion of integration of theory and practice, but Project 2000 has a wider curriculum, composed of a greater variety of disciplines, potentially making the issue of integration more problematic. There has been little professional debate about the best way to integrate all the elements of the wider curriculum, and about the incorporation of discipline specialists into the teaching and planning teams. The role of the nurse teacher is of particular concern as this role has traditionally taken on additional tasks without a thorough and realistic evaluation of the parameters of the role.

The theoretical analysis in this chapter continued by investigating the attempts made by nursing to develop its own body of theory, seen by some as an attempt to gain professional status. The work of Schon and that of Benner, a nursing theorist, have been particularly influential. The nursing literature contains many examples of innovations designed to integrate theory and practice, many of which have been taken from the general educational literature and applied directly to nursing education, but without critical assessment of their suitability for nursing and without careful evaluation of the end results. The ideas of American theorists such as nursing models have also been adopted uncritically and without regard for the cultural and educational differences. These ideas have been promoted principally by nursing researchers and educationalists but with little attempt to include the practitioners, who are then blamed for the theory-

practice gap. P2000 attempts to develop, not only the knowledgeable doer, but also the reflective practitioner and the use of reflection as a tool for uncovering personal and intuitive knowledge, have become an important part of current nursing education. However, nursing has a history of taking on ideas from other disciplines, usually uncritically and without evaluation (Darbyshire 1993, Rolfe 2002). The trend continues with the introduction of problem-based learning into nurse education. PBL is now being promoted as the solution to the problems of theory and practice in nurse education, even though there are growing doubts in the general and medical educational literature about the effectiveness of this innovation.

Though no longer officially part of the workforce, P2000 nursing students still spend considerable time on placement and carry out much direct patient care. They are therefore well aware of the dissonance between theory and practice and often experience difficulties in trying to reconcile the exhortations of their teachers with the requirements of their clinical mentors. As the student voice is rarely found in the literature, this study will explore the student conceptions of the extent to which the different elements which make up the curriculum support integration and meaningful learning for them. Therefore, a research method which supports the idea of the curriculum as a collection of different elements which make up the whole, rather than a single entity is needed. Data collection methods which can elicit the in-depth view of the students regarding their conceptions of integration and a gap between theory and practice will be used. The perspective of the teachers will also be explored, particularly the ways in which they promote integration of the curriculum. The College documents will be analysed for evidence of the ways in which an integrated curriculum is delivered. The research questions in this study will therefore also explore the extent to which the students believe that innovations such as reflection and problem-based learning support their learning.

## **Chapter 4**

### **The Support of Learning**

#### **Introduction**

Recent decades have brought profound changes in higher education. There has been expansion from an elite to a mass system, leading to a more heterogeneous mix of students along with a growth in the numbers of mature and part-time students. The focus has shifted from teaching to learning, with an emphasis on learning to learn, implying a fundamental difference in the educational approach. Reduction in government funding has required new and more flexible ways of using staff, facilities and space. Innovations such as semesters, modularity and credit transfer systems have become widespread, bringing inevitable and wide-ranging changes to all aspects of learning (Gibbs 1999).

A prime purpose of higher education is the development of more advanced, academic and independent ways of learning. As students are expected to show deep-level processing, more self-regulated learning and higher levels of critical thinking (Vermetten *et al.* 1999), a dynamic conception of knowledge and a commitment to seeing reality from a variety of perspectives must be built into the educational process (Saljo 1997). Much research has shown that a deep approach to study is related to positive learning outcomes (Ramsden 1997). In nursing, as a practice discipline, good learning outcomes are also concerned with social good and professional accountability. Students should be encouraged, therefore, to develop positive learning strategies, so that they can relate theory to practice in a thoughtful and meaningful way. It is vital that deep learning is supported and that a learning context which is not seen to reward superficial approaches to learning is promoted.

This chapter of the theoretical analysis begins by examining the seminal work from higher education on student approaches to learning and teacher and student conceptions of learning. As all the factors affecting student learning are interlinked and related to the educational context (Biggs 1994, 2003), the analysis will continue by explore the factors which affect learning in general and nursing education. These are assumed to be the

teachers, the teaching strategies, the effect of the peer group, assessment and the educational institution.

### **Approaches to Learning**

Historically, attempts to improve the quality of student learning have regarded students as in some way deficient. Attempts to remedy this have often involved the use of study skills (Norton *et al.* 1999), though the evidence for this is not convincing (Cloete and Schochet 1986, Leitch 1994). The deficit model, in which something is seen as lacking, either in the student, the teacher or the content of the learning, is now regarded as too simplistic (Biggs 1994). Much of the earlier research in higher education focused on the improvement of teaching strategies (Dunkin 1983, Brown *et al.* 1982, as cited by Trigwell and Prosser 1996). The current focus is on the study of the relationship between student learning intentions and strategies, the teaching-learning environment, and the learning outcomes (Biggs 1993a). Research into the learners' perspective of the context and demands of the course has resulted in the identification of two key concepts derived from this perspective, the approach to learning, and the conception of learning (Sobral 1997). Yet another research approach derived from cognitive psychology is the meta-cognitive approach, in which students are aware of, and able to govern, their own learning activities (Flavell 1979). This is believed by Biggs to be the key to understanding student learning (Biggs 1987, 1989). Entwistle (1987) believes that improving meta-cognitive skills will enhance deep learning and the motivation to learn. Sobral (1997) also identified a learning-to-learn approach, which approximated to meta-learning (Biggs 1987, Martin and Ramsden 1987). Meyer (1991) talks of study orchestration with three aspects of student learning, namely the way to approach and engage learning tasks, the contextual influence on such engagement, and the personal conception of learning.

The other broad approach, originating from the seminal work of Marton and Saljo (1976), looks at qualitative differences in student learning. Some studies have attempted to encompass both approaches (Martin and Ramsden 1987). A number of different models of student learning have been developed with different conceptualisations of the

learning process (Murray-Harvey 1994). Research into approaches to learning and learning styles attempts to increase understanding of the differences in the ways students learn, to provide a conceptual framework for evaluating individual differences and to provide guidelines for the improvement of student outcomes. Background understanding and experience is also vital to the development of high quality learning. Students' perceptions of the learning and teaching context are systematically related to the approaches to learning they adopt. These approaches are influenced by the conceptions of learning, and the beliefs held, by both students and teachers and are central to the quality of their learning outcomes (Ramsden 1997, Prosser and Trigwell 1999). As an approach to learning is associated with perceptions of the purpose of the task, learning is to some extent context-dependent (Laurillard 1979). Individual perceptions vary, though the context may be the same for all (Prosser and Trigwell 1999). These in turn are affected by what happens in the classroom and in the wider educational environment (Ramsden 1997, Norton *et. al.* 1999). There are strong associations between students' orientations to studying and their perceptions of assessment, workload, the quality of teaching and the degree of choice over content and method of study (Hounsell 1997).

There is much evidence that students in higher education adopt a variety of approaches to learning (Marton and Saljo 1976, Biggs 1979, Marton *et al.* 1997, Richardson *et al.* 1987). The relationship between the approach to learning and the quality of the learning outcome is consistent within various types of learning activity (Hodgson 1984, Hounsell 1984, Laurillard 1984). An approach is composed of two components:- an intention or motive (*why*), and a strategy (*what is done*) (Biggs 1993b). The approach influences the search for personal meaning and the quality of the learning outcome (Entwistle and Ramsden 1983, Biggs 1987, Gibbs 1999). Standardised questionnaires (Entwistle and Ramsden 1983), developed to identify students' dispositions to adopt specific approaches to learning within normal academic studies, support the contention that, while students may change their motives and strategies, these remain as relatively stable indicators of a general approach to learning (Biggs (1993b, Richardson 1995). Different approaches to studying in different contexts are also adopted, in response to the perceived demands of the immediate learning situation, with assessment requirements a particularly strong influence (Scouller and Prosser 1994, Laurillard 1979, 1984, Gibbs 1992, Ramsden

1997). Different subject areas also tend to be associated with different approaches and students taking arts courses are more likely than science students to take a deep approach (Entwistle and Ramsden 1983, Hambleton *et al.* 1998).

Approaches to learning were originally identified as either deep or surface, a distinction akin to Svensson's identification of holistic and atomistic approaches to learning. A holistic approach, like deep learning, emphasises thinking about the world of which facts form a part, in contrast to an atomistic or surface approach, which entails memorising facts as isolated units of information. The skill of forming integrated wholes is the most central aspect of skill in learning through understanding, and it is also easier to remember something that is part of a larger organised whole (Svensson 1976, 1997). Deep achieving strategies are associated with success, while surface, apathetic strategies are associated with failure (Entwistle and Ramsden 1983, Biggs 1987, 1993a, Marton and Saljo 1976, 1997).

Courses promoting a deep approach contain motivating content, student activity, student interaction and a well-structured knowledge base, and have teachers who are enthusiastic and committed to their subject (Biggs 1999, Gibbs 1992, Ramsden 1997). Students adopting a deep approach view learning as a better understanding of reality, and are thus able to locate relevant knowledge or experience to aid the understanding of new situations. They can cope with abstract forms of learning and are motivated by the relevance of the subject to their own needs (Fransson 1977, Svensson 1977, Prosser and Trigwell 1999).

Surface strategies involve the reproduction of material through rote learning and are produced by an overloaded curriculum, a rigid assessment strategy that encourages memorisation, lack of freedom in teaching and learning, formal student/teacher relationships, anxiety, and an emphasis on the superficial properties of the material (Fransson 1977, Dahlgren and Marton 1978, Eley 1992, Ramsden and Entwistle 1981, Biggs 1999). A well-structured knowledge base is often undermined by anxiety over covering the syllabus. Much learning also depends on understanding material which has an internal structure; so deep learning attempts can be frustrated by inadequate

background knowledge of the relevant field, especially where the learning task demands that students have grasped fundamental concepts. (Ramsden 1997, Dahlgren 1997, Biggs 1999). This approach is a result of the context, rather than the fixed attributes of the student (Fransson 1977) but the danger is that students will continue uncritical acceptance, unable to relate fragments of information to a wider understanding (Gibbs 1992). There is a concern, that traditional curricula tend to promote a surface approach (Entwistle 1992) and fail to promote the development of transferable skills in students (Barnett 1992, Ellis 1993).

The student's motive also influences the adoption of specific learning and studying strategies (Beaty *et al.* 1997). Biggs (1993b) added the dimension of achieving to the deep-surface distinction, and Entwistle and Ramsden (1983) a strategic dimension; so motive can thus be surface, deep, achievement-orientated or strategic. Achieving strategies can be identified in time-management and the organisation of study habits. Murray-Harvey (1994) believes that students experience difficulties when there is a discrepancy between motive and strategy or when their approach does not correspond to the teaching and assessment requirements of a course.

**Table 1 - Deep Versus Surface Approaches to Learning**

<b>Deep</b>	<b>Surface</b>
Focus is on 'what is signified'	Focus is on the 'signs' (or on the learning as a signifier of something else)
Relates previous knowledge to new knowledge	Focus on unrelated parts of the task
Relates knowledge from different courses	Information for assessment is simply memorised
Relates theoretical ideas to everyday experience	Facts and concepts are associated unreflectively
Relates and distinguishes evidence and argument	Principles are not distinguished from examples
Organises and structures content into coherent whole	Task is treated as an external imposition
Emphasis is internal, within the student	Emphasis is external, from demands of assessment

(Ramsden 1988)

### **Student Conceptions of Learning**

Students' conceptions of learning also influence their approach to studying, and the quality of the learning outcomes (Van Rossum and Schenk 1984, Marton and Saljo (1976, 1997). Concepts are formally defined, while conceptions carry a personal meaning, implying an individual way of thinking about a concept, derived from knowledge and experience, but still available for conscious reflection (Entwistle *et al.* 1999, Entwistle and Walker 2000). A range of student conceptions has been studied, using a research method known as phenomenography (Marton *et al.* 1993).

The work of Heath and Perry has shown how students develop through a series of stages, influenced by their experience of education, where knowledge claims are appreciated as relative, and different interpretations of evidence are respected (Heath 1964, Perry 1970). Entwistle and Walker (2000) suggest that this work shows that higher level conceptions emerge out of the lower ones, through reflection and integration, resulting in an expanded awareness of learning. Fransson (1977) suggested a hierarchy of levels of understanding, while Saljo (1979) identified a hierarchy of five conceptions of learning,



ranging from rote learning and a concern with a quantitative increase in knowledge, to a qualitative and personal transformation of knowledge. The more sophisticated conceptions contained and extended those at the lower end of the hierarchy.

Learning conceptions develop over time and qualitatively distinct conceptions of learning held by students are sensitive to the learning context and are associated with qualitatively different learning outcomes (Van Rossum *et al.* 1985, Marton *et al.* 1993, Cliff 1998). Positive student conceptions are promoted by external support structures, conducive past experiences and positive anticipations in the current context (Trigwell and Prosser 1996, Ramsden 1992). Marton *et al.* (1993) added a sixth, qualitatively distinct, category to the hierarchy of Saljo – ‘learning as changing as a person’ - and argued that this is the most sophisticated, hierarchically. The longitudinal data in this study demonstrated the development of learning conceptions through time and experience, but focused on beliefs about learning in a broad sense, rather than on learning in specific contexts.

Different approaches have also been found among academic teachers (Samuelowicz and Bain 1992, Gow and Kember 1993, Kember and Gow 1994), and the more complex the conceptions, the more likely they are to be associated with more sophisticated reasons for study and study strategies (Boulton-Lewis and Dart 1994). Student epistemologies are linked to conceptions of learning and thence to the understanding of how discipline-specific knowledge is arrived at, substantiated, structured and contested (Perry 1970, 1988). Detailed knowledge of the ways in which learners understand the central phenomena, concepts and principles within a domain, prior to study, is critical for developing their mastery of the domain (Bowden *et al.* 1992, as cited by Marton 1994).

### **Conceptions of Teaching and Beliefs about Teaching**

If deep learning brings quality outcomes, then better teaching must be that which promotes deep learning (Brown and McCartney 1998). Entwistle *et al.* (1999) bring together the different literatures on research into teaching. In higher education, the focus has been on conceptions of both teaching and learning, while, in school-based research, the focus has been on the knowledge and belief of teachers.

Distinctive conceptions of teaching and teacher beliefs affect the interpretation and presentation of subject matter and so, a better understanding of these can contribute to the enhancement of education and the quality of student learning (Clark and Peterson 1986, Brophy and Good 1986 as cited by Fang 1996, Saroyan and Snell 1997, Entwistle and Smith 2002). Beliefs give rise to intentions to act, and the right actions are determined by assessing the situation and by determining the appropriate action, which can then be regarded as a cause of student learning (Ramsden 1992, Orton 1996). It is assumed that teachers are professionals who make reasonable judgements and decisions within uncertain and complex contexts, and that their thoughts, judgements and decisions guide classroom behaviour (Fang 1996).

The focus has shifted from observable teacher behaviour, and the correlation with student achievement, to teachers' thinking, beliefs and conceptions (Fang 1996). Entwistle and Walker (2000) note the accumulating evidence (Prosser *et al.* 1994, Trigwell *et al.* 1999, Kember 1997, Prosser and Trigwell 1999), which suggests that the teachers' conceptions of teaching parallel student conceptions of learning, and that the way in which teachers in higher education conceptualise teaching and learning influences their approach to teaching.

Learning facilitation and knowledge transmission have been identified as the two main orientations to teaching (Joyce and Weil 1980 as cited by Gow and Kember 1993, Samuelowicz and Bain 1992, Gow and Kember 1993, Prosser *et al.* 1994). Departments which scored highly on knowledge transmission discouraged a deep approach to study, while those which emphasised learning facilitation were less likely to induce surface approaches. A student focused approach to teaching is more likely to promote deep learning, while an information transmission/teacher focused approach promotes surface learning (Prosser and Trigwell 1999). Teacher conceptions of learning therefore appear to influence the extent to which their students reach higher levels of learning outcome, though some writers believe that this notion is too simplistic (Entwistle *et al.* 1999).

A hierarchy of five distinctive conceptions of teaching which closely parallel those used

to describe conceptions of learning have been described by Prosser and Trigwell (1999)

- imparting information
- transmitting structured knowledge
- directing active learning
- facilitating understanding
- encouraging conceptual change

The extremes are described as teacher-focused, content orientated and student-focused, learning-oriented. The most sophisticated conception is an extended awareness of the relationship between teaching and learning, that is student-focused/learning oriented which leads on to an expanded awareness of teaching and learning related to the discipline, to the teaching of the discipline and to the students. There are affective aspects (expressing feelings for the discipline, commitment to fostering conceptual development and showing empathy with the students) and cognitive aspects (conceptualising the topic and discipline, strategically linking teaching with learning and understanding how students learn). These conceptions can result in a heightened awareness of classroom events (Entwistle *et al.* 1999, Entwistle and Walker 2000). One identified conception is concerned with good teaching skills and relies on the expert-novice distinction, while another encompasses the complex task of transmitting the culture, fostering natural development and producing conceptual change (Saroyan and Snell 1997). Bureaucratic conceptions of teaching imply that teachers are not involved in curriculum planning or evaluation, but only in performing. A professional conception involves planning, conducting and evaluating the work, both individually and collectively (Dunkin 1997).

Many different kinds of knowledge have been described as underpinning effective teaching, mainly those relating to the subject, to teaching methods and to the ways in which students develop and learn. However, the extent to which teachers have continuing access to this knowledge is unclear (Entwistle *et al.* 1999). Boulton-Lewis *et al.* (1996) found that the majority of teachers in their study held beliefs about learning

that depended on the acquisition of knowledge. The teachers possessed knowledge of many aspects of the learning process, but they did not appear to reflect on effective use of this knowledge.

## **Teachers**

Though the influence of teachers on student learning is profound, the relationship between teacher input and student outcomes is not a direct one (Ramsden 1997). An earlier focus on the effectiveness of methods and techniques has given way to a wider concern with teacher-student relationships (Hodgson 1997). Rousseau (1974) was one of the first to identify the need for a trusting relationship between teacher and student, but this movement has been greatly influenced by Rogers, who identified genuineness, non-possessive caring, trust, respect, empathetic understanding and sensitive listening as the critical elements in the teacher-student relationship. The teacher is also a prime figure in the promotion of a non-threatening and motivating learning climate which supports the learning process (Rogers 1969). Rogers' conclusions, however, were based on his experience as a therapist in one-to-one contexts which are largely unavailable in a context of mass higher education.

Teacher conceptions are influenced by past experience, perceptions of the specific teaching context and expectations of support by the institution (Prosser and Trigwell 1999). Teachers should be aware of how they conceive good learning and teaching and that they may have to revise their conceptions. Revising conceptions requires an examination of the teaching context and an awareness of how the context affects teaching. This involves different ways of thinking about teaching, and the development of ways of implementing alternative teaching approaches (Biggs 1991, Lublin and Prosser 1994, Miller and Olson 1994, McKenzie 1998, Trigwell 2000, Prosser and Trigwell 1999). If student perceptions of the context of teaching and learning, and of teaching quality, are functionally related to their attitudes to study and approaches to learning, these should be known by teachers, so that they can adjust their teaching approach and use assessment methods which reveal students' understanding (Hodgson 1997, Hounsell 1997, Prosser and Trigwell 1999). The literature appears to suggest,

conceptions of learning resulting in good learning outcomes are found in teachers who attempt to stimulate students, are considerate of their needs, integrate learning resources into their instructional strategy and tie assessment to understanding (Trigwell and Prosser 1996, Ramsden 1992). A curriculum should also recognise the qualitatively different ways in which students develop understanding (Prosser and Trigwell 1999).

Professional practice requires the espoused theory to be the theory in use (Argyris and Schon 1974), but there is evidence of a mismatch between espoused theory and theory-in-use (Murray and MacDonald 1997, Norton *et al.* 1996). Teachers claim to teach for understanding, but there is no evidence that this is generally done in a sustained way. Many teachers work on the basis of informal theories of teaching, with a limited awareness of alternatives, and enact teaching decisions in line with some explicit or, more usually, implicit theory of teaching and learning (Ramsden 1992, 1993, Biggs 1996a). It is difficult to translate the rhetoric of curriculum aims to specific action and so the stated aims of teaching are often ideal, while what is done constitutes a pragmatic view of teaching. This incongruity is also a result of environmental constraints, fewer resources and a lack of awareness of the variety of teaching methods available or how to use them (Samuelowicz and Bain 1992, Murray and MacDonald 1997).

It is possible to change the students' approach and improve learning outcomes by innovations in teaching (Newble and Clarke 1986, Gibbs 1992), but there has been little reward from institutions that would encourage any emphasis on expertise in teaching, which is generally accorded a lower status than research for promotion within higher education (HEQC 1994, Gibbs 1995c, Martin 1997). The Dearing Report, however, emphasised the importance of institutional support for the development of teaching, and teachers in higher education will be required, in future, to possess teaching qualifications (NCIHE 1997). Traditionally, academic teachers have had a proven ability within their discipline but they have not been required to have an educational preparation, and consequently they lack pedagogical skill. Expertise was originally considered to originate from special knowledge or skills (Smith and Tiberius 1998), but other theorists accept the centrality of specialised knowledge and add to the belief that experts are distinguished by the way they use this knowledge in solving problems. Expert problem

distinguished by the way they use this knowledge in solving problems. Expert problem solvers recognise recurring patterns and develop efficient ways of dealing with them. Experienced teachers have packages of information, consisting of examples, explanations and questions, which allow flexible and interactive teaching. They can sense whether to use another example, to move on after asking a few questions or to pause to gather information (Dreyfus and Dreyfus 1986 as cited by Smith & Tiberius 1998). In contrast, novices often rigidly focus on notes and have difficulty in responding flexibly to student needs (Putnam 1987 and Shulman 1987 as cited by Smith & Tiberius 1998).

Bereiter and Scardamalia (1993) cited by Smith & Tiberius 1998, however, argue that not all experience leads to expertise, as true expertise goes beyond knowledge and intuitive problem-solving. The distinguishing feature is progressive problem solving, which is tackling problems that increase expertise, rather than using previously learned routines. For teachers, this means learning to redefine the classroom situation and constantly assessing the development of the individual student. Teachers learn about students, and about teaching, as students are learning about the material (Smith and Tiberius 1998). Attempts to enhance teaching need to address the system as a whole, not merely to add on new elements, such as teaching methods workshops. A more sustained approach is required, with teachers examining and critically reflecting on their own practice and the outcomes (Cohen 1987, Kember 1997, Trigwell *et al.* 1994, Trigwell and Prosser 1996). Teaching interventions are needed to assist students to change their beliefs about learning and to develop a wider and better organised range of strategies, so that they can take increasing control of their own learning (Boulton-Lewis *et al.* 1996).

In a qualitative, constructivist view of learning, teachers are concerned with helping the students to construct their own acceptable understandings. Learning activities will include, therefore:

- a well-structured knowledge base
- a positive motivational context and a sensitive emotional climate
- a high degree of learner activity task-related and reflective
- interaction with others, both peers and expert teachers

This poses a problem for teachers who are trying to teach within a qualitative framework, however, when the parameters within which they work are quantitative, with an accent on performance indicators and competencies. Resource constraints and the expansion of higher education have increased the number of students in a class, which necessitates mass methods of teaching and learning (Biggs 1994). However, the research on teaching and learning which is carried out by researchers tends to be unrealistic and fails to take account of the realities of the situation. There is a need for more research to be carried out by or with the teachers.

### **Teaching Strategies: Teacher-Centred**

Teachers with a teacher-centred teaching strategy are more likely to foster a surface approach (Trigwell and Prosser 1999) and so, if the role of teachers of adults is to facilitate individuals to be self-directing, reflective and critical learners (Jarvis *et al.* 1998), instruction should be in alignment with the desired learning outcomes (McKeachie 1994, Briggs 1996a). Shrinking government funding and the increase in student numbers have perpetuated the use of cost-effective teaching strategies in higher education (Quinn 1995), leading to tension in academic life (Porter 1999). There are potential limitations to a course which relies only on didactic teaching as traditional, didactic strategies have difficulty in accommodating the interests and learning styles of individual learners. (Bligh 1971, Margetson 1994, Jackson and Prosser 1989, Wildy and Wallace 1994, Saroyan and Snell 1997, Topping *et al.* 1997). They can have a negative effect on teacher-student interactions and, without the promotion of higher order skills such as conceptual understanding, independent learning and problem-solving, tend to lead to a surface approach and poorer academic performance (McKeachie 1994, Lucas 1996). In these circumstances, teacher input increases, students talk less and opportunities for asking questions and checking understanding are limited, and it has been shown that, in larger groups, the cognitive level of student contributions can decline (Sinclair and Gardner 1997, Vaughan 1990, Brown and Atkins 1998, Mahler *et al.* 1986).

Hounsell (1997) believes teachers are responsible for pedagogical scaffolding, as they are

Hounsell (1997) believes teachers are responsible for pedagogical scaffolding, as they are the subject specialists, who understand the complexities of their discipline. Didactic methods which are enthusiastic and use vivid illustrations can form a bridge between extrinsic experience and intrinsic experience which is relevant and associated with personal learning (Hodgson 1997). They are also good for transmitting key constructs and issues in a short space of time, and to a large group at once, forming a base for further study (Jones 1990, Quinn 1995). However, it is difficult to accept didactic methods as fostering critical, independent learning at a time of rapid expansion in knowledge, and there is a need to search for alternative methods or modifications (Bligh 1971, Sotto 1996). The effectiveness of teaching methods are sometimes judged according to student preferences rather than student outcomes, but student preferences do not necessarily mean an increase in learning (Hodgson 1997, Gibbs 1995a,b).

### **Table 2 - Teaching Strategies: Student-Centred**

Drawing on the work of Dewey, Knowles (1970, 1975, 1980) developed a different approach to the education of adults, which he termed andragogy. This heralded an individualistic view of learning, which has continued to develop into a much broader concept (Jarvis *et al.* 1998). Terms such as student-centred, student-focused, self directed and active learning methods were used increasingly to signal a change of emphasis from teacher to student. Teachers were to act as facilitators rather than subject experts, encouraging learners to learn from their own experience and context and students were to have control over all elements of the educational process (Brookfield 1993b). To Knowles, self-directed learners make better learners, and self-direction is necessary if education means learning-to-learn and personal development, rather than transmission of knowledge. Self-directed learning also leads to a sense of personal meaning, in spite of social and cultural pressures to conform (Brookfield 1985, 1987, CNAEA/ENB 1992). The assumption is that, by increasing student choice and active participation in learning, learners will become autonomous, self-directing and empowered. Self-direction does not mean learning in isolation, however, and some of the basic skills are needed before students enter a self-directing environment. Teacher-directed learning is appropriate when the subject is new and the student has little



structured goals are still needed, as sudden autonomy can cause student anxiety. Lecturers can provide greater freedom in learning, but within a defined and supportive framework (Dewey 1931, Whitehead 1932, Ramsden 1997, Hounsell 1997).

In adult learning theory, all learning must come from experience, with learners actively constructing their own experience (Knowles 1975). Experiential learning is the process of creating and transforming experience into knowledge, skills, attitudes, values, emotions, beliefs and senses (Jarvis *et al.* 1998) and it occurs when new knowledge is gained from experience, and then compared critically with established theories (Kolb and Fry 1975, Smith and Russell 1991, Race 1994). Factors underpinning successful learning are learning by doing, wanting to learn, needing to learn, learning through feedback and making sense of the concepts fundamental to mastery of a subject or discipline (Race and Brown 1998).

The student-centred classroom encourages active learning and is built on past and present student experience (Gibbs 1995a,b, 1999, Chickering and Gamson 1987), but there are limitations to experiential learning. It is not possible for all learning to be gained from primary sources; secondary sources are necessary, which means that learners must be able to assess critically the experience and interpretation of others, before accepting them in full (Jarvis *et al.* 1998). There is some support for the use of personal experience by educators but students can be alienated if it is overdone (Noddings 1994). The rhetoric of student-centred education is still very strong and it is accepted uncritically by many as a universal panacea (Topping *et al.* 1997), but doubts have been expressed about the degree to which this approach is actually practised or is achievable given resource constraints. Though the work-place has been increasingly recognised as full of potential learning experiences, many professionals still do not take their own experiences seriously as worthy of critical reflection (Brookfield 1996, Jarvis *et al.* 1998). Academic teachers have a limited range of conceptions of teaching and those with limited teacher conceptions already have a tendency to make the students passive (Dall'Alba 1991, Kember 1997, Samuelowicz and Baun 1992). In spite of the evidence of the benefits of deep learning, many academics perpetuate the inadequacies of traditional methods (Margetson 1994, Gibbs 1995c, Jarvis *et al.* 1998).

**Table 2 - Teacher-Centred Versus Student-Centred Learning**

<b>Teacher-centred</b>	versus	<b>Student-centred</b>
Focus on content		Focus on process
Emphasises knowing that		Emphasises knowing how
Students work as individuals often in competition with each other		Students work in groups and teams, collectively and co-operatively
Students highly dependent		Students work independently
Learning objectives imposed		Objectives negotiated
Assessment by written exams		Assessment varied
Knowledge handed down from subject to novice		Students actively generate and synthesise knowledge from many sources
Lectures predominate as mode of curriculum delivery		Teaching sessions flexible and not always classroom-based
Teacher's role is that of expert		Teacher is a facilitator and a resource students' learning in partnership

Tate (1993)

### **Learning in Groups**

More emphasis is currently being placed on the differences between student learning in groups and in traditionally organised classes. Small group work or tutorials can provide interactive, structured, experiential work, and discussion is a means of evaluating ideas openly and of drawing out the meaning from facts, important factors in the development of critical thinking (Beard 1967, Ramsden 1992). Learning can be enhanced when the group members have a knowledge base which they can share, and also when they are able to stimulate other members of the group by higher level thinking (McKeachie 1990, Houston and Lazenbatt 1999). Group working skills also develop when students learn material with the intention of teaching it and they perform better than those merely studying the material for themselves. Preparing seminar papers and oral presentations also help understanding of the topic and the development of communication and interpersonal skills (Annis 1983, Benware and Deci 1984 as cited by Topping 1996, Houston and Lazenbatt 1999).

Small group, co-operative learning appears to produce significant benefits measured in academic achievement, social relationships, self-esteem, cross cultural/cross racial

relationships and attitudes towards learning (Parker 1984, Davidson 1990, Good *et al.* 1988 as cited by King *et al.* 1991, Gibbs 1995b, 1999, Chickering and Gamson 1987). Anderson, researching into tutorials, notes that the influence of Abercrombie (1960 as cited by Anderson 1997) has led to a deficit model view of teacher actions, guided by assumptions that small group teaching should be characterised by a hands-off approach by the teacher (Crick and Ralph 1980, Luker 1989 as cited by Anderson 1997). Anderson (1997)'s study shows, however, that the students value the contributions of teachers to groupwork, and that effective groupwork is supported by a personal interest in the topic, a clear focus for the group task, an informal and supportive group atmosphere and the teacher's skill in promoting debate. Students themselves invest in the discussion by preparing for it, and their own self-confidence and esteem is enhanced (Anderson 1997).

Researchers, particularly in the United States, have looked at the benefits of what has been termed co-operative learning. This is defined as a set of instructional techniques which require positive interdependence between learners for learning to take place (Kagan 1994, Panitz 1996). All group members are accountable for an individual member's learning (Johnston and Johnston 1992, Slavin 1995). Co-operative learning takes the constructionist view that students learn by constructing their own knowledge and interpretation of the world and the curriculum needs to be interpreted and adapted continually to accommodate changing students' needs (Locatis and Weinberg 1997). Various studies have suggested that co-operative interaction in a supportive environment exposes inadequate reasoning gently and improves learning outcomes by requiring students to engage in higher order thinking (Ellis and Whalen 1990). The pressure exerted by the need for peer approval was also thought to be more acceptable than the pressure of striving to gain teacher approval (Damon 1984, Dimant and Bearison 1991, Murray 1982). In a meta-analysis of the effect of co-operative and competitive learning on problem-solving, Qin *et al.* (1995) concluded that co-operative learning resulted in higher quality problem-solving, as it enables the material to integrate with the students' level of cognitive development. Co-operative learners exchanged ideas and corrected each others' errors more frequently and effectively than did competing learners and they also appeared to struggle more to identify the sources of other learners' misunderstandings than did the experts. Peer discussion can be a form of cognitive

elaboration, in which material is reinterpreted and re-organised and so the students interact with the material and each other, generating more information than when alone. The level of interaction is greater, even when some students are predominantly explainers and others listeners, though the explainers might derive the greater benefit (Slavin 1995, 1996).

Peer supported learning or peer tutoring has increasingly become a feature of higher education, with students turning to peers both for support and for instruction. As a way of coping with the increased numbers of students, and ensuring the development of transferable skills, it can also be seen as a response to economic problems of higher education (Donaldson and Topping 1996, Houston and Lazenbatt 1999). Tang found peer mentoring enhanced the students' identification with the educational process and the institution (Tang 1993), while the mentors benefited from improved leadership skills and enhanced self confidence (McKeachie 1990). Students relate more readily to peers than to teachers, and peer learning can satisfy social and psychological needs. There is evidence that the degree to which the student is assisted in social integration into university life is a good predictor of success as measured by successful completion of the course (Treston 1999, Topping 1996, 1997, Dolan and Castley 1998). Donelan and Wallace (1998) believe that the support of interactive abilities by peer supported learning binds together all the attributes of 'graduateness'. Delegating the management of learning to students democratically, rather than deskilling them by perpetuating dependency, can also be seen as a way of empowering them (Topping 1996). Peer tutoring can be taken further to the point where the formation of a learning community is more important than the staff-student distinction. Although it is unclear how realistic they are, claims are made that the result could be greater participation, with interpersonal learning a key area, consultation over course design, involvement of participants in course monitoring and use of participants themselves as a significant learning resource (Tosey & Gregory 1998, Gibbs 1995b, 1999, Chickering and Gamson 1987).

These studies suggest, that in a supportive environment, an exchange of ideas about personal views between group members, with the necessity to explain ideas and develop a range of strategies, can improve student understanding. However, the literature is full

of contradictions, and negative findings have also been reported. Some students wish to work independently, others are uncooperative and do not become involved in the work of the group, and not all students have the necessary communication skills. Group work can be competitive and poorly motivated, with the stress of personality clash (Good *et al.* 1988 as cited by King *et al.* 1998, Dabney 1995). Gibbs (1992) reported a number of case studies, aimed at promoting active learning, in which improvements in student questionnaire scores were obtained. Richardson (1990, 1994), however, regarded the instrument used as of doubtful validity, while Gibbs reported that the students who disliked an active learning approach stopped attending and did not complete the follow-up questionnaire.

### **Assessment**

Assessment is a strong influence on student approaches to learning. It is important, therefore, to match educational goals with assessment methods which encourage the attributes that the staff say they wish to develop (Biggs 2003). The relationship between the assessment format and student perceptions of the skills being assessed, and the relationship between these perceptions and the selection of the learning approach, must be in alignment (Ramsden and Entwistle 1981, Entwistle and Ramsden 1983, Scouller 1998, Biggs 1996a). Assessment must also be valid, in that it measures exactly what it was intended to measure (Jarvis *et al.* 1998), and to achieve full benefit from assessment, students also need prompt feedback (Gibbs 1995b, 1999, Chickering and Gamson 1987).

Some writers have found that deep learning approaches are adopted for written assignments (Tang 1993, Watkins 1983a, Thomas and Bain 1984), though there is also evidence that some assignment essays induce either surface or deep learning (Biggs 1987, 1988, Prosser and Webb 1994). Entwistle and Tait (1990) found a relationship between a deep approach and a preference for exams which allowed for reflection and development ideas and were more akin to assignments.

Scouller (1998) showed that a surface approach was used for multiple choice examinations while a deep approach may be used for essays. The assignment was

thought to be a more appropriate context for deep learning, but this cannot guarantee its adoption. Students in this study were strategic and employed different learning strategies in different situations. Examinations were perceived as assessing lower cognitive abilities and written assignments as assessing higher levels of cognition. Those who preferred essays used deep strategies and these approaches were associated with better marks.

Traditionally, assessment in higher education has emphasised decontextualised knowledge, with examinations, even for practice disciplines, making little concession to the context in which the knowledge would be used (Jarvis *et al.* 1998). Svensson (1997) believes that examinations are very limiting, as examination performance represents short-term memorisation to a considerable extent, and little of what the students understand can be demonstrated. Students need the opportunity to demonstrate higher level abilities, but, in examinations, study success rather than understanding is rewarded and it seems unnecessary, therefore, to understand more than is required by the exam. This view is contradicted, however, by Entwistle and Entwistle (2003) who have shown that the process of revision for essay examinations can in fact involve deep reflection and an active search for understanding where the question requires conceptual understanding.

From a constructionist viewpoint, the issue in assessment is, not whether a learner is providing correct information, but rather whether the student is constructing meanings which are progressively more mature and congruent with accepted thinking (Biggs 1996b). The traditional view of assessment is challenged, however, if the learner is considered an active participant in the learning process. If the learner constructs the learning and the context is constantly changing, then assessment cannot be delegated to a few experts. This view has brought about a movement towards self and peer assessment (Biggs 1996b, Boud 1995, Jarvis *et al.* 1998).

Students' contextual perceptions are an important influence on their learning, but the student perspective cannot merely be guessed at or predicted. Teachers must make positive efforts to engage in open dialogue with students and get to know them as individuals, with no barriers to open discussion of course perceptions and learning

experiences. Efforts must be made to view the curriculum from the student perspective (Hounsell 1997). However, student support activities tend to be absent from formal teacher workload planning, and most institutions include course delivery in teacher workload planning, but not course development (Gibbs 1999). Taking the student perspective, therefore, requires support of teachers by the institution (Prosser and Trigwell 1999). There is a danger of compartmentalisation if institutional norms for issues such as contact hours are decided in isolation from consideration of course content, and student workload. Though the focus of higher education has been moving gradually, in some subject areas, from teaching to learning, space on higher education campuses is traditionally allocated for teaching rather than for learning. There is often no provision for areas for 'noisy' co-operative learning (Gibbs 1999). A more unified view is needed to take account of the needs and perspectives of both students and teachers (Hounsell 1997).

## **The Support of Learning for Student Nurses**

### **The Learning Climate**

Central to the nursing reforms was a concern to raise the quality of professional nursing care (UKCC 1986, Jinks *et. al.* 1998) and, consequently, there was much interest in advances in educational delivery which could bring about more effective nursing care (D'A Slevin and Lavery 1991). As student nurses who fail to develop independent critical thinking abilities are in danger of dependence on trial and error decision making (Sweeney 1986), an effective learning environment must take account of the significant contextual factors influencing learning, and must incorporate them into the curriculum. These include the students themselves, student support, the learning opportunities and the synthesis of clinical experience with the teaching of theory (Quinn 1995, Jacka and Lewin 1987, Cowman 1998). The humanistic learning environment of trust and participation advocated by Rogers (1983) is widely espoused but little is known about the interaction of learning preferences and other organisational and resource issues (Cavanagh and Coffin 1994). Though the learning environment has long been a subject of debate in nurse education, the focus has usually been the clinical learning environment. Factors supporting clinical learning include acceptance as a team member,

positive staff attitudes towards the students, good communication, guidance and feedback, while negative factors include rigid, inflexible staff attitudes and lack of information and feedback (Haigh *et. al.* 1995). This section will therefore review the literature pertaining mainly to those elements of the college learning environment which have an effect on student nurse learning.

### **The Student Experience**

Discontinuation of student nurses from pre-registration courses has long been a concern (Coakley 1997, RCN 1998, UKCC 1999) and one aim of P2000 was to reduce the rate of attrition by improvement of the educational environment. The number of nurses registering has declined, however, and the sources of stress reported by P2000 and by traditionally trained nurses remain unchanged. Many students enter nursing when still coping with the developmental changes of adolescence, and some have poor health caused by the physical and mental pressures of nursing. There are difficulties for some when dealing with the higher level of academic study, especially with biological sciences, and there are also problems caused by a lack of suitable accommodation and of safe transport (Castledine 1998, UKCC 1999, Lindop 1991, 1993).

Changes in the NHS have brought problems in finding suitable clinical placements and uncertainty over the type and length of experience (Castledine 1997a). The Peach Report (UKCC 1999) found that there was too much theory at the beginning and the practice placements were too short and lacking in relevance, and recommended that the sequencing of theory and practice should be planned to promote integration. A disturbing finding in all the studies reviewed by Castledine (1998) was the disparity between education and practice, particularly the lack of support in practice. The imbalance between theory and practice is given as a common reason for attrition, with both P2000 students and traditionally trained nurses feeling that the emphasis is on theoretical preparation, with the curriculum divorced from practice (Braithwaite *et. al.* 1994, UKCC 1999, White *et. al.* 1999, Carlisle *et. al.* 1997). The problem was not the actual amount of theory, however, but rather the amount of time spent in college (Elkan and Robinson 1991, Watson and Kiger 1994, Hickey 1996).



The need for good student support systems comes through strongly in the literature (Hegyvary 1990, Hughes 1992, McSherry and Marland 1999, UKCC 1999). French and Cross (1992) believe that, along with forms of knowledge and the practicum (Schon 1983,1987), teacher-student relationships are one of the major dimensions of nurse education. The link between the student-staff relationship and the facilitation of learning have been identified by many writers (Rogers 1969, Rosendahl 1973, Wong 1978, Lee and Ellis 1990, Redmond and Sorrell 1994 as cited by Hanson and Smith 1996, Wildy and Wallace 1994, Kenny and Kendall 2001).

Typical nursing students regard teachers as vital to the learning process and value friendly, caring and fallible teachers who treat them with respect, and make them feel confident, competent, and affirmed as nurses. Students consider the learning climate to be positive when their welfare is considered and fostered within a spirit of teamwork and cooperation. They expect to be part of a group in which there is a climate of trust and openness, with a respect for differing opinions. A mismatch between the expected and actual teacher behaviour is an important cause of student stress, and is brought about by unapproachable lecturers, who are too busy to give guidance and have aggressive, patronising or intimidating attitudes. It is also more difficult for students to get access to lecturers, once the departments of nursing had been dispersed to different sites. Students who felt uncared for and rejected became discouraged and unsure, felt their learning was not facilitated and had reservations regarding the teachers' knowledge of course requirements (Hodges 1988b, Halldorsdottir 1990, Miller *et. al.* 1990, Beck 1991, Chally 1992, Hamill 1995, Jowett *et. al.* 1994, Dabney 1995, Nolan and Nolan 1997 a, b, Coakley 1997, Hanson and Smith 1996, Kinsella *et. al.* 1999).

An on-going issue was the question of discipline, as teachers were unsure of their role in monitoring student attendance and whether they were actually teaching adults or not (Jowett *et. al.* 1994). This has implications for learning, as students who see the teacher as an authority figure get less from the educational system (Jones *et. al.* 1994). Calpin-Davies believes nurse teachers should be freed from administrative tasks and their role as group managers. The students should become self-managing and empowered with

increasing co-responsibility for aspects of the curricula, while the time saved by teachers could then be used to develop specialist subjects, to support students and to build relationships with service staff (Calpin-Davies 2001). The American curriculum revolution literature supports the idea of an empowering nurse teacher who can motivate, energise, excite and liberate others to learn (Hokanson Hawks 1992). This is especially important in nursing, as the empowered patient responds better to treatment but the empowerment of patients cannot be supported by nurses who are not themselves empowered (Chavasse 1992).

Student stress was also related to workload, with feelings of being overloaded, difficulties in maintaining motivation and problems with resources and facilities, especially books (Dabney 1995). The effect of students having to pay their own fees and consequently taking part-time work has also resulted in poorer academic performance (Paton-Saltberg and Lindsay 1993). Assessment is an on-going source of stress for students, with written assessments which test the integration of theory and practice the most testing. Assessment of practice is especially problematic, as the instruments used are ambiguous and open to considerable subjective variation. College staff are rarely involved in the assessment of practice (Dabney 1995, White *et. al.* 1993, ENB 1993b, Jones *et. al.* 1994).

### **Student Nurse Learning**

Non-nurse teachers found that nursing students have distinctive characteristics as a group, notably the desire for relevance, practical links and a strong sense of vocation (Jowett *et. al.* 1994). Nurses also had a higher readiness-to-learn score than other adult learners (Dixon 1991). Some nursing students exhibit a consistent pattern of preconception of the nature and goals of nursing and there is some evidence that a bias towards deep or surface approach to learning is related to the way student nurses perceive not only the nature and goals of nursing courses, but also assessment, teaching and the learning environment (Higgins 1989, Meyer and Dunne 1991, Cowman 1998). Student nurses with a deep approach were more likely to expect congruence with lecturer goals and study methods and a broad knowledge base underlying nursing, while those with a

surface approach tended to expect an emphasis on skills acquisition. A narrow technical bias towards clinical procedures allowed little scope for divergent thinking, which was at odds with the theoretical aspects of the course (Meyer and Dunne 1991, Cantwell 1997).

The impetus in nurse education to identify ways of ensuring that students fully utilise their opportunities for learning has resulted in a number of studies investigating the learning styles of student nurses (Laschinger and Boss 1984, O'Kell 1988, Highfield 1988, Ramprogus 1988, Dux 1989, Wells and Higgs 1990, Davis 1990, Cavanagh and Coffin 1994). Learning styles are considered significant, because awareness of the characteristic student styles and preferred ways of coping can help to meet both the individual student needs and the course objectives. Identification of the type attracted to nursing could also be a way of reducing wastage rates (Ramprogus 1988, Hodges 1988a, Dux 1989). Much of this research has concentrated on the identification of preferred learning styles and Learning Style Inventories, such as those developed by Kolb (Kolb 1976, 1985) and Honey and Mumford (Honey and Mumford 1982), have been widely used by nurse researchers. Cavanagh *et. al.* (1995), however, identified a number of problems when using the Kolb Learning Style Inventory as a research instrument, as it does not allow for consistent differentiation between various elements in the target population, and they concluded that more investigation is needed.

Laschinger & Boss (1984) found that nurses predominantly have a concrete style of learning which supports Kolb's view that concrete learners enter people-orientated professions. Other studies using Kolb's framework, however, found that the majority of student nurses do not exhibit a particular learning style (Merritt 1983, Ramprogus 1988, Cavanagh *et. al.* 1995). The research evidence for improved performance, based on matching student and teacher styles, is inconclusive but the variety of learning styles found means that the teacher should offer a variety of approaches to the delivery of both theoretical and clinical material. This could also have the effect of reducing the tendency to convergence in nurse education (Partridge 1983, Merritt 1983, Hodges 1988a, Ramprogus 1988, Cavanagh and Coffin 1994, Cavanagh *et. al.* 1995). Dux investigated the extent to which nurse teachers took account of individual learning styles of post-registration students when formulating teaching strategies. A preference for a

combination of styles by both students and teachers was shown but Dux believes there is a need for more investigation of why teachers really choose one method over another (Dux 1989). Research into teaching provision for the individual learning styles of P2000 students in Foundation Studies found a specific focus on linking theory and practice through reflection (Jones *et. al.* 1994). Cavanagh and Coffin (1994) believe that the research into learning styles has implications for nurse education, but more research in this area is still needed. Students' past experience may affect their learning, with age an influencing factor, but a wide age range in a class is not a concern if a variety of teaching methods is used. The literature suggests, however, that varying the delivery style is not enough and the individual rather than the group should be considered, which means that whole group, small group and individual sessions should all be part of the curriculum.

### **Peer Support**

In the apprenticeship system of pre-Project 2000 nurse education, students learned from more senior students in the clinical areas. There is some discussion about more formal systems of peer mentoring in clinical areas but no reference to peer mentoring in theoretical learning was found in the literature reviewed. Peer support was valued as a good way of working through problems (Jones *et. al.* 1994) and the students in Jowett *et al* (1994) also found that talking to their peers and sharing experiences brought a release of tension for students, but they considered formal reflection, in discussion groups and in written documents, as time wasting. A pilot study by Yates *et. al.* (1997), which explored the potential for peer mentorship in clinical education, found that the benefits included increased confidence and anxiety reduction. Sharing ideas and strategies equipped students with a greater repertoire of successful strategies for handling difficult or stressful situations and the opportunity for clarification of ideas and rehearsal of skills provided increased opportunities for improved performance. Such an environment provides a feeling of greater control by the students, who feel free to discuss concerns and practice skills with peers. The mentors also reported improved learning as a result of having to explain to others and there were benefits in leadership skills and increased confidence.

## **A New Approach to Nurse Education**

The P2000 emphasis on the development of independent, flexible, self-motivated and self-evaluating practitioners led to changes in the curricular approach and a requirement for teachers to develop new ways of working (UKCC 1986, Davis 1990, Crotty 1993a, Jowett *et. al.* 1994, Callaghan and McLafferty 1997). There was a need for extensive staff development and academic growth, as educators with imagination and creativity were needed for the new educational environment (Darbyshire 1991). The actions of the nurse teachers had often been contradictory and a change in attitude towards learners was needed, with a new curriculum emphasising caring and interpersonal relationships (French and Cross 1992, Holloway and Penson 1987, Perry and Moss 1989, Gott 1990, Crotty 1993a, Callaghan and McLafferty 1997). There was a reaction against traditional didactic teaching, with the teacher possessing and transmitting knowledge to students who have no control of the content or method of learning. This was in line with developments in mainstream education and the US curriculum revolution, with a movement away from the view that learning is acontextual application of content, which restricted thinking to merely applying content (Bevis and Watson 1989, Chinn 1989, Allen 1990b, Diekelmann 1990, 1993, Tanner 1990b,c, Waters 1990, Chally 1992).

Student-centred and self-directed methods, based on the andragogical theories of Knowles (1975), were to change the focus from teacher to student, thus giving more control to P2000 students (Hurst 1985, ENB 1987, Ferguson and Jinks 1994, Mezirow 1981, French and Cross 1992, Nolan and Nolan 1997a, b, Jones 1981, Hurst 1985). P2000, however, was not as radical as the US curriculum revolution, which took student autonomy and power as a central theme and envisaged a collegial learning perspective in which academics and students become allies (Bevis and Watson 1989, Chinn 1989, Allen 1990b, Diekelmann 1990, 1993, Tanner 1990b,c, Waters 1990, Chally 1992). It came to be accepted, however, that the adoption of Knowles' theories by nurse educators would narrow the theory-practice gap and that practitioners would become self-directing, critical and lifelong learners (Hurst 1985, Sweeney 1986). With increasing awareness of the benefits of self-directing students, teachers would move along a continuum from pedagogy to andragogy throughout the duration of the course (French and Cross 1992).

Adherence to student-centred principles and andragogy became the dominant official educational policy in England in pre-registration nursing education (Jinks *et. al.* 1998) and, following the tendency in nurse education to accept ideas from other disciplines uncritically, and without empirical evidence, became the new orthodoxy (Hermann and Bays 1991, Kimmick 1990, Kirchhoff and St Sager 1991, Darbyshire 1993, Burnard and Morrison 1992, Nolan and Nolan 1997a, b). The changes caused some tension, with a suspicion that educational methods reflected the needs of educators rather than students (Cook 1991) and that Project 2000 merely brought about the exchange of one set of controls for another (Holloway and Penson 1987). Supporters of andragogy argue that it is consistent with the type of teacher-student relationship that is desirable for the practitioner and patient and questioning andragogy, is regarded as an attempt to re-establish control. Critics of the new ideas are deemed traditional and unprogressive. Others, against the wholesale adoption of Knowles' theories to underpin the nursing curriculum, regard andragogy as a progressive educational theory with untenable claims and assumptions and without sufficient empirical support (Sweeney 1986, Burnard 1991b, Darbyshire 1993, Milligan 1999, Jarvis 1984, 1987). Jinks *et. al.* (1998) found little evidence of how the new espoused values are actually translated into educational encounters and note that, in the nursing literature, concepts of andragogy are blurred with student-centredness (Orr 1990, Burnard 1991b, Darbyshire 1993). They managed to identify the central themes of student-centredness as self-directedness and experiential and problem solving teaching and learning. Further subsections of this theme related to learning-prone personalities, students' learning styles, learning preferences and contract learning. In these subsections, however, nurses as self directed learners were not widely addressed. Large class and cohort size appeared to be one of the variables affecting andragogy, as was the need to view the student as an individual (Jinks *et. al.* 1998).

Experiential teaching and learning also became important in nurse education (Burnard 1992a,b, Green and Holloway 1997), and the literature contains reports of a wide range of experiential techniques which were expected to provide opportunities for students to relate theory to practice (Van Ments 1983, Jones 1985, Burnard 1988, 1989a, b, Goble 1990) though systematic evaluation of the impact of experiential learning on clinical

practice is scarce (Ferguson and Jinks 1994). Student nurses appear to prefer structured learning, and learning experiences similar to the environment in which they will eventually work, such as practical material based in reality, useful skills, practical learning activities and direct experience such as group-work, discussion, role play and simulations (Hodges 1988b, Cavanagh and Coffin 1994). There was, however, evidence of a need for improved study techniques and educational facilities where students could carry out educational enquiry with staff guidance (Ramprogus 1988).

If the aim of experiential methods is to encourage students to engage with content reflectively and critically and to learn how to learn, rather than to learn about a subject, the teacher has to become a facilitator. Teacher facilitation style has a powerful effect on student motivation (Sutton 1996, Frost 1996, Biley and Smith 1999), and Gilmartin (2001) found a strong contrast in the styles employed by teachers, with some following a teacher-centred educational philosophy, emphasising the imparting of knowledge and expertise, masking power and control, and thus restricting the learning climate, while others had moved towards an experiential philosophy embracing feelings, emotions and the development of student autonomy, using experiential techniques and inter active facilitation. Teachers appeared to have little interest in developing themselves, and Gilmartin believes that these findings show a failure in professional training. Though the professional development of nurse teachers is emphasised, a culture of efficiency has become the norm, and teachers do not feel adequately respected and supported to be able to undertake dynamic professional development.

There are conflicting accounts in the literature concerning student and teacher views of these changes. Some students were positive about self-direction, while others found them threatening and preferred a passive role (Burnard 1987a, Ramprogus 1988, McMillan and Dwyer 1989, Slevin 1992, Pedley and Arbor 1997). Students thought teachers used group-work to avoid giving free study time to the students. They wanted well organised groups and were uneasy about self-directed group-work, as they were unsure of what was expected of them and of the validity of their contributions. Drawing only on student experience and looking at a topic from every angle was seen as low level, repetitious and time wasting. Overlarge groups were demotivating, as they obstructed

participation and made the monitoring of student understanding difficult (Jowett *et. al.* 1994). Jowett *et. al.* (1994) also identified a need for mixed methods, with sharply focused lectures but Kinsella *et. al.* (1999) found that students disliked lectures, finding them repetitive, boring, ill-prepared, simple and irrelevant to clinical practice. The majority in this study expressed a preference for fewer lectures and more tutorials and small group work.

Student reactions to experiential learning methods also appear to be mixed (Lopez 1983, Allcock 1992) and many reported that learning from experience occurs mainly in the practice setting (Burnard 1992a, b). Teachers believed students should take more responsibility for their learning, while the students wanted more management of the learning experience by teachers. Though the students wished to be consulted and involved, they preferred more direction by the teacher with established ground rules at the beginning of the course (Burnard and Morrison 1992, Nolan and Nolan 1997 a, b). There was some polarisation of teachers over the notion of self-direction in learning (D'A Slevin 1992 as cited by Ferguson and Jinks 1994). Some took to the approach with alacrity (Burnard and Morrison 1992), while others believed that andragogy would mean no need for a teacher (Sweeney 1986) and would work against coverage of the syllabus (Harris 1989) and that issues of professional and statutory accountability make total self-direction in a professional course untenable (Iwasiw 1987, D'A Slevin and Lavery 1991). Some teachers felt unprepared and avoided active methods, as they found it uncomfortable to treat students as equals (Maghindu 1990, Slevin 1992). Burnard and Morrison (1992) believe that the curriculum pays lip service to the theory of andragogy with its notions of self direction and learning from experience. A lack of systematic investigation into the effectiveness of these approaches means that it is not clear whether these methods are relevant in the first place and whether they are properly understood and actually carried through into all aspects of the learning environment. A more meaningful co-operative model, characterised by partnership among the student, teacher and clinical supervisor and emphasising initial direction and leadership, is needed to help students develop the skills for self-direction (D'A Slevin 1992 as cited by Ferguson and Jinks 1994, Nolan and Nolan 1997 a, b). The many inconsistencies in the literature are attributed by some writers to the lack of a shared definition of self-directed study (Iwasiw



1987, Nolan and Nolan 1997a, b).

The move to higher education, however, appears to have resulted in an economic rationalist approach to nurse education. The previously advocated small group teaching, in which teachers had developed expertise, has changed to an emphasis on large groups and cost-effective delivery (Kenny and Kendall 2001), with teachers attributing the choice of teaching method to the lack of classrooms (Jowett *et. al.* 1994). Little time was available for adaption to the new ethos and to teaching styles for the larger groups of P2000 (Crotty 1993a, ENB 1995a, Rolfe 1993a). Though often teacher-directed, the pre-P2000 small group teaching had offered opportunities to develop interpersonal relationships between students and teachers and were valued by students. Large impersonal groups limit opportunities to develop the personal tutor role and do not promote the mutual trust necessary for the sharing of experiences through reflection, a prominent feature of the P2000 ethos. Teachers now see reflection on theory and practice as a vital part of their role but it is challenging with large intakes and is best achieved in small groups (Jones *et. al.* 1994, Jowett *et. al.* 1994). The use of personal experiences also makes theory applicable and relevant for maximum learning, but trusting, supportive relationships are necessary for the process of disclosure (Jones *et. al.* 1994, Wagner and Ash 1998).

### **The Changing Role of the Nurse Teacher**

The requirements for the role of the nurse teacher have long been a topic for debate. The Briggs report (DHSS 1972) identified the need to move away from being a 'maid of all work required to teach all subjects in the nursing syllabus' but the nurse teachers continued to teach the entire syllabus, and are still being required to extend their range of skills (Fawcett and McQueen 1994, MacCormick 1995). Reports from working parties concluded that there should be one grade of nurse teacher, with advanced knowledge of current theory and practice and with both classroom and clinical responsibilities (DHSS 1970, RCN 1985b). Expert counselling and effective administration skills were needed and a thorough knowledge of research in nursing, up-to-date knowledge and skills, an ability to stimulate change and a familiarity with contemporary professional practice

(RCN 1964, DHSS 1972, GNC 1976).

By 1995, in addition to a recognisable teaching qualification, nurse teachers were also required to be graduates in a specialist subject to fulfil a new specialist teaching role within P2000 (Crotty and Butterworth 1992, Carlisle *et. al.* 1997). The degree was to be in nursing, education or a subject related to nursing (UKCC 1986, DOH 1989b, CNA 1992/ENB) but there was confusion about which area to study and conflict between the needs of the institution and the personal needs of the teachers, as colleges became more selective about the subjects they would sponsor (Payne *et. al.* 1991, Kirk *et. al.* 1997). The new links with higher education increased academic workload at a higher level, with expectations of involvement in research and publication (Crotty 1993a, b, c, Payne *et. al.* 1991, Luker *et. al.* 1995, Cahill 1997). There were therefore some difficulties in satisfying the demands of the curriculum, as crowded staff timetables provided little time for liaison, and the higher education institutions were often situated on different, sometimes widely separated, sites (Cheung 1992).

Some writers thought that, as a result of the reforms, the major contribution of nurse teachers would be the specialist teaching of nursing theory and practice. The academic specialisation of nursing would lead to the enhancement of nursing as an academic discipline and so avoid the marginalisation of nursing, which could happen if nurse teachers specialised in disciplines other than nursing (Bradshaw 1989, RCN 1993a, b, ENB 1995b, c, Luker *et. al.* 1995). Various studies, however, have found that few nurse teachers have degrees in nursing (ENB 1995b, Luker *et. al.* 1995) and there is some evidence of conflict between the professional and the academic ethos, with a negative view of nursing as an academic subject and nursing degrees seen as irrelevant by some teachers and institutions (Luker *et. al.* 1995). Some nurse teachers feared that specialisation outside the theory and practice of nursing would contradict the holistic philosophy of P2000 and result in loss of their nursing identity. There were the also conflicting pressures for nurse teachers to join the academic race for credibility in specialist disciplines or be left behind (Jowett *et. al.* 1992, 1994).

Other writers expressed the opposite view, however, that the specialist focus of the nurse

teacher should be not only in an area of nursing but also in the contributing disciplines (Buckenham 1992). The traditional academic disciplines were popular as degree choices and continue to be taught by nurse teachers (Hughes 1991). Crotty's study in six colleges found that specialist teaching teams were set up to teach specialist subjects across both foundation and branch programmes (Crotty 1993a, b, c). Jowett *et. al.* (1994) found a strident defence of teaching qualifications by some teachers as a guarantee of expertise, which contrasted with a seeming disregard for subject qualifications as a prerequisite for delivery of a contributing discipline. Though graduate status for teachers became mandatory (DOH 1989b), teachers nevertheless had to deliver a course at a new and higher level at which they themselves had not been prepared, and they were consequently unsure of the required level (Buckenham 1992, White *et. al.* 1993, ENB 1993b, Jowett *et. al.* 1994).

Though nursing borrows freely from other disciplines, nursing knowledge has rarely been critiqued by non-nursing scholars and the move to higher education provided an opportunity to open nursing to the scrutiny of non nurses. The move can be a positive one for nursing but only if nurse teachers are prepared to enter fully into academic life, which traditionally means carrying out research in a specific field, critiquing their work and sharing findings through publication (Sutton 1996, Draper 1996). Research must therefore become an integral part of the workload of all nursing staff entering higher education, as well as being a necessary pre-requisite for up-to-date knowledge-led practice (DOH 1993a, b). Warnock (1989) takes a similar position in that disciplines taught at university should be actively producing knowledge rather than merely consuming it.

Banks, a professor of physiology, wrote to a nursing journal that nurse teachers are not qualified to teach physiology, as they are not active researchers in physiology, do not operate epistemologically within that paradigm and are therefore unaware of disciplinary nuances and debates. Her argument was that, if the P2000 course is set at the level of a second year university degree, academic subjects must be taught by knowledgeable, practising academics, not by nurse teachers whose area of expertise is in nursing (Banks 1995). This view was reinforced by the Peach Report (UKCC 1999) which stated that

1995). This view was reinforced by the Peach Report (UKCC 1999) which stated that nursing students should have access to the full range of expertise. Cash (2000), however, believes that these arguments leave out the question of how much nurses actually need to know of the discipline and argues that nurse teachers must be at the cutting edge of nursing theory, rather than the cutting edge of the contributing disciplines. Nurse teachers should ensure that students are able to use knowledge from all disciplines to achieve nursing outcomes.

Alderton *et. al.* (1995) found, however, that not all nurse teachers accepted responsibility for linking scientific knowledge with professional practice, and few recognised the need for time and teaching resources to help students to learn to use it. The problem was greatest in biological sciences, when discipline specialists taught discipline-based courses or when professionals taught along purely disciplinary lines and there was insufficient provision for mediation in the curriculum plan. Jowett *et. al.* (1994) reported that, though the students regarded non-nurse discipline specialists as professionals with a depth of knowledge and expertise which inspired confidence, they also found them inaccessible and unapproachable, unlike the nurse teachers, who had an interest in their progress. The place of specialist staff with qualifications and significant experience of teaching specialist areas required clarification. The non-nurse discipline specialists desired more input than just session teaching and found it difficult to see their contributions as part of a whole. They were unsure whether the course was a collaborative venture or merely a nursing course buying in what is required.

Camiah (1998) found that nurse teachers need to be credible in a specialist area of theory and practice, with a cohesive and effective team of subject specialists. Undergraduate nursing courses have always used discipline specialists to teach health and social sciences. This arrangement can reduce cohesion in a nursing course and Phillips *et. al.* (1996) found that teaching by different specialists, without joint course planning or liaison, resulted in students with problems in building a cohesive theory, or determining the relevance of theory to practice. Others consider that this disadvantage is outweighed by the advantages of exposure to students and teachers of other disciplines (Bergman *et. al.* 1976, Cheung 1992).

## **Clinical Credibility**

The expectation of clinical expertise is a recurrent theme in reports from official bodies, with nurse teachers expected to be clinically credible in the areas in which they teach (DOH 1989a, b, ENB 1990, UKCC 1983, 1986, 1994, RCN 1985b, DHSS NI 1990). Interpretations of the concept of clinical credibility run along a continuum from the belief that nurse teachers should hold a significant clinical post to the belief that nurse teachers should be responsible for the theoretical underpinning of practice, but without actual clinical responsibility (Fawcett and McQueen 1994, Camiah 1998). UKCC (1986) defines clinical credibility as being able to act as a role model for the students in clinical areas. A role model, however, is not just an expert nurse but one who can mediate between the task of nursing and the task of learning nursing. There are many questions regarding the meanings of clinical credibility and clinical competence (McHaffie 1994, ENB 1995b, Murray and Thomas 1998) but, as nursing is a practice-based profession, it is essential that teachers are enabled to be involved in practice, not only to retain credibility, but also to retain some degree of realistic perspective on the nature of nursing itself, and to be able to appreciate the priorities and constraints in clinical areas and are unaware of student needs (Melia 1987, Slevin 1992, Glosop *et. al.* 1999, Castledine 1994, Forrest *et. al.* 1996). The theory-practice gap will be reinforced if teachers do not understand the theories in use in the clinical areas, and if they cannot link theory to practice at the level at which the student is required to learn, the students will be dissatisfied by the level of teaching and will be unable to relate theory and practice at a competent standard (Webster 1990, Elkan and Robinson 1995, Murray and Thomas 1998).

The espoused theories and theories-in-use of nurse teachers do not appear to coincide, however. The importance of clinical links and a liaison role is apparent in many studies, with teachers seeing their clinical role as helping students to reflect on links between theory and practice (Camiah 1998, Jones *et. al.* 1994). A strong commitment to the clinical role, however, does not seem to mean 'hands-on' care, which is carried out by practitioners (Owen 1993, Cahill 1997). There are reservations about the ambivalent

attitude of nurse teachers to the clinical role, and the low priority given to clinical teaching, with classroom teaching and administration taking precedence (Nolan 1987, Clifford 1993, Jeffree 1991, Jones 1985, Sheehan 1981, Stephenson 1986, Clifford 1992, 1993, Cave 1994, Cahill 1997, Crotty and Butterworth 1992, Marriott 1991, Crawshaw 1978, Alexander 1983, RCN 1985a, b). Adjusting to the higher education culture makes the retention of strong clinical contacts difficult and the pressure for academic respectability appears to take precedence (Webster 1990, Birchenall 1994, Jowett *et. al.* 1994).

It appears that the idea of the nurse teacher as maid of all work, which was deplored by Briggs in 1972 (DHSS 1972), still prevails. Webster (1990) believes that this has resulted in the deskilling of nurse teachers but discussion of role diversification is not evident in the literature. There is no requirement for nurse teachers to have a clinical role and there are no national guidelines, nor a framework for implementation and monitoring (Baillie 1994). There is indication of role strain, however, in that the grade most likely to leave nursing is the nurse teacher, and there is much evidence that teaching staff are overwhelmed by multiple demands on their time and energy (ENB 1995b, White *et. al.* 1993, Castledine 1997b, Camiah 1998).

## **Conclusion**

The theoretical review of the literature in this chapter shows that a greater focus on the quality of student learning has led to much research into teaching and learning situations. This has progressed from a deficit view of learning to a focus on the learning intentions of students, their approaches to learning and the relevance of conceptions of learning. The work of Svensson, Entwistle and Ramsden, Marton and Saljo, Trigwell and Prosser has shown the importance of the distinction between deep and surface learning, the significance of student approaches to learning and conceptions of learning and the relationship between student conceptions of learning and the conceptions of teaching held by teachers.

Nursing research on learning has tended to concentrate on student nurse learning styles

and different methods of teaching to accommodate the divergent learning styles of student nurses. Concepts from the mainstream literature have been widely used to provide a rationale for nursing educational practices, though usually without evaluation of their suitability and usefulness for nursing. There is, however, little evidence of any concerted efforts by nursing researchers to use methods of enquiry from the seminal work carried out in higher education on student approaches to learning and student conceptions. No studies were found exploring the effect of the post-P2000 learning environment on student nurse learning. The student view of the factors which help them to integrate their knowledge and practice also appears to be lacking. It seems, therefore, that there is a gap in the literature, and research is needed to add to the knowledge of what promotes theory-practice integration in pre-registration courses, from the perspective of the nursing student. The student view of the support of learning will therefore be the focus of the study, requiring the selection of a second order research approach. As the study does not seek to establish any right or wrong way of encouraging learning, a non-dualist research approach will also be required. As phenomenography takes a second order, non-dualist approach and has been employed by many researchers into student learning in higher education, it will be an appropriate starting point for this study.

The analysis has shown that the curriculum is composed of many different elements and the development of theory-practice integration is complex and multi-faceted. There are many different elements which influence learning and these include the teachers, their teaching methods, assessment, the peer group and the effect of the institution. In nursing the notion of reflection has become particularly important and there is currently a growing interest in the implementation of PBL curricula or curricula with a PBL component.

Not only are all these separate elements important in learning but the relationship between them is also significant. The work of Svensson shows that contextual analysis is an approach which is appropriate for this study as, though it explores a phenomenon holistically, it also acknowledges the importance of the individual elements which make up the whole and the relationships between them. The research approach for this study

will therefore be influenced by contextual analysis, within the phenomenographic tradition.



## **Chapter 5**

### **The Context of the Study**

Two colleges of nursing have been selected for this study with the intention of ensuring as great a variation as possible in the data collected. The study was carried out in two Colleges of Nursing situated in the Central belt of Scotland at a significant period for nurse education. Though the College 1 course is at degree level, and the College 2 at diploma level, both courses had changed in line with the National Board for Scotland (NBS1989) course requirements, which came into effect in Scottish Colleges of Nursing in 1992. They now conform to the statutory bodies requirements laid down by European legislation and the UKCC Statutory Instrument Number 1455 (UKCC 1989) which states the competencies which must be achieved for admission to the Council's Professional Register. The new format divides the three year P2000 programme into two halves, the Common Foundation Programme and a Branch programme. The Common Foundation Programme, concentrates on health and normal physiology and the Branch, on illness and disease. All pre-registration nursing students take the CFP together, before splitting up into different cohorts according to the branch of nursing to which they aspire to become practitioners. The students in this study are all studying Adult Nursing and were among the first pre-registration nursing students in Scotland to complete the new courses.

### **College 1**

This is a former Scottish Central Institution with degree awarding powers and a long history of delivering a pre-registration nursing degree course. The college has three campuses, but the department of nursing is situated on the same campus as all other departments contributing to the nursing course. The students consequently remain on the one campus throughout the theoretical part of the course and are situated in the same building as all their teachers.

The degree course lasts for four years, and leads to the award of BSc (Hons) in Nursing and to admission to part 12 (Nursing the Physically Ill Adult) of the Professional Register. Seventy weeks of the course are college-based and seventy are work-based. A

Common Foundation Programme equates to levels one and two of the course and the Branch Programme to levels three and four. The transition from Foundation to Branch Studies is not an abrupt change, however, as both location and teachers remain the same. College 1 has one intake of forty five students per year, and the course conforms to the conventional academic year, which is composed of two semesters.

This College follows a modular system and each nursing module is composed of a theoretical component plus the associated practice. Practice placements in this College are known as Work-based Learning (WBL). To avoid over-assessment of the students, assignments are designed to cover more than one module. Exams occur only in the first part of the course, with continuous assessment the norm in the rest of the course. The course moves along a continuum from teacher-directed to student-directed learning. Students are expected to take increasing responsibility for their own learning and to become increasingly autonomous. There is a decrease in the number of teacher contact hours throughout the course with a commensurate increase in student directed learning.

At the time the study was carried out, these students were eligible for student grants, rather than bursaries. This has since changed, however, and all student nurses are now eligible for bursaries. The original situation resulted in a preponderance of school leavers, dependent on parental contributions for support, though there were also places for two mature access students. Each student is allocated a personal academic tutor and a dissertation supervisor. During WBL, students are allocated to a lecturer. The academic staff maintain close links with the clinical staff and provide students with tuition, supervision and assessment of performance in WBL placements.

In accordance with UKCC policy, the nurse teachers are registered nurses and have a registered nurse teaching qualification and a first degree. The majority also have post-graduate qualifications. They have a record of publishing in professional journals and giving presentations at professional conferences. The nursing team is small, is situated geographically close together and works closely together. Nursing subjects are taught by the nurse teachers and contributing subjects by discipline specialists. The discipline specialists, who are also situated in different parts of the same building, all have post-

graduate qualifications, but the majority do not have a teaching qualification. They also have research and publishing experience. In this College, the discipline specialists originally provided a service function for vocational courses, but they now plan and deliver their own degree courses. They teach across a range of healthcare courses and have developed basic generic modules for use in the first two years of all healthcare courses, rather than providing specifically designed units of study. During the course of this study, the non-nurse physiologist was replaced by a nurse physiologist, though not a nurse teacher. All those contributing to the course are members of the course team, and are therefore eligible to join both the planning team and the team meetings. In practice, however, only representatives from social and health sciences attend these meetings, and they then liaise with other members of the discipline team.

Before Project 2000, the College 1 course, as a degree course, was developed by the course team, both nurses and discipline specialists, and was validated jointly by the College and the National Board for Nursing, Health Visiting and Midwifery for Scotland. The post-P2000 course, therefore, was planned by a team which already had considerable experience in curriculum planning and design and in course validation. They had also had the benefit of a course review immediately before the development and validation of the new course.

## **College 2**

The College 2 course leads to a Diploma in Higher Education in Nursing, and offers students the opportunity to study for admission either to part 12 (Nursing the Physically Ill Adult), part 13 (Mental Health Nursing), part 14 (Mental Handicap nursing) or part 15 (Children's Nursing) of the Professional Register. All the students have chosen to study adult nursing, and to become registered adult nurses.

The College of Nursing was formed by a merger of three separate schools of nursing. In common with other non-degree, pre-registration, nursing courses, it was originally funded by the National Health Service and administered as part of the local Health Board, with the students counted as part of the work force. As the P2000 reforms brought all nursing education into higher education, the College of Nursing was taken over as a Faculty of Health Studies by a local institution of higher education, which had no previous experience of delivering healthcare courses. As a result of this move, the nursing course came to be delivered on two different campuses. Foundation Studies, the first part of the course, lasting eighteen months, is delivered on a city campus while the second part, Branch Studies, is delivered on a site fifteen miles outside the city. Students therefore experience an abrupt change when beginning the second part of the course, with a different location, different teachers and with the need for travel between the two sites to use the library and to see personal tutors. Student support is provided by an academic/personal tutor. Student support in placement is enhanced by development of the mentorship system, by college teachers and by other registered practitioners.

The P2000 course lasts for three years and, as a diploma level course, is taught at a higher level, with students rather than employees. A change of ethos was necessary, therefore, for a course which was to be education led, with a wider curriculum and a new emphasis on health, research and reflection. The course is composed of twelve terms, which do not conform to the traditional academic year. There is one intake of students per annum, whereas previously there were four separate intakes. The larger number of students, requiring clinical placements simultaneously, makes it necessary to disperse students more widely, to avoid overloading the clinical areas. The difficulty of placing students appropriately has been compounded by recent trends in healthcare, such as a

decrease in hospital beds, the growth in day surgery and the movement towards care in the community. These trends have necessitated the use of a wider range of placements. Practice placements are not always preceded by the appropriate theoretical content, as was the case in the pre-Project 2000 modular course. Examinations are held only in the first year of the course. Thereafter, a variety of written assignments is used, with a longer piece of written work in the final year. College 2 has also tried to avoid over-assessment by combining assignments.

College 2 has moved from six intakes of students per annum to two intakes of approximately a hundred students each time. The range of students is wider in College 2 than in College 1. All pre-registration nursing students learn together in the Common Foundation Programme and then disperse to the Branch programmes, which prepare the students for different nursing specialities. The students in this study are being prepared for the Adult Nursing part of the nursing register. In the Branch Studies, however, the students have been joined by other students who also wish to become registered for Adult Nursing. Some of these students are graduates, taking a shortened course leading to registration, while others are already nurses, but registered on another part of the register. The College 2 student body is therefore composed of school leavers, graduates and nurses taking a further registration: and the student cohort is not static, but changes after the first eighteen months of the Common Foundation Programme. There are also more mature learners in this course than in College 1, as a result of the funding arrangements for nurse education. Project 2000 students are eligible for a bursary, which is financially more attractive than a grant to those students who have family or other responsibilities. As is consistent with the profile of the profession as a whole, the students are overwhelmingly female.

The College 2 course is delivered entirely by nurse teachers, with occasional visiting lecturers. As the wider curriculum brought new subjects into the curriculum and as the students are supernumerary and more often in college, the teachers had to adapt to teaching different subjects at a different level and in a different way. They are allocated, according to their expertise and qualifications, to the different strands of the curriculum, which correspond to the seven P2000 themes. All the teachers have teaching

qualifications and many of them had recently obtained a degree, in fulfilment of the new requirement for nurse teachers to hold a degree. The majority of the remaining teachers were studying for a degree, some of them at post-graduate level. Most of the teachers had opted for a degree in education or a subject which was one of the P2000 themes. Very few had chosen a degree in nursing. The teachers were prepared for the changes by study days on student-centred approaches, andragogy awareness sessions and a learning pack produced by The English National Board on managing change.

Before Project 2000, pre-registration nursing course guidelines were determined centrally by the National Boards of the UKCC and implemented by the colleges of nursing. This was the first experience of curriculum planning and design and the preparation of course documents for the College 2 nursing staff. There was a change from complete control over all aspects of delivering a centrally-determined curriculum to the planning and implementation of a curriculum which was validated externally by an institution and by the National Board. The institution of higher education with which College 2 eventually amalgamated was not the original validating body.

## **The Course Documents**

### **Introduction**

As with most modern organisations, educational institutions depend on paperwork such as course documents. These can be examined for an understanding of the characteristic culture of the institution and its effect on students, staff and courses. Course documents are what Atkinson & Coffey (1997) term products of self-description for external consumption and are a guide to how educational departments present themselves. They are data in their own right and should not merely be used to support or validate other data but they are not necessarily accurate, as they construct their own reality and therefore cannot be used as direct evidence of the social world. Form and function should be looked at along with the language, rhetoric, authorship, readership and links to other texts (Atkinson & Coffey 1997).

In this study, the course documents have not been examined for the accuracy of their

portrayal of the course and its workings but rather as a base from which to study the relationship between the integration of theory and practice as portrayed by the documents and the understandings of those involved in the planning of the courses. The contents of the course documents from the two Colleges from which data have been collected will be used to inform the development of the questionnaire. On one level, course documents can be understood by anyone who is literate. It is probable, however, that only a restricted readership with specific competencies will be fully able to decode them. To understand organisational documents, an understanding of the organisation and working assumptions may be a prerequisite to a competent reading. The prescribed style and content of these documents constitutes a kind of restricted code which can probably only be grasped by someone who is familiar with academic departments, in this case nursing departments (Bernstein 1981, Atkinson 1985 as cited by Atkinson & Coffey 1997). As the researcher in this study is a lecturer in nursing of some years standing who has played a major part in curriculum development, course planning and the production of course documents, she is therefore a knowledgeable reader who can decipher any complexities which the documents may present (Miles & Huberman 1994).

### **Analysis of College 1 and College 2 Course Documents**

The documents of the two courses selected for this study were compared using the same headings. The management of the integration of theory and practice within the two courses was used to guide this comparison. Direct quotations from the documents are given in italics.

#### **College 1**

##### **Curriculum Model**

The documents do not state that a particular curriculum model has been used. It is stated, however, that the theoretical components introduced at levels 1 and 2 will be further developed at a higher level.

## **Course Philosophy**

The course philosophy focuses on the qualities desirable in a graduate nurse, which “*can only be fostered in a climate of mutual trust and respect, collaboration and support, in accordance with adult learning principles*”. The educational philosophy includes, “*the integration of relevant theoretical knowledge with knowledge of processes and principles developed from an analysis of practice; acquisition of expertise from subject specific knowledge and from its application or interpretation in practice contexts; knowledge for emancipation, conferring the ability to reflect in action and critically reflect on experience*”.

## **Course Aims and Learning Outcomes**

The overall course aim is “*to facilitate the intellectual, professional and personal development of the theory and practice of nursing*”.

The general aims include, “*to synthesise the theoretical framework provided by biological and social science with that of nursing studies; promote a questioning and critical approach to the art and science of nursing; development of the skills of critical evaluation*”.

The general learning outcomes for the course, which are reflected in the learning outcomes for the modules, emphasise the integration of theory and practice with the disciplines. The outcomes for the Honours graduate in nursing include the ability to “*critically evaluate research application of analytical skills, use self direction, support good nursing practice by the synthesis and application of enhanced knowledge to nursing care*”. The Honours graduate should also have “*the confidence and ability to challenge and respond to challenge and to debate accepted ideas and practice*”.

In Foundation Studies, “*the interdependence of theory and practice must be demonstrated*” and “*a questioning approach taken to the relationship between the supporting disciplines which inform nursing practice and theory*”. The skills of self-direction and reflection begin to develop in Foundation Studies, while in the Branch



Studies, the students must be able to *“reflect on learning and critically evaluate their own practice, integrate knowledge of the supporting disciplines and apply this to nursing practice and theory in the delivery of care”*.

### **Development of Integration**

The course team believes that the theoretical basis of nursing can only be learned in intimate association with the practice situation:- *“as the theoretical bases of nursing and nursing practice are inextricably linked, it is vital that an artificial divide is not created by the use of separate modules for theory and practice”*. Modules in College 1, therefore, consist of a practice placement and the associated theory. The team wish to ensure that students do not spend long periods in the clinical area without planned theoretical input, thereby *“reducing nursing skills to a level of technical mastery, as opposed to a wider understanding of the relationship between skills, nursing knowledge and the total framework of healthcare delivery”*. Placements in this College are known as Work-based Learning (WBL).

Foundation Studies explore the nature of nursing science by examining sources of knowledge from all the disciplines. In level 1, applied and social sciences run concurrently with the nursing modules, links being made where appropriate. The focus is health and development.

In level 2, the focus moves from health to illness. Applied and social sciences are gradually integrated with knowledge from the nursing modules. The students examine critically the use of knowledge in practice and are required to integrate knowledge into practice.

In the Branch, in level 3, studies in applied and social sciences articulate with nursing modules in the exploration of issues surrounding the adult response to compromised health. In level 4, there is a totally integrated approach which promotes in-depth critical evaluation and self-directed, autonomous learning. This is accomplished *“by the facilitation of the choice of study within the limited flexibility of a vocational degree*

*where statutory requirements must be met*". In an elective WBL module, the students can study an area of their own choice, an integrated module offers group of students the chance to negotiate a range of topics on offer and maximum student choice is available in the dissertation.

### **Integration with Contributing Disciplines**

The structure of the course reflects the belief of the course team that *"contributing disciplines should be able to develop their own internal logic as well as contributing knowledge and understanding which can be integrated into the main discipline"*. This is stated to have the beneficial effect of avoiding the dilution of subjects and encouraging students to work from first principles. This aspect of the course was commended by external examiners. The disciplines are not integrated in Foundation Studies but are related through the content of parallel modules which address related issues and are therefore linked but separate. As the course progresses, the relationship between the disciplines becomes more refined and certain aspects become integrated. Integration is enhanced by teaching and learning strategies such as collaborative teamwork and joint teaching sessions.

### **Approaches to Teaching, Learning and Assessment**

Teaching and learning strategies are *"consistent with the beliefs about the graduate nurse"* and are chosen *"to foster and facilitate various kinds of learning in individual students"*. A major strategy is *"the reflective process which assists students to draw out learning potential from their own practice and experiences"*. The course team consider that, *"for deep meaningful learning to occur, a process of consciously integrating new knowledge with previous experiential and theoretical knowledge to occur. The inter-relationship of these must underpin the growth of nursing knowledge"*. Theory is not considered as an abstract concept separate from practice. It supports practice but is firmly bedded in experience.

The students will be required to maintain a portfolio to enhance the integration of

knowledge from all aspects of the course, to ensure that work-based activities bring theory and practice together and to promote the use of reflection-in-action. The aim of the portfolio is *“to avoid the compartmentalisation of the curriculum which has been a feature of the nursing curriculum...this has led to some questioning of the relevance of theory, especially when there may appear to be little congruence between theoretical knowledge and clinical practice”*.

The course aims to encourage a deep approach to learning and student autonomy by valuing continuous assessment rather than exams. Various forms of summative assessment are used but case study analysis is used throughout the course to facilitate the integration of theoretical and work based learning and to promote deep learning. All the assessments require the students to integrate knowledge from different disciplines with nursing. To promote integration of knowledge and to avoid student overload, assignments are used to assess more than one module. Assessment in the final year consists of a management assignment, an integrated module which requires the student to integrate all strands of the course, and a five thousand word dissertation in the form of a research proposal.

## **College 2**

### **Curriculum Model**

It is stated in the document that a curriculum model was specially developed and based on the work of Tyler, Rogers, Rath, Stenhouse, Wheeler, and Chadwick and Legge. The model was then used to plan the new programme.

### **Course Philosophy**

The introduction in the main course document states *“the programmes follow a modular programme and there is integration of theory and practice”*. The philosophy *“centres on the student, as an adult learner and an individual...the competencies for initial registration will be educationally-led but practice-based”*. The phrase, *“education-led but practice-driven”* is used throughout the documents.

## **Course Aims and Learning Outcomes**

Foundation Studies are a preparation for all future studies. A fundamental principle of P2000 is that the students first learn about health and then meet a variety of care groups in a variety of care settings. In the Branch, the emphasis is on caring for the physically ill adult. The programme *“will overcome many of the problems inherent in pre-P2000 programmes and will facilitate an environment where students are stimulated to become self-directed, critical thinking, analytical and reflective practitioners accountable for their own practice...the educational qualification will be academically rigorous, have academic credibility and vocational utility”*. The learning outcomes for Foundation and Branch do not specifically mention integration.

## **Development of Integration**

All areas of study, college or practice based, follow a conceptual progression within the syllabus, course work, teaching methods and practice placements. The concepts which develop throughout the programme are:- theory, practice and assessment, together with the levels of development of the students *“each concept had been developed individually but it is necessary for there to be integration between the concepts to ensure similar development as the programme proceeds”*.

*“In determining the arrangement of the theory and practice elements, consideration was given to the need for strong links between theory and practice, to ensure that learning was based on practice but also to promote application of the theory and research base to practice but also to promote application of the theory and research base to practice in the real world. It was also important to avoid undue fragmentation of either aspect of the programme”*.

Integration with practice is facilitated by interspersing periods spent in college with experience in placements. The placements are planned to enable the students to progress through the levels of competence as identified by Dreyfus (Benner 1984) and are

allocated to take account of the student's stage and the learning experiences available in the approved areas. The Branch practice placements will be related to the branch to enable integration between theory and practice. The students will be "*streamed to ensure that appropriate learning opportunities are available and learning outcomes are achieved by all*".

Study days during placement will also enhance the integration of the underlying theory with practice. These study days have been planned "*at strategic points in the practice placements to give support to the students in addition to providing specific opportunities in groups, and to integrate theory and practice. Other periods of integration between theory and practice take place in college following periods of practice placement. Consolidation of practice placement will also take place during study days and other college periods. Consolidation is thus part of integration and is therefore a continuous process*".

There are also opportunities during college periods to make relevant visits to promote links with practice areas. These include areas such as clinics and health centres.

### **Integration with Contributing Disciplines**

The programme follows the thematic approach laid down by P2000. Subject planning was carried out by those teachers considered the best qualified, that is "*either by being a specialist in a nursing discipline or a subject specialist*". Theme leaders ensured that all the required content was covered. "*The content of the Common Foundation Programme has been developed in the Branch programme as the particular discipline required it to be. The content flows from foundation to each Branch. The content section of each theme shows appropriate links with other themes in the same programme, or to the Common Foundation Programme*".

Both nursing subjects and the contributing disciplines are taught by nurse teachers. The course documents state that "*The wide-ranging expertise represented on the College staff will enable most of the programme to be taught. Specialist material will be developed*

*with non-nurse colleagues in Higher Education when appropriate subject specialists from Higher Education, or other institutions, will contribute to enrich the student's learning experience".*

To prepare for the changes, *"workshops were arranged for appropriate staff with external consultants to further subject expertise especially in Life Sciences and Social Sciences subject area and to foster links with colleagues in non-nursing disciplines in Higher Education"*.

### **Approaches to Teaching, Learning and Assessment**

*"Appropriate teaching methods are planned, with the level appropriate to achievement of a Diploma of Higher Education".* The work of Bloom (1956) has been used to determine appropriate levels.

Reflective diaries are used to *"enable development of reflection, analysis and critical thought"*. Sessions on lifelong learning are included in the first weeks to encourage students to become independent learners with the teacher acting as a facilitator. The *"knowledgeable doer"*, one of the P2000 aims, will be promoted *"by increased time in college, and the consequent changes in teaching and learning and an appropriate wider range of assessment techniques"*.

There are exams in the first and second years. The course documents state that the assignments assess all knowledge bases rather than the specific themes which make up the curriculum. In year one, the assessment strategy requires the students to *"consider the care needs of a patient considering physiological, psychological and socio-economic factor"*. A second year assignment requires the students to choose a life science topic and discuss possible approaches to nursing care, while, in a third year problem-solving assignment, the students apply the concepts of altered physiology/life science. Benner's work (Benner 1984), adapted for pre-registration students, has been used to assess practice competence.

Though the students usually come to the programme having chosen which Branch they wish to enter at the end of the Common Foundation Programme, they can change, making an informed choice which should lead to greater student satisfaction and thus reduce wastage. Students can also choose a theory elective to be integrated with a practice elective.

**Table 3: The Main Differences Between Colleges 1 and 2.**

<b>College 1</b>	<b>College 2</b>
Long experience in higher education	New to higher education
Mature degree course (4 years)	New diploma course (3 years)
Team experienced in curriculum development	First experience of curriculum development
Same teachers throughout the course	Difference teachers in Foundation and Branch studies
Course taught on one site	Course dispersed over more than one site
Course taught by both nurse teachers and discipline specialists	Course taught almost entirely by nurse teachers
Teachers are all graduates, many with post-graduate degrees	Teachers are recent graduates, many still working towards first or second degrees
No choice of course outcome - Adult Nursing only	Choice of outcome
One student intake per annum - small number of students	Two student intakes per annum - larger number of students
Majority of students are school leavers	Significant number of mature students - access students, graduates and pre-trained students
Modules comprise both theoretical and work-based learning	Theoretical and clinical material is separate
<b>Course Documents</b>	
Emphasis on maintaining the internal logic of contributing disciplines	No discussion re the internal logic of the discipline
Much detail of how integration is to be achieved throughout the programme	Little detail on how integration is to be achieved
Emphasis on development of critical thinking	Critical thinking mentioned but no indication how it will be promoted



**Table 4: The Main Similarities between Colleges 1 and 2.**

<b>Colleges 1 and 2</b>
Project 2000 course
All nurse registered teachers
Variety of teaching of teaching methods
Variety of assignments
Care to avoid over assessment
Examinations only in the first part of the course
Reflection an integral part of the course
Links with practice emphasised in both sets of documents

### **Conclusion**

It can be seen therefore that, though both courses chosen for this study prepare students for first level nurse registration, they have many significant differences which could affect the delivery of the curriculum. An analysis of the course documents reveals a different approach to integration. In College 1, all sections of the course documents address the issue of theory and practice, while the College 2 documents say that theory and practice will be integrated, the details on how this will be achieved are sparse. The choice of these two departments of nursing will therefore provide maximum variation in the data collected for this study. Course documents, however, reveal the espoused theory of the curriculum developers. The documents will contribute to decisions regarding the research questions which will then guide the interviews with the students and teachers. Thus an opportunity to compare the teacher's espoused theory with their theories-in-use will be provided.

## **Chapter 6**

### **Methodology**

#### **Research Context and Overview of Approach**

The review of the literature has shown that, though much has been written about the integration of theory and practice, little of it shows the students' viewpoint. The focus of this research is therefore the students' understanding of the integration of theory and practice within two contrasting departments of nursing. The participants in the study are pre-registration nursing students from a degree course and a P2000 diploma course, and their teachers. The Approaches to Learning questionnaire was used to select a sample of students which would ensure as much variation in the data as possible. All the teachers who taught a reasonable part of the course and consented to take part in the study were interviewed (see table 5). The teachers who participated were nurse teachers from both Colleges and discipline specialists in College 1. Data was collected by means of semi-structured interviews, with an interview schedule formulated according to the research questions. Care was taken to ensure that the study was carried out ethically and rigorously. The general research approach is qualitative, while the specific research approach is contextual analysis, a methodology within the phenomenographic tradition.

#### **The Focus of the Study**

The study aims to explore the individual perspective of the participants and the knowledge and meanings derived from it, rather than to identify and explain facts (Burrell and Morgan 1979, Morse 1994, Morse and Field 1996, Parahoo 1997). The focus of the study is not the integration of theory and practice, but how this is experienced by pre-registration nursing students and their teachers. Marton (1981) calls this a second order approach.

## **Students**

The nursing students from both of these institutions were studying adult nursing. The students from College 1 were taking a four year BSc (Hons) in Nursing which had been re-designed to comply with the Project 2000 format. The College 2 students were taking a three year Diploma in Higher Education (Project 2000) course. Both these courses lead to nurse registration as well as to an academic award. This did mean that one group was at the end of a three year course and the other at the end of a four year course. Student nurses in their final year after final assessments were selected. This particular time in their preparation was selected for several reasons. The stress of theoretical and practical assignments was behind them and they were expected to be relaxed and to be able to take a retrospective view of the entire course as well as to discuss their experiences from a mature viewpoint.

Students undertaking the Project 2000 course receive bursaries and payment for one thousand hours of rostered service. At the time of this study, undergraduates were subject to the same grant conditions as other undergraduates. This resulted in a large proportion of school leavers in College 1 who had financial backing from their parents. The Project 2000 diploma course with the greater financial incentives attracted many more mature students who were changing careers, taking a shortened course after obtaining a university degree. Nurses who have obtained a qualification in another branch of nursing (such as psychiatric nursing) gain direct entry to the adult branch. Thus the percentage of mature students, people wishing a career change and students who already have a degree or a nursing qualification is greater in College 2 than in College 1.

## **Teachers**

Members of the teaching staff from both colleges were asked to take part in interviews. The course leaders were asked to identify the teachers who made a significant contribution to the course. Significant in this instance was interpreted as teaching an entire module or section of the course rather than an occasional session. They were all asked to participate and, as the number of possible teachers in each College was small,

all the teachers who agreed to participate were interviewed. In the case of the group from College 2, teachers from the adult branch (i.e. the second half of the course), who are all nurse teachers, were interviewed. In College 1, the teachers were nurse teachers and discipline specialist non-nurse teachers in health and social sciences. In addition, in College 1, one lecturer in life sciences was also a nurse, though not a qualified nurse teacher. Within both Colleges she was the only discipline specialist/nurse to be employed. The teachers in College 1, therefore, were both nurse teachers and discipline specialists, while the College 2 teachers were all nurse teachers.

### **The Sample**

Social processes have a logic and coherence, which can be made indecipherable in a random sample. With the small numbers typical of a qualitative study, a biased sample can be the result (Miles and Huberman 1994). Accordingly, a purposive sample, from those students who had previously filled in the inventory and at the same time had filled in a consent form saying that they would consent to be interviewed, was selected, using the Revised Approaches to Studying Inventory (Appendix 1). This was first developed by Entwistle and Ramsden (1983) and revised by Tait and Entwistle (1996) to measure students' approaches to studying. It uses 44 items and 15 scales and measures six dimensions labelled Deep Approach, Surface Approach, Strategic Approach, Lack of Direction, Academic Self-confidence and Metacognitive Awareness of Studying. As the focus of the study is the variation in the different ways the participants experience theory-practice integration, a range of individual experiences must be included and the sample must be selected to maximise the possible variation (Trigwell 2000). The results of the inventory were plotted out and participants were selected from the middle and the extremes, to achieve as much variation in the sample as possible. This is in line with the notion of a purposive sample, where participants are picked on the basis of their typicality according to the needs of the study, not according to external criteria such as random selection (Cohen and Manion 1989, Morse 1994). Extremes or deviants are selected to provide characteristics of interest and an information rich sample (Patton (1990) as cited by Morse 1994). In qualitative studies where sampling is concerned with richness of data, small numbers can be used to examine a situation in-depth from a

variety of perspectives (Miles and Huberman 1994, Baker *et al.* 1992, Corben 1999, Coyne 1997). Morse (1994) considers that six participants appropriate for an in-depth, qualitative study. However, as this study was concerned with variation in experience and meaning rather than richness of experience, a larger number was needed to ensure maximum variation. The aim, therefore, was a total of eighteen students from each College but two students from College 2 subsequently withdrew from the study.

The desirable participant in a research study has the required knowledge and experience and the ability to reflect, is articulate, has the time to be interviewed and is willing to participate (Morse 1994). As the study is concerned with pre-registration education, the obvious place in which to identify potential participants is a department of nursing.

**Table 5 - The Participants in the Study**

The total population is expressed in brackets.

	<b>College 1</b>	<b>College 2</b>
<b>Students</b>	18 (23) 20 volunteers	18 (40) 22 volunteers (2 students withdrew from the study)
<b>Nurse Teachers</b>	6 volunteers (8)	9 volunteers (16)
<b>Discipline Specialists (Non-nurse Teachers)</b>	6 volunteers (8)	not applicable
<b>Discipline Specialist/Nurse</b>	1 (1)	not applicable

### **The Research Questions**

Qualitative research designs begin with a question (Janesick 1994, Miles and Huberman 1994). Denzin and Lincoln (1994) say that, “*research questions are a set of defined questions which represent the facets of an empirical domain the researcher wants to explore, setting priorities and foci of attention*” (page 440). They commonly arise from a problem in practice or from a significant event or else they become apparent when, on reviewing the literature, a gap becomes evident. Questions about the meaning or interpretation of some component of the curriculum are particularly suited to qualitative

enquiry (Morse 1994). The problems of integrating theory and practice have been extensively debated and investigated in the nursing literature and various solutions have been proposed. These have, however, usually taken the form of an innovation in teaching or the introduction of a new role, such as mentor or link teachers. Evaluations of Project 2000 have indicated that the educational reforms have not solved the problem. In the literature reviewed, very little research appears to have investigated the conceptions of students and teachers regarding integration.

As the wording and nature of the research question determines the focus of the study (Field and Morse 1991), it was necessary to develop questions which were appropriate for a study which takes a second-order approach. The aim is to capture the perspective of the participants, not that of the researcher. The research questions were considered researchable and kept to a reasonable number, to allow the emergent links to be visible across the data. They were also kept to the forefront to focus the data collection (Miles and Huberman 1994). Audio-taped 'conversations' were chosen as an appropriate method of data collection which has been widely employed in educational research (Morse 1994).

To be consistent with a phenomenographic methodology, the following questions were formulated for the study:

1. How do the participants understand the integration of theory and practice within the overall context of the curriculum?
2. How do the participants experience the integration of supporting disciplines with nursing?
3. How do the participants perceive constraints in the integration of theory and practice?
4. Do the participants understand the dissonance between college theory and the reality of practice and how it is dealt with?

### **The Interview Schedules (Appendix 4)**

The aims of the study and the conclusions drawn from the literature review were used to formulate the questions in the interview schedule. Care was taken to formulate questions which were clearly expressed and unambiguous, and which would succeed in initiating discussions so as to produce responses likely to clarify the phenomenon being studied. Though the interview schedule was set out in a logical sequence, it was not strictly adhered to during the interviews. The interviewees were free to return to previous questions to elaborate on previous responses. To explore the experience of the participants in-depth, the researcher followed their line of reflection, rather than that of the schedule. The framing of the initial questions was intended to put the participants at ease (Sorrell and Redmond 1995), so the interview opened with questions about recent study in college and what had been enjoyable/not enjoyable about the course. Open-ended questions were used to help the participants to reflect on their own circumstances and to give them freedom to express themselves (Parahoo 1997, Sorrell and Redmond 1995). Ordinary, rather than academic, language was used to promote a relaxed and non-threatening atmosphere. The questions, designed to elicit information to answer the research questions, were grouped around the three themes of relevance, integration and reflection. Probing questions were used as aids to help the interviewer to expand the question and as prompts for items that had been overlooked (Miles and Huberman 1994).

The questions put to the nurse teachers mirrored those put to the students (Appendix 4), and concentrated on the issues of a) relevance for practice, b) integration of the curriculum and c) the place of reflection in support of integration. In addition, teachers were asked whether there were any constraints which prevented them from teaching as they wished. The discipline specialists (non-nurse teachers) in College 1 were asked not about practice, but about their prior knowledge and experience of nursing (Appendix 4).

The interview schedules were first piloted with five students and three teachers who were subsequently not part of the main study. Changes made as a result of this were mainly concerned with the place of the institution in the integration of theory and practice. The original question asked how the institution supported the integration of theory and practice but the answers were invariably the same as the answers given in response to a

question on the constraints to integration. The question concerning the institution and the integration of theory and practice was subsequently omitted. All other questions were retained for the main study.

### **Justification of Question Areas**

The research questions emerged from the theoretical analysis of the literature. The main questions areas are concerned with relevance, integration, reflection and institutional and professional constraints. The pre-registration nursing curriculum is composed of a greater number of disciplines but there is little evidence of how integration of these disciplines with nursing has been addressed. Integration of theory and practice continues to be a constant issue in nursing education and reflection has been accepted uncritically by many in the profession as the solution to the issue of the practice-theory gap. The reforms of nurse education involved a move to higher education, whose institutions are regarded as being unsympathetic to the requirements of a practice discipline.

### **Relevance**

Nursing students are motivated by an interest in illness and a desire to care for the sick. Many reasons are given in the literature for the gap between theory and practice, but one of the main findings in the evaluation of Project 2000 was the need for the students to perceive what was being taught in college as relevant to nursing practice. The wider curriculum included what were perceived as purely academic subjects, not always presented in logical order. A lack of background and contextual information also made them difficult to relate to. The relevance of what was being taught had a profound affect on the motivation and commitment of the students (Jowett *et.al.* 1992, 1994, Castle *et al.* 1998). The questions in this section, therefore, explored further how the students experienced relevance in the curriculum and the impact this has on the meaning they ascribe to the relationship between theory and practice.



## **Integration**

There are two broad conceptual frameworks related to the curriculum, one integrated and one compartmentalised (Greaves 1987). There is a dilemma, however, in the curriculum of a practice discipline which draws on several contributing disciplines. One point of view is that courses which are "*loose aggregates of discipline-specific components do not prepare students to practice in problem-orientated environments*" (Cavanagh 1993 page 112). Nursing education is following medical education in the move towards problem-based learning. However, there are signs in the literature that the promises made for the benefits to medical education by this change have not been fully realised. The aim here is to explore the student view of the degree of integration needed within the curriculum. The college 1 course is taught partly by nurse teachers and partly by discipline specialists, while in college 2 the entire curriculum is taught by nurse teachers. The effect of these different categories of teacher on the student experience of integration will also be explored in this section. After the implementation of Project 2000, students still felt that a gap existed between good practice as promoted by the college and practice in the clinical areas (Jowett *et al.* 1992, 1994). In the literature, the practice-theory dilemma is portrayed as a source of stress and disillusionment for student nurses, who have to attempt to reconcile the idealism of the college with the realities of practice (Parkes 1985, Smith 1989, Lindop 1991, 1993). One question for the nurse teachers is whether this disillusionment is still apparent in students when they move between the worlds of theory and practice.

## **Reflection**

The process of reflection is promoted by critical theorists as a means of bridging the theory-practice gap and supporting the application and integration of new knowledge into practice (O'Loughlin 1992, Carr 1986, Fealy 1997). Critical theory assumes that people are changed by reflection and thus become emancipated. Reflection and the development of the reflective practitioner have become a central tenet of the reforms in nursing education (UKCC 1986). There is a belief, however, that reflection has been accepted uncritically by nurses, and that it has failed to unify thought and action in practice (Lauder 1994). It could be a likely source of tension and anxiety for those nurses

who attempt to use it to integrate theory and practice (Manias and Street 2000). Students were asked about the promotion of reflection in the course and about the place of reflection in support of theory/practice integration. The teachers were asked about their understanding of reflection and place in the integration of theory and practice.

### **Institutional Barriers and Constraints**

The argument put forward here is that, if it is desirable that student nurses be empowered so that they can in turn support the empowerment of patients, then the teachers must likewise be empowered. A criticism of the critical theory stance on empowerment is that those who are in a position of power can come to act as oppressors, unable to understand the viewpoint of the less privileged group (Ellsworth 1989, Gore 1990, Fay 1987). Hidden agendas in healthcare institutions can work against the implementation of theory and it can be difficult to debate the critical need for freedom and independent thinking in a tightly controlled workforce (Manias and Street 2000, James 2000). The questions asked of teachers in this section attempt to uncover the degree of freedom given to teachers by the institutions in which they work. Nurse teachers work in both educational and healthcare institutions and they are bound by the requirements of the UKCC for the delivery of nursing courses leading to nurse registration. The problems and constraints of these arrangements for both teachers and students will be explored.

### **Data Collection**

Methods of data collection in qualitative research must allow the researcher to become immersed in the world of the participants, giving them a chance to explain their own world (Rose 1994, Holloway and Wheeler 1995, Crotty 1996). For this study, a method of collecting data which would give the students the opportunity to reflect on their experience of the phenomenon of integration was required. To explore individual experience, open-ended, individual, in-depth interviews are an appropriate way of generating empirical data about the social world (Holstein and Gubrium 1997). The individual interview is the most widely used data collection method in phenomenography and represents a constant flow of changing opinions along with the occurrence of new

facts and new considerations (Svensson and Theman 1983).

Marton (1994) says that the aim of the phenomenographic interview is: “*to make things that are unthematized and implicit into objects of reflection, and hence thematized and explicit*” (page 427). As some structure is needed to explore a particular conception of a phenomenon, a semi-structured interview was chosen, with an interview schedule formulated according to the research questions. This gave freedom to alter the sequence of questions and to probe certain points, allowing focus on issues of particular interest to the study, while also giving the participants freedom to expound on what they think important (Fielding 1994a,b, Rose 1994, Sorrell and Redmond 1995, Parahoo 1997). Though an interview schedule ( Appendix 4) was used, the content of the interviews was not always the same but this was in line with the aim of the process to uncover all the possible ways that the interviewees experienced the phenomenon of theory-practice integration. Variation rather than consistency, is the aim of a phenomenographic study. Some writers, in the belief that semi-structured interviewing can lead the participant and merely reinforce the researcher’s views and assumptions, choose the unstructured interview in an attempt to reduce researcher bias (Rose 1994, Crotty 1996). A completely unstructured interview, which consists of a list of topics without guidance, is, however, difficult to conduct and can result in a mass of irrelevant data which makes the aims of the study difficult to achieve (Sorrell and Redmond 1995, Parahoo 1997). In the structured interview, all questions are asked according to a pre-determined interview schedule and are the same in every interview (Parahoo 1997). The interview can be replicated and the data can then be examined for consistency (Morse and Field 1996).

Svensson and Theman (1983) note that the most interesting and fundamental characteristics of conceptions are often expressed indirectly or are implicit assumptions. To explore these and to facilitate reflection, the interviews in this study were carried on as a conversation between each interviewee and researcher. Different parts of the interview dealt with different specific questions, which were then expanded. Initial general questions led on to other more probing questions, which addressed the participants’ experience of integrating theory and practice and encouraged them to reflect deeply on their experience of the phenomenon (Svensson and Theman 1983, Svederberg

2002). The assumption in this study is that an interview is a construct of both the interviewee and the researcher. The researcher, therefore, had to make a conscious effort to set aside pre-suppositions, to be ready to follow the interviewees' line of reflection and to vary the interview schedule according to their responses. Experience that has already been reflected on can be readily discussed and described by the interviewees but it is not the task of the researcher to conserve established conceptions. Interviewees, therefore, were also asked to reflect further on their experience, with constant probing for more aspects of the conception and for further clarification of meaning. When asked to recapitulate, interviewees were often able to add new details or to go into more depth (Svensson and Theman 1983, Barribal and While 1994, Sorrell and Redmond 1995). It is claimed that, by means of these techniques, both conscious and previously unconscious perspectives can be explored (Marton 1994, Svederberg 2002, Limberg 1998).

In an interview of some length, it is likely that there is progress in the handling of the issues by the interviewee. As a result of better articulation of conceptions or a different combination of conceptions, the individual expresses an increasingly better understanding of the phenomenon being studied. This appears to be an organisational activity carried out by the individuals in relation to their world (Svensson and Theman 1983) which is described by Marton and Booth (1997) as being undertaken in a state of 'meta-awareness'. Marton and Booth (1997) see the interview as taking place on two levels. The researcher firstly forms the situation of the interview by asking the participant to bring to awareness what is included in an open and concrete form in the interview schedule. The participant then provides the output by providing a description or a solution. At this level, the interview is an interpersonal situation which resembles a social discourse, in structure if not in content. The other level of the interview involves the probing of the participant's awareness of producing the output. Here the interviewer and interviewee work together to uncover the awareness of having produced it.

Participants who are relaxed and able to understand the aims of the study and the special interests of the researcher are more likely to co-operate and to offer relevant information (Morse 1994). The students who were selected as a result of the analysis of the questionnaire and who were willing to be interviewed were contacted by telephone and

arrangements were made for the interview. Interviews took place at times and in locations which were most convenient for the participants, namely the researcher's house, the participant's house or in room provided by arrangement with the nursing department. Transport was provided where necessary. The teachers who agreed to be interviewed were contacted by telephone and arrangements were made to meet in their offices or in a department interview room. Though some interviewees may be intimidated by the tape (Rose 1994), this did not appear to be the case in any of these instances. The fact that the interview was to be tape recorded was included on the information sheets, participants were reminded of this both when the time and location of the interview were being arranged and yet again just before the interview took place. As tape recordings are frequently used in nursing education, all the participants were accustomed to being tape recorded and no problems were encountered.

### **Ethical Considerations**

Gatekeepers are those who can facilitate/inhibit access to participants (Cormack 1991). In this study, the gatekeepers were the Heads of the two Departments of Nursing. A letter was sent to them giving information setting out:- the aims of the study; the personnel to be involved; arrangements for anonymity and confidentiality; clarification of time/place of interview; a description of possible outcomes; an offer to answer questions; and clarification of the rights of participants (Appendix 3). The researcher was then directed to the appropriate Ethics Committees of both institutions. Permission to approach the students and teachers was subsequently granted after submission of request-for-access letters containing full information about the study (Appendix 3) and the consent form (Appendix 2). Copies of the documents for both courses were then provided for the researcher by both the respective departments.

It is essential to ensure that participants in research studies suffer no physical or psychological damage and that informed consent is obtained (Parahoo 1997, Bowling 1997, Noble-Adams 1999). Informed consent was obtained by giving information regarding the purpose and extent of the study and asserting that a refusal to participate would bring no adverse consequences. The right to resign from the study at any point

was also stressed (Rose 1994, Polit and Hunger 1997). There is a potential difficulty, in a study which has general aims but not specific objectives, since to inform the participants of the exact path of the research could possibly jeopardise the quality of the data and bias the sample. In this study, however, it was not anticipated that the interview would cause either physical or emotional distress. The researcher spoke to both groups of students giving information about the study and an opportunity to ask questions. The students were given a letter with all the information sheet (Appendix 3) and asked to fill in a Revised Approaches to Studying Inventory (Appendix 1) (Marton *et. al.* 1997). Those who were willing to take part in a tape recorded interview were also asked to complete a special section of the consent form. The appropriate teachers from both institutions were sent a letter asking them to take part in tape-recorded interviews. The letter contained information about the study and a consent form for those willing to take part to fill in and return (Appendix 2). Even though participants had previously consented to the tape recording of the interview, it was again discussed with them before the interview. In this discussion, assurance was given that the viewpoint of the participant was the focus of the study. There were no correct answers and that inability to answer a question would not cause a problem. Returning to previous questions to elaborate further on a point would also be possible. The questions all concerned nurse education, a topic thought unlikely to elicit emotional distress for students who had recently successfully completed their course. It was also considered that the nurse teachers would not find questions on the integration of theory and practice a particularly emotional or distressing experience. The need to provide post-interview support was not, therefore, thought to be essential (Holloway and Wheeler 1995, Parahoo 1997).

Issues of anonymity and confidentiality can affect the decision of the participant to participate (Parahoo 1997). With qualitative methods such as interviews (Easterby Smith *et. al.* 2002), the researcher has control over what is asked, recorded and interpreted and is thus put in a powerful position. If the researcher has control and ownership of the data, ethical control must be exercised by not publicising or circulating any information which could harm the participants. All potential participants, therefore, were assured that only the researcher would know the identity of the participant (Holloway and Wheeler 1995). Tapes and interview transcripts were kept secure, and included neither

the names of the participants nor the names of the institutions, but each was given a code known only to the researcher.

## **Rigour**

In positivist research approaches, valid results are achieved by the application of a rigorous research methodology. This means following a strict set of objective procedures that separate researchers from the dynamics of the lived world ( Kincheloe and McLaren 1994). Though there is some support, from nursing authors, for the use of quantitative measures of validity to establish the credibility of qualitative measures (Cavanagh 1997, Jasper 1994, Appleton 1995, Brink 1991), many key authorities believe it is inappropriate to use conventions from the world of positivism (Denzin and Lincoln 1994, Benner and Wrubel 1989, Morse 1991, Leininger 1994). The aim of social science research is to describe a social world, which is bound by a particular perspective. Reality is represented rather than reproduced (Hammersley 1992, Silverman 1997). Reliability and validity therefore take on a different form in qualitative research but they are important, as the objectivity of the research is at stake. Guba & Lincoln (1989) used the criteria for quantitative research to establish criteria for rigour in qualitative research. These are:

**Table 6 - Rigour in Quantitative and Qualitative Research**

<b>Quantitative</b>	<b>Qualitative</b>
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

Guba & Lincoln (1989)

To adhere to these criteria, the data collection, the organisation and analysis and the outcomes and processes must be trustworthy (Perakyla 1997, Herschell 1999). Critical theorists, however, acknowledge fallibility in that there is no sure method of guaranteeing the validity of findings. They regard trustworthiness as an appropriate word as it signifies a different set of assumptions about research. One criterion for

trustworthiness is credibility, which means that the constructions must be plausible to those who construct them (Kincheloe 1991, Kincheloe and McLaren 1994).

Booth (1992) maintains that the validity of phenomenographic studies is justified by a full and open account of the method of the study and the results. The characteristics of the participants should be described in full thus providing a background for researchers to apply the results in other contexts. The design of the interview questions should be justified and the steps taken to collect unbiased data should be explained. The analysis should be carried out with an open mind rather than trying to impose an existing structure and the method of data analysis should be described and the results presented with full descriptions and appropriate quotations from the data to allow for informed scrutiny. Burns (1994 as cited by Cope 2003) also believes that the researcher's background should be acknowledged as this is one way of providing the context of the analysis. The ways in which the researcher has attempted to fulfil these criteria will be explained in the following section.

The conventional view of interviewing is that good rapport, the generation of conversation and the disclosure of information relevant to the interviewer's interest are the criteria for success. This assumes that the interview is a preformed commodity with some pre-existing information to extract. Phenomenography, on the other hand, takes an interpretative approach, in which meaning is generated during the interview. Within the phenomenographic perspective taken by this study, the interview is therefore seen as dynamic, with meaning constructed and linked with the context during the course of the interview. Knowledge, therefore, is not seen as independent of the interpretation, and the interaction between the researcher and the participants is involved in the interpretation and making of meaning. It is assumed that the understanding of a phenomenon, which is the result of this process, can increase the likelihood of a true description of the participant's world. In this study, therefore, the view is taken that the researcher is an active participant in the interpretative process rather than a passive recipient of knowledge (Bergum 1991, Schutz 1994, Ashworth 1997a, Koch 1996, Holstein and Gubrium 1997, Baker 1997). Many writers state that the participants' description of their experience must be accepted as true (Mostyn 1985, Beck 1994a, Silverman 1997) but this



idea is inappropriate when taking a second order approach. The statements of the participant are not judged in the light of other statements about the same phenomena and there is no objective truth to be uncovered (Marton and Booth 1997).

The fact that most of the data was obtained by interview could be considered a limitation of the study. A range of participants was interviewed for the study, however, and the course documents were also examined and so, it can be claimed that the data was strengthened by different perspectives of the phenomenon of theory-practice.

Issues of rigour depend largely on the skill and objectivity of the researcher but there is a debate in the qualitative research literature about the advantages and disadvantages of a researcher with or without specialist knowledge of the topic being explored (Miles and Huberman 1994). One view is that experience should be regarded naively from the worldview of those who have it, so that an unadulterated and natural view of the phenomena is obtained (Cohen and Omery 1994). The more commonly held view, however, is that a researcher with specialist knowledge has an advantage over a professional interviewer and that it can be self-defeating 'not' to 'lead' with available conceptual strength. Immersion in the participant's world and a disciplined sensitivity to both process and substance can make interpretation of data easier and lead to a greater understanding (Miles and Huberman 1994, Heidegger 1962, Holstein and Gubrium 1997, Clarke and Jack 1998). The researcher, who is already familiar with this world, knows which questions to ask and how theoretical interests are embodied in the field, is consequently less easily misled and is therefore less likely to distort interpretation of the findings (Miles and Huberman 1994, Douglas (1964) as cited by Cohen and Manion 1989). This view is also in line with a critical theory perspective, which does not support the dualism of practitioner and researcher, believing that it eventually undermines the autonomy of professionals (Kincheloe and McLaren 1994). The researcher in this study has extensive experience of nursing practice, is currently working in the field of nurse education and consequently has a professional interest in finding answers to the research questions. This experience, combined with knowledge of the nursing literature and the context of nursing education, enabled her to recognise and explore significant comments made by the participants.

To enter the world of the participant, both closeness and rapport between researcher and subject are necessary while, conversely, a certain distance and lack of disclosure by the researcher must also be maintained (Clarke 1999, Clarke and Jack 1998, Carr 1994). To increase the credibility of the research, it is necessary to avoid and acknowledge assumptions, prejudices, presuppositions and prior understandings which could affect the interpretation (Pallikkathayil and Morgan 1991, Andrews *et. al.* 1996, Ashworth 1997a, b). This is variously termed neutrality (Guba and Lincoln 1981, 1989), bracketing (Husserl 1964, Rose *et. al.* 1995, Jasper 1994, Crotty 1996) or the “extrication of researchers’ perceptions” (Pallikkathayil and Morgan 1991). To aid the bracketing of ideas and values, a conscious effort was made by the researcher to reflect beforehand on her own ideas and values. This heightened awareness made her conscious of potential bias in the questions and interjections made in response to the interviewee’s answers and reactions. Open questions were used to open the discussion but, as these can make it difficult to gain access to the desired information, probing questions were then used. Leading probes and questions were avoided, however. It was also necessary to avoid causing embarrassment or anxiety for the participants as this could induce them to rationalise in an attempt to produce logical explanations for their perceptions. This was accomplished by ensuring a relaxed and non-judgemental atmosphere and avoiding leading questions. The participants were reassured that the questions were exploratory and that there were no right or wrong answers. They were encouraged to reflect openly, while the researcher was very careful not to influence them by imposing her own frame of reference when asking questions and interpreting the answers. All the factors which could potentially affect the dependability of the data were therefore avoided as far as was possible (Fielding 1994a,b).

Theman (1983) as cited by Marton and Booth (1997) believes that the success of the relationship depends on the interviewer’s sensitivity and ability and advance preparation. However, Baker (1997) views it as a romantic notion, that successful interviewing depends on the interviewer’s interpersonal skills and technique and the formation of a special relationship between interviewer and participant. It is claimed here that no special relationship was formed during the course of an interview lasting for less than an

hour but that a relaxed atmosphere in which participants were able to speak freely was established. The genuine interest of the researcher in the participants and their experience of nursing helped to establish rapport during the preliminary conversation. The participants were also interested in the subject of the study and appeared to welcome this opportunity to reflect on nurse education at a time of great change (Smith 1992). The dependability of the data can also be affected by the extent to which the interviews have been influenced by factors such as boredom or tiredness (Grbich 1999). The researcher was, therefore, alert for such signs and the interviews were not overlong, with student interviews lasting no more than forty to forty five minutes and the staff interviews no more than one hour.

Analysis of qualitative data is challenging, as large amounts can be produced, but the researcher must make the process of analysis of the raw data transparent, with clarity of explanation to show intentions (Hammersley 1992, Athelaid and Johnston 1994, Koch 1996, Easterby *et. al.* 2000). Such research can be evaluated by the extent to which the perspectives and narratives of the participants, the presuppositions of the researcher and other data sources are merged in the interpretation. The processes by which these viewpoints are merged should be described in enough detail for the reader to be able to evaluate the quality of the analysis (Heidegger 1962). Several writers suggest the use of what they term an 'audit trail' or 'decision trail' where decision making is made explicit to others, who are then able to follow the researcher's trail (Morse and Field 1996, Altheide and Johnston 1994, Guba and Lincoln 1981, 1989). This is termed dependability by Guba and Lincoln, who equate it to reliability in quantitative research. The interview tapes were first transcribed in full, and the accuracy of the transcripts was compared with the original recordings. Each participant was assigned a number, which was used throughout in accordance with the assurances given for anonymity and confidentiality. The list of names and numbers was kept safely by the researcher. The anonymous tape recordings were transcribed and the emergent categories were given a code. The categories were put into tables showing how they related to each participant. The indicative portions of text quoted in support of the interpretation were also identified as relating to the specific participant. Any information which could identify the source of the quotes used in the final analysis was omitted or changed. Confirmability of the

conclusions was also supported by this linking of the data to its source, from the original tape recordings to the final analysis (Nolan and Behi 1995a, Holloway and Wheeler 1996). Credibility involves ensuring that the views of the participants are represented as accurately as possible (Lincoln and Guba 1990) and the information and the process of analysis within the study have been laid out in a way which readers can understand and follow.

Generalisability requires that the concepts and constructs derived from the study have relevance to other settings (Easterby *et. al.* 2000). Though the results of a qualitative study are not generalisable to other populations of student nurses, the design and methods of the study could be repeated with other students following a professional course in other educational institutions. An account of the decision trail which allows one to follow the process has been given here and the interview schedule, the main themes and the techniques of data analysis could be re-used (Holloway and Wheeler 1996).

To ensure that the findings of the researcher matched the perspectives of the participants, the sample was selected to ensure the maximum possible variation. This helped to increase the dependability of the research by avoiding an over preponderance of one perspective and thus giving a more complete picture of the phenomenon. Full descriptions of the participants and the context of the study have been given in full (see chapter 5), along with a detailed account of the methods of sampling.

A second researcher is recommended by some to validate the findings of the first (Burnard 1991a, Appleton 1995). The use of a co-researcher is inappropriate in a study carried out for academic purposes, however, but this idea also supports the positivist point of view that there must be a universal truth to be discovered (Cutcliffe and McKenna 1999). It is also inappropriate if the identification of themes depends on a unique reaction between the researcher and the participant (Munhall and Boyd 1993, Schutz 1994). To ask the participants to validate the transcripts is another way of establishing credibility. This was not thought possible in this study, however, where the students were at the end of the course and preparing to disperse far and wide (Nolan and Behi 1995a, Guba and Lincoln 1981, 1989, Leininger 1994, Easterby *et. al.* 2000).

Quotations from the transcripts have been used widely and can give the flavour of the data by allowing the words and views of the participants to come through to the reader, independent of the researcher's interpretation (Glaser and Strauss 1967, Melia 1983b, Koch 1996).

Eisner (1991) takes a different view of the qualities of rigour in a qualitative study and believes that coherence, consensus and instrumental utility are the required features. The researcher considers that this study does exhibit coherence. The story does make sense and the conclusions have been supported. Data from the course documents, from a range of students (from two different courses) and from a variety of teachers have all been used to support the final interpretation. The findings and interpretations reported are largely consistent with previous findings in the literature, though there are several findings which have hitherto been unreported. The study is useful in that it uses a phenomenographic approach, namely that of contextual analysis. This approach, which has been shown to aid the understanding of student learning in other educational contexts, has been used to explore an issue of great significance to nurse education.

Rigour has been addressed in this study, therefore, first, by a detailed description of the context of the study (chapter 5), which was informed by the specialist knowledge of the researcher. A justification has also been given for the choice of a theoretical perspective. This perspective, together with conclusions resulting from the review of the literature (chapters 2, 3 and 4), have in turn informed the development of the research questions. The interview schedule was piloted before being used in the main study, and some amendments made to the questions. An account of the sampling methods used has been given, with justification of the use of the Approaches to Learning questionnaire to choose the sample. Ethical considerations have been addressed, with all possible care taken to ensure confidentiality, anonymity and no harm to the participants. The data analysis (chapter 8) sets out in full the ways in which the data have been interpreted.

### **Justification for the General Research Approach**

Nursing education is currently experiencing a shift from a technical rational training

model, to an educational model which emphasises critical application of knowledge. A methodology capable of exploring the subjective experience of students and which depends on the interpretation and definition of that experience and the employment of human judgement is needed (Giroux 1983, Corner 1991, Kincheloe and McLaren 1994, Boychuk Duchscher 2000). As qualitative techniques are needed to obtain insightful data from complex issues, a qualitative paradigm is appropriate (Denzin and Lincoln 1994, Bowling 1997). This perspective contradicts the traditional empiricist contention that theory is basically a matter of classifying objective data (Cohen and Manion 1989). From a positivist perspective, learning is conceived as the aggregation of content. To be a good learner is to know more and the process of learning, therefore, is to aggregate more and more pieces of knowledge, to internalise them and to be able to reproduce them accurately. Within this paradigm, student behaviour is explained externally, and so a detached, objective observer is needed (Biggs 1994).

Within a qualitative perspective, however, it is assumed that students learn cumulatively, interpreting and incorporating new material with what they already know, their understanding changing progressively as they learn. The teacher's task, therefore, is not only to transmit correct understandings, but to help students construct their own understandings. It is the students' perceptions of the demands of the task and their construction of meaning that is important (Biggs 1994). An alternative approach is needed to explore students' descriptions of what learning means to them and so reach an empathetic understanding of what is involved in student learning (Entwistle and Marton 1984). The students' perception of the learning context is an integral part of their experience of learning. Perceptions of teaching, assessment and course content and structure, within the setting of a nursing department, influence the ways in which students learn. Again, the focus is not the framework of courses and assessment itself, but rather what the students construct out of this framework and how they experience the effects of the learning context (Biggs 1995 as cited by Fazey 1995).

### **Justification for the Specific Research Approach**

As this study explores and describes the circumstances that contribute to the integration

of theory and practice, a methodological approach is needed which looks at the way in which it is experienced by students and teachers. As individuals experience things differently, so the chosen approach must be able to explore the variety of ways in which nursing students and teachers experience this phenomenon. A research approach, which has become an influential methodology in the student learning literature and which came to be known as phenomenography, was originally developed by a research group in Gothenburg to explore some of the problems of learning (Marton 1988, Trigwell 2000). Phenomenography is based on the assumption that, as individuals have different experiences and knowledge of the world, they also have different conceptions of it (Svensson 1979). Conceptions are the varying beliefs and ideas that different people have about the meaning of a phenomenon, and the aim of phenomenographic research is to describe these conceptions (Svensson 1979, Marton 1981, 1986).

Phenomenography takes a second-order approach to discover the ideas of reality which individuals have already acquired. The perspective of the participant is central, rather than that of the researcher. It also takes a non-dualistic and relational view, assuming that reality is perceived as the relationship between the individual and the phenomenon being studied, rather than as something quite separate. The aim is to describe the key aspects of the variation of experience of the phenomenon of learning, (which in this study is the integration of theory and practice), rather than the richness of individual experience. The result is a set of different categories of description which are internally related and hierarchical. This structure in the variety of individual differences in the participants' conceptions of the phenomenon is known as the outcome space (Laurillard 1993, Marton 1994, Svederberg 2002, Limberg 1998).

The Gothenburg group put great emphasis on analysing study processes in relation to the content of what is being learned, using tasks set by the researcher. They showed how student learning could be investigated qualitatively, they were the first to describe learning in terms of approaches to learning, and they established that the learning approach adopted ultimately affects the quality of the learning outcome. (Entwistle and Marton 1984, Van Rossum and Schenk 1984). Other research groups have used this methodology to investigate different aspects of student learning. A group at Lancaster,

which investigated students' experiences of learning in a natural setting, was particularly interested in the impact of the context of learning. Marton diverged from his initial approach, however, by placing less emphasis on the effect of the learning context on learning.

As this study explores the effects of the learning context on the integration of theory and practice, focusing on the forms of interaction between the teacher, students and learning resources, the chosen research approach is contextual analysis, which is closer to the original approach (Svensson 1976). Contextual analysis sees both the individual and the context as the starting point for analysis, assuming that the meaning of the data collected depends on the context in which it they have been collected. The aim is to search for categories with different but meaningful relations to other categorisations. Internal relations are described by comparing individual conceptions with the development of a pattern of categories which represents the grouping of different conceptions (Svensson 1985b as cited by Svederberg 1997). The methodology of contextual analysis is underpinned by Svensson's distinction between holistic and atomistic approaches to learning (Svensson 1976). He describes the atomistic approach as delimiting entities externally, that is separating facts within the subject matter but then failing to organise these into a whole, whereas the holistic approach is the organisation of the parts within a subject matter into a whole (Svensson 1976). To use contextual analysis to explore individual conceptions of complex phenomena, in an exploratory and interpretative manner, requires a holistic way of distinguishing parts and the relations between parts. Descriptions of experienced meaning vary according to the extent to which they describe a general quality of the whole or qualities of parts and relations between parts within the whole (Svederberg 2002).

The phenomenon of theory-practice integration, therefore, should be viewed as a whole within the context of a nursing department, but with an awareness of the meanings of the different elements which contribute to integration and the relationships between them. Knowledge of the qualities of the whole (integration) is therefore constituted by knowledge of qualities of the different parts (teachers, teaching strategies, resources) and the relationships between these different parts. This then forms the basis for conclusions



about integration (Svensson 1985b as cited by Svederberg 1997, 2001).

As the meanings that individuals ascribe to the phenomenon of learning are influenced by the context of learning (Svenssen 1976), the conceptions held by the participants in this study were assumed to be influenced by the teachers, the peer group, teaching and learning strategies, assessment and the educational institution. A relational perspective was taken in that the conception of theory-practice integration was seen as the relationship between the students and the total learning environment. The context was that of student nurses at the end of their pre-registration course (one a diploma course, one a degree course) within two departments of nursing. The timing of the study was also significant for nurse education in that the students were among the first cohort of students to qualify under P2000 regulations. The study was qualitative and was based on in-depth interviews with students and teachers.

As analysis is necessary to determine which of the data collected are relevant, the interview transcripts have to be examined to determine whether patterns exist. The analytic process in phenomenographic research is iterative. Once categories of description have been identified, they can be re-applied to the data from which they originate. Some themes are immediately identified as relevant, but the data must be re-examined to confirm these first impressions. There are also semantic issues to be resolved, as different expressions used by the interviewees refer to the same experience. Themes emerge from such an analysis and critical attributes of the different groups can be identified, as well as distinguishing features between the groups. Categories of description can then be determined and characterised in terms of variation in how the phenomenon is experienced and the logical relations between the categories (Svensson and Theman 1983, Marton 1994).

As the same individual may express various ways of experiencing the phenomenon which is the object of the research, the individual is not the basic unit of analysis. Attention is focused on differences between the conceptions of the phenomena, not on the differences between individuals (Limberg 1998). For this reason, the Revised Approaches to Studying Inventory (Appendix 1) was considered to be of use only as a tool for the choice

of sample. The aim of this study was to determine variations in the way in integration of theory and practice was experienced by the participants, and to explore the relationship between the different elements of theory and practice and how these were interpreted. The characteristics of the different approaches to studying of the students could not be used in an analysis of the data in a phenomenographic study.

### **Criticisms of Phenomenography**

There is a charge against phenomenography that it is difficult to pin down exactly what phenomenographers do. In an article exploring many of the criticisms in the literature, Hasselgren and Beach (1996) note the claim that reflexivity is lacking, with a dearth of detailed, critical analyses of the ways in which phenomenographic data are produced and analysed. Data analysis is accepted uncritically as the development of categories of description for the different ways in which something has been understood. These are then accepted as a map of the 'collective mind'. Richardson (1999), however, sees conceptions as part of the discursive practices which can be used as resources in communication as much as psychological entities residing in the minds of individuals. As phenomenography cannot attribute cause, and therefore does not explain why students come to possess certain conceptions, there is a risk that the results can appear superficial. Some researchers have tried to draw such conclusions, but Van Rossum *et. al.* (1985) believe that this is an error on the part of the researchers, rather than a problem of the methodology. Svensson (1997) says that phenomenographers claim their results not to represent the truth, but rather a truth.

Phenomenography also makes the assumption that a limited number of categories is possible for each concept being studied, and that these can be discovered by immersion in the data (Booth 1997). This method of analysis is unvarying but, with so much variation in the phenomena to be studied, the question arises whether it is reasonable to stick rigidly to the same method, with such reliance on the interview (Fleming 1986). Ashworth & Lucas (1998) call for a revised approach, as they believe that the aim of arriving at a structure of categories of description threatens to subvert entry into the student world. This world is possibly less coherent than is required by phenomenography

and over-concern with what they call 'authorised conceptions' can have the effect of rendering student perceptions less important than the official view. More active consideration should be given to revealing the actual lived world of students. The idea that the context is needed to make the phenomena more explicit is lacking in some of the phenomenographic research. More attention given to accounts from participants in real life situations would make it useful to the people involved in the actual domain, as well as to researchers (Richardson 1999).

There is also some questioning of second-order research, as phenomenographers tend to avoid critical reflection on how the data and findings reflect the understandings and experiences of the research subjects. If reality is derived from the immediate perception of the subject, then personality factors are irrelevant, but Biggs (1994) claims that there is considerable evidence that perceptions are related to personality factors. Phenomenographic data, however, are regarded unproblematically as valid non-dualist descriptions of the internal relations between people and objects (Hasselgren and Beach 1996). Marton (1988) maintains that the identification of categories is a process of discovery, but other writers believe that they are actually reflections of the ideas of the researcher, or the results of interactions within a manipulative interview process (Saljo 1988, Hasselgren and Beach 1996). Marton and Booth (1997), however, do acknowledge that, as the researcher describes the phenomenon from reports or inferences of the subjects and the phenomenon is re-constructed by the researcher, there can be danger in accepting the interpretations too easily.

Marton and Booth (1997) maintain that, in phenomenography, it is necessary to accept that variations in meaning and interpretation, which are logically inconsistent, can still be capable of expressing something logical about the phenomenon in question. Hasselgren and Beach (1996) accept examples given by Marton and Booth but say that a more systematic and recognised practice is needed so that the analysis perspective of the researcher avoids restriction of the outcome possibilities.

One common criticism of phenomenography is that the philosophical background is rarely made explicit. Hasselgren and Beach (1996) attribute this to the fact that it

originated from pragmatic empirical research, where the need to explain the background is less important. Svensson (1997) agrees that there is no articulated theoretical position within phenomenography and that it is therefore possible for researchers to take any theoretical stance. Clear methodological guidelines are lacking, as is clarification of the epistemological and ontological foundations and their consequences. Hasselgren and Beach (1996) nevertheless conclude that phenomenography has the potential to provide useful information in the investigation of learning and the Gothenburg phenomenology has created a long and productive research tradition.

Though a body of empirical data has been generated and increasingly put to practical use (Pramling 1994, Bowden 1995), Biggs (1994) believes that it is difficult to see how phenomenography can lead to action and maintains that it is difficult to generalise when phenomenography takes the position that each individual's conception is unique and that there is an infinite number of conceptions. This, however, is not the position taken by phenomenographers (Svensson 1976, 1985a). Biggs says that guidance on improving teaching does not seem to be forthcoming from phenomenography but then, in a counterargument, quotes Bowden's (1988) pedagogic phenomenography. If teachers are faced with evidence that student understandings of taught concepts fall below the expected level, they can then reflect on the learning experiences most likely to bring about conceptual change (Biggs 1994).

In spite of the misgivings felt by some writers, phenomenographic methodology is becoming increasingly important in education. The exploration and elucidation of conceptions can illuminate for the teachers what the students know and whether misconceptions need to be remedied (Laurillard 1993). The teachers also have an opportunity to reflect on their own theories-in-use and the effect these have on student learning. A teacher's conception of how theory and practice can be integrated becomes an implicit theory-in-use, and thus directs the way in which the teacher promotes it and the students learn about it (Biggs 1994). Prosser (1993) shows how confronting students and teachers with a variety of conceptions and assisting them to identify their own conceptions of the subject being taught can be valuable in teaching and learning. This is in line with Svensson's belief that learning has more than one meaning. Teachers must

not assume that all students perceive learning in the same way and they need to understand variations in meaning and the implications that these variations have on the way students approach learning. Only then they can go on to develop methods to facilitate learning strategies which are appropriate, whatever conceptions are held by the students (Svensson 1976).

## **Conclusion**

A phenomenographic approach is appropriate for this study as it explores the relationship between the participants and the integration of theory and practice from the perspective of the students and their teachers. The assumption that reality is the relationship between the individual and the phenomenon is in line with the view of the researcher who also believes that the organisational framework of the learning environment and how it appears to students must have an impact on learning. Entwistle (1981, 1991) suggests that when researching different learning styles as there is a tendency to concentrate on individual characteristics. He says that, as students are rarely free to learn what they want and when and how they would prefer to learn, there is a need to broaden the view of learning to take in aspects of the social setting in which learning takes place. Contextual analysis is therefore an appropriate choice as it does emphasise the learning context as an important influence on the student experience. The learning context, however, is composed of different elements and it is necessary to explore these separately, and then to examine the relationship between them, before the research questions can be answered. Though this is a limited study, the conclusions can be used as evidence to determine and support integration of the curriculum. Teachers can also hold misconceptions and the study can help them to reflect on their theories-in-use and, again, to take appropriate action when planning strategies to integrate theory and practice.

## Chapter 7

### Data Analysis

The literature review has shown that the curriculum is complex and multi-faceted with differing views on how it can be presented as an integrated whole. This is still a recurring issue in nursing education and the subject of many reports and studies. The significant work on student learning in higher education, however, has not been replicated in nurse education, and the student perspective is lacking. To explore the phenomenon of theory-practice integration from the perspective of both students and their teachers, the general research approach must be qualitative. The research approach for the analysis of the data is therefore contextual analysis as described by Svensson (1976).

In contextual analysis, Svensson says that *"there is no clear general procedure. What is general is that the starting point is taken in the data, and the treatment of the data involves differentiation and organisation of parts and selection of significant parts"*. (Svensson 1984 p.31)

In this study, knowledge of the qualities of the whole (integration) is constituted by knowledge of qualities of the different parts (teachers, teaching strategies, resources), and the relationships between these different parts. This can then form the basis for conclusions about integration (Svensson 1985b as cited by Svederberg 1997, Svensson 2001).

The starting point here, therefore, was the identification of those different parts, which constitute the conception of theory-practice integration, rather than the complete conception. This involved identification of the meaning behind the statements made by the participants, so that the characteristics of the relationship between them and the integration of theory and practice, within the context of the colleges of nursing, could be defined (Svensson and Theman 1983).

The research questions were used to focus the analysis and to ensure the selection of

significant sections from the data. The large amount of data required a disciplined sensitivity to both process and substance (Holstein and Gubrium 1997). The interview tapes, therefore, were first transcribed by an audio-typist and were then read and listened to several times, to get a feeling for the overall sense of the data (Beck 1994b, Burns and Grove 1995). With the research questions and conceptual framework in mind, the interviews were then read carefully line by line to identify the different 'repeatable regularities' (Kaplan 1964 as cited by Miles and Huberman 1994), Polit and Hungler 1997), recurring phrases or common links to which an appropriate code was assigned. This careful preliminary reading of the transcripts, resulted in the identification of what appeared to be significant themes.

A set of analytic categories is necessary for the description and analysis of the relationships within the data. There are two possible approaches, the deductive, which starts with pre-formed categories, and the inductive, where categories emerge gradually from the data (Miles and Huberman 1994, Bryman and Burgess (1994). The distinction is made between descriptive categories, which are elements in the coding system, and conceptual categories, which are grounded in the theoretical perspectives applied to the research design and data collection. Most of the writers in Bryman and Burgess' (1994) collection of writings on qualitative data analysis emphasise the creation of concepts, rather than the imposition of existing ones. In alignment with contextual analysis, therefore, the inductive approach was used here, without intrusive prior conceptualisation.

Systematically coding, indexing, grouping and summarising data ensured that the emergent categories provide a coherent framework, which can explain aspects of the participants' experience (Miles and Huberman 1994, Bryman and Burgess 1994). Various portions of text representing these themes were also marked off for possible future use, as illustrations of the conceptions uncovered. In this first-level or open coding, the codes were used to assign meaning to each portion of text. At this stage, data which did not appear to be related to the research questions were nevertheless retained. The interviews contained discussion of many irrelevant topics and exchanges, and decisions were, therefore, needed on relevance and on what should be counted as

belonging to the question being explored.

To ensure that what was said in the interviews relates to the experiences of the participants, care was taken to dissect the transcribed interviews meaningfully, while keeping the relationship between the parts intact (Miles and Huberman 1994, Bryman and Burgess 1994, Holstein and Gubrium 1997, Silverman 1993, 1997). Svensson and Theman (1983) emphasise the fundamental difference between spoken and written language. As written expressions cannot retain the full flavour of meaning and expressing the content of the conversation by means of a text reduces the meaning of the spoken word, the tapes and text were listened to and read simultaneously. Svensson and Theman (1983) say that parts of the reality can be revealed by reading between the lines and making conclusions from hesitations, unfinished sentences and expressions of excitement which can then be used to understand a cryptic passage in the text. However, sharing a similar background with the participants, the researcher found no difficulty in understanding their answers to the questions, and found no cryptic passages in the text. As the meanings rather than the words are of greatest significance (Miles and Huberman 1994), the main components in terms of significant sentences were therefore selected and arranged to retain the main line of the interviewee's thinking. The quoting of a natural sequence helps to convey the direct context of the chosen sentence. To understand the intended meaning of certain words or sentences and to retain a good narrative structure, however, the position of some sentences was changed. Some quotations therefore represent a natural sequence, whereas others are aggregates of disparate statements from different parts of the interview (Svensson and Theman 1983).

Much of the grouping of statements was already roughly determined by the structure of the interview schedule. The focus is a phenomenon which is conceptualised by the interviewee, of the conception of the phenomenon, in terms of the parts which make up the whole and in terms of how the phenomenon appears to the interviewee (Svensson and Theman 1983). In this study, the focus is the interviewee's manifestation of conceptions of the integration of theory and practice in relation to the curriculum. The conceptions of theory practice integration are related to different aspects of the curriculum considered by the interviewee, rather than to the whole situation. The interviewee's reasoning is



described in terms of several conceptions which are interrelated, rather than as one integrated conception of the phenomenon. In contextual analysis (Svensson 1976), the descriptions from the interviews are not combined into one synthetic summary description and it is assumed neither that the whole interview was about one conception nor that all statements are equally important in revealing the conception. A contextual analysis, therefore, is not only an aggregation of specific data with generally given interpretations, but also a delimitation of specific data related to each other as aspects of the same phenomena. It is based not on algorithmic division, selection and combination of parts, but on an interpretation of the meaning of parts in their context. Differentiation between thought and language is needed when investigating the relation between them. The content of the interview is considered not in terms of meanings of linguistic units, therefore, but from the point of view of expressing a relation to parts of the world. Although the language used is the basis of the analysis, it is subordinate to the expressed content. The 'same' conception may be expressed in many different ways linguistically and vice versa. These considerations were a guide for the researcher's choice regarding the significance of these portions of text. Conclusions were made once common meanings could be induced from the data collected from each individual as well as from the whole group of participants (Herschell 1999).

A second-order coding was then carried out, a pattern coding which was used to group together broader categories with a similarity of meaning or some kind of connection between them. Reflection on these groupings enabled a choice to be made about the significance of these portions of text while remaining firmly aware of the aims of the study. Thought and care was taken to ensure internal consistency within the categories before the pattern was established. The number of categories was the minimum possible to explain all the variations in the data. Therefore various combinations were grouped and regrouped until it was possible to have confidence in them. A list of categories with sub-headings was then produced. This was again compared to the transcripts to ensure that the categories covered all the relevant aspects of the interview. A large quantity of data was thus reduced to a smaller number of analytic units, forming a cognitive map for the greater understanding of the relationships uncovered. These units reflected the themes identified during the early readings of the raw data. Four significant themes

relating to the research questions emerged with a fifth category covering those codes which spanned more than one theme, namely:-

1. Course Structure and Content
2. Teaching, Learning and Assessment
3. Sharing Experience
4. Relationships
5. Issues which span more than one category

The themes were then further explored in more detail, using the quotes and interpreting their meaning. Tables were then compiled showing the codes identified in the data as they were obtained from each separate group of participants:

1. College 1 students
2. College 2 students
3. College 1 nurse teachers/discipline specialists/nurse discipline specialist
4. College 2 nurse teachers

Tables comparing the codes obtained from the different of groups of both students and teachers were also compiled. These tables gave an idea of the relative importance of the issues identified by the different groups. The percentage of participants identifying the same category was calculated. The aim of this is to demonstrate that the subsequent detailed analysis is reasonably representative of the data as a whole. All the raw data is to be found in Appendix 5.

The portions of text already identified as significant were then used to describe the phenomenon of theory/practice integration from the perspectives of both the students and teachers. The portions of text are cited in support of the argument. A check can then be made that the reality of the data actually coincides with the overall impressions of the researcher and thus tighten the analysis (Silverman 1993). A map is then laid out, with

the codes that formed the themes, along with appropriate portions of text as illustration. It enabled the researcher to reflect on them, to evaluate their significance, and their relationship to other categories within the theme and eventually to draw conclusions.

### **Theme 1 - Course Structure and Content**

This can be defined as a group of related subjects or themes which fit together according to a predetermined set of criteria with the intention of covering a field of study appropriately (Marsh 1997a, b). Supporting or constraining influences can affect the development of student understanding of the relationship between theory and practice. The curriculum framework can be a tool of control (Marsh 1997a, b), with ownership of the course and freedom to teach and assess important issues for all concerned in the delivery of the curriculum and consequently for the students. Integration of the curriculum is a fundamental source of debate. The continuum ranges from the completely separate subject approach to the total curriculum integration approach (Kelly 1989, Stenhouse 1968, Barrow 1984, Musgrave 1973, Whitehead 1932, Pring 1976a). One view is that an integrated curriculum will lead to more meaningful learning particularly in professional courses. The curriculum is structured in a way which centres on relevant real life problems from practice. The alternative is a subject-based approach which separates professional education into foundation knowledge from the disciplines. This is then followed by practical applications (Harris 1989, Boud and Feletti 1991, Eisner 1991, Bligh 1995).

**Table 7 - Course Structure and Content  
Comparison of Codes identified by College 1 & 2 Students**

<b>Code</b>	<b>College 1 Students (n=18)</b>	<b>College 2 Students (n+16)</b>
Course Structure	0	13
Basis for learning	9	5
Sequence of placements	0	12
Relevance	16	13
Repetition	0	10

The course structure is an issue frequently referred to by the College 2 students, though not the College 1 students. It centres on the balance between periods spent in College and in the clinical areas. The sequencing of placements is a particular concern as the students feel that there is little synchrony between theoretical preparation and practice. As a consequence, they feel that they cannot benefit to the full. The need to develop a basis of knowledge of contributing disciplines is another issue for the students. The tension between a curriculum which is fully integrated and one which promotes the internal coherence of the discipline is apparent here. The need to develop a basis of knowledge before going on to problem-based learning or more integrated sessions is a concern in both colleges. Relevance to nursing is a crucial element in the development of understanding in both Colleges but only the College 2 students identify repetition of course content as a barrier to learning.

**Table 8 - Course Structure and Content  
Comparison of Codes identified by College 1 & 2 Teachers**

Code	College 1 - Nurse Teachers (n=6)	College 1 - Non-nurse Teachers (n=7)	College 2 - Nurse Teachers (n=9)
P2000 as constraint	3	3	1
Modules	3	3	0
Student ability	0	4	4
Placement sequence	0	4	4
Basis for learning	0	6	0
Relevance	4	6	5
Repetition	0	0	4
Move to HE	0	0	5
Resources	2	5	7
Workload	5	5	6
Distance	0	0	4
Keeping up to date	5	3	8
Ownership	4	0	2
Collaboration	6	7	7
Dominance of nursing	1	2	0
Freedom to teach	6	5	9
Freedom to assess	1	5	3

All the teachers see P2000 as a curricular constraint, although their reasons are different. In College 2, the division of the curriculum into Foundation and Branch Studies with separate sites and teaching teams, results in a wide gap which is difficult to bridge. The health/illness divide is of particular concern as the students are motivated by learning about illness and disease rather than by health and health promotion. In College 1, the Foundation/Branch divide is not as much of a problem as in College 2, but the modular system there similarly causes some separation and division. The College 2 teachers acknowledge that there is a problem with their sequencing of placements. College 1 non-nurse teachers also express a problem with placements but their complaint is that the placements are planned in a way that interferes with the teaching of the disciplines.

P2000 also widened the entry gate to nursing and College 2 teachers and the non-nurse teachers in College 1 have concerns about the abilities of some of the students as a result. The nurse teachers in College 1, however, do not express any doubts regarding student ability.

Maintaining the logical coherence of a discipline and a basis of knowledge is an important issue only for the non-nurse discipline specialists in College 1. The nurse teachers in both Colleges are ambivalent about the degree of integration required and how they deal with this when teaching. The need to make the material relevant to nursing is acknowledged by all groups of teachers but repetition is not identified as an issue in College 1 where the core teaching team remains the same throughout the course.

College 2 has had the additional constraint of a move to higher education, with a consequent change of ethos and workload requirements. All the teachers in this study identify workload as a constraint, though College 2 teachers attribute much of their extra workload to the move to higher education. The difficulties of keeping up to date are attributed to workload.

Resources are also seen as a problem but the College 2 teachers specifically cite accommodation as a resource issue which affects delivery of the course. The move to higher education has resulted in teaching accommodation which is not suited to small group teaching nor to the teaching of skills.

Ownership of the course is an issue in College 1 where the teaching team is composed of both nurses and non-nurses. The nurse teachers believe that they have ownership of the course and that nursing has the dominant voice in decision-making. The non-nurse discipline specialists feel that, though they have freedom in teaching within the scope of the course documents, their assessments are sometimes altered to accommodate nursing requirements. The nurse teachers work as a team with the discipline specialist who is a nurse while the non-nurse discipline specialists come from different service departments, do not have time to attend all the relevant meetings and find that their concerns carry less

weight. The College 2 nurse teachers are also concerned about course ownership but their concern is the effect of the move to higher education. Their fear is that the teaching of the contributing disciplines will be taken over by discipline specialists and there will be a risk that nurses could lose control of the course.

## **Theme 2 - Teaching, Learning and Assessment**

The literature review showed that teaching, learning and assessment are inextricably linked. There is growing evidence to suggest that the way in which teachers in higher education conceptualise teaching and learning influences their approach to teaching. The teacher's view of teaching in turn parallels the students' conceptions of learning (Prosser *et al.* 1994, Trigwell and Prosser 1996, Trigwell, *et al.* 1999, Prosser and Trigwell 1999, Entwistle and Smith 2002). Students' perceptions of the learning and teaching context are systematically related to the approaches to learning they adopt and are central to the quality of their learning outcomes (Prosser and Trigwell 1999). Assessment has been identified as a strong influence on the student approaches (Ramsden and Entwistle 1981, Entwistle and Ramsden 1983, Biggs 1987, 1988, Prosser and Webb 1994, Entwistle and Tait 1990). It is important, therefore to match the teaching and learning goals with the assessment methods (Biggs 1996a, Scouller 1998).

**Table 9 -Teaching, Learning & Assessment  
Comparison of Codes identified by Colleges 1 & 2 Students**

<b>Code</b>	<b>College 1 Students (n=18)</b>	<b>College 2 Students (n=16)</b>
Peer Learning	14	10
Challenge	15	9
Freedom to learn	12	7
Freedom not to know	9	3
Lectures	0	11
Taking responsibility for learning	15	13
Self-evaluation	8	0
Teacher limitations	0	10
Assessment	18	16
Exams	1 (as challenge)	8 (need for)

The peer group is an essential element in learning for both groups of students. They not only learn together but they also learn from each other. Within their peer group they can challenge one another, and also challenge their teachers and be challenged by them.

Freedom in learning and in assessments is important to both groups but freedom not to know is cited more frequently in College 1. This is the freedom to be able to admit a lack of understanding in a safe environment, without loss of face. This is possible in a small safe group of sympathetic people but not in lectures, particularly in the large, impersonal lecture theatre in College 2.

Both groups of students talk about the need to take responsibility for their own learning. They differ, however, in their attitude to assessment. Some College 2 students say that they need more exams to test their knowledge thoroughly. This will motivate them to study. A different view of exams is taken in College 1. Only one student believes that there should be more exams, but for a different reason from that given in College 2. She maintains that exams require decision making under pressure and, as this is a routine part of the work of a nurse, they would be of some value to the students.



Half the College 1 students identify the development of self-evaluation as an important attribute but none of the College 2 students do so.

College 2 students are alone in citing the limitations of their teachers.

**Table 10 - Teaching, Learning & Assessment  
Comparison of Codes identified by Colleges 1 & 2 Teachers**

Code	College 1 Nurse Teachers (n=6)	College 1 Non-nurse Teachers (n=7)	College 2 Nurse Teachers (n=9)
Variety of teaching methods	5	7	6
Group learning	6	2	7
Challenge	6	6	9
Self-evaluation	4	0	0
Students taking responsibility	6	6	7
Freedom in student learning & assessment	6	2	4
Assessing the whole curriculum	0	0	7
Over-assessment	6	3	1
Exams	3	5	2
Assignments	3	3	3

Variety in teaching methods is important to the majority of teachers in both Colleges but group learning methods are more important to the teachers in College 1. All groups also believe that challenge and freedom in learning and assessment, make the students take responsibility for their own learning. Only the nurse teachers in College 1 see the development of a critical, self-evaluating attitude as a crucial element in learning.

The College 1 teachers, especially the nurse teachers, are concerned about over-assessment, while College 2 teachers are more worried about what they see as their failure to assess the whole curriculum. Some of them take the view that their subjects

are so integrated that they are unable to assess the students' learning adequately and that more exams are necessary. Some of the College 1 discipline specialist, non-nurse teachers also say that the holistic move towards integration promoted by the P2000 and nursing theorists has deprived them of the chance to assess adequately the students' understanding of the contributing disciplines.

### **Theme 3 - Sharing Experience**

The value of experience in learning is one of the basic characteristics of adult learning (Knowles 1970, Kolb 1984). Learners need to be able to relate what they already know from previous experience to the new knowledge. The prevalence of current trends in education such as co-operative learning (Johnston and Johnston 1992, Slavin 1995), peer-assisted learning (Houston and Lazenbatt 1999) and problem-based learning (Albanese and Mitchell 1993, Norman and Schmidt 1992 Walton and Matthews 1989) supports the contention that adult learners learn well by debating with peers. Adult learning theories also suggest that adults tend to be orientated towards courses which they perceive as relevant and practical, preferring courses which focus on the application of new concepts to real life problems. Sharing experience from practice therefore is the highest motivating factor for learning, second only to practice itself. Sharing experience with a variety of different groups also provides exposure to a variety of perspectives. This is in line with the nursing emphasis on holism which maintains that patient care must be viewed from a variety of perspectives, physical, psychological, social and spiritual.

Reflection is central to many theories of experiential learning. It has become an increasingly valued method of uncovering knowledge from experience, particularly in professional practice (Mezirow 1981, Knowles 1970, Kolb 1984, Boud *et al.* 1985, Schon 1987).

**Table 11 - Sharing Experience  
Comparison of Codes identified by College 1 & 2 Students**

<b>Code</b>	<b>College 1 Students (n=18)</b>	<b>College 2 Students (n=16)</b>
Differing Perspectives	10	14
Peer Experience	18	16
Reflection	16	15
Teacher experience	17	14
Previous experience	6	1
Holism	12	5
Reality in teaching	15	14
Practice	16	8

The sharing of experience of practice and exposure to a variety of perspectives are both important factors in the integration of theory and practice for students in both colleges. Sharing the experience of the peer group and the nurse teachers is cited by the majority of both groups of students as being particularly valuable. In College 1, the students say that the teachers use student experience as a teaching strategy.

All the students say that reflection, notably reflecting in groups, has greatly enhanced the opportunities for the students to learn from their own experience and to share experiences with others. The need for teaching which is grounded in practice is highlighted by most students. They are united in their view that they learn to integrate theory and practice most effectively during their placements. Next to actual practice comes the sharing of experiences with peers and teachers.

**Table 12 - Sharing Experience - Comparison of Codes identified by College 1 and 2 Teachers**

Code	College 1 Nurse Teachers (n=6)	College 1 Non-nurse Teachers (n=7)	College 2 Nurse Teachers (n=9)
Diff. perspectives	6	4	3
Using student experience	5	7	6
Using own experience	6	6	8
Reflection	3	2	6
Holism	1	2	3
Reality in teaching	6	6	8
Ideal -v- actual	5	1	7

The teachers agree with the students that the sharing of experience is a vital aspect of their development. The College 1 teachers, both nurse teachers and the discipline specialists, however, are more inclined than are the nurse teachers in College 2 to view exposure to differing perspectives as a positive strength.

The need to relate teaching to the realities of practice is recognised by all the teachers. However, whether to teach students ideal practice or simply practice which is good enough and possible in the real world, is an on-going dilemma for the nurse teachers but a minority issue for the non-nurse teachers.

#### **Theme 4 - Relationships**

Jean-Jacques Rousseau (1974) was one of the first theorists to promote the need for relationships of trust and mutual understanding in learning, ideas which were furthered developed by Rogers (1969). A supportive learning climate enhances the development of the students and promotes confidence in their abilities. The lecturer's interest in the students and willingness to help are important elements in student learning (Hodgson 1997). Several writers have noted significant gains on measures of social relationships

and self-esteem where peer learning methods have been used (Parker 1984, Davidson 1990, Good *et al.* 1988 all cited by King *et al.* 1991). The social integration of students has also been found by some to have a positive correlation with successful completion of the course (Treston 1999, Topping 1996, 1997, Dolan and Castley 1998). One view of 'good practice' in undergraduate education is the encouragement of student-staff contact and co-operation among students (Chickering and Gamson 1987, Gibbs (1995, 1999).

**Table 13 - Relationships  
Comparison of Codes identified by Colleges 1 and 2 Students**

Code	College 1 Students (n=18)	College 2 Students (n=16)
Support –group	11	7
Support – staff	11	12

For the students in both Colleges, relationships are an important factor in learning. The peer group is a source of support as well as a source of learning. Teachers are also identified as an important source of support. In College 2, however, the support of the teachers (who are all nurses) is not regarded as positively as the support from the nurse teachers in College 1.

**Table 14 - Relationships  
Comparison of Codes identified by College 1 and 2 Teachers**

Code	College 1 - Nurse Teachers (n=6)	College 1 - Non-nurse Teachers (n=7)	College 2 - Nurse Teachers (n=9)
Student support	6	0	6
Student pers. dev.	3	0	1
Student confidence	3	0	0
Authority figures	2	1	0
Student numbers	0	0	5

The nurse teachers in both Colleges see student support as part of their responsibility. The non-nurse discipline specialists in College 1, however, do not see student support as part of their role and do not mention the personal development and confidence of the

students. Though a majority of College 2 teachers see student support as an important part of their role, they are not as positive about their role concerning the personal development or confidence of the students. Student numbers are more of a concern in College 2 as the teachers believe that, since the advent of Project 2000, the larger number of students in one intake has an influence on student support. An issue identified mainly by College 1 teachers is that of authority. They are concerned that the students see them as authority figures, affecting the collegial atmosphere which they believe has a positive effect on student confidence and learning.

### **Theme 5 - Issues Which Span More Than One Category**

Confidence, personal development and knowledge are all vital elements in the education of professionals. Brookfield (1993a) notes that the need for credibility and confidence is an essential feature of most professional practice. Qualitatively distinct conceptions of learning held by students are associated with qualitatively different learning outcomes (Cliff 1998). To the hierarchy of students' conceptions of learning identified by Saljo (1979), Marton *et al.* (1993) added a sixth qualitatively distinct category - 'changing as a person'. They argued that this is the most sophisticated level within the hierarchy. One view of the curriculum is that it is grounded in knowledge (Hirst 1974), though others see it as limiting to think of the curriculum merely as a body of knowledge to be transmitted (Kelly 1989, Marsh 1997a). Stenhouse (1975) says that assumptions about the structure of knowledge are implicit in the curriculum and one aspect of thinking about the curriculum is thinking about knowledge.

A different kind of knowledge, however, emerges from practice (Schon 1983, Jarvis 1992b). This type of theory is variously known as tacit knowledge (Polanzi 1958), implicit or informal theory (Pring 1970, Schon 1983) or practice or common sense theory (Carr 1980, 1986).

Personal development and confidence come from the support of others, and from the sharing and reflecting on experience with others. Confidence is derived from the positive support of others and from an adequate knowledge base.

**Table 15 - Issues which span more than one category  
Comparison of Codes identified by Colleges 1 and 2 Students**

<b>Code</b>	<b>College 1 Students (n=18)</b>	<b>College 2 Students (n=16)</b>
Confidence	13	13
Personal development	12	8
Knowledge	15	9

Developing as a person and the development of confidence are issues in both Colleges, though personal development is identified more often by the College 1 students. Confidence is mentioned by a majority of students in both Colleges but College 1 students are more likely to speak of confidence positively while the College 2 students are more likely to identify lack of confidence as an issue.

Knowledge appears in the majority of student interviews but is related to different contexts. Personal knowledge from practice is something to be reflected on and to be shared and debated with peers. Personal knowledge can be enhanced and modified by access to the knowledge of others, but particularly peers and nurse teachers.

The acquisition of knowledge is also a major issue which is related to the teaching and learning strategies adopted and the learning context. All the students are concerned to acquire knowledge which is relevant to nursing practice and which will help them to survive in the clinical placements. The course structure and content and the degree of subject integration all affect the acquisition of knowledge.

The College 1 students say that they have developed confidence by acquiring a great deal of knowledge. The College 2 students on the other hand are less sure of their knowledge base and some blame this for their lack of confidence.

**Table 16 - Issues which span more than one category  
Comparison of Codes identified by College 1 and 2 Teachers**

<b>Code</b>	<b>College 1 - Nurse Teachers (n=6)</b>	<b>College 1 - Non-nurse Teachers (n=7)</b>	<b>College 2 - Nurse Teachers (n=9)</b>
Knowledge	3	4	7

The College 1 nurse teachers express confidence in the knowledge base of their students, though the non-nurse discipline specialists are less positive about the students' knowledge of contributing disciplines. They voice reservations about the ability of the students to develop an adequate knowledge base before the course becomes fully integrated. College 2 teachers are less sure about the knowledge base of their students and express concern over the effect of the assessment strategy and the structure of the course. All the teachers also talk about knowledge in terms of how best to acquire it, and which teaching strategies are the most successful.

### **Detailed Data Analysis**

The data were first analysed in detail and the categories were then identified. In this way, a sense of the total content of the data was obtained. The research questions were then used to focus the analysis. The issues related to the integration of theory and practice are experienced by the students within the overall context of the curriculum and so the analysis has sought to describe the important general aspects of that experience as experienced by the participants. Only within that background can the issues of integration and the problems in experiencing it be seen clearly.

Each aspect will be examined using the analysis of the data and drawing out any differences found between the two colleges. Codes have been appended to the quotations to differentiate between students, nurse teachers, discipline specialists and nurse/discipline specialist in the two Colleges.



## **How Do the Participants Understand the Integration of Theory and Practice Within the Overall Context of the Curriculum.**

The teaching methods used were identified as important factors in the integration of the curriculum. The students in this study consider that learning in groups and interactions with the other students provide some of the most successful learning experiences in college. These continue outside the classroom as informal sessions where the students, relaxed and unobserved by teachers, continue to reinforce what they have learned in more formal situations.

*“We had absolutely no idea. We sat and we just couldn’t get our heads round it. And we bickered among ourselves, and everyone tried explaining in their own way. And in the end, one of the girls in the class said something about it and it suddenly went together. It suddenly clicked. And I think we ended up...it was really pandemonium. We ended sticking things on walls, and people scribbling and saying “this is how I think it works”. ...I think it was maybe because we were so challenged...we didn’t just accept not knowing it”.*

(Coll1 St 1)

*“But even when you’re in college and out with, when you’re on coffee break, we just sit and discuss things then, and that’s when all the ethics come out. And you don’t have a tutor standing over you, so she’s not judging you. And it’s a much more relaxed discussion. But I don’t think they think we do that. I think they just think we discuss our social life. I don’t think that they realise that, when we do meet up with each other, a lot of our conversation is nursing-based on what we’ve learned. So we have great discussions about ethics. And we learn from each other. We don’t always need to learn from the tutor”.*

(Coll2 St 4)

Not only do the students learn well together in group situations but they also claim to learn through the experience of others in the group.

*“When they start speaking about personal experience or other people’s experience.*

*Because just a text book, text book all the time just doesn't interest you at all".*

(Coll2 St4)

Both teachers and students recognise that understanding can often be reached when students attempt to explain some aspect of the material to one another. The students share a common language and, as they themselves have recently mastered the material, they are able to understand the difficulties of their peers and thus give explanations in a form of language which is often more easily understood than that of the teachers.

*"...quite often students are very good at explaining things to each other. Well, sometimes better than a teacher, I suppose. ...Well, if you're sitting in a lecture, for example, and you don't understand something, you should obviously say to the lecturer that you don't understand but, quite often, you don't. ...And so the lecturer doesn't get it. But if you're with your friend, they'll see your puzzled face. And also, feed-back from you as an individual and they don't know that you're not understanding because they've just learned it recently, they can translate high-faluting language into street language. I don't know how else to put it, but you know what I mean? The way they speak. And they'll know what your level of understanding is".*

(Coll2 St2)

*"...I had really only done nebulisers on some of the medical wards, but I hadn't had much to do with them, and then she (my friend) had been on a medical ward for six weeks so... Now let me get this right. You don't give someone with a COAD because they've got too much carbon dioxide so, if you give them oxygen, they just won't breathe because their body will say to them...you see, she explained that to me and I knew what she meant when she said it".*

(Coll2 St14)

*"I felt that personally I would have liked access to the previous year, more for the peer group thing because you do tend to speak differently amongst your own group than you do with the tutors. And it just makes a difference. One person saying one thing in their*

*own language, which is your common language, can make such a difference to the way you perceive and take something on”.*

(Coll1 St14)

In College 1, students appreciated the ways in which they had been challenged and encouraged to become more analytical in their thinking. This also led them to be aware of the clinical interventions which they had observed in the placements, and to think critically about the effectiveness of these interventions. All the teachers say that challenging students encourages engagement with the material to be learned, resulting in a deeper understanding. Challenge frequently takes the form of questioning and probing by both the teachers and peers. The teachers report that they make frequent use of questioning to draw out students’ knowledge and to help them to make connections.

*“Well, I think questioning and probing. Because I’ve been doing it for a wee while, I think you have to be quite skilled in seeing who wants to speak and isn’t getting a chance, and putting questions to them. ...I think it’s just the use of questions really, and putting things to them that they clearly hadn’t thought of, and asking them, inviting them to consider this”.*

(Coll1 T4 nurse)

*“That’s something about this course. It has encouraged that, to be analytical and also to challenge, to ask questions and not just accept things off pat. It’s up to you to find out why you’re doing what you’re doing, to be able to give a rationale for what you’re doing”.*

(Coll1 St14)

The nurse teachers in College 1 use their own experience of nursing to challenge the students’ experience.

*“...they bring with them from the wards incidents or issues that we pick to bits and say...*

*you're saying to me that that happened. What's the theoretical background to that? What do you know about communications theory or whatever that would make you understand, try and make sense of what happened? Where's your research base for it? And we do that all the way through, basically analyse it".*

(Coll1 T5 nurse)

*"We're not just expecting them to say, "I was in a health centre and I saw this and I saw that, and we had this" We're actually getting them to question if what they experienced was adequate and to challenge it".*

(Coll1 T2 nurse)

*"You're going in and saying, "Oh, I've got a problem with this patient" and a lecturer will ask 'why?' They sort of ask a bit more and you need to think about the full situation rather than one specific problem and you can draw on all your knowledge".*

(Coll1 St 6)

The students in College 1 appreciate the value of being challenged, and adopt it as part of their own practice.

*"I was given a second year and it was her first ward placement and they sort of said," will you look after her?" And I was thinking that having done the teaching module gave you a kind of idea that there was no point in sitting her down and saying this, this and this, but kind of testing her.*

(Coll1 St 2)

*"Some of them are very, very conscientious and it has been a marvellous return. They are a joy to teach because they continuously keep you on your toes".*

(Coll1 T1 nurse)

The students recognised that questioning and probing felt comfortable only when they

perceived the environment to be 'safe' and non-threatening. This enabled them to develop the confidence to ask questions and to challenge the teacher. In their groups, however, some of the students found that challenging each other could also lead to understanding.

*"Well, that's why I think sometimes if you can get the students to talk about it, or the other students who have not, or vaguely know something about it, can ask the questions, or you can get them to play devil's advocate and say, "Why did you do that? Why are you doing that?" So that, again, you've got a student questioning another student and pulling out their knowledge, or hopefully pulling out their knowledge, and getting them to be able to explain what they know or to work out their deficits. So, if you can do that, I think probably the student might suddenly say, "Oh yes, I see what you mean", and that might just be an 'ah-ha' experience to that particular student".*

(Coll2 T4 nurse)

*"I think if you're in a lecture with a lecturer you don't know, you're not inclined to answer questions, you just sit there and write down. Whereas if you have a lecturer who you feel challenges you and you feel comfortable in their presence, you can think "Well, no, actually I don't agree with that" and you can explore ideas rather than just accepting it".*

(Coll1 St18)

*"I think they're all really approachable, actually... You can put your hand up and say "I don't understand this"...and the fact that they're closer to you, they can pick up the expressions on a face... "*

(Coll1 St 6)

It is also possible, within a group of peers which is psychologically safe, for the students to admit ignorance or a lack of understanding, and to ask for further elucidation without the risk of losing face.

*"I like group work because, if there is someone in the class that doesn't fully understand, it's not so easy to stand up and say "Well, I didn't get that at all". But if you're in a small group you can say "What was that it again? I didn't quite catch it". I think it gives the opportunity to do that".*

(Coll1 St2)

Group work, however, is only one of a range of strategies used to facilitate student involvement and participation in the development of autonomy and self-direction in learning. As well as informal group discussions and work sharing, students are also required to give class presentations or to give more formal teaching sessions. Both groups of students say that teaching others is a particularly effective way of understanding a topic. It is also challenging, as they are not only required to understand the topic thoroughly but also have to put effort into the preparation to avoid losing face.

*"The self-directed group work is better because we learn from each other. If you can explain something back to somebody, it shows that you've actually learned it".*

(Coll1 St6)

*"I think having tutorials that you have to prepare for, having presentations that you've got to do, having group work where you have quite a big contribution to make, then I think you probably learn more that way because you're making an effort. And we had to do a teaching session, or various ones during fourth year, it was good to be able to use that theory to teach other students, junior students. We helped them to connect the theory that they had in college to the practical side of it.."*

(Coll1 St11)

*"I think probably teaching in groups and giving us topics to think about and go away, research and come back and, as a group, present it to the rest of the class. I think often you're listening for what your friends are saying".*

(Coll1 St3)

The students say that they find group work a successful learning strategy, however, only when the group has been given time to become cohesive and when everyone contributes fairly to the work. They found that there was a need for active facilitation by the teachers to ensure that the workload is shared equitably.

*"...you were put into groups and told to go out and find out about the area, and that didn't work terribly well. I think we had to wait for people to...You have to wait for the groups to establish themselves a little bit naturally. I don't think you can force it. I know that it's team work and you're always going to be working with people at some point where you're not going to know them, but I think to get the best out of people, let the group develop a little first".*

(Coll2 St13)

*"If you can work together and communicate well with each other, and everybody does their part, it works fine. But I've been in groups where everybody hasn't pulled their weight or somebody hasn't turned up and things like that, not talking to each other and two people doing the same thing when they should have been doing different things. So I've had good experiences and bad experiences but when it works well, you talk to each other more and you talk things through and you try to understand things and some people might have a different understanding of the subject than others, and you can talk that through and come to a conclusion that is probably better than the one you first had. You can help each other with problems and things like that".*

(Coll1 St13)

*"It is a good way of learning, but it depends on whether the tutor is in the classroom or not. Because there can be an awful lot of like if somebody can't be bothered and another person can't be bothered, then you don't end up getting any work done and you just end up making things up in the last five minutes, and then you have nothing to feed back to the class".*

(Coll2 St4)

Peer relationships are important for both these groups of students. The students find learning to be a nurse an anxious business, for which support is needed. Strong supportive relationships are formed, encouraged by the emphasis on group learning and the promotion of reflective groups. Students say that these develop their confidence.

*“My fellow students, I’d say, far more than the actual formal structure of the course. It’s not something that’s put on a leaflet where you do this course and you’ll met lifelong friends. But for me, I have sort of developed as a person. Apart from training to be a nurse, I feel like there’s been irreversible changes in me, partly to do with the nursing and just seeing people on the wards with such awful things happening to them, or good things happening, but just to see a lot more of what goes on in people’s lives”.*

(Coll2 St8)

*“When it works well, you talk to each other more and you talk things through, and you try to understand things and some people might have a different understanding of the subject than others, and you can talk that through and come to a conclusion that is probably better than the first one you had. You can help each other with problems”.*

(Coll1 St13)

*“And you learn from each other, and you learn to learn from each other, and you learn to turn to colleagues quite early on for support and help. And you become more confident asking each other questions and learning how to support each other”.*

(Coll1 St17)

*“...if you didn’t get on well with the people, or you weren’t particularly friendly with them, or if you didn’t know them that well, I think that was probably a hindrance. If you don’t have some kind of relationship with the people you’re with, then I don’t think it’s as useful”.*

(Coll1 St 15)



Both these colleges follow the current trend in nurse education, to move away from complete dependence on the traditional, didactic forms of instruction, which were characteristic of nurse education before the Project 2000 reforms. Strategies promoting self-direction and independence in learning have been widely adopted but some of the teachers still express qualms about relinquishing control or about the suitability of these methods for all students.

*"It's trying to get over the barrier of having faith in your students that just because you haven't told them or taught them what to do about somebody who's having ear surgery that they will have the abilities and the knowledge to go and find out for themselves if they happen to go to that particular ward".*

(Coll1 T5 nurse)

*"I don't like the very, very broad diversity of ability that we're taking in. You're taught all the different learning theories. There are so many students which means that you're not necessarily teaching the way the student learns best. I think this is where we are making a big mistake, that all students are not suited to learn in an adult fashion".*

(Coll2 T7 nurse)

The non-nurse discipline specialist in College 1 is the only teacher who says that she makes an attempt to find out what type of learners her students are.

*"I use this learning-type questionnaire... to get a feel for what type of learners I have in my group. It's a very crude way of finding out but from that I found that so many of the students wanted different ways of teaching and different ways of learning that it was actually impossible. So I use various methods and just hope that each time someone is getting something out of the teaching method I'm using".*

(Coll 1 T15 discipline specialist/nurse)

The majority of students in this study, however, accept the need to be self-directing and are prepared to take responsibility for their own learning.

*"I don't expect to be spoon fed everything, because you can't. It's so vast. The discipline is so vast that you can't learn everything. You can learn the general principles, and then use them in your practice and adapt them as you go. I think that's something about this course. It has encouraged that, to be analytical and also to challenge, to ask questions and not just accept things off pat. It's up to you to find out why you're doing what you're doing, to be able to give a rationale for what you're doing".*

(Coll1 St 14)

*"I get the impression that the second year group that I'm talking about, who really have just experienced hospital for the first time this year, their approach to things is different. They're not so narrow. They seem to be able to take on board situations and analyse them and question what's happening. ...I think it's the approach we're taking to the students from day one, making them quite self-directed, making them reflective".*

(Coll1 T2 nurse)

*"...I thought, "Well, I'm nearly done and it's about time I took some responsibility and made an effort to actually have knowledge on entering a ward, rather than always going on completely ignorant of anything that happens on it. So it was helpful".*

(Coll2 St11)

Self-evaluation is an important element of self directed learning. It is not identified as an educational issue in College 2 but, in College 1, the teachers include self-evaluation in their array of teaching strategies and the students accept the need to develop skills of self-evaluation.

*“Probably one of the most important things is that you’re not going to really get any better if you don’t question your actions”.*

(Coll1 St1)

Both teachers and students believe that self direction and autonomy in learning is stimulated by freedom and an opportunity to follow areas of interest. They find that a choice of what and how to learn is motivating and helps to stimulate ownership of learning.

*“And some of the ones you don’t expect to ever achieve deep learning, suddenly in fourth-year they take off on it. And actually fourth-year is the year they show real potential having struggled for the first three years. Possibly because they’re allowed to actually go and study in depth areas of interest to themselves so it’s relevant and excited their interest”.*

(Coll1 T5 nurse)

*“You chose an area of study you were interested in. I’ve always been interested in oncology and that sort of area, so I was able to look into that area. And I think if you’re able to do that, do something that you’re interested in, it’s lot easier to study...”*

(Coll1 St10)

*“But the branch training actually gave you something to study rather than “we’ll study this”, you were actually studying for yourself. It was more self-orientated. You studied because you wanted to study”.*

(Coll2 St16)

Teaching staff in the two colleges express differing expectations of the extent to which the students should be stretched academically.

*“We assure them that we have sifted out only those aspects that we believe they should*

*have an awareness of to make them more critical thinkers, to open their eyes to various things, that we are not overstepping the mark”.*

(Coll2 T1 nurse)

*“I give them a reading list and, at the same time, I expect them to go and read widely. So, by providing a reading list, I have already blinkered them. If we want people to really think in a divergent way, then I should not really give them reading lists”.*

(Coll1 T1 nurse)

Though group learning is popular in College 1, less unanimity is expressed in College 2. Some of the teachers were concerned that the students had been bombarded by group work and self-directed learning, and some of the students shared this feeling.

*“I have to say that most of the students seem to get completely bombarded with a lot of self-directed workshops or group-work, and I think many of them get lost in that. I think we’ve moved too far away to the interactive group-work philosophy and too far away from structured lectures. I think we need to redress that balance because some of them learn well by sitting and listening, and are threatened by having to speak up”.*

(Coll2 T1 nurse)

*“We were never actually taught anything. We were given information. And a lot of the time things like... we would do like...not workshops but... we went into a room and there was information laid out, and you were all just left to your own devices a lot of the time. It was up to you to get the information. I don’t know. Maybe I’m just lazy but I’m not the type of person... I can’t... it was like self-directed study most of the time. I don’t feel I was taught anything”.*

(Coll2 St13)

Lectures are still commonly employed teaching strategies. In College 1, lectures are

given more routinely by the discipline-specific teachers who, unlike the nurse teachers, are not normally required to be registered teachers. The small number of students in College 1 means that there is more opportunity for informality and interaction within lectures.

*"I think they sort of get us to draw in experiences from placement. You know, they'll say to us, "Have you seen this practice? What would you do if this happened in practice?" And then you actually get to think back to what you've actually done, discuss it with your colleagues and although we're in a lecture we can still have small discussions. "Oh yes, I actually did see that". And it makes you think more about actually nursing."*

(Coll1 St 6)

*"So it's fairly interactive. I try, as I go along, to find out if they have been out on placement, what they've done, what sort of wards they've seen, and the, in a more sort of informal work-shop, they will actually say "I had a patient who had this. Why was this?" or "Is it true, because my patient did this, that and the other, and she had, you know." So I mean it's not very structured... Even though I do give a lecture, it's not a particularly formal affair".*

(Coll1 T12 discipline specialist)

The students value lectures when they provide a guide to what they should be learning. They also appreciate the access they provide to the expert knowledge of the teacher, which is not always available during group work.

*"I do learn when facts are presented and you have to learn them, but having to discuss them is the way to get them embedded".*

(Coll1 St1)

*"I quite enjoyed tutorials and working in smaller groups. I find I get more out of that. But I also like to have a lecturer there, or someone with expert knowledge. Well, someone to guide you really, because I think you can still get lost".*

(Coll1 St 9)

*"I certainly like self-directed study. I do like that a lot. But I also like some structure in the lectures and things, and some sort of structure that I can carry on looking at once I've finished, once the lecture's finished. ...I do like somebody to stand up in front of me and say this, this and this. And I like to think about it afterwards, or sometimes during the lecture I think about things and I might ask a question if it's a small enough lecture to do that. But if it's not, then I usually sort of ...I mean I discuss it afterwards with friends, possibly, and I choose somebody whom I feel has some sort of similar kind of ideas and attitudes to mine. I would say to them, "What did you think of that?" And quite often students do discuss things like that, I think, after a structured lecture."*

(Coll2 St9)

Accommodation or lack of it can determine the teaching strategy. The large number of students in College 2 necessitates the use of a large lecture theatre. Both staff and students attribute the choice of lecture as a teaching method to a lack in teaching resources.

*"... we started off giving a master class and then broke it down for the students to work in groups. Say the hundred and then they were into the twenty-five in the class, and then they were sub-divided into working groups. But that was very successful the first time, but the second time there wasn't the accommodation, so we had to make the change and we had to do the whole class four times.*

(Coll2 T2 nurse)

*"half the time, I feel the lecture theatre is only used because they can't get enough classes, they can't get enough tutors to actually take the classes".*

(Coll2 St1)

These sessions in the lecture theatre are unpopular with students and teachers alike.

Students consider them to be too long and, as they are reluctant to ask questions, they are sometimes left feeling confused. Some of the College 2 teachers express reservations about the degree of understanding achieved by the students during these sessions.

*“Well, you see, quite a lot of our lessons were in the lecture theatre, and you don’t like to ask because there’s about ninety-odd of us. You know that the lesson’s an hour and if they say at the end, “Any questions?”...And I mean everybody by this time is looking at the clock so you feel you don’t want to ask. And then again, you don’t want to maybe embarrass yourself in front of a lot of people”.*

(Coll2 St14)

*“Even though they’ve had lectures, they don’t have a clue why they’re doing half the things they’re doing in the pre-operative, or post-operative phase. So I think it goes in one ear and out the other because it’s given at lectures.*

(Coll2 T5 nurse)

The overuse of overheads is especially unpopular with both sets of students.

*“I don’t mind the blackboard, like periodically using like diagrams or whatever. But face with screeds and screeds of information on overheads, I just give up and don’t write anything. Because you either scribble and scribble and scribble, and you spend so much time writing that you don’t hear what’s going on. Or you listened to what’s going on and you don’t get time to write anything down. Or you get itty bitty notes. So I just give up”.*

(Coll1 St15)

*“I really think that the format of just presenting things on acetate, words on acetate, and also sometimes you’ve got a mass of words and people try and write it all down, but they also try listening to the tutor and it just doesn’t work. You can’t do both.”*

(Coll2 St13)

Though the participants say that the teaching strategies in college which support

integration are those which most encourage student cooperation and active involvement, the majority of participants consider that practice is the most important factor. The students find that much that has seemed irrelevant or of limited value when learned in a classroom can be used to advantage when they are in practice.

*“Because they are usually totally so rosy-eyed when they’re out in the wards. This is where they want to be, and they can’t get enough of working with the patients and understanding how to do things, how to talk to people. It’s so much more alive for them when they’re in the ward. It’s real. They’ve arrived. And this is what it’s all about for them, that they will listen to anything”.*

(Coll2 T1 nurse)

*“The reason I say placement is so important is that it’s an environment where you learn from the moment you walk on to the ward to the moment you leave in all aspects from how you conduct yourself to interpersonal relationships with staff and patients. It’s just a learning environment where you have to be switched on constantly”.*

(Coll1 St1)

After experience of practice itself, learning in college is most appreciated when it is rooted in reality, and introduces the students to situations that they will experience during the practice placements.

All the students and teachers give clinical experience a prominent place in teaching, learning and assessing. Students appreciate case studies, realistic scenarios and role play, when they feature the kind of situations which they will meet in practice. They say that these learning strategies force them to use all aspects of their knowledge and highlight the relationship between theory and practice. This approach also engages the interest and excitement of the nurse teachers.

*“Definitely the start of third year when I remember we were doing persistent health problems which was sort of chronic illnesses where it brought together very much*



*integrated about physiology, care, treatment, that really helped things click a lot. And then we did the acutely ill adult where we had case studies where we split into groups. ...The way that it all fitted together was because we were talking about individual people...It was related because it was a case study and we were talking about a person. We weren't talking about the liver or a lung".*

(Coll1 St1)

*"I think the best thing that I've actually ever had in college was we've actually had scenarios with real people pretending to have a condition. ...Role-play. I think that's been about one of the best things. ...Because it's there in front of you. Things like somebody had fallen off the scaffolding and just things like you're looking at their leg, and they've had the bone pulled through their leg, and you should have actually been looking at their head because there was bruising at the back, and it actually made you look at what you should have been doing, not what was the obvious thing to look at".*

(Coll2 St3)

*"And I was given the five weeks of the integrated module in semester one of year four, in which to do cancer nursing. And it really is quite an exciting opportunity because you're actually required to integrate all the different disciplines, nursing, biological sciences, social science. ...So what I'm proposing is to use a problem-based approach using case-studies I get from reality".*

(Coll1 T3 nurse)

The portions of text included in this section of the analysis indicate the importance of the methods used to promote the integration of theory and practice in the opinion of the students. They say that they find helpful methods which encourage interaction and the sharing of experiences and allow for some degree of choice. In a supportive group, they say that they can accept challenge and admit ignorance. Working in groups has become a common feature of nurse education, to work together on aspects of nursing practice and to reflect together.

Reflection has become an essential feature of all nursing education since the educational reforms. The students find it a valuable tool for uncovering the knowledge gained in practice, as they find that they can learn from the differing experiences and perspectives of others during timetabled periods for reflective groups and from assignments consisting of a reflective analysis of practice.

*"We used to talk about everything, and you could get it off your chest, and then you found out that things had happened to other people as well, so it put it into perspective"...you would say what had happened, and then saying it with the group and then the group would maybe see it from another point of view, and they would say, "That maybe happened, Katy, because ..." and then I'd look and I'd think, "Oh, I never thought of that". And then, the time you think about it, it was surprising, because we use that Murphy's and Atkins' reflective cycle and you analyse it and evaluate it and things like that. And I will admit that it does make a difference, because when you sit and think about things and look at it from different angles, you think, "Oh well, maybe..."*

(Coll2 St14)

*"Because I think sometimes you can see a point of view and it's quite interesting to see how other people perceive the problem. It just helps you to be a bit more open minded. And I mean, obviously, another thing is that you've got mature students and people straight out of school, and people in the middle, and it's quite interesting just to see how people with different experiences perceive different things".*

(Coll2 St5)

*"...getting into this reflection process it also means that we can share our experiences from placements again. Which again is a good thing for us to learn from somebody else's - not necessarily a mistake but a situation that you're found in, that you don't know exactly what to do".*

(Coll1 St7)

The students appreciate a supportive group as a way of developing confidence and also as a way of increasing knowledge. They find that sharing experiences, particularly negative

ones, is a valuable way of alleviating anxiety about their performance in practice.

*"...talking about what you've done and knowing it's going to be within the confidential group that we've built up over the last eighteen months, and thinking, "Well, actually, maybe I didn't actually handle that situation quite well". It also gives you confidence to find that somebody else is sitting next to you and says, "Oh no, I've been there and I did that as well". You know, it gives you a wee bit more support. You're not the only one possibly making mistakes just now, and to know that there's somebody else has tried it THAT way. You've got a chance to think it over".*

(Coll2 St12)

*"...someone will have seen things on the ward and they can't make sense of it. And they don't always need a right or wrong answer. They just need to have it straight in their heads and how everyone has handled it".*

(Coll1 St9)

*"And really, by reflecting back on it, I tend to see things through the reflection that I didn't see at the time. You know, at the time this nurse was nasty to me because she didn't like me, and I couldn't understand why she didn't like me, because I'm a nice person, I thought. But, on reflection, she wasn't very nice to anybody and she had an attitude. She was an ex-enrolled nurse who had a bit of an attitude. So the reflection helped that and, of course, you got the support of your group who said, "You're not really a bad person. It must be her".*

(Coll2 St6)

College 2 students are often critical about reflective sessions and see them as opportunities for 'moaning'. Several of the students express surprise that nothing is 'done' as a result of what is revealed about some clinical areas during these sessions.

*"Well, basically everybody sits and moans about the last placement, I think is the main thing. We usually have them at the start of every term, which means that we've normally*

*just had a placement. If anybody's had any problems, then everybody sits and moans and whinges about this ward and that ward and how they have this lack of knowledge that often comes up. I landed on a ward and I was asked this, and I didn't know it, and I should be doing that anyway".*

(Coll2 St 11)

*"I think we have just encouraged them to talk about their experience, and maybe leading them in some ways with questions, gently urging them to explore what they're doing out there, why they think it's...If they are tending to get into a moaning situation, we try to get them to draw back from it a bit and try to reflect on it and find out why do they think that happened. And often there's one of the other group that will pitch in and add their own experiences, which will be similar but maybe a bit different and actually add another context to it."*

(Coll2 T5 nurse)

Not all the non-nurse teachers in College 1 are in sympathy with some of the current preoccupations of nursing, such as reflection.

*"Promoting reflection? I don't like that word. It's such a passive activity. I took exception to it because it is such a passive word. I mean, heaven preserve me from somebody who sits and reflects all the time. That's what mirrors do. I would hope that somebody might learn things deeply by having to make intellectual choices about the material which is there. And also intellectual choices about what the material is saying to them".*

(Coll1 T7 discipline specialist)

The students, however, can give compelling examples of the place reflection has played in their ability to relate theory to situations which have occurred in practice.

*"Reflection...It makes you question your own practice, and it's not about clinical skills or anything like that...it's just about your actions and how you managed to cope with*

*situations or not. I talked a guy, a man who was absolutely psychotic back into Accident and Emergency. He was either going to be arrested or he was going to hurt someone. He'd cut his finger off and he was playing with it...I managed to bring him back in just through simple calmness, communication...And I think the only reason I really knew how to do that was because I had been taught part of it, I'd learned some of it myself but I had always thought about these things previously..."*

(Coll1 St1)

The students say that reflection does support integration by providing opportunities to share experience, and to access other perspectives. They say that reflection can enhance knowledge, in addition to increasing their confidence and alleviating anxiety. Assessment can also provide student anxiety as it is the formal challenge for all students and drives the type and quality of their learning. Since the educational reforms, however, exams have come to play a smaller part in student nurse assessment. In both Colleges exams take place only in the first two years of the course. In College 1, the assessment strategy is decided after consultation with the wider team or, at least, with representatives of the discipline groups. In the second year exams, the questions are set jointly and often take the form of seen case studies which require demonstration of the integration of knowledge.

Students and nurse teachers from both Colleges identify written assignments as assessment methods which require the students to integrate all strands of the course and to allow for the development of understanding and personal meaning.

*"I think because we had an exam at the end, it made the whole thing more painful, the learning process more painful. Whereas if you've got an assessment...you're going somewhere. You've got stuff and you can work around it and find your own meaning and go and get help...We were given a foundation of things, and then the way we were assessed was to draw those disciplines together a bit more... it was like a very gradual evolution which made it a bit more comfortable...by third year I could see exactly how it fitted together".*

(Coll1 St17)

*"And they integrate... We actively encourage them to use their practice knowledge from things that have happened to them to illustrate what they're talking about"... The really good ones have it tightly packaged and they have it integrated. All the knowledge bases are integrated into a communal sort of assignment.*

(Coll1 T5 nurse)

*"a good assignment is one that questions the student's own knowledge base, but more importantly, drives them to link theory and practice, to actually be able to demonstrate that they have not just a knowledge but an understanding of the rationale for their practice ,and the rationale for others' behaviour in practice, that they understand that there's more than a disease process... most of our formal assessments are driven around that, that they apply practice to theory and theory to practice".*

(Coll 2 T1 nurse)

The students from both Colleges find that the assignments which are meaningful and relevant for them are rooted in practice and require them to use their own experience.

*"They've been quite good, obviously, in that you've had to sit down and just integrate everything together, which again has helped you to step back. And the assignments have been related to the care of particular patients too. And obviously you've had to draw on all the different fields to get through the assignments".*

(Coll2 St5)

*"But assignments I liked doing. So, yeah, case studies were excellent. I think case studies should get that for everything. It's great, because it makes it much more relevant. Because your own perception is you're working with a real person. Even if it's not, it's potentially a real person and you could make the mental leap then. Whereas, when you're just reading about things in textbooks, it's really dry. It's more the personal cues and things that you pick up on. It does stimulate your mind more. You're more liable to*

*remember it when it's been personal".*

(Coll1 St14)

The interest of the students and feelings of ownership are also stimulated by freedom and choice in assignments.

*"So if there was a thing that you saw on placement that you were particularly interested in, then you'd use your work from college to sort of take the two together and do an assignment which brought both of them together".*

(Coll1 St4)

*"So, for me, I chose issues of palliative care, communication and families. And it was a matter of going and researching that one and looking at all the different angles, and for you as a student to explore your own feelings. So, really, it was an assignment that I enjoyed doing, and I think it shows in it when you read it over. And it was interesting for me. It was a topic that I had chosen, what I wanted to do, and that's what made it more interesting".*

(Coll2 St10)

*"Well, what I'm saying in the question is that I'm asking them to look at any issue they want and examine it in the light of a particular stand-point. So what I'm trying to get them to do is to read in depth about any area they want... So what I'm trying to do is to open their eyes to the interests and excitement of reading about this kind of thing".*

(Coll1 T3 nurse)

The teachers in College 1 are more likely to cite written assignments as a strategy which supports integration but also develops critical thinking and a questioning attitude.

*"As they move through the course, they are more able to exercise critical judgements and evaluation, and it's reflected more in their assignments. And I think that an exam*

*system would somehow not reflect that. There isn't much room for critical evaluation in the examination question/answer".*

(Coll1 T6 nurse)

*"... it has to be critical and objective. They don't get marks for a lot of emotive waffle, and they know this. They have to use a framework of some description so it has got to be systematic, it's got to be analytical, and it's got to be objective. They have to make sure it's balanced in that they can argue a case... they would not get good marks if they were advocating one course of action without considering what the limitations might be of that course of action".*

(Coll1 T4 nurse)

The students in College 2, however, identify some tension within the College 2 assessment schedule. Many of the students believe that what is being assessed is, not their knowledge of nursing and their ability to integrate all disciplines, but rather their ability in grammar and English usage. They say that this limits them and works against innovation and original thought.

*"And I think, once you'd mastered the art of what the tutors were looking for, you were all right... They were looking for a certain way of answering, and certain points you had to include, and some sort of method even down to presentation. What I found slightly restricting was you couldn't go further than that and develop on themes, and maybe do your own research. You had to keep to their guidelines and their rules and put in this piece of work at the end, which was interesting, and it was relevant, but I always felt I could have done more that way".*

(Coll2 St7)



*“If you’re wanting a good mark, you’ve got to research it. But it depends on what you’re researching, and it’s more to do with how good you are at English than how good you are at nursing”.*

(Coll2 St4)

*“We’re looking for a reasonable level of academic ability in them. We’re looking for a reasonable use of referencing and producing background to actually back up their discussions. But we’re looking at very much patient-related focus. We’re hoping they’re going to relate it to their patient”.*

(Coll2 T5 nurse)

The students also consider that there is a problem with conflicting advice regarding the assignment guidelines.

*“a lot of people have difficulties trying to follow the very broad (assignment) guidelines that you have because your personal tutor says, “that’s fine”. Then she’s on holiday the next week so you have to take it to another lecturer and they say, “oh, no this is not how I see it”.*

(Coll2 St9)

In College 2, one teacher expressed doubt about the part played by assignments as a valid assessment of the students.

*“I think we’ve got it wrong. I think, even though we try to give support to these students who find it difficult, the less able students, I would suggest, that in fact, the work that is handed in at the moment is very much the teacher’s work, because they’ve had so much input to the assignments to try and help the student through. I don’t think that the assignments they’re doing are a true reflection of their true ability”.*

(Coll2 T 7 nurse)

In an attempt to promote integration and to avoid assessment overload, College 2 assignments are designed to assess several themes. The College 2 teachers are concerned, however, that the result has been the inadequate assessment of large areas of the curriculum. To address this problem, they intend to increase the number of exams in the future.

*“And also I think it's demotivating for the students. As some of them frankly say, they don't put a lot of effort into sessions that they know are not going to be assessed because what's the point? They don't yet, a lot of them, see the value of knowledge for its own sake, or that you might need this knowledge at another time. If you're not going to be tested on it, there's no point in learning it. But it's a little bit worrying when you think you're releasing people out to care for patients and their knowledge base is quite limited”.*

(Coll2 T6 nurse)

*“They decided in the branch not to have an exam and they have four or five assignments and presentations and various things like this. So I'm not sure what criteria they had in the beginning, but the problem being that you could actually get through the course and an awful lot of things don't necessarily have to relate to the assignments. It depends on what subject areas you choose for the assignments, which is why we're changing. Another thing we have recognised is that's it's not adequate so we're actually reverting to exams...”*

(Coll2 T5 nurse)

Many of the College 2 students take the view that the inclusion of more exams would motivate them to study more. The College 1 students, however, identify working steadily throughout the course as a positive strategy and are less likely to say that they favour exams.

*“if we'd been tested, if we'd been forced to study, rather than just left to our own devices. We were never forced to study...if we'd had little exams throughout. I would*

*have learned a lot more than I know now. I wasn't very good at going off and studying on my own".*

(Coll 2 St15)

*"I don't think the exams helped. I think the assignments certainly helped with placements."*

(Coll1 St5)

*"We had exams in first and second year. I don't remember them being particularly relevant, and I didn't study very hard for them...I probably didn't learn very much from them. But we've always been encouraged to be ongoing, doing the work the whole time anyway. So probably assignments are better for us".*

(Coll1 St10)

The College 2 students believe that their knowledge base has not been comprehensively examined and that success in exams would give them more confidence as newly registered nurses.

*"I would rather have had an exam at the end. I think it's a better test of knowledge for things like your drugs and your life sciences. I think, because no-one has ever really said, "Do you know this?"...I think I would have been happier starting a job next month knowing that I had passed an exam".*

(Coll2 St11)

*"But, in a way, I wish that they'd had more exams because I would sit down and memorise stuff for exams. And I feel I can do essays. It's really interesting reading up all the papers, but it doesn't give me the breadth of knowledge that, if it was an exam, I would swot up on my own".*

(Coll2 St8)

This is in direct contrast to the College 1 students, who identify their knowledge base as a source of confidence. In practice placements, they conceal the extent of their knowledge, as they often have the impression that their theoretical knowledge is greater than that of the clinical staff who are supervising them.

*“And I think you can really tell that we know what we’re doing and why we’re doing it compared to people that are just doing the practical side and don’t really know the theory behind it”.*

(Coll1 St3)

*“So many times on placement you don’t tell people what you know... it’s easier to keep it in your head which I think is really sad. ...I would write in my notes very thoroughly and demonstrate my understanding more thoroughly in paperwork, but when it comes to conversations with people, because you’ll get staff nurses...and you’ll not say anything because they’ve grasped something completely wrong”.*

(Coll1 St17)

*“You’d learn things without realising you had learnt things. I was doing a drug round and the staff nurse was asking about this drug, that drug and other drugs, and I was giving all the answers and I thought I had done terribly. And she said she’d never met a student who knows so much. And I thought “where does all this information come from? I’m sure it must be something that happens in college...”*

(Coll1 St15)

The College 1 students give examples of self-evaluation and diagnosis of their own knowledge deficits and the steps taken to remedy them.

*“We’d been taught the physiology of the heart very in-depth in college, but I knew myself that it was one of the subjects that I’d found difficult to grasp. It was my last placement and I knew I didn’t have the knowledge I should have had. But I went out on that placement having read...I did do the reading before going out and I said to them that I*

*had found the subject difficult, and with that then they were able to go through the lot with me... ”.*

(Coll1 St10)

Though the majority view of students and teachers in College 1 is anti-examination, a minority say that some exams are valuable, not because they are a motivating factor for study and increased knowledge, as in College 2, but because the ability to make decisions under pressure is vital in nursing.

*“I think it’s important that nurses are put under pressure and have to make decisions under pressure, and I think exams can do that. And I know that there are a lot of people that find exams really quite stressful, but nursing is very stressful and I think that I want to know that someone can make a decision on a symptom or sign or some part of my physiology. I want to see them doing that under pressure. I want them to be thinking about it quickly and make a very quick decision and, hopefully, come out with the right answer. And I think nurses should have that ability, and I think exams have to be there”.*

(Coll1 T15 nurse/discipline specialist)

*“But I sometimes wonder whether exams would be better - it would be better to have a few exams because you can be under that situation that you’ve got to think fast on the ward”.*

(Coll1 St 2)

In this section on assessment, the students say that assessment facilitates their learning when assessments are designed to integrate all knowledge bases and require the student to use their own experience of practice. They say that assessment helps them to learn if they have the freedom to follow areas of interest to them. Assignments should be a valid assessment of student achievement. The students say that conflicting advice from teachers constrains their learning.

Teachers are an important feature of any educational programme. The students in this study express a need for teachers who can demonstrate expertise and mastery over their subject. They particularly value nurse teachers for their experience of nursing, for their ability to give illuminating insights into what will be expected of the students in practice and for their record of success in the profession to which the students aspire. Students say that such teachers help them to make sense of the lesson and to appreciate the relationship between the theory of textbooks and what the students are actually going to experience in practice.

*"I think it's important that your lecturer is a nurse, but if nursing was to be discussed by someone who hadn't experienced it, I don't know how much of the rich experiences would come through".*

(Coll1 St1)

*"It's one of those dual things, nursing ...The practical and the theory. They both have to marry up. ...They do that through their own experience. They can bring their own experience to the theory, and the theory also relates to our experience. You know, it can bring it down to...What am I trying to say? It gives a clearer picture of what we're actually going to be doing on the ward".*

(Coll2 St7)

*"I do think it is important that you are taught by nurses because you've got to look at the person as a whole. You can't just look at a person as a disease, or look at a person as a social problem, or look at a person as a psychological problem. You have to kind of look at the person overall. And I feel that nurses do certainly have that experience, you know with working with people, and they can also relate what they see possibly, what they've experienced on the wards, they can relate it to you. And sometimes through the lectures it helps you see that, "I looked after a lady who had this and that, and this is what happened". And, you know, sometimes it helps to look at a clear picture, where our lecturers will do that and they do it very, very well".*

(Coll2 St9)

*"I think we had a good understanding from the physiology base of the systems and things, but we really needed the nursing department to turn round and say "this is how it relates to this condition. And This is what you will do..." I think the lecturers made quite an effort to give you an understanding of how they relate to placement...*

(Coll1 St12)

The teachers identify examples and anecdotes from their experience as strategies which can immediately command the student's attention. They stress the importance of making links to practice for the students, though one teacher in College 2 gives an example where the links are not obvious to all the students.

*"They want to be nurses. I think you've really got to capitalise on that. And that's what I feel, if you're a nurse yourself, it's relatively easy to do that because you have your own practice to share. And you carry a bit of - I hesitate to use the word 'credibility' because that's not the word I'm looking for - but they want to be nurses and we've been there and done it. So, if you use that experience right, I think that does make it meaningful for them. Well, I'm a nurse and I found this to be very useful in my practice and here's how. I think that does make it meaningful".*

(Coll1 T4 nurse)

*"I think, in the main, certainly in what I teach, I teach applied. And personally, without giving this much thought, I wouldn't have it any other way... because I would be rather concerned about the lack of application. I think the students desperately need to see the application because they can't make the links. And sometimes the links are so apparently obvious, but they can't see them and therefore you need someone to make these links".*

(Coll2 T7 nurse)

*"I find that quite often students miss the links if you don't link it to practice. I remember one student saying after a whole term, "There was nothing in this term related to*

*nursing”, and you think, “Were we actually in the same term? What classes was she attending?” “I have been waiting for such a long time and again there was nothing in this term that was related to nursing”. I think we attempt to integrate them into nursing, but I think the problem is that we’re working from a very different knowledge base from the students. And we see the links very clearly ourselves, but I don’t think we always make these links so clear to the students”.*

(Coll2 T6 nurse)

Though all the students express appreciation of being able to learn through the anecdotes and sharing of experiences of the nurse teachers, they still question the nurse teachers’ current awareness of developments in clinical practice. In College 1, where the student-teacher relationship is more collegial, the students feel that they can contribute by sharing their up-to-date experience and knowledge.

*“At the beginning you think, “Why are they not doing it the way they tell us in college?” and a year and a half down the line you start thinking that the tutors in college live in different world... I think the whole thing that has struck me throughout the course is the fact that there is such a gap between college life and ward life. I think most of us would like to be the kind of nurse we are in college...when we talk about it, what they (the students) will say is that the college is in another world. They live in another dimension”.*

(Coll 2 St 6)

*“I think it is important (to be taught by nurses). Yeah, because they’ve worked in the wards and they know the kind of things that are going on. But, at the same time, maybe they’ve been removed from the wards for quite some time. And I think, in that way, we’re often bringing them new knowledge and things like that - which is good.*

(Coll1 St 5)

Teachers in both Colleges express similar concerns. They say that, to bridge the



theory/practice gap, they need to be taken seriously as nurses. This would mean ensuring that their knowledge is up-to-date by spending more time in the clinical areas.

*"I would like to spend more time with my uniform on, but unfortunately... Because I think sometimes the students don't really see us as nurses. They see us as teachers, and therefore they think that anything you say is bound to be based on fantasy rather than reality. And you're saying to them, "I have actually been out here and I do know what it's like", but they sort of look at you as if you came from this ivory tower and you don't really understand. And I don't think the staff help either. I mean, somebody said to me not long ago, "Of course, you don't know what it's like out here". And I said, "Excuse me!" So that's not helpful to the students either, I think, because it goes back to what they always used to say, I suppose, and what we used to say too, "That's what you do in college. That's what you do in the ward".*

(Coll2 T6 nurse)

*"I mean, there's just so much pressure on. Part of my job is to support people in practice, and if you'd interviewed me any time over the last ten years, I would have said that was what I nailed my colours to the mast about. And I'm very aware that during this year, I've actually had my uniform on and been involved with nursing practice on about nine occasions only, which is the least I've ever been. And if I look back and say why, it's to do with the pressure of work".*

(Coll1 T3 nurse)

The students also value nurse teachers for the support they give to the students. They say that it is important to them to be known as individuals and valued as neophyte nurses. They believe that a shared interest in nursing has resulted in an empathetic relationship with the staff.

*"...but to get a nursing perspective on it...You like it when they've been out there, they've done it. They know what we're talking about with all these stresses and hassles we're getting with the consultants and what like. It's nice that they've actually been*

*there, they've done that. They know what we're moaning about".*

(Coll2 St12)

*I think it's good for them to get off their chests their anxieties about the clinical areas, because there's no doubt that many of the clinical areas are extremely stressful".*

(Coll2 T6 nurse)

In College 1, the students make very positive statements about their relationship with the nurse teachers. They feel that they are known individually, that their development is of concern to the nurse teachers and they are also confident that they will receive the support they need.

*"Relationships between the lecturers and the students, and the students themselves, that all contributes to how effective they have been because I feel we have learned together. I don't feel this is something I've done in isolation. I think the fact that lecturers treat you more as an equal, and that you feel if you ask a question they will do their best to answer it. The thing that was important to me, I think, was the feeling that what I say counts for something, even if I come up with something ridiculous".*

(Coll1 St17)

*"I like the familiarity of the whole sort of atmosphere. You know all the staff that are about and everyone recognises you... You always know there is someone there to help you. The staff are very supportive".*

(Coll1 St2)

The College 1 nurse teachers consider that breaking down the student/teacher barrier is a way of promoting a collegial environment. They believe that the students who have more difficulties adjusting to the course are the ones who continue to see the teachers as figures of authority.

*"...but the other three are really difficult, and it's more to do with their personal lives,*

*their attitudes to learning and authority figures. And as far as they're concerned, I'm an authority figure".*

(Coll1 T3 nurse)

*"The students who find it most difficult are the students who have authority problems and don't like talking to you and still see you as... even though you try desperately to break it down, there's always that slight feeling with some. Very few. It's usually better by the third and fourth year".*

(Coll1 T6 nurse)

The students value these affirmative relationships with the nurse teachers, as they find clinical placements stressful, and they can give examples of situations where support from mentors and staff in the clinical areas was not forthcoming.

*"Occasionally they don't want to talk about it but we've had one or two where students have been to a placement and they've had one or two difficult situations and they've actually shared it with us to the point where some of us have been in tears..."*

(Coll2 T1 nurse)

*"I think like when I was really struggling one time, I went to see my tutor and she said that so many people experience this feeling of being incompetent and not being good enough and that. In a way, I wish I'd had more reinforcement of that, so that I didn't feel like everyone else was doing fine and I was struggling. Because we have reflection after every placement, and it's just become like a culture that everyone says, "Oh it was really good". And maybe by the end it was, but people don't say, "I went home and cried after ..."*

(Coll2 St 8)

*"I was given very little help by the staff. I remember one day going in to have a report and sitting for twenty minutes with the charge nurse, who I didn't even know was the charge nurse until I'd been there for about two weeks, because she didn't wear a uniform*

*and she didn't introduce herself. And we sat for twenty minutes in this room and I was waiting for a report and it turned out we weren't having a report".*

(Coll2 St6)

*"I was very unhappy in one of the wards and the mentor obviously had things going on in her life, but she didn't really want to have to undertake this, but I felt I was a complete burden to her, and didn't ask questions and just went off and did my own thing, my own learning. I felt really uncomfortable if I had to ask her anything".*

(Coll2 St13)

In College 2, the P2000 reforms and the move to an institution of higher education have resulted in a large number of students in one intake rather than several small intakes over the whole year. The students say that they find it more difficult to form close and collegial relationships with the teachers and they are not always confident that they will be recognised as individuals.

*"..because I'm like part of a group going through this, and I have a real sense of the college being almost like a family or something. And the tutors as well. They're like aunties or something that I don't want much to do with but it's nice that they're there. One time I phoned up the college and my tutor wasn't there and they gave me this option that I could speak to X, Y or Z and I said, "Give me Z". And I said my name and, "You won't know me", and she said, "Oh, you think I don't know you". And it was really nice in a way. Although I feel exposed when I'm out on the wards, I do feel looked after".*

(Coll2 St8)

*"I think they assumed, especially with the conversion students because they're staff nurses in other fields, we would be au fait with the clinical side of it. ...I've never catheterised anybody but the tutor and class assumed I had... so I think our needs might have been looked at more closely. Maybe just simply sitting down together or asking them...a bit more sort of asking beforehand and assessing their needs might have helped".*

(Coll2 St7)

*“Well, two-hundred-and-fifty per intake at the moment. And they’re talking about having one intake a year, which is really five-hundred students. And I have to say I think some of the problems with the students relate to the fact that they know perfectly well that they’re not individuals to us, and we’re not always individuals to them”.*

(Coll2 T6 nurse)

The College 2 cohort is composed of many mature learners as well as school leavers. They express some resentment that they are not being treated as adult learners.

*“And also I think sometimes the college treated us like children. I found that quite difficult to adapt to, having been at university and done what you wanted when you wanted and then being told, “Oh you have to sign in at every class you go to”. I mean, obviously, I think it’s important that they get students to go to the classes. But I think they could go about it differently”.*

(Coll2 St5)

*“I thought it was funny the way they talked to us, like school children”.*

(Coll2 St8)

The students in College 1 believe that their relationship with the discipline specialists is not as close and supportive as the one they enjoy with the nurse teachers. They say that the non-nurse discipline-specialist teachers, who contribute to a variety of healthcare courses, see them only as students rather than as neophyte nurses, and value them only for their ability to learn the discipline. They believe that the discipline specialists look down on nurses but, as they have little idea of what the work of a nurse actually entails, their understanding of the knowledge required for nursing practice is limited.

*“I think the other lot to them it’s just a job. It seems to be just a job, just come in and*

*let's get through the syllabus quickly. An if you haven't learned that quickly, you're not bright enough. It's nothing to do with my teaching. Whereas with nursing you feel more involved with the lecturers who are nurses. You feel each student is an individual" ... it was quite clear they didn't know what we did as nurses...they didn't have a clear understanding themselves...you don't lose respect for them but you're a bit wary about taking what they say for granted".*

(Coll1 St17)

*"But we got into groups and we worked things out and we came up with our own ideas and thoughts, and we were also given positive affirmation on our thoughts and ideas. And they were never written off like in psychology."*

(Coll1 St1)

*"all they're interested in is psychology, and they just go straight for it and they only want to know about your understanding of psychology, not psychology in relation to a patient".*

(Coll1 St 6)

The discipline specialists, on the other hand, all maintain that they possess an adequate background knowledge to teach nurses.

*"I don't think you have to have a nursing qualification to teach nurses. Perhaps it is an advantage to have some experience of the health service, but I don't think it's essential".*

(Coll1 T11 discipline specialist)

*"I've spent a considerable amount of time going round psychiatric hospitals and doing work-satisfaction studies with nurses in wards caring for people with dementia. At least I feel I have some insight".*

(Coll1 T9 discipline specialist)

The discipline specialist who is also a nurse has not been long in post but the students

speak positively of her former experience as a nurse and of her ability to relate her subject to the nursing context. They believe that she views them differently, as she understands their situation and is, consequently, able to teach them what they need to know to be able to function as staff nurses. The discipline specialist makes a point of relating her nursing experience to the topic she is teaching.

*“From the students’ point of view, they know I’m a nurse, and so they know I’ve been there, and so the things that I tell them about the disease process I always try to relate back to a patient I’ve seen or a patient that they might see, or a disease process that they know about or that they might see...mostly I have this bottom line that says “if I’m in hospital as a patient, what I want is a staff nurse to know about me in terms of my physiology?”*

(Coll1 T15 nurse/discipline specialist)

*“I noticed a difference with anatomy and physiology when XX came in. She used to be a nurse and all of a sudden she was doing more case study cases and basing it on what it was like in nursing. And I think, in that case, it helps because she was teaching us what we needed to know as nurses, and she knew because she’d been there”.*

(Coll1 St2)

The students say that teachers with expertise help them to learn. A collegial atmosphere and good relationships with teachers also promote the learning of these students. The general aspects of the overall experience of the curriculum which have been identified by the students are the teaching methods, reflection, assessment and the teachers. The analysis continues by looking at the data pertaining to the second research question which explores the views of the participants on the way in which the contributing discipline are integrated with nursing.

### **How Do the Participants Experience the Integration of Supporting Disciplines With Nursing?**

There is a sharp contrast in the teaching of contributing disciplines in the two colleges. In College 1, contributing disciplines are taught by specialists while, in College 2, the entire syllabus is taught by the nurse teachers.

The nurse teachers in College 2 consider that their role is to teach as much of other disciplines as is necessary for the students to be able to function as nurses. They say that non-nurse teachers cannot make the links to practice.

*"We are not here to make them specialists. We are here to open their eyes again and to get them a little bit more comfortable in the skills that they will need to practise, and have been without giving a name to them. So we recognise our limitations. We're open about it, certainly in this theme. We are quite up front with the students, and we will say, "We aren't experts in all fields. None of us are or ever will be in many fields".*

(Coll2 T1 nurse)

*"I think this business of being able to actually apply it to the clinical situation, which I think pure life scientists would find very difficult because they've never been in the situation, and they don't know".*

(Coll2 T8 nurse)

The nurse teachers in College 1, however, take the view that it is a strength for the students to be able to view nursing from different perspectives.

*"I don't actually see any contradiction between providing nurses with the knowledge of life science that will enable them to work in the environment and actually providing that internal logic. ...If you're introducing a bunch of people to the life sciences, there is a particular way that a life scientist looks at something. They have a particular perspective, a paradigm of knowledge, if you like, and that's used to study people, so it doesn't seem impossible to me to be able to convey to nurses who are going to look after people that this is what that can contribute to them. That if they're dealing with wounds or whatever, if they look with this empirical, analytical, technical eye that will improve*



*their practice”.*

(Coll1 T4 nurse)

Since College 2 has been incorporated into an institution of higher education, some of the nurse teachers express the fear that they could begin to lose control of nursing courses if discipline specialists begin to take over some of the teaching.

*“If the balance went from the experienced nurse who has become a teacher losing control and direction of the course, then I don’t see how you could make the link”.*

(Coll2 T11 nurse)

However, they do express some reservations concerning their own mastery of the contributing disciplines and about the students’ knowledge.

*“It often depends on your knowledge of the subject area as well. If you’re fairly au fait with the subject area, you can usually tell. That’s a difficulty as well. You’re not always completely up-to-date with the subject area because, obviously, with the number of teachers that are necessary, sometimes you’re not in your best environment”.*

(Coll2 T5 nurse)

*“ I read an awful lot now because I have to. When I started teaching XX, I didn’t know the first thing about it, because it had never been taught before. But now I feel almost confident”.*

(Coll2 T12 nurse)

*“I think they get far too much life science in Foundation Studies. They just seem to get bogged down with it. And certainly, when I was in Foundation Studies, I felt the stuff we taught, we taught it too tremendous depth in the time we had available. And certainly, when I’m trying to build on it in Adult Branch, I feel the foundations are quite shaky at times”.*

(Coll2 T6 nurse)

The nurse teachers in College 1 note that keeping up-to-date is a problem, even for the nurse teachers who have degrees in other disciplines,

*"I do know there are people (nurse teachers) around who have life science degrees or pharmacology degrees or whatever... I think they have the ability to have the right level of knowledge but they're not at the cutting edge of what's happening now. And that could be a big problem because they're not up-to-date".*

(Coll1 T5 nurse)

The students in College 2 question the expertise and knowledge base of their teachers and they take the view that the contributing disciplines should be taught by discipline specialists.

*"I hate to say this but with some of the lecturers you do get the feeling that they know what's on the acetate and you ask them things and they sort of do their reading the night before. And specifically some of the lecturers were appalling in foundation. Different theories, which I know are very, very complicated, would be mentioned at the end of the lecture and sort of squashed in and saying, "you've got to know this". Some people would be just shaking their heads and thinking, "what on earth was that?".*

(Coll2 St13)

*"I would think this is outrageous. A university wouldn't have people teaching you all these different subjects. They'd be specialists in their own area. And I felt the standard of anatomy and physiology lectures would have been much better if they had been taught by someone who was a physiologist. The same in psychology".*

(Coll2 St8)

The College 2 students say that they do always not grasp the links to nursing, even when other disciplines are taught by nurse teachers.

*"Well, it's just that they seem to go on about all these people like Piaget, and it's all very well going on about them but, there again, they are just theories, a lot of them. Some of them are proven, but I'm actually more of a fact person. I like facts...I used to sit there listening and my head spinning, you know, and a lot of things just didn't seem to relate".*

(Coll2 St9)

*"The lectures we were given just skimmed the surface of everything. Things like the liver, for instance, we were given an hour lecture on the liver and then we were told to go and read about it ourselves. I just felt we never got enough information".*

(Coll2 St15)

In College 1, the contributing disciplines are taught as separate subjects in the first two years and are then systematically integrated, with increasing emphasis on illness and disease. The final year is totally integrated. The discipline specialists are unanimous that their disciplines should be taught at first as separate subjects, with their own internal logic. They maintain that this provides a coherence which will help the students to develop an understanding of the principles of the discipline, and an ability to integrate them with nursing.

*"I think it's probably better to take one step back and get somebody to teach who has had to learn that discipline as a discipline in the order that it works reasonably well. The nursing discipline bit, I'm sure, has an order in which it develops. I don't know about that, but presumably it does. And certainly physiology does as well".*

(Coll1 T7 discipline specialist)

*"I don't lose the discipline of psychology, but I do sometime have to play around with it a wee bit to make it more meaningful to them. I would rather get them to apply it themselves through thinking and talking..."*

(Coll1 T11 discipline specialist)

The students in College 1 agree with the discipline specialists that, to be able to integrate nursing with other disciplines, they first need to develop a good knowledge base and an understanding of the internal logic of the contributing disciplines.

*"...there's a big difference in how you tackle things. First and second year, they were very separated, and there were things we had to learn and we had exams in them. And that was more like the basics, trying to grasp the basics. Third and fourth we did apply them. ...I can see now that that is right. Definitely not in first and second year"*

(Coll1 St 9)

*I think once you've got a sort of a basis, you've formed a basis for yourself. And then you can concentrate on working up from that basis to form an overall picture. When you start out, when you're struggling to get this basis, and then maybe, by the time you get into third year, you start to actually put these pictures together. Certainly before that, everything was out on its own axis".*

(Coll1 St7)

They also appreciate the wider range of perspectives available from the discipline specialists, even though they say that they would prefer a nursing focus.

*"I think that's been quite good in a lot of ways, because something like microbiology where it's not nurses, or psychology or sociology, that has been good because you're getting other perspectives on them".*

(Coll1 St14).

*"...everyone that came onto the course, I'm sure, wanted to be a nurse like me, and you wanted to help people. And it was the people aspect that you joined for. You didn't join because you wanted to be a biologist or a micro-biologist. You joined because you wanted to work with people. You liked working with people and you wanted to somehow*

*help, and I think then to have your structured sessions did sort of throw you a bit. So I don't know if it necessarily helped you learn because you needed to know the basics of all the subjects - I can see that now. But probably if we'd had a more sort of nurse subject in there as well, then that would have helped. Or something that had nursing in it, like a subject that had nursing in it instead of biology, sociology, you know. Even if they had just called it nursing".*

(Coll1 St9)

*"The nursing lecturers were much more probing than the non-nursing staff. The physiology lecturers would question you lots but it was different. It was more to do with the actual science than it was to do with the patients themselves".*

(Coll1 St17)

The College 2 students agree that a knowledge base of contributing disciplines and a wider perspective are necessary and they believe that it would be an advantage for them to be taught by discipline specialists, who could help them to develop it.

*"I think if you had some classes, I think the fundamentals of the subjects, it really would be very nice if you had specialists teaching you in the ground work so you had a really solid grounding in the subject...And then, maybe later, have somebody who has knowledge of the subject but, obviously, is a nurse and is able to bring the two together".*

(Coll2 St13)

*"At the beginning they had to give us the basics of everything, and so, doing that, obviously it's all theory and not too much related to what you would learn at the college on nursing. But later on I think you could begin to relate it. I think to do that at the very beginning wouldn't be very sensible when you're still trying to do the basics. I think you need to learn to walk before you can run. I think it would be useful, maybe, to have some sociology and psychology from people in that line of work. Because, obviously, nurses... I'm not saying they don't know much about psychology because they do know quite a lot about it, but even having a different perspective on how outsiders perceive nurses and*

*nursing issues, I think that would be helpful”.*

(Coll2 St5)

The concept of holism underpins nurse education and reinforces the idea that there is value in viewing any situation from a range of angles. This is a critical issue in nurse education as a practice discipline. As so many other disciplines contribute to nursing, the debate is concerned with how integrated the course should be. Holistic patient care entails viewing a patient as possessing spiritual and psychosocial attributes as well as physiological ones.

The students in College 1 consider that the holistic approach to nursing, which is promoted by the nursing team, helps them to make connections among all disciplines.

*“There’s the whole person and their life style and how can you help them to either improve it or change it or whatever, and I think their focus is more on everything rather than just teaching us blood pressures and all the rest of it. There was this whole focus on disease processes and how it affected people in their houses, you know. They’re not always in hospital. What can we do to make things easier? Disability allowance, all these sorts of things. How our roles change. I suppose the only word is a holistic approach, and that was definitely ingrained by the nursing department”.*

(Coll1 St18)

The discipline specialists, however, say that the holistic approach taken by the nurse teachers in College 1 has led to too early an integration of the material and that the students are not gaining a basic understanding of the contributing disciplines. They believe that the students are only able to use the material presented to them once they have developed a knowledge base for themselves.

*“I think it’s maybe the attempt to make it more holistic and more... Obviously, things have to be applied. You have to make it relevant to the nursing situation. But I think*

*there comes a point where basic science is basic science. And I feel I'm not getting an opportunity to actually examine the students on their basic understanding of science, of micro-biology and immunology. I feel we're skipping that now, and we're going too quickly into the applied".*

**(Coll1 T8 discipline specialist)**

## **How Do the Participants Perceive Constraints in the Integration of Theory and Practice**

The Project 2000 educational reforms introduced a much wider nursing curriculum which emphasises learning to learn. The first part of the course takes a perspective of health rather than one of illness. The majority of students express concern that what they learn should be relevant to nursing, but many of them say that they do not immediately see the relevance of what they are learning in the classroom.

*"I remember in foundation, we had 'learning for life' classes. This was the other day and I just never understood what they were for. I think it was something about using the library and reading lists or something like that. ...At the time of having a class, you could sit there just totally and utterly baffled as to how it's got anything whatsoever to do with nursing".*

(Coll2 St11)

*"I don't really feel that I've learned anything from sitting in any of the classrooms. Anything that I've learned, I learned it ...I taught myself and I picked it up on the wards. But I do know, now that I'm qualified, I do have a lot of information. I didn't study the whole time I was at college, and I think that the problem was that for the first year and a half we had so much time on our hands. A lot of the classes we had were so irrelevant, they were extremely unmotivating".*

(Coll2 St15)

*"I would have thought that all that we do in the adult branch is certainly relevant. I'm not sure the students think so. And I think that maybe is because they don't appreciate what they're going to need to know until they register. ...I mean, they do sometimes actually just not attend because they don't see the relevance of it. I actually think it's a lot to do with the fact that they're talking about conditions, about illnesses, things that they think are 'nursing' and things that they need to know as nursing... whereas, some of the other things, they don't see the relevance".*

(Coll2 T8 nurse)

*"It's all very well for the lecturers and ourselves, the academic tutors, to say, "Well, if*



*you don't understand the fundamental workings of a cell, bodies are made of cells and if you can't understand really the fundamental workings of that..." But that causes them great problems. They really don't see the relevance of it. And therefore they find it harder because they can't link it to experience so much. I don't think it's actively encouraged within the teaching of those subject areas, the linking to their own personal experience"*

(Coll1 T5 nurse)

Both the nurse teachers and students in College 1 believe that a discipline specialist who is also a nurse, and thus able to integrate the discipline by emphasising the links to nursing, would solve the problem.

*"What I would ideally like as the person teaching from these contributory disciplines, I would ideally like a nurse with a degree in that thing. I think that person would have an insight into both disciplines, which is something that I think we have difficulty with at the moment. I'm not sure that the people who are contributing to disciplines have really got an insight into what nursing is".*

(Coll1 T3 nurse)

*"I think it's probably harder to learn because it's out of context. You feel you're learning like psychology, you have to try and relate it yourself to a nursing principle, or something in nursing practice whereas they just teach you health psychology. Which is health related but not related to actual specific nursing. And I personally find it quite difficult to relate it to nursing. I would rather have preferred the psychologist to be a nurse psychologist".*

(Coll1 St3)

*"From the students point of view, they know I'm a nurse and so they know I've been there, and so the things that I tell them about the disease process I always try to relate back to a patient I've seen or a patient that they might see, or a disease process that they know about or that they might see...As a nurse, I tend to want to make physiology*

*relevant and so I don't go off and teach the pure science of physiology. It's difficult without giving examples".*

(Coll1 T15 nurse/discipline specialist)

*"I noticed a difference with anatomy and physiology when XX came in. She used to be a nurse and all of a sudden she was doing more case studies and basing it on what it was like in nursing. And I think, in that case, it helps because she was teaching us what we needed to know as nurses, and she knew because she'd been there".*

(Coll1 St 2)

The discipline specialists in College 1 who teach a broad selection of healthcare courses, with shared classes, say that it is difficult for them to modify their teaching for particular vocational groups. They express differing views regarding the need to make their subjects relevant to nursing.

*"And I would be dismayed if my colleagues were teaching sociology and psychology - I use the word 'watered down' but particularly targeted to particular vocational courses".*

(Coll1 T9 discipline specialist)

*"If I say to them, "Now what did you meet on placement last time?" And we find that what they met on placement last time was a reasonable number of what we're going to do next, like the wounds in third year ...What kind of wounds have you seen? Tell me what the biggest wound is? The deepest wound? The messiest wound? When you actually come to look at wound physiology and say to them, "Your wound that you described. What stage was it at, do you think?" These sessions, I think they take on board as something highly relevant to them".*

(Coll1 T7 discipline specialist)

The Project 2000 emphasis on health in the first part of the course is a source of

dissatisfaction for the College 2 students. They give, as their reason for joining the course, a wish to enter nursing, which they perceive as caring for people who are sick and in hospital. They say that it is demotivating for them to concentrate on issues of health, when they first enter the course, and then to find themselves expected to care for people who are ill, once they are on placement.

*"All you got was health this, health that and health the next thing, and then you ended up on a hospital ward where everybody was sick, whereas in branch it's been more sort of disease-linked. So I think that's helped link them. ...I was here to learn what made everybody ill and how to make them better and all I got was health education. Health education was just swept aside in the branch. It was like they were two separate courses almost. One on health education and one on sickness and health. And there wasn't really ever much of a link made in college with them either, but I mean on the wards, the links were there obviously...with health education after discharge, maintaining their health. But there was never much of a link made in college with it. It was just, "Here's this and here's this. Get on with it".*

(Coll2 St11)

*"We were six months in the classroom before we went out having contact with anybody, and it was very hard to absorb what they gave you theory-wise. And, obviously, they weren't allowed to talk about disease either. It was all about health, the healthy individual. My first placement was in a nursery. I was there for five weeks, and at that point I was ready to pack it in then. It was probably the worst five weeks I ever had. It was very unmotivating. Staff didn't seem to know why they were there. I didn't know why I was there. I mean, obviously, we were there to learn about the child development but there was nobody to give you actually a lot of input about it so you just acted like a babysitter for five weeks. So, for the first year and a half, I think every week I thought about leaving".*

(Coll2 St15)

*Health education, I didn't particularly enjoy. I don't think it's been particularly well done on my course. It just seemed to me that you were being taught a lot of stuff that you would read in a woman's magazine".*

(Coll 2 St2)

On placement, the students then discover that, despite the emphasis put on health and health promotion in college, it is not a priority for the hard-pressed clinical staff and that the expectations of college staff are unrealistic.

*“the last ward I was in, we had hardly any time to get people out of bed let alone implement a health promotion idea. But it was just that we had hardly any time to do that, to get people fed and bathed”.*

(Coll2 St9)

One of the nurse teachers responsible for teaching health issues considers that health promotion is not valued by the college, as it is relegated to the part of the course which deals with community nursing rather than being included throughout the course.

*“even in the college set-up... they see community as health promotion. When I came back from doing the district nurse course, I was slotted in... it will be health promotion you’re doing because you’ve been doing community. It was seen as very community orientated...”*

(Coll2 T2 nurse)

The students say that they see the relevance of much of the curriculum, once they begin to learn about patients with illness and disease and have more responsibilities, when on placement.

*“I think it wasn’t until third year that everything started falling into place. Like first year, we had psychology and sociology, and as a nurse starting out I would never have thought that you needed psychology and sociology. Whereas it wasn’t until like third year that you started having more responsibilities on the ward and you could actually see*

*how that actually helped. I think it was probably having my own set of patients. And actually having to think through the processes of planning their care, sort of tailoring their care to their personalities and their situations that you actually managed to link back to first year and sociology and all this”.*

(Coll1 St 6)

*“And if you sit in a classroom day in, day out, you don’t learn how to nurse sitting in a classroom. It’s actually being out on the clinical placements and dealing with the patients. That’s been the bit that I have enjoyed...I feel that as I progressed through to the branch and been going out on placements, been given a bit more responsibility on the wards, you actually see things coming together yourself, and you think. “That’s quite hard for me to know”. As you’re sitting in a classroom, you get all the theory bits. But when you’re actually out there on the wards, with the patients, and you think, “So-and-so did make sense in the lecture theatre”.*

(Coll2 St12)

As a result of the move to higher education and the adoption of an academic year, there are large numbers of College 2 students in clinical placements at the same time. This has resulted in an imbalance with the theoretical input, as the nurse teachers cannot be sure that clinical experience is shared by all, and the students find that they do not always have the relevant knowledge and experience to benefit fully from the placement.

*“One of the difficulties, I think, in teaching this course is students don’t progress through the programme like they used to before, where you knew they’d been in a surgical ward or you knew they’d been in a medical ward, because they’re all over the place doing so many different things. So you can set up sessions thinking this is an ideal time to have this - when you want to talk about post-operative care, for instance - and then you discover that half the students in the class have not been to a surgical ward yet. And therefore they’re finding it difficult to make the links and therefore you’re trying to have to help them make a link to something else, possibly caring for patients post-investigation. And sometimes you’ve got to pluck patients out of your own experience to*

*try and help them look at what you're talking about and trying to make links".*

(Coll2 T6 nurse)

*"I did a placement with theatres when I was just coming through adult training, and I think it would have been better if I had had some kind of theatre or intensive care experience, or accident and emergency or something like that later on towards the end of my course. Because I couldn't really appreciate it. It was more observation. Had it come later in the course, I would have actually appreciated it. I could have learned something more. I could have taken a more active role in the placement".*

(Coll2 St16)

*"They just never seemed to get it right. You got the things after you'd been on the ward, which really would have been a lot more useful before you went on the ward. ...I liked it when it did go 'ding' because it means you've connected something. But I often felt frustrated because I used to often get it, I felt I would have liked to 'ding' before I went on placement".*

(Coll2 St14)

The former status of the students as workers ended with Project 2000 and means that much longer periods are spent in college. The College 2 students find that their motivation drops during these periods of theoretical input.

*"I think the worst time was the nine weeks in college in term nine, and it was just so full we weren't out in the practical area any more. And I think there is quite often the drop in confidence, the general self-confidence when you're back in college and you're not dealing with those situations, you're just talking about them or learning about them. And I've found just from talking to other people, to my friends, that they were feeling of theory, theory, theory. And it was actually a time when friends would actually begin to question whether they still wanted to go on with the nursing. And I'm sure it was because the same way as me, "I don't really want to do nursing any more and I don't know why". It's either boring or...And I found once you're back in the field, "Oh this is*

*great!" But I really think long blocks in college don't help. Not in a subject such as nursing."*

(Coll2 St15)

The College 1 nursing teachers believe that the students are motivated by early exposure to practice and, accordingly, the College 1 course is structured differently, in that the students do not have such long periods in college at the beginning. The discipline specialists, on the other hand, identify this as a problem, because the placements disrupt the generic modules which they have designed for all the healthcare students.

*"In first year when they're first in new and fresh and they're raring to go at being nurses...they're doing more nurse-type things in the community because that's where sick people are also. So they are seeing what they perceive as nursing things".*

(Coll1 T5 nurse)

*"They're here for four or five weeks. They're just getting into the way of doing things. They're off into work-based learning. And these are two very different, very strange experiences. And they come back after a fortnight and it's almost as if they'd never done any work. If I'd had any weight at all, I certainly wouldn't have had first-year like that. So when it comes to things like that, the beloved work-based learning and the P2000 document seems to take precedence".*

(Coll1 T7discipline specialist)

*"The problem is that these other disciplines are trying to teach modules, which are designed to go over fifteen weeks, in a shorter period. It's really quite nutty. I mean behavioural sciences actually took modules off the shelf and expected our students to do an exam at the end of the semester when they'd been on placement for five of the weeks during which material had been delivered".*

(Coll1 T3 nurse)

The courses in both Colleges are structured in the Project 2000 format of Foundation and

Branch studies, with the course content divided into seven separate themes. In College 2, Foundation Studies and Branch Studies are situated on geographically distant sites with the different themes taught by separate teams and with occasional inputs from other teams.

The College 2 teachers find it difficult to view the course as a whole and say that they do not always know what is happening in other parts of the course. They attribute this to the geographical divide of the college and also to the fact that the seven themes which make up the syllabus are delivered by different teams.

*“I think the way the diploma programmes were formulated, particularly this eighteen-month foundation programme and the eighteen-month branch programme, there’s a bit of a divide. And I think particularly with our college having geographical problems as well. It’s created a lot of difficulty in maintaining links. And it does seem like two different courses, although we do try. It is difficult for the students. They’re going out to whole different departments, a whole different set of teachers, slightly different ways of doing things with different expectations. And I do feel sorry for them because it does feel as if they’re starting another course. They don’t always see it as a continuum although we do and try and maintain links”.*

(Coll2 T5 nurse)

*“I’m not really aware of everything that goes into the time-table. Before, when you made up a time-table, you made up the time-table and you probably knew roughly what went into it, probably more than I do know, even though I have been in charge of a group of students through their whole...But I could honestly and truly say that because of the way the themes now are developed, you don’t always see the overall picture”.*

(Coll2 T4 nurse)

*“Because we all work with themes, we don’t have a huge understanding of absolutely every other theme’s input, and that’s where we’re limited there. Right at the onset, there were cross-theme meetings. Those have dwindled through strict limitation of time, and commitments across many other fields than just the diploma course. We’re all expected*



*to be all over the place, at various sites doing input for various other courses that that just doesn't come about. It's happening again now because we have amalgamated with another academic higher education body, and we're having to restructure our curriculum to fit a modular system. So we have no choice".*

(Coll2 T1 nurse)

*"A lot of it's geography. I think, if we were nearer, we'd talk to each other more. It's very difficult to come together and people make little changes and things that don't always get told down the line. That can happen if you're in the same building".*

(Coll2 T5 nurse)

The College 2 teachers say that they have not always participated in curriculum planning.

*"...because (the course) was written in bits, and sometimes the bits weren't always developed by the people...the module descriptors were written by somebody, but somebody actually puts the class together. And it's very difficult. I've found, to get into someone else's thought".*

(Coll2 T6 nurse)

*"I joined a group who were already fairly far down the road and had actually decided what they wanted. So it was slightly restricted in that I didn't have any say".*

(Coll2 T5 nurse)

The College 2 students also comment on the separation effect of the themes and what they see as competition rather than cooperation among the teaching teams.

*"I felt they were very separate. I mean, they were relevant - social and behavioural science, and then in the last eighteen months of the course, it was professional ethical knowledge, which I enjoyed. I think it's quite an important aspect of nursing, these issues. But I think they were very separate...referring to the anatomy and physiology as*

*well. I could see the relevance of the stuff. I could see that they cross over, they integrated, but the way that they're taught, they seemed quite separate issues".*

(Coll2 St15)

*"I tended to think sometimes that they guarded their own subject areas with some pride and they really were maybe a wee bit uninterested in other...like, for instance, the social and behavioural science, I got the impression it tended to be a bit looked down on by the more practical or technical side like the like science and things like that. Only from comments tutors would make, you know. Of course, it might come down to personalities. ...I found that sometimes before that there was a sort of a hierarchy. The more technical your subject, the more self-esteem..."*

(Coll2 St6)

The College 2 students regard topics which are revisited in Branch Studies at a higher or deeper level, or in more detail, as repetition and they report that this reduces their motivation to study in college. The teachers, however, view repetition as integration.

*"I feel that there has been an awful lot of repetition in this last term. Just basically going over the same old ground that we have done before, and not just having done it in foundation studies - we did it quite a lot in foundation and it's been obviously brought through to the branch as well. There's an awful lot of frustration in my set just now that there seems to be a lot of things we know, just sort of going over old ground and doing nothing new with it".*

(Coll2 St12)

*"...there are a lot of overlaps within the subject areas that we're teaching, because we're looking at things like health promotion, health education, moral ethics, communication, and I still find there's a lot of overlap within that. And I don't think that's a bad thing. I think as long as we know it's there so that we don't look as if we're repeating things, but we're actually integrating things and making them all come together".*

(Coll2 T5 nurse)

Though the College 1 course is a degree course, it is still required to conform to Project 2000 requirements. However, the students do not experience such an abrupt transition from Foundation to Branch Studies as is the case in College 2. The teaching team remains the same and there is no relocation to another campus. Both nursing teachers and discipline specialists in College 1, however, believe that the institutional move to modularisation has had an adverse effect on integration within the curriculum.

*"...the modular system itself, worries me a little bit, actually, packaging the nurse curriculum into boxes, and then evaluating the boxes".*

(Coll1 T6 nurse)

*"Well, I think once you start with modules, you tend to put things into little compartments. And when you do that, the students tend to think in terms of compartments. They don't relate to other modules".*

(Coll1 T11 discipline specialist)

The College 1 nurse teachers form a small team which works in close proximity. They believe that they work closely together, share a similar philosophy of nursing and that they have control of the course content and delivery.

*"There are fewer people teaching here. It's a smaller team. And perhaps more agreement across the team on... Not over teaching exactly, but there are more common values maybe. Let me put it like that. There's maybe a closer kind of identity among the teaching team, more cohesive. And I think we're all fairly realistic. We've all sort of kept up practice and know what it's like".*

(Coll1 T4 nurse)

*"Well, we've got ownership of this course. I do feel that genuinely we've had ownership*

*right from the start. So what's in it is what we said we wanted to put in it".*

(Coll1 T2 nurse)

The discipline specialists in College 1, who contribute to several different healthcare courses, say that they do not feel as though they are members of the course team.

*"But I have never actually felt part of the team, to be honest. An I've never really felt confident that I've been aware of the recent developments and changes in nursing and how they impinge on the micro-biology and immunology. ...It's strange, you know, but on a few occasions the students have said to me, "some of our nursing tutors say they don't know why we're doing science. Science is just... And I'm not going to name names. I'm not going to say who said that, but I feel there is some hostility perhaps".*

(Coll1 T8 discipline specialist)

*"The only meetings that I have are when I turn in exam scripts, or if I have problems, I meet with the course leader. So I can say that annually I will meet with the course leader, but I would be pushed to describe that as a meeting. Will describe that as a change-over, a handover of material and a brief exchange".*

(Coll1 T9 discipline specialist)

*"Obviously we're supposed to be working as a team. Our object is to work as a team to ensure a holistic approach to teaching, one would assume anyway. And I think I'm not working as a team..."*

(Coll1 T12 discipline specialist)

The discipline specialists usually depend on the involvement of one representative from each discipline to attend course meetings. The nurse teachers acknowledge that the discipline specialists and the nurse teachers are not working together as a team.

*"I'm a member of the team which officially goes to the team meetings, but the team*

*meetings are so large and so dominated by nursing, mainly placement issues, that, unless an issue is flagged up for me, I don't go".*

(Coll1 T7 discipline specialist)

*"My hope is that nursing will be the dominant force... over the years, we've had various sorts of meeting arrangements, and they've not been particularly fruitful. I don't blame the supporting disciplines for not being particularly enamoured of these meetings because there's usually one or two of them and a great gaggle of us with lots of business we want to do... if we really wanted to integrate it more, we'd have to actually capture their imagination and desire to do it, and then work something out".*

(Coll1 T3 nurse)

The discipline teacher who is also a nurse is considered a member of the team and is situated in the same department. She uses the informal links with the nursing team to integrate what she is teaching with nursing.

*"And so then I flag up now this logo that they have that tells them that this is something that matches in with their practice. But I don't actually go out to find out what they're doing in practice or on the nursing side of it in order to teach because I just don't have time to do that. So I'm relying on my colleagues. So then I say, if you're doing anything in the next two months that you want me to give physiology input to, then let me know. Yes, and a lot of the time the informal links work better than the formal".*

(Coll1 T15 nurse/discipline specialist)

The discipline specialists consider that their input is affected by the demands of nursing.

*"And then my questions or case studies are altered to accommodate the more nurse type of things. I don't have a great deal of control over what I do".*

(Coll1 T8 discipline specialist)

*"I was informed that there would be a test, and it is a joint paper and so, I will only have*

*"I was informed that there would be a test, and it is a joint paper and so, I will only have particular questions in that particular paper".*

(Coll1 T10 discipline specialist)

Both courses suffer the current problems of higher education in general, such as limited resources, more administration and more meetings and extra requirements for external income generation. The teachers say that the increasing workload reduces their ability to be available for student support and to deliver the course as they would wish.

*"We're being split all over the place. Run this, co-ordinate that. Generate income for outside bodies, so put on courses. For example, aromatherapy for beginners, whatever it might be. Prison service and practice nurses and such like. I teach CPR updates. Now that they're obligatory, there's a small group of two or three of us that are forever being asked to be on site to book in another body of agency nurses or practice nurses or prison service and upgrade their skills. So we can be on the road all the time. That is the biggest problem, is juggling your time and being available".*

(Coll2 T1 nurse)

*"... it's really your overall workload. There's never enough time to prepare, and to have the material the way you would like it".*

(Coll1 T2 nurse)

*"If you're going to have a good department educationally ticking along with people interested in areas and developing what they want in this changing educational climate... people are too stressed and busy. With all these other considerations, the administrative burden gets in the way of the educational focus".*

(Coll1 T2 nurse)

Project 2000 widened the entry gate to nursing, with the intentions of raising the educational level, of increasing student numbers and also of attracting applicants from a

wider section of society. The nurse teachers in College 2 and the discipline specialists in College 1 express some misgivings about student abilities. The range of student ability is not identified as an issue by the nurse teachers in College 1.

*"Some students require more help than others. Because we've got such a very wide access entry level, we have some students who require an awful lot of help. We have people from access courses up to graduate level, and I think that has to be taken on board that some people require more help than others".*

(Coll2 T5 nurse)

*"I do think we have problems, severe problems with students who simply can't put sentences together. Some of them just don't have the writing skills for this level of academic study. Remedial attention takes up a huge amount of a tutor's time".*

(Coll2 T1 nurse)

*"I think the main challenge in my area is the different levels of ability of your students".*

(Coll1 T10 discipline specialist)

*"You seem to be having a real mixture in terms of abilities of students. I don't know if this is the right thing to be saying, but it's becoming more and more obvious to me that many of your students are, I think, very, very weak academically... And there seems to be a whole variety in abilities which I never noticed before".*

(Coll1 T8 discipline specialist)

### **Do the Participants Understand the Dissonance Between College Theory and the Reality of Practice and How it is Dealt With?**

There is a dilemma for the nurse teachers in deciding how realistic their teaching should be. The question is whether the students should be introduced to a view of nursing in an ideal world or the actual situation that they are likely to encounter in a resource-starved National Health Service. Much disillusionment was reported in former days by student nurses confronted by nursing practice bearing limited resemblance to the ideals of the

classroom.

The students are able to identify that there is a gap between college teaching and clinical practice. The College 1 students, however, say that they can eventually come to accept this.

*“At the beginning you think, “Why are they not doing it the way they tell us in college?”, and a year and a half down the line you start thinking that the tutors in college live in a different world... they try to teach us to be good nurses. I just feel personally that the gap between what they teach us in the college and how we’re treated and how things happen on the ward is so large”.*

(Coll2 St6)

*“We were taught ideal nursing and all the theory behind it and our goals and aims. And reflecting only made it worse because then you feel so hideously guilty and a bit of a failure when you can’t do it. But that was initially and I’m now at this stage when I realise that I am only human. I can’t be the super nurse. I can only do my best.”*

(Coll1 St8)

The nurse teachers deal with the dilemma by acknowledging to the students that they will encounter different standards of care.

*“There is no doubt in my mind that what I’m teaching them doesn’t happen. I explain this in my lectures. I’ll say I teach to the ideal as much as I can. I can’t teach you how to be a half good nurse. I have to teach you what is best. And you will go out and find inconsistencies”.*

(Coll2 T12 nurse)

*“It’s kind of using your experiences in practice as a qualified practitioner to allow them to see why it’s important to know certain things. And, yes, by example and anecdote a lot. And similarly teaching on the clinical skills side. A lot of it is talking about, “This is*



*the ideal. This is how we would like it to be if out there wasn't such a difficult place to be working. So this is what we would like you to do if you could ever possibly manage it. However, this is the reality and this is what you would probably tend to find happening".*  
(Coll1 T5 nurse)

Both teachers and students, however, believe that it is helpful to be exposed to both perspectives and to be given insight into the ideals of best practice, provided that adequate practice is also acknowledged.

*"...they will mention things, that they've seen things that are inconsistent with current research, for instance clinically. But they seem to take a pragmatic approach, you know. "This is how it is but we know how it should be".*  
(Coll1 T6 nurse)

*"I think you're pretty narrow-minded but you focus on just one thing at a time at the start, but as you go through on the course, I think you can take in more and think more widely. Because we're taught to be able to see things from different perspectives and to not be judgmental, just have one point of view, that kind of thing. So we probably think about things more widely and see how they relate to one another".*  
(Coll1 St 16)

Several of the students give examples of taking what they consider to be the right action, even if it means dissenting from accepted practice in the clinical area.

*"And I'd be more just questioning, you know, not there's a right and a wrong way to do this but sort of just try and look at the research and see. ... Well, I'm more likely to be able to change the way things are, you know, "We've always done it this way", like I took in an article one time, I didn't feel I could justify it myself but I said, "This article says that there's no evidence that swabbing for injections makes any difference and yet everyone does it". And the charge nurse was like, "Right enough. You don't have to*

*swab any more if you don't want to". ... Well... I bet they still do swab on the wards, but I think it just gave me a bit of confidence just to question things".*

(Coll2 St 8)

*"I've had to say things sometimes that I didn't like to have to say. I don't like to be confrontational, and I've had to say to people That's not fair. You're giving someone else a hard time for something that you do yourself. I couldn't not say anything. It was just so unfair. I wasn't very popular".*

(Coll1 St 14)

## **Chapter 8**

### **Discussion**

In this chapter the findings from this study will be compared with the conclusions from the analysis of the literature. The answers to the research questions are the initial focus but other issues which have emerged from the interviews are included and related to the literature.

### **How do the Participants Understand the Integration of Theory and Practice Within the Overall Context of the Curriculum?**

The research question investigated the ways in which the participants in the study understand how the integration of theory and practice within the overall context of the curriculum. The teaching methods, reflection, assessment and the teachers were all identified as important influences on learning to integrate theory and practice.

### **The Teaching Methods**

The participants identified teaching methods as an important aspect of integration. The literature shows that there has been a reaction against traditional didactic teaching in the education of professionals and a move towards the principles of adult learning and more active teaching methods (Freire 1972, Lewin 1951, Kolb 1984, Jackson 1986, Rogers 1983, Eisner 1991, Knowles 1970). The P2000 curriculum is one result of this reaction. There was an assumption by many nursing writers that it would close the theory-practice gap and produce a practitioner able to respond to future healthcare requirements (May *et. al.* 1997, Darbyshire 1991, ENB 1987, Ferguson and Jinks 1994, Sweeney 1986, Burnard and Morrison 1992, Elkan and Robinson 1993, Jinks *et. al.* 1998). The documents of both Colleges in this study state that they follow an adult learning model of education, with the intention of producing self-directing and critical learners. Many of the students in both Colleges do believe that that they have become self-directing by the end of the course. They give examples of initiatives to discover a) what they need to know, and b) to remedy deficits in their knowledge. Several of the College 2 students, however, say

that they have not become self-directing, citing as reasons a lack of exams to make them study more, lengthy periods in college and a curriculum that they perceive as lacking in relevance to nursing.

It is noted in the literature that self-direction should not mean isolation and that a defined supportive framework is needed (Knowles 1975, Dewey 1931, Whitehead 1932, Ramsden 1997, Hounsell 1997) but some of the College 2 students express dissatisfaction with self-directing sessions during which they are left without direction or without teacher presence. There is also criticism in the nursing literature that andragogy has come to be seen as the main thrust of nursing education, though without systematic investigation of its suitability for nurse education (French and Cross 1992, Kinnick 1990, McCaugherty 1991a,b, Darbyshire 1993, Burnard 1991b, D'A Slevin 1992 as cited by Ferguson and Jinks 1994), Nolan and Nolan 1997 a, b). Both students and teachers in College 2 say that too many self-directed teaching sessions can overwhelm the students at times. The teachers attribute this to a lack of time for collaboration over the co-ordination of teaching methods across the curricular themes.

Though the literature supports the use of experiential learning methods for practitioners (Kolb 1984, Cavanagh and Coffin 1994), there are reports of mixed student reactions to such methods (Lopez 1983, Allcock 1992). Students from both Colleges, however, say that learning experiences which can give some insight into situations which will occur in clinical practice can help them to integrate their knowledge. Group work is used widely in both Colleges, and all the students say that learning together in this way provides some of their most positive learning experiences and that sharing experience from practice during group discussions helps them to embed the material. They give many examples of occasions when learning together has been highly motivating and say that they also find that explanations from peers, during both informal group sessions and formal sessions, can be more enlightening than those of their teachers. Other students appreciate where the difficulties in learning can occur, and can give better explanations, as they use the common language of the students, which is understood more easily. In a supportive group, the students say that they can admit that they do not understand and that they need help, while learning together in such a supportive group gives them the confidence to

accept challenge and to challenge others. Small group work has become a common feature of higher education (Ramsden 1992, Gibbs 1995b, 1999), with an increasing use of innovations such as cooperative learning, peer-supported learning, and problem-based learning (Kagan 1994, Johnston and Johnston 1992, Slavin 1996). These are seen as a way of developing interaction and transferable skills, though it is also a way of coping with larger groups of students and resource constraints (Donaldson and Topping 1996, Houston and Lazenbatt 1999).

Group learning is also supported by the literature as a way of developing relationships (Good *et. al.* 1988 as cited by King *et. al.* 1991, Parker 1984 as cited by King *et. al.* 1991, Davidson 1990 as cited by King *et. al.* 1991), with evidence that students relate more readily to peers than to teachers (Damon 1984, Dimant and Bearison 1991, Murray 1982, Kagan 1994, Houston and Lazenbatt 1999). The students in this study agree that they gain emotional support and confidence from a cohesive group and they feel that they must support the other members by co-operating and taking their share of the group work. They do, however, report problems similar to those found in the literature, such as lack of participation and equality of work sharing, which can result in resentment and dissent (Goode *et. al.* 1988 as cited by King *et. al.* 1991, Dabney 1995, Gibbs 1992, Ramsden 1992, Burnard and Morrison 1992). Teacher facilitation style has an effect on student learning (Wildy and Wallace 1994, Jones *et. al.* 1994 Jowett *et. al.* 1992, 1994, Gilmartin 2001) and the students say that successful group-work needs teacher involvement to ensure fair working and to have misapprehensions corrected. This is in line with the findings of Anderson (1997) and contrary to the hands-off approach advocated by other writers (Abercrombie 1960 as cited by Anderson 1997, Crick and Ralph 1980 as cited by Anderson 1997, Luker 1989 as cited by Anderson 1997).

There is still some doubt whether nurse teachers are comfortable with autonomy and self-directed learners (Crotty 1993a, Robinson 1991, Jones and Brown 1991) and, though all the nurse teachers acknowledge the difficulties of having trust in the students and being able to 'let go', the teachers in College 2 are more likely to express doubts regarding the ability of the students to function as adult learners. Treating nursing students as adult learners has always been a problem (French 1992, Crotty 1993a, Robinson and Hill 1995,

Jowett *et. al.* 1994) and many of the College 2 students complain that they are treated inappropriately. Some writers have found that nursing students wish to be consulted and involved in course administration (Burnard and Morrison 1992, Nolan and Nolan 1997a, b, Calpin-Davies 2001) but course documents, even in College 1 where students say that they have a collegial relationship with the nursing department, mention student involvement only in curriculum development, not as part of on-going operational planning. This contradicts Brookfield's contention that, if self-direction is really valued, students must have control over all elements of the educational process (Brookfield 1993b).

The discipline specialists in College 1, who are not registered teachers, have little interest in the changing preoccupations of nursing education and say that they normally use didactic teaching methods. Though the nurse teachers in this study say that they use a variety of teaching methods in an attempt to suit all the students, they make no mention of the students' learning styles, a subject on which there is much nursing literature (Laschinger and Boss 1984, O'Kell 1988, Highfield 1988, Ramprogus 1988, Dux 1989, Wells and Higgs 1990, Davis 1990, Cavanagh and Coffin 1994). Only the discipline specialist-nurse in College 1 mentions using a learning styles inventory in an attempt to match her teaching strategy to the students. The students in College 1 are very positive about her teaching sessions and say that they help them to integrate the discipline with their nursing practice.

The concept of freedom in learning is given much support in the literature (Habermas 1971, 1972, Boomer 1982) but there is always some tension between freedom and public accountability within a vocational course (UKCC 1999). Students and teachers in both Colleges agree that even limited choice and freedom is an important factor for motivation in learning and self-direction. Though the only area of complete choice is an elective module in the third year, group learning does allow some degree of choice, as the students can introduce topics of current concern or interest to them. Assignment guidelines require the students to integrate their knowledge by giving them the freedom to choose topics which interest them.

Though much literature cites the lecture as an unsuitable method for professional education (Stenhouse 1975, Saroyan and Snell 1997, Topping *et. al.* 1997, Jackson and Prosser 1989, McKeachie 1994, Sinclair and Gardner 1997, Vaughan 1990, Brown and Atkins 1998), this method is still widely used in higher education. The students in College 2 complain about long, didactic sessions in a large lecture theatre which precludes interaction. The College 1 students have some lectures, principally from the discipline specialists, but, as the group is small, interaction, questioning and challenge are possible. Lectures are one way of transmitting key concepts, and ensuring access to accurate knowledge (Jones 1990, Quinn 1995, McKeachie 1994, Hodgson 1997). Nursing students do appreciate lectures, when sharply focused and relevant to clinical practice (Jowett *et. al.* 1994, Kinsella *et. al.* 1999). The nurse teachers express differing views as to the usefulness of lectures but students in each College say that lectures are useful in that they set the parameters of study. There is evidence (Jowett *et. al.* 1994, Gibbs 1999, HEFC 2000) that the availability of teaching accommodation can dictate the choice of teaching method, and the teachers in College 2 say that they often have to give lectures as no other more appropriate rooms are available.

It can be seen, therefore, that the findings of the study regarding the use of specific teaching strategies to promote the integration of theory and practice are largely in line with the literature. The students find active methods of learning successful, if they are not overwhelmed by one method and if there is adequate teacher facilitation. A good learning environment promotes challenge, allows for some freedom in learning and supports good relationships with teacher and fellow students. As suggested by the literature, the nurse teachers are not entirely comfortable with their new role. In this study some of them have difficulty in treating the students as adult learners and the views of students on the course are not fully taken into account. Lack of experience precludes student consultation in the early stages of the course but the students in this study were all at the end of their course and could perhaps have made some useful contributions. Much of the literature on the use of lectures is negative but the students in this study do find some value in them, and it seems that the accommodation available for lectures is at fault rather than the lecture itself.

Where this study differs from the literature, however, is on the use of group-work as a way of learning. The literature shows that group-work is a way of promoting active involvement with the subject. The students in this study, however, go further in that they say that they are highly motivated by discussions with their peers and by exposure to other viewpoints. They also say that their understanding is enhanced by explanations from their fellow students rather than from their teachers. This was not found in the literature reviewed.

### **Reflection**

Reflection was also identified by the participants as one aspect of the curriculum which supports learning to integrate theory and practice. Theories of the transformation of inert knowledge into private knowledge by means of reflection (Whitehead 1932, Eraut 1994, Tang 1993, Schon 1983, 1987) have greatly influenced the reforms of nursing education. The nursing literature on reflection is voluminous, with much debate on the meaning of reflection, guidelines for reflection and the lack of empirical evidence of the outcomes of reflection (Benner 1984, Rolfe 1993a, Booth *et. al.* 1997, Burnard 1995, Aitkens and Murphy 1993, Richardson and Maltby 1995, Burrows 1995, Mackintosh 1998). The development of theory from practice by means of reflection, however, is accepted by all the students in this study. Not only do they maintain that reflection is a useful way of learning from their own experience and that of others but they also say that they will continue to use it to develop their own future practice. Many of them give compelling accounts of the ways in which reflection has helped them to understand how to deal with situations in practice.

Difficulties have been found in approaches to the facilitation of reflection, and a lack of opportunities in the timetable to link placement experiences with theory (May *et. al.* 1997) but both Colleges use a variety of strategies for reflection. Students mention both individual reflection and reflective groups as useful strategies and they report opportunities for feeding back from practice. In College 2, both students and teachers talk about the 'moaning' which has become a means of expressing dissatisfaction, and which has come to dominate some groups where good teacher facilitation is lacking.



The development of critical reflection, which is one of the P2000 aims, is one way of empowering nurses to challenge traditional thinking (UKCC 1986, Jarvis 1992b, Wilson-Thomas 1995, Rafferty *et. al.* 1996). The College 1 course documents cite it as an aim for the graduate nurse, the College 1 teachers say that they make a point of promoting a critical perspective and many College 1 students say that they have come to realise that it is not possible to progress without critical self-reflection. There is some apprehension in the literature that reflection will mean that assumptions can go unquestioned and that pragmatic solutions will be accepted (Pring 1977, Usher and Bryant 1989), but the students say that reflecting in groups and exploring situations from other perspectives enable them to challenge assumptions. As reflection can be difficult, a supportive group is needed (Usher and Bryant 1989, Hammersley 1990, Brookfield 1995, Schon 1987) and many of the students say that, as with other forms of learning in groups, a close reflective group can provide emotional support and can help to develop confidence and coping strategies for practice.

Many claims for the benefits of reflection are to be found in the nursing literature, and there is much literature on confusion around the meaning of reflection but there is little evidence of the students' in-depth view of reflection as way of enhancing learning. The students in this study say that it is a positive learning strategy and they can give accounts of how the use of reflection has helped them to improve their practice. Though some writers say that it is difficult to quantify the outcomes of reflection, it is difficult to see how these could be obtained other than by similar first hand accounts of personal experience of reflection.

One of the P2000 aims is the development of critical practitioners but only the College 1 teachers make a point of emphasising the importance of critical reflection. Consequently, only College 1 students cite this as an essential part of their learning. There are many anecdotal studies on methods used to promote reflection within the curriculum and the facilitative skills needed by nurse teachers. Negative views about the reflective groups in College 2 are possibly the result of underdeveloped teacher facilitative skills, though the sessions do give the students an opportunity to air their

problems from practice and to receive feedback from the other members.

## **Assessment**

Assessment has been identified as a significant influence on student learning and this was found in this study to be an issue in curriculum integration. The literature shows that it must be valid, related to understanding and in alignment with the learning outcomes. The students should be clear about what exactly is being assessed and be free from the stress of conflicting advice (Gibbs 1992, Hamill 1995, Trigwell and Prosser 1996, 1999, Ramsden 1992, 1997, Jarvis *et. al.* 1998, Ramsden and Entwistle 1981). Both sets of Course documents state that their assessment strategy is designed to ensure that students integrate all knowledge bases and use experience from practice. The teachers from both Colleges confirm that the assignment guidelines are written in a way which will encourage the students to do this. The majority of students agree with this and appreciate the freedom that the assignment guidelines give them to explore areas of interest. Some of the College 2 students, however, feel that their use of grammar and English is being assessed, rather than their nursing ability. They also complain of the stress of conflicting advice from teachers. The nurse teachers in College 2 and the discipline specialists in College 1 attribute a lack of basic academic writing skills in students to the widening of the entry gate and a wider range of student ability.

Modularisation can lead to over-assessment, which in turn can lead to surface learning (Ramsden and Entwistle 1981, Biggs 1999). Over-assessment has been a feature of nurse education. To avoid this, cross-modular assessments have been recommended (Smith M. 1992, May *et. al.* 1997). Both Colleges in the study use one assignment to assess the learning outcomes of several modules but some disquiet is expressed by the College 2 teachers that this results in underassessment of the curriculum and enables the students to avoid teaching sessions which they believe will not be assessed. Some College 2 students agree that they do avoid some areas of the syllabus. They say that this has led them to lack confidence in their knowledge and that they would welcome more exams to motivate them to study harder. Though P2000 guidelines favour continuous assessment to test the integration of knowledge and the acquisition of critical thinking (Tang 1993,

Scouller 1998), the College 2 teachers acknowledge that there is a problem and plan to include more exams when they redesign the curriculum. While the College 1 students agree that it is possible to complete the course without being tested on the whole curriculum, they say that the cross-modular assessments enable them to build up expertise in one area and that this gives them confidence in their knowledge. The non-nurse discipline specialists believe that the desire for integration means that their discipline is not properly assessed and also complain that their assignment guidelines are altered by the nurse teachers to make them more nursing-orientated.

It is well established in the literature that the aims of assessment must be clear, but some College 2 students are unsure whether it is their use of English and grammar or their nursing knowledge that is being assessed. Some degree of freedom and choice in assessment is motivating, even within the limits required by professional education. The literature shows that over-assessment can lead to surface learning and both Colleges have tried to avoid this, with the result that the students believe that they can miss out those areas of the curriculum which they believe will not be assessed. The College 1 students view this in a positive light in that they can concentrate on their specialist interests and thus gain confidence in their knowledge, while the College 2 students take the opposite view and report a lack of confidence in their knowledge. They want more exams and some blame the teachers for not making them work harder.

### **The Teachers**

Teachers were also identified as an important factor in learning to integrate theory and practice. The literature reveals some confusion in the post-P2000 role of the nurse teacher, with little direction regarding the teaching of the contributing disciplines (Buckenham 1992, Bradshaw 1989, RCN 1993a, ENB 1995b, Luker *et. al.* 1995, DHSS 1986, Jowett *et.al.*1992, 1994). Though nurse teaching became an all-graduate profession, there was no requirement to acquire a degree in nursing (UKCC 1986, DOH 1989b) and, in some Colleges, nurse teachers teach the entire syllabus (Hughes 1991, Crotty 1993a,c, Bradshaw 1989, Banks 1995, Jowett *et.al.*1992, 1994, Sweet 1992). In College 2, the nurse teachers teach all subjects, even though they have become part of an

institution of higher education, with access to specialist departments. Scientific knowledge has always been more highly regarded and rewarded (Freidson 1986, Cavanagh 1993) and there is a minority view in College 2, expressed by both students and teachers, that there is a hierarchy within the curriculum. It appears to them that the more technical the discipline, the higher the status accorded to it.

The values of the dominant group control the curriculum (Hirst 1974, Stenhouse 1975, Barrow 1976, Carr and Kemmis 1986, Giroux 1990) and the College 2 teachers believe that they could lose control of the course if non-nurse discipline specialists teach part of it. In College 1, however, where nurse teachers teach nursing subjects only and other subjects are taught by discipline specialists, all the teachers acknowledge that the nurse teachers remain in full control of the nursing curriculum.

There is evidence that P2000 students have difficulty with contributing disciplines (Goad 1992, Alderton *et. al.* 1995, Castledine 1998) and the College 2 students say that they find the contributing disciplines confusing when they are taught by the nurse teachers. They question the nurse teachers' knowledge of contributing disciplines and their ability to teach them and they believe that their learning would be enhanced if they were taught by expert discipline specialists. The literature supports the use of teachers who are experts in the particular complexities of their discipline (Hounsell 1997, Smith and Tiberius 1998, Ramsden 1997, Dahlgren 1997, Biggs 1999), as they are better able to respond to student needs (Dreyfus & Dreyfus 1986, Bereiter & Scardamalia 1993 as cited by Smith and Tiberius 1998, Putnam 1987 as cited by Smith and Tiberius 1998, Shulman 1987 as cited by Smith and Tiberius 1998). Some of the College 2 teachers admit that they do not always have confidence in their knowledge of other disciplines and that they are unsure of what constitutes diploma level study. This uncertainty was also found in the literature (Buckenham 1992, White *et. al.* 1993, ENB 1993b). In contrast, the students in College 1, who are taught by discipline specialists, say that they understand and are able to use the principles of the disciplines. Consequently they develop a sound knowledge base which they say is often better than that of the practitioners who mentor them during placements.

Academic teachers usually have discipline expertise rather than pedagogical skill (NCIHE 1997) and they tend to have relatively narrow concepts of teaching which can have the effect of making the students passive (Dall'Alba 1991, Kember 1997, NCIHE 1997). Unlike the nurse teachers, whom Jowett *et. al.* (1994) found strident in defence of teaching qualifications rather than subject expertise, the College 1 discipline specialists have no formal teaching qualifications and frequently use didactic methods but the College 1 students say that they understand the disciplines when taught by these specialists. The Peach Report also recommended that nursing students should be taught by experts in all areas (UKCC 1999) but the nursing literature is divided over the use of discipline specialists (Bergman *et. al.* 1976, Cheung 1992, Jowett *et. al.* 1994). The discipline specialists in this study believe that they know enough about nursing to teach student nurses, though the students disagree with this and say that the discipline specialists do not understand nursing nor do they have any particular respect for the students as potential nurses. Nevertheless, the students value the discipline specialists for their subject expertise and say that it is an advantage to be able to view nursing from different perspectives. The literature supports the perspectives of other disciplines as making alternative aspects of care available to patients (Pietroni 1992). This suggests that to possess divergent knowledge is not enough, it also needs to be seen from different perspectives. Many students from both Colleges said that they had to make the links between nursing and the contributing disciplines themselves but were helped by the experience of the nurse teachers, by their peer group and especially by clinical experiences. The discipline specialist who is also a nurse is in a different category from the other discipline specialists, as the students say that she is able to relate her discipline to nursing practice and to teach them what they need to know as registered nurses.

The clinical credibility or competence of nurse teachers continues to be the subject of professional debate and many official reports. These all assume that nurse teachers should have current clinical knowledge and experience (DOH 1989b, ENB 1990, RCN 1993a,b, Usher and Bryant 1989, UKCC 1983, 1999). Many studies, however, show that there is still concern over the perceived ambivalence of nurse teachers towards practice, and over the length of time spent by them in the clinical areas. There is, however, neither any agreement nor any official requirement regarding the nature of the clinical

commitment (Jowett *et. al.* 1994, Murray and Thomas 1998, Payne *et. al.* 1991, Elkan and Robinson 1995, May *et. al.* 1997). All students in the study say that they respect the nurse teachers for their past experience of nursing but they are concerned that the nurse teachers are not always aware of current developments in clinical practice. The Peach report noted that lecturers often had difficulty in setting objectives which would translate into learning opportunities (UKCC 1999) and the nurse teachers admit concern over difficulties in finding time to keep their clinical knowledge up-to-date or even go to the clinical areas. They say that the students take more notice of what they say when they are still practising as nurses. In College 1, both staff and students say they have a collegial relationship but the students also say that, as their teachers are sometimes out of touch with current practice, they are able to keep the knowledge of the teachers up-to-date.

The link between teacher-student relationships and student learning is supported by the literature (Rogers 1969, Wagner and Ash 1998, Kenny and Kendall 2001, Wildy and Wallace 1994, Kinsella *et. al.* 1999, Hodgson 1997), with the teacher the main component of a supportive learning environment (Rogers 1969, Ramsden 1997, Hodgson 1997). Both students and teachers here say that relationships are an important factor in learning and it is important for the students that the nurse teachers can empathise over the stresses of nursing. The students are motivated when they feel valued as potential members of the same profession, and that their progress is of interest to the staff. Unlike the discipline specialists, the nurse teachers are able to give the students this affirmation. Close relationships can support the sharing of personal experience but may be a problem with large groups (Jones *et. al.* 1994, Wagner & Ash 1998). The College 2 students say that they are not always confident that they are known to the teachers, as a result of high student numbers, lack of continuity of teachers and geographical dispersion. In College 1, the students say that, as the group is small and taught by the same teachers throughout, they have a close relationship. In contrast, they say that they do not usually form close relationships with the discipline specialists, who appear more interested in their disciplines than in the students' development. For most of the discipline specialists, however, teaching nurses is a relatively small element of their work.

The disciplinary role of teachers also has an effect on student learning, as students who see the teacher as an authority figure get less from the educational system (Jones *et. al.* 1994). The teachers in College 2 express ambivalence regarding the question of discipline and the use of authority. This is a result of their former role in monitoring student attendance when pre-P2000 student nurses were National Health Service employees. In College 1, the teachers have never had a quasi-employer role, and say that they try to avoid being seen as authority figures, as they are aware that the students who see them in this light do display more learning problems.

The findings from the literature review highlight the lack of clarity in the literature over the role of the P2000 nurse teacher in higher education. There is an expectation in the general educational literature that teachers will be subject experts and this study shows that teacher expertise does have an effect on student learning. Some studies show that student nurses have difficulties with contributing disciplines but no studies were found which look at the differences in student nurse learning when taught by nurses or non-nurses discipline specialists. This study, however, shows differences in the knowledge base and confidence of students taught by discipline specialists and by nurse teachers only. Clinical expertise is another aspect of the nurse teacher role. The nurse teachers in this study exhibit the same ambivalence towards a clinical commitment as is found the literature but the students are clear that they expect their teachers to be clinically up-to-date at least. This student viewpoint was not found in the literature reviewed. Student-teacher relationships are shown in the literature to be important for student learning. This study found that collegial rather than authoritarian relationships between students and nurse teachers help to develop student confidence in their learning. However, the students in the study do not form close relationships with the discipline specialists and do not feel valued by them. Nevertheless they appreciate the expertise of these experts, which they say helps them to understand the discipline. It appears that, for these students, teacher expertise is even more important than teacher relationships. Though the teachers in College 2 believe that they can only retain control of the course by teaching the entire syllabus, the College 1 nurse teachers are the dominant group and retain control of the curriculum, notwithstanding the use of discipline specialists.

## **How Do the Participants Experience the Integration of Supporting Disciplines With Nursing?**

The literature is quite clear that different kinds of knowledge can enrich practice by developing the divergent thinking which is required by professionals (Schon 1983, Eraut 1985) and can foster deep learning (Saljo 1997). Exposure to different ways of knowing is supported by the nursing literature even though the conceptual frameworks of different disciplines and theories of practice are often contradictory (Carper 1978, Pietroni 1992, Emden 1991a, Booth *et. al.* 1997, Jarvis 1992a, b, Rafferty *et. al.* 1996). The P2000 curriculum was designed to develop independent learners with a wider knowledge base rather than with technical expertise alone (Crotty 1993a, c). The new curriculum was thought to be superficial, however, particularly by some institutions of higher education (Jowett *et. al.* 1994).

Many studies show that nursing courses perceived as relevant to practice are motivating for students (Walker 1990, Jowett *et. al.* 1994, Eraut *et. al.* 1995) but there is some evidence that student expectations have not been met by the new P2000 curriculum (Ashworth and Longmate 1993, Robinson and Hill 1995, Castle *et. al.* 1998), a finding attributed by some to the broadness of the curriculum (Jowett *et. al.* 1992, 1994).

Some students in each of the Colleges fail to appreciate the benefits of the wider curriculum and say that their motivation is reduced by some subjects which do not appear to them to relate to nursing. Several College 2 students say that they have difficulty in recognising the relevance of some of the curriculum even by the end of the course. Sessions on lifelong learning appear confusing and irrelevant to these students, even though the documents of both Colleges reinforce the need for lifelong learning at a time of knowledge expansion (Knowles 1975, Jarvis *et. al.* 1998, Cavanagh 1993). The students in both Colleges say that the Foundation Studies emphasis on health particularly stands in the way of meaningful learning, a finding well documented in the literature (Lask *et. al.* 1994, Macleod Clark and Maben 1998, NBS 1990, Jowett *et. al.* 1994).

There is disagreement in the literature as to whether students should be taught as though



they were potential specialists in other disciplines, or whether they should be taught only as much as they would need as practitioners (Bruner 1960, Cavanaugh 1993, Banks 1995, Cash 2000). The College 2 teachers say that they only teach as much of the discipline as is needed, while the College 1 teachers aim to stretch the students academically. There is little guidance in the literature on integrating knowledge from other disciplines into a practice discipline such as nursing (Carper 1978). The nurse teachers in both Colleges believe that they are needed to make links to practice for the students. In College 1, both teachers and students agree with the literature that exposure to the perspectives of both different disciplines and discipline specialists is an advantage. In College 2, the students think that it would benefit their learning to have access to these differing perspectives. However, both sets of students say that they are helped to see the relevance of what they are learning by discussions with their peers, by the experiences they have in the clinical placements and by sharing experiences of practice with nurse teachers.

There is support in the mainstream educational literature for a professional curriculum which is totally integrated rather than treating different subjects as distinct entities (Whitehead 1932, Stenhouse 1968, Barrow 1976, Marsh 1997a, b, Cavanagh 1993, Pring 1976a, b). Some writers, however, say that eroding boundaries between disciplines can result in the loss of expertise and that integrated courses can lose sight of their original aim (Musgrave 1973, Kelly 1989). The P2000 view is that different disciplines should be taught at first as separate entities with internal logic and then with increasing integration (UKCC 1986). As found by May *et. al.* (1997), the majority of students in this study say that they do manage to integrate all the separate disciplines which make up the curriculum by the end of the course. Both the Colleges in this study teach the contributing disciplines as separate subjects in the first two years, gradually integrating the material once the curricular focus is illness, rather than health. All the College 1 teachers favour teaching basic principles first, with the College 1 discipline specialists firmly believing that contributing disciplines should not be adjusted to take account of vocational requirements. These teachers say that integration happens too quickly for the students to develop a full understanding of the discipline and they believe that forming a base of knowledge and an understanding of the principles helps them to cope with the contradictions of practice. The nurse teachers in College 2 are less united on this issue

but the College 2 students also believe that they need to develop a coherent knowledge base before they can fully integrate their knowledge.

Many claims have been made for problem-based rather than subject-based learning in the development of professionals (Margetson 1994, Cavanaugh 1993), with much of the evidence coming from medical education (Bernstein *et. al.* 1995, Mann and Kaufmann 1995, Margetson 1994). Though more recent evidence fails to support many of these claims and there are doubts as to its suitability for nursing education (Milligan 1999), official bodies (DOH 1999, UKCC 1999) nevertheless recommend that PBL should form part of the nursing curriculum. The results of several studies looking at student outcomes are still awaited. The students in both these Colleges enjoy case studies and PBL sessions and say that they are good methods of learning, but only once they have developed a good knowledge base.

The concept of holistic care is promoted by the nurse teachers and the students in both Colleges say that this helps them to integrate knowledge from different disciplines. They are disappointed, however, that there is little evidence of holistic care once they go into the clinical areas. The discipline specialists in College 1 do not promote holism and, at times, even seem to be hostile to this concern of nursing practice. They believe that the promotion of holism by the nurse teachers is to blame for fragmentation in the planning of their teaching sessions and changes made to their assignment guidelines and exam questions.

The literature is clear that access to divergent knowledge benefits the professional and the P2000 curriculum was designed with this belief in mind, but there is evidence that the wider curriculum is a problem for some of the students. In line with the literature, the students are particularly negative about the health focus of Foundation Studies, especially in College 2 where the students perceive that it is not valued by the college. The concept of holism is also helpful to students' learning, but again the students say that they are disappointed not to see holistic nursing care once they are in practice. Though most educational programmes aim to stretch the students academically and all the teachers agree that students need to be challenged, there is disagreement between the

College 1 and College 2 nurse teachers as to the depth to which the students need to be taught the other disciplines, with the College 2 teachers believing that they should be taught only as much of the disciplines as they need.

There are differing views in the mainstream educational literature regarding the teaching of a course composed of different disciplines, but the literature concerning professional education tends to favour an integrated curriculum, with PBL becoming an increasingly common feature of nursing curricula. Though all the students say that PBL sessions or case studies are useful learning methods, they say that, for understanding, they need to begin by learning the principles of the disciplines, and to develop a base of knowledge before they can begin to use them for nursing. No other evidence was found to support this finding that the student learning is enhanced by the development of a base of knowledge of separate disciplines, with integration coming later. This contradicts the increasingly common view in the nursing literature that PBL is the best way of closing the theory-practice gap.

### **How Do the Participants Perceive Constraints in the Integration of Theory and Practice?**

The way in which the curriculum is structured, timing and length of practice and teacher workload were identified as elements which work against integration of the curriculum.

### **Structure of the Curriculum**

Divisions within the course structure were identified as a constraint in the integration of theory and practice. The view prevalent within the literature is that a technocratic model of education which separates practice and theory (Bines and Watson 1992) is not the best choice for the preparation of professionals (Grundy (1987, Cavanagh 1993), though the P2000 curriculum largely follows this model with the aim of integrating theory and practice and ensuring meaningful learning for the students (Robinson and Hill 1995, Gott 1990). Findings from this study suggest that the integration of theory and practice can be further hindered by divisions within the structure of the curriculum and the delivery of

the course, and that the integration of knowledge is made more difficult by the Project 2000 division of Foundation and Branch Studies, and by the separation of the curricular content into seven separate themes. In College 2, where the division of Foundation and Branch is compounded by a geographical divide, the nurse teachers teach the entire curriculum, with the seven P2000 curricular themes taught by discrete teams. In College 1, the teachers say that modularisation also works against the integration of the curriculum by dividing the curriculum into discrete compartments. These structures have reduced team teaching and shared teaching and have had the effect of increasing administration.

The literature shows that an the integration of knowledge needs teachers who share a vision and who communicate and collaborate. This study shows that the separation of the curriculum into separate parts and themes, plus a move to modularisation, has made collaboration more difficult for the teachers. Changing teachers and geographical location at the end of Foundation Studies also has a negative effect on student learning.

The Peach Report recommended that Foundation Studies should be reduced to one year with early emphasis on clinical skills and early practice placements, but retains the health/illness divide of Foundation and Branch (UKCC 1999).

### **Timing and Length of Practice**

The students in this study agree with the literature that clinical practice provides some of the most potent opportunities for learning (Knowles 1975, Burnard 1992a,b). To maximise learning and integration of knowledge, the shorter P2000 clinical placements must be planned systematically (UKCC 1986, Usher and Bryant 1989, Ashworth and Saxton 1992), with adequate preparation for practice (May *et. al.* 1997) and an appropriate juxtaposition of theory and practice (White *et. al.* 1993, Jowett *et. al.* 1992, 1994, Hislop *et. al.* 1996, May *et. al.* 1997). In College 1, where theory and practice are integrated in the one module, as was the case before P2000 (DHSS 1970) and as is recommended by the Peach report (UKCC 1999), the students say that they are well prepared for practice. The College 2 students, however, say that they are disadvantaged

by the presentation of theoretical material at a time when it is inappropriate for practice, making them feel inadequate in clinical situations. The College 2 teachers attribute this way of organising the periods of theory and practice to the difficulty of arranging placements for large numbers of students and they acknowledge that they cannot ensure that all students have the relevant preparation for placements. This also poses difficulty in College when not the teachers cannot assume that all the students have had a similar clinical experience.

The appropriate length of placement has not yet been determined (Castledine 1997a) but the problem appears to be the length of time spent in college by the students rather than the amount of theory that they are exposed to. Some studies found that longer blocks of placement appeared to be crucial (Elkan and Robinson 1991, Watson and Kiger 1994, Hickey 1996, May *et. al.* 1997, UKCC 1999) but the College 1 course documents state that there is no evidence to show that lengthy periods in placement are beneficial. The College 1 students appreciate their modules which integrate practice with theory, even though the discipline specialists disagree with the timing of these, saying that their teaching input is fragmented as a result. The College 2 students say that they find that the long periods in College lack stimulation and adversely affect their motivation for nursing.

This study supports the evidence that matching periods of theoretical learning with periods of clinical experience is an important factor in student nurse learning. The College 1 curriculum features modules which contain both theory and the associated practice, which the students say enable them to use their theoretical knowledge once they are in practice.

On the other hand, the College 2 students find that their theory sessions do not come at a suitable time for them to be able to use this knowledge in practice. The optimal length of practice placements is uncertain, however, and more research on this subject is needed. The Peach Report recommends that the sequencing and balance between theory and practice should promote an integration of knowledge, attitudes and skills (UKCC 1999).

## **Teacher Workload**

The literature shows that nurse teachers have unquestioningly taken on more tasks as part of their workload (RCN 1964, DHSS 1972, Fawcett and McQueen 1994, Camiah 1998, ENB 1995b, Rolfe 1993a, b). P2000 and the move to higher education brought a different ethos and the development of new skills (Cheung 1992, Moon *et. al.* 1989, Caldwell 1997, Jones *et. al.* 1994, Jowett *et. al.* 1994, Jinks *et. al.* 1998) though little time was available for adaptation to the new situation (Crotty 1993c, ENB 1995b, Rolfe 1993b). All the teachers in the study say that they have experienced increasing demands on their time, citing increasing demands for achievements in research and other scholarly activities and an increased amount of administration, which they claim has been one result of modularisation. The expansion of higher education brought constraints in government funding and tensions between saving money and student support (Quinn 1995, Porter 1999, Kenny and Kendall 2001). The teachers report that the financial restraints have also brought a demand for income generation activities which have added to their workload.

Nurse teachers have always given practice a low priority (Jeffree 1991, Jones 1985, Cahill 1997, Crotty and Butterworth 1992, Alexander 1983, RCN 1985b, Clifford 1993, May *et. al.* 1997) and the College 1 teachers say that the increased workload prevents them from supporting the students in clinical placements, while the College 2 teachers say that not only do they have less time to support students in the clinical areas but they also find it more difficult to get to know the students as individuals. The discipline specialists in College 1 and the nurse teachers in College 2 say that more time is needed for student support and remedial work, one result of the widening of the entry gate and the wider range of student ability. There is a tension between the demands of practice and the perspectives of higher education (Dinham and Stritter 1986, Cavanagh 1993, Brown *et. al.* 1989, Usher & Bryant 1989). A lack of suitable accommodation has led to what the College 2 students see as an overuse of the lecture theatre for teaching purposes. Higher education has hitherto not supported nurse teachers in practice (UKCC 1999) but nurse teachers appear to accept this and they comply with institutional dictates (Clare 1993a,b, Rolfe 2002). The nurse teachers in this study regret that they have little time to practice as nurses or to go to the clinical areas, but suggest no remedies.

The literature is clear that an integrated course needs a shared teacher vision and collaborative planning (Peate 1998, Weatherston 1981, Ferguson & Jinks 1994, Grundy 1987, Alderton *et. al.* 1995, Alonso 1984, Phillips *et. al.* 1996). For an understanding of the whole curriculum, teachers also need to be involved in course planning and development, or else teaching is affected adversely and students can have problems in determining the relevance of theory to practice (Stenhouse 1975, Hirst 1974, Barrow 1976, Grundy 1987, Connelly & Claudinin 1988, Reid 1993, Johnston 1994, May *et. al.* 1997, Phillips *et. al.* 1996).

In College 1, the nurse teachers have taken the lead in course planning and administration, with token representation from the discipline specialists. The nurse teachers work well as a team, but they and the discipline specialists agree that they do not collaborate as much as they should. Not all the College 2 teachers have been involved in the planning of the whole curriculum and they attribute this to the large number of teachers, the geographical dispersion and an increasing workload. They say that they do not have a grasp of the total curriculum. The lack of teacher collaboration is apparent to the students, especially in College 2, where the students say that there is much overlap between different subjects, which they interpret as repetition.

In College 1, the nurse teachers say that they work well together as a team but do not work closely with the discipline specialists, the exception being the discipline specialist who is also a nurse and shares the ethos of the nurse teachers. In College 2, the teachers find that the structure of the course, as well as the geographical divide, form a barrier to collaboration, with the result that they rarely have time to hold cross-theme meeting. Some say that they do not have a clear view of the whole course. Students in both Colleges can give examples of the lack of collaboration among their teachers, but the College 2 students particularly complain that there is some repetition of material and a predominance of one teaching method. The findings from this study are therefore in line with the evidence that cross-theme teaching, team-working and good teacher relationships are necessary for an integrated P2000 course but the essential channels of communication are lacking (Jowett *et.al.* 1992, 1994, May *et. al.* 1997).

College 1 has always been part of the higher education system, and has therefore experienced less change than College 2 but an increasing workload remains a feature of the nurse teacher role. There is much evidence, supported by the findings of this study, that nurse teachers still have not defined their role and that this affects relationships with students and constrains student support and learning. The nurse teachers attribute excessive workload to their inability to support students in the clinical areas and to update themselves clinically and there are indications that a lack of teacher collaboration has adversely affected student learning.

### **Do the Participants Understand the Dissonance Between College Theory and the Reality of Practice and How it is Dealt With?**

One P2000 aim was to reduce the high discontinuation rate of nursing students which has not yet happened (UKCC 1999). The high rate of attrition has been attributed by many authors (Cook 1991, Eraut *et. al.* 1995, Elkan and Robinson 1995, Twinn and Davies 1996) to the idealised view of nursing given by the schools of nursing, which did not match what the students subsequently experienced in practice. This disillusionment led to student discontinuation in many instances. Many of the students in the study, however, are able to describe examples of the dissonance between experience in college and in placements but they say that they are able to cope with the resultant disillusionment when they have been introduced to both ideal and actual practice. The nurse teachers agree that the students appear better able to cope with the discrepancies between their theoretical learning and their clinical experience.

The students also say that exposure to the different perspectives provided by their peer group enables them to see that they are not alone in being able to provide ideal nursing care. The literature upholds viewing reality from a variety of perspectives as promoting the ability to cope with different realities (Heath 1964, Perry 1970).

There is much nursing literature which shows that nursing students are still unwilling to question practice for fear of rejection by the team or an adverse assessment (Holloway



and Penson 1987, Meighan 1981, Cook 1991, Thompson 1987, Melia 1982, 1983a, b, May *et. al.* 1997). Some students in the study say that they avoid being seen as critical in placement but many others report instances where they have been able to dissent with practice in clinical areas and have pointed out instances of faulty practice to the clinical staff.

The students who have participated in this study, therefore, appear to be able to cope with the dissonance. They are given realistic expectations of practice, are exposed to a variety of differing views and have a chance to discuss them in depth. Many of them feel confident enough to challenge examples of what they thought was sub-standard practice.

One of the main findings of this study which differs from the literature is the belief of the students that teachers with subject expertise are needed for the enhancement of their learning. They also believe that they need to develop a base of knowledge of the separate disciplines before they can fully integrate the curriculum. They believe that peer learning groups also make a positive contribution to their learning. They believe that their learning is adversely affected when periods of theory and practice are positioned so that they do not have the appropriate knowledge for placement and when teacher workload is such that student support is compromised, teachers do not keep up-to-date with clinical practice and teacher collaboration is compromised.

### **Comparison of Findings in Colleges 1 and 2**

The study took place at a crucial time in the implementation of P2000, as these students were the first cohort to complete the new programme in Scotland. The course planners had the benefit of the experience of England and Wales but it was the first experience of curriculum development for the nurse teachers in College 2. They had to adapt to a completely new way of delivering a course at the same time as they moved to higher education, which brought considerable upheaval and little time for consolidation. The learning environment for the two cohorts of students in the study therefore had important differences and the effect of these differences will be examined.

Both sets of students say that learning is enhanced by teachers with expert knowledge of their subject. Expertise appears to be more important than the teaching method used. The College 1 students are taught by experts in nursing and in the contributing disciplines while the College 2 students believe that they should be taught by experts in the contributing disciplines. Expertise in nurse teachers also extends to clinical work and all the students wish to be prepared for clinical practice by teachers who can give them an accurate view of current nursing practice. More diversity in the teachers is seen as an advantage by both sets of students for the different perspective they can provide. Neither set of students appear to believe that their teachers make links between the contributing disciplines and nursing. The exception is the College 1 students who greatly appreciate the discipline specialist who is also a nurse. In both Colleges, the students also agree that they need teachers with subject expertise and that they first need to develop a basic knowledge of all the disciplines represented in the course before they can go on to integrate them. Case studies, PBL and experiential learning sessions are popular with the students, but only after they have grasped the principles of the discipline.

Group interaction is an important aspect of learning for the students in both Colleges. and they report greater benefits than is suggested by the literature. Both sets of students say that good peer relationships and exposure to a wide variety of perspectives supports learning and that learning in groups allows for this. Reflection and discussions have encouraged them to look at things from different perspectives and to see other points of view. All the students in this study say that they are able to cope with the dissonance which was a feature of the pre-P2000 courses, as they have been exposed to examples of both real and ideal practice. Confidence in their knowledge, reflective habits and the contemplation of different viewpoints enable them to challenge what they see as sub-standard practice or to suggest different ways of working to the clinical staff.

Nevertheless, the two groups of students have different attitudes to assessment. To avoid over-assessment and to promote integration, both Colleges have combined several modular assignments. The College 1 students see this as a strength, in that it enables them to build up their knowledge in a specialist area which interests them but the College 2 students are more inclined to feel that they have not been assessed in all areas and this

affects their confidence. Some of these students blame the teachers for not making them study harder, while the College 1 students are more likely to accept responsibility for their own learning.

The students in both Colleges, however, value relationships with nurse teachers who can empathise with them and are interested in their development as nurses. In College 2 the students feel that they are not well known to the teachers, that the teachers sometimes appear as authority figures and that the teachers do not always treat them as adults. The size of the student group makes it difficult for the students to feel that they are known to the teachers. In College 1, where the nurse teachers have a collegial relationship with the students and treat them as co-learners, the students are more likely to become confident and self-directing. They respect the discipline specialists for their knowledge but know that they are not interested in them as potential nurses and tend not to form relationships with these teachers.

Control over the course is an issue for the teachers and one reason why the College 2 teachers, forming separate teaching teams which do not work closely together and are which separated geographically, teach the entire syllabus is to retain control of the course, even though some of them express a lack of confidence in their teaching of their subjects. This is in contrast to the College 1 teachers, who work closely together as a team, believe that the students should be academically stretched, and have retained complete control of the course. The non-nurse discipline specialists in College 1, however, complain that they are left out of the decision-making process.

With an increase in the use of group-work and a corresponding decrease in the use of didactic methods, the teaching role has changed and teachers must be prepared to act as facilitators of learning. The students all say that successful facilitation by the teacher is essential for successful group-work. One suggestion that the nurse teachers in College 2 have not entirely taken on the facilitative role is the way in which the teachers and students have a negative view about some reflective group sessions, saying that they become purely 'moaning' sessions. This is, however, a way of letting the students talk about their worries.

The course structure differs in the two Colleges, as the modules in College 1 contain both practice and the relevant theory, while in College 2, where there is a larger cohort of students, the placements and the associated theory do not necessarily coincide. The result is that for the College 2 students much of the curriculum seems unusable at the time of learning it, although the majority of students do see the relevance of most of what they are learning by the end of the course. The separation of theory from the appropriate practice in this College has a deleterious effect on student learning, as the students feel inadequate on placement without the relevant knowledge, whereas the College 1 students have great confidence in their knowledge.

All the nurse teachers cite an excessive workload imposed by the institution as the main reason for their inability to keep up to date with practice and they appear to have accepted this situation as irremediable. Teachers need to have knowledge of the total course, and how their discipline contributes to it but there are professional and institutional constraints which work against this. In College 2, teacher collaboration is adversely affected by the P2000 course structure, which has two discrete halves and seven themes. This is compounded by geographical dispersion. In College 1, teacher collaboration is negatively affected by modularisation and divisions between the nurse teachers and the discipline specialists.

Institutional constraints can have an effect on the choice of method, as in College 2, where the availability of accommodation can dictate the teaching method.

Though the students in each College have quite a different learning environment, with different leaning experiences, the study shows that they are, on the whole, in agreement about the factors which support their learning. The College 1 students have had the benefit of learning in a College which has not experienced a major upheaval as a result of P2000. The teachers are experts in their discipline and the smaller number of students means that they are well known to the teachers. The College 1 student appear to become more confident and sure of their knowledge than the College 2 students, but the College 1 students have the advantage of being undergraduate students undertaking a four year

course.

Both groups of student agree, however, that learning is enhanced by teachers with subject expertise who are able to explain the intricacies of their discipline. They believe that nurse teachers should at least be aware of developments in practice, though they would prefer them to be practising as nurses. There is also agreement that a basic knowledge of the principles of all the diverse parts of the curriculum is needed before all the subjects can be integrated. Relationships are important to both groups and both would prefer a collegial relationship with teachers who are able to treat them as adult. Peer relationships are increasingly important to all the students who experience some of their most significant learning methods during group discussions.

These students have some of their most significant learning moments during peer discussions. As nurse teachers take on more work, they become more remote from the students and less able to support them in practice. The teachers need to develop a collegial relationships with the students rather than one of authority and facilitative skills in addition to the more traditional teaching skills.

If large student cohorts mean that the students are not well known to the teachers and the nurse teachers do not take advantage of the expertise available to teach the course at a higher level but take on a workload that leaves little time for clinical practice, then the benefits of the move to higher education are in doubt. It was thought that P2000 would broaden the perspectives of nursing students by giving them the opportunity to be with students from other disciplines but if nursing students are still taught by themselves and by nurse teachers alone, as in College 2, then it becomes more difficult for them to become part of the general student body. It also means that nursing education is again in a separate category and not measured against the general educational standard.

As these findings from this study have come from a relatively small sample from two colleges, it is not claimed that definitive answers to the continuing problem of theory and practice have been discovered. The findings will contribute to the debate, however, and perhaps stimulate further research in this area using methods of enquiry which have

become established in research into student learning in higher education.

## Chapter 9

### Conclusions

Since the implementation of P2000, the UKCC Commission for Nursing and Midwifery Education, chaired by Sir Leonard Peach, (UKCC 1999) took an authoritative stance on pre-registration nursing with the intention of determining the way forward to ensure future fitness for practice. The commission was informed by a report, Health Futures 2010, to form the basis for describing the context of current and future health needs and the recommendations of the Peach Report were considered by the UKCC Post-Commission Development Group (UKCC 2001). The Nursing and Midwifery Council, which replaced the UKCC, has drawn up new standards for nurse teacher education (NMC 2002).

If, as Hirst says (Hirst 1993 as cited by Hirst *et. al.* 1993), practice is an initiation into a tradition with its own practical knowledge and standards, there is a need for nurse teachers to take a prominent place. This study, however, has revealed some concerns regarding the role of the nurse teachers and the consequent effect on the learning of student nurses. There is some evidence that student learning is adversely affected when the contributing disciplines are taught by nurse teachers, rather than by discipline specialists. The students in this study appeared to value subject expertise, regardless of the teaching method used. Some of the nurse teachers in the study, however, doubt their own expertise when teaching subjects other than nursing and are uncertain about the required level of study. The need for subject expertise in teachers would not be an issue for most disciplines but the findings from this study will perhaps help to stimulate some much needed professional debate on the effect of teacher subject expertise on student nurse learning. The standards for the preparation of teachers of nursing (NMC 2002) place teacher education at post-graduate level but they state that a teacher must be able to demonstrate a level of knowledge of the subject only above that which the student is required to learn. As there is an expectation that nursing will become an all-graduate profession (UKCC 1999), appropriately qualified teachers will become even more of a necessity for the development of future practitioners.

The students in this study agree with the Peach Report (UKCC 1999), the latest in a long line of reports saying that nurse teachers must remain clinically credible. The education of nurse teachers has changed, however, with the development of two different grades of registered nurse teacher, the lecturer who will work in educational institutions and the practice developer who will work in the clinical areas (NMC 2002). One reason for the demise of the role of the former clinical teacher was the common opinion that the separation of the teaching of theory and practice was responsible for the theory-practice gap. Though all reports once again reiterate the need for the nurse teacher to be clinically credible, and the new standards state that lecturers must be able to “*contribute to the development of professional practice and be actively involved*” and “*advance their own knowledge base through research activities and regular contact with experts in practice*” (NMC 2002 page 7), it remains to be seen how these lecturer learning outcomes will be fulfilled.

Student perceptions of the teaching and learning context relate to the outcomes (Trigwell and Prosser 1999) and it should be an area of concern to nurse educators that the students doubt the ability of their teachers, particularly losing some respect for non-practising nurse teachers. The students in this study believe that their learning has been adversely affected not only by the poor subject expertise of their teachers, but also by their lack of clinical credibility. These findings provide more evidence of the importance of the teacher and of the need for further clarification of the clinical role and responsibilities of the nurse lecturer, with more investigation into the optimal environment for student learning. This study has shown that the use of non-nurse teachers does not necessarily mean a loss of control over the course for the nurse teachers and also that a wider range of teacher exposes the students to the wider perspectives which help them to become non-judgemental and to cope with the dissonance of theory and practice. It seems clear that the divergent knowledge needed by the practitioners of today and tomorrow cannot be provided by nurse teachers alone.

Learning in groups has become a common learning strategy in higher education and this study has shown that group learning has a positive effect on the learning of students in



this study. The students say that sharing knowledge and experience with fellow students is highly motivating and helps them to form supportive relationships which allow for challenge and the development of confidence. The role of the nurse teacher appears further diminished, however, in that the students say that the explanations of their peers are often better than those of the teachers. It is possible that the students, when presented with separate disciplines, can organise their knowledge in ways that are meaningful to themselves and that these make more sense than links which are made for them by others. As students have regular clinical placements, they are able to identify the knowledge that they require and when they require it and it appears that peers have become increasingly important in helping them to find it. There is perhaps a need to explore further ways of involving students in the on-going planning of the course, to ensure that students have the appropriate theory for their placements. The study also shows that the facilitative role of the nurse teacher requires further exploration to ensure that they are able to enhance group learning.

There is a growing trend for nursing courses to regard PBL as the best way of integrating theory and practice, in spite of a lack of evidence to support this claim and a body of evidence from the medical education that PBL has so far not fulfilled all the early claims made for it. The students in this study, however, are sure that they need to develop a basis of knowledge of the principles of the contributing disciplines before they can use this knowledge to improve their nursing practice. Reports from several studies are awaited to help to establish the place of PBL in nursing education but this study shows that PBL cannot be assumed to be the answer to the continuing dilemma of the theory-practice gap. The findings from this study will inform the PBL debate and encourage nurse educators to think more carefully before moving completely to a different way of constructing the pre-registration nursing curriculum.

P2000 was an attempt to move from a curriculum which was largely technical to one with more of the characteristics of a process curriculum. The academic level was higher and the curriculum was made up of a wider range of subjects. Several studies have found, however, that the students lacked some basic clinical skills (Jowett *et. al.* (1992, 1994, Luker *et. al.* 1996, Runciman *et. al.* 1998) and the Peach Report recommended that

Foundation Studies should be reduced to one year with more emphasis on the acquisition of clinical skills. As it also recommended that the standards required for registration should be constructed in terms of outcome competencies (UKCC 1999), it also appears to be a return to a more technical and positivist curriculum. If P2000 was indeed a move to a process curriculum, then more effort should have been made to prepare the teachers, as a curriculum relies on staff with a deep understanding of the underlying structure and of the principles of their subject (Stenhouse 1975). The teachers in this study have, on the whole, not been subjected to the type of education which they are trying to deliver and, considering the speed of introduction of P2000, especially in England and Wales, it is perhaps not surprising that the teachers were unable to accommodate themselves to the changes.

There was some hint of the emancipatory curriculum in the P2000 curriculum (Habermas 1971, 1972, Freire 1972, Grundy 1987), and there is some indication in the study that the students are in fact able to question poor practice and some are able to self-reflect critically. It is difficult, however, for students to become fully empowered without empowerment of their teachers. The culture of higher education has made increasing demands on the nurse teachers, who do not appear to be able to ensure that they have the necessary time and facilities to fulfil their role adequately. Both the Peach report and the new standards for nurse education have advocated a clinical role for the nurse teacher and future developments are awaited (UKCC 1999, NMC 2002). The Dearing Committee (NCIHE 1997) recommended that some academic departments should opt out of the Research Assessment Exercise to concentrate on teaching alone. This has been proposed for some nursing departments but it would curtail nursing research, which is still struggling to become fully established. One possible solution is for nurse teachers to take nursing practice itself as a subject for research, thus keeping up-to-date with practice and re-establishing themselves in the eyes of the students. It seems from the study that the nurse teachers are not yet able to influence the institutions of higher education. A study exploring the reasons for the entry of nurse education into higher education found that it was not possible to identify one reason for this. The nurses' views were rarely taken into account, few implementers paid attention to the views of the professional bodies and there was little attempt at consultation with nurses (Burke 2003). Nurse

educators need to have greater control over future changes and to defend their right to retain their expertise, so that they can create a better learning environment for students. 'Teachers conceptions' are influenced by past experience (Trigwell and Prosser 1999) and the teachers in the study were educated in a pre-P2000 era. The conclusions from this study will add to the debate about the education of future teachers of nursing.

Society expects health care professionals to perform competently, with professional accountability and to an acceptable standard as defined by regulatory and professional bodies. Against this background, the students who enter nursing courses are strongly motivated by the needs of their patients and by the need to function as part of the clinical team. They are greatly concerned for the accuracy and currency of their knowledge and skills. Though learning is important for all students, it is especially important for students in a practice discipline to develop an accurate and integrated knowledge base which they can access in stressful situations. The nurse is the only healthcare professional to have twenty four hour care of the patient and must be able to make appropriate decisions in emergency and stressful situations. There is a need, therefore, to ensure that the students are equipped with accurate and up-to-date knowledge and skills. Project 2000 was instituted to remedy the many perceived deficiencies in nurse education and it has had some success. It is important to ensure the best possible educational preparation for nurses, as it is more expensive in the long term, both financially and in terms of human suffering, to produce nurses who are not able to function properly. In a sensitive and dynamic field such as healthcare, trial and error is not a viable option. Issues around the integration of theory and practice are still to be resolved, however, and this study will contribute towards the continuing debate about the best way of preparing students nurses for high quality and innovative practice.

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**REVISED APPROACHES TO STUDYING INVENTORY**

This questionnaire has been designed to assess your approaches to studying. Please respond truthfully, so that the answers you give represent accurately your real ways of studying. Answer quickly but carefully, and above all honestly.

All answers will be strictly confidential.

**A. Background**

Name: \_\_\_\_\_ Age: \_\_\_\_\_

Term time

Address: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Course: \_\_\_\_\_

Full time/Part time                      Year of Study: 1 2 3 4

\_\_\_\_\_

**B. Approaches to Studying:**

This questionnaire asks you to indicate your relative agreement or disagreement with comments about studying that have been made by other students. The technique involves using rather a large number of comments to distinguish what may be rather slight differences. You are asked to work through these items quickly, giving your *immediate* reaction to each one. Just circle the code number closest to your initial feeling about each comment, and move onto the next. Have a rest if you need to, but please do not give casual answers. Consider carefully how closely the item describes your own approach to this course.

The codes are used to indicate the following meanings; they are not scores.

5 = agree (\*)    4 = agree somewhat (\*?)    2 = disagree somewhat (x?)    1 = disagree(x)

Try not to use 3 = unsure (??), unless you really have to, or if the item cannot really apply to you.



- |     |  |   |   |   |   |   |
|-----|--|---|---|---|---|---|
| 1.  | I'm not prepared just to accept things I'm told: I have to think them out for myself.                | 5 | 4 | 3 | 2 | 1 |
| 2.  | Before tackling a problem or assignment, I try to work out what lies behind it.                      | 5 | 4 | 3 | 2 | 1 |
| 3.  | One way or another I manage to get hold of books or whatever I need for studying.                    | 5 | 4 | 3 | 2 | 1 |
| 4.  | Often I feel I'm drowning in the sheer amount of material we're having to cope with on this course.  | 5 | 4 | 3 | 2 | 1 |
| 5.  | So far, I seem to have a good grasp of the subjects I'm studying.                                    | 5 | 4 | 3 | 2 | 1 |
| 6.  | Sometimes I find myself thinking about ideas from the course when I'm doing other things.            | 5 | 4 | 3 | 2 | 1 |
| 7.  | I often have trouble making sense of the things I have to remember.                                  | 5 | 4 | 3 | 2 | 1 |
| 8.  | When I'm reading I stop from time to time to reflect on what I'm trying to get out of it.            | 5 | 4 | 3 | 2 | 1 |
| 9.  | Often I lie awake worrying about work I think I won't be able to do.                                 | 5 | 4 | 3 | 2 | 1 |
| 10. | Generally, I find the set work easy to do.   | 5 | 4 | 3 | 2 | 1 |
| 11. | When I have finished a piece of work, I check it through to see if it really meets the requirements. | 5 | 4 | 3 | 2 | 1 |
| 12. | Although I can remember facts and details, I often can't see any overall picture.                    | 5 | 4 | 3 | 2 | 1 |
| 13. | I make sure I find conditions for studying which let me get on with my work easily.                  | 5 | 4 | 3 | 2 | 1 |
| 14. | When I look back, I sometimes wonder why I ever decided to come here.                                | 5 | 4 | 3 | 2 | 1 |
| 15. | I seem to be able to grasp things for myself pretty well on the whole.                               | 5 | 4 | 3 | 2 | 1 |
| 16. | I try to relate ideas I come across to other topics or other courses whenever possible.              | 5 | 4 | 3 | 2 | 1 |
| 17. | I usually have a good idea of how well I have understood any new material I've been looking at.      | 5 | 4 | 3 | 2 | 1 |
| 18. | I put a lot of effort into making sure I have the most important details at my finger tips.          | 5 | 4 | 3 | 2 | 1 |
| 19. | Coming here wasn't really my choice: more other people's expectations and no obvious alternative.    | 5 | 4 | 3 | 2 | 1 |
| 20. | I don't usually have much difficulty in making sense of new information or ideas.                    | 5 | 4 | 3 | 2 | 1 |
| 21. | Sometimes I worry about whether I'll ever be able to cope with the work properly.                    | 5 | 4 | 3 | 2 | 1 |
| 22. | I organise my study time carefully to make the best use of it.                                       | 5 | 4 | 3 | 2 | 1 |
| 23. | When I'm reading an article or book, I try to work out for myself exactly what's being said.         | 5 | 4 | 3 | 2 | 1 |
| 24. | I spend quite a lot of time repeating or copying out things to help me remember them.                | 5 | 4 | 3 | 2 | 1 |
| 25. | I know what I want to get out of this course and I'm   |   |   |   |   |   |

	determined to achieve it.	5	4	3	2	1
26.	Now and again I stand back from my studying to think generally about how successful it is.	5	4	3	2	1
27.	Often I find myself reading things without really trying to understand them.	5	4	3	2	1
28.	I have a good idea where my strengths and weaknesses lie in the way I go about studying.	5	4	3	2	1
29.	I usually set out to understand for myself the meaning of what we have to learn.	5	4	3	2	1
30.	I'm not really sure what's important, so I try to get down as much as I can in lectures.	5	4	3	2	1
31.	I work hard when I'm studying and generally manage to keep my mind on what I'm doing.	5	4	3	2	1
32.	When I'm working on a new topic, I try to see in my own mind how all the ideas fit together.	5	4	3	2	1
33.	I find I have to concentrate on memorising a good deal of what I have to learn.	5	4	3	2	1
34.	It's important to me to feel I'm doing as well as I really can on the courses here.	5	4	3	2	1
35.	Ideas in course books or articles often set me off on long chains of thought about what I'm reading.	5	4	3	2	1
36.	I rather drifted into higher education without deciding for myself what I really wanted to do.	5	4	3	2	1
37.	I think I'm quite systematic and organised in the way I go about studying.	5	4	3	2	1
38.	When I'm reading, I examine the details carefully to see how they fit in with what's being said.	5	4	3	2	1
39.	I often seem to panic if I get behind with my work.	5	4	3	2	1
40.	I generally try to make good use of my time during the day.	5	4	3	2	1
41.	It's important to me to be able to follow the argument or see the reasoning behind something.	5	4	3	2	1
42.	I think I'm on this course more to please other people than because I really wanted it myself.	5	4	3	2	1
43.	I work steadily throughout the course, rather than leaving everything until the last minute.	5	4	3	2	1
44.	I look at the evidence carefully and then try to reach my own conclusions about things I'm studying.	5	4	3	2	1

(Tait and Entwistle 1996)

Thank you for filling out this questionnaire!

Please return to: Morag MacCormick, Dept of Health & Nursing, Queen Margaret College

**CONSENT FORM**

**TITLE OF STUDY:** Students' Conceptions of the Curriculum

**NAME OF INVESTIGATOR:** Morag A. MacCormick

**POSITION:** Lecturer  
Queen Margaret College  
Edinburgh.

I agree to participate in this study by filling in a questionnaire.

I agree to participate in this study by taking part in a tape-recorded interview.

I understand the information contained in the letter which has been given to me.

I understand that I am under no obligation to take part in this study.

I understand that I have the right to withdraw from the study at any stage and for any reason.

**NAME OF SUBJECT:**

**SIGNATURE OF SUBJECT:**

**DATE:**

**SIGNATURE OF INVESTIGATOR:**

Further information is available from:

Morag MacCormick  
Department of Health & Nursing  
Queen Margaret College  
Clerwood Terrac  
Edinburgh EH12 8TS

**ACCESS LETTER TO HEADS OF DEPARTMENTS**

Department of Health & Nursing  
Queen Margaret College  
Clerwood Terrace  
Edinburgh EH12 8TS  
Date

Dear

I am a lecturer in the Department of Health and Nursing at Queen Margaret College. For my post-graduate research at the University of Edinburgh, I am looking at how pre-registration nursing students learn and come to understand things, and what helps them to learn to link theory and practice.

I hope to collect data for my study from pre-registration nursing students undertaking the final semester of the Adult Nursing branch of the Diploma in Higher Education in Nursing programme, and their teachers. The students will be asked to fill in an Approaches to Learning and Studying questionnaire. Some of the students and the teachers will then be asked to take part in a tape recorded interview which will concentrate on their experience of learning and teaching.

The students and teachers will, of course, be assured that taking part in the study will be voluntary and that they will be free to withdraw at any time. The results will be used only for research purposes and any information given will be confidential, with the names known only to me. I enclose copies of the letter and consent form which will be given to potential participants.

I would therefore welcome your permission to approach some of your students and their teachers, and to have access to a copy of the course documents. Once I have your permission, I will contact the secretary of your ethical committee to obtain and submit the appropriate forms.

With many thanks for your help.

Yours sincerely

Morag A. MacCormick

**ACCESS LETTER TO STUDENTS**

Department of Health & Nursing  
Queen Margaret College  
Clerwood Terrace  
Edinburgh EH12 8TS  
Date

Dear

I am a lecturer in the Department of Health and Nursing at Queen Margaret College. For my post-graduate research at the University of Edinburgh, I am looking at how nurses learn and come to understand things. I am also interested in what helps you learn to link theory and practice.

I hope you will agree to help me to collect information for my study:- by filling out a questionnaire in the first instance and then possibly by taking part in a tape recorded interview. The interviews will last approximately thirty minutes.

The results will be used only for research purposes and the information you give will be confidential, with the names known only to me. Taking part in the study is entirely voluntary and you are free to withdraw at any time.

If you do agree to take part, please complete this questionnaire and the enclosed consent form and return them both to me.

With many thanks for your help.

Yours sincerely

Morag A. MacCormick  
MSc in Nursing Award Co-ordinator

**ACCESS LETTER TO NURSE TEACHERS**

Department of Health & Nursing  
Queen Margaret College  
Clerwood Terrace  
Edinburgh EH12 8TS  
Date

Dear

For my PhD in the Department of Education at the University of Edinburgh, I am looking into the ways in which the curriculum fosters the development of understanding in student nurses. I am particularly interested in how they learn to integrate theory with practice.

I hope to collect data for my study by asking students from two departments of nursing studies to fill in a questionnaire. Some of the students will then be asked to take part in a tape recorded in-depth interview on their experience of learning. I would also like to interview several of the teachers involved in the delivery of the pre-registration course.

I would be grateful if you would allow me to interview you. I am particularly interested in your ideas of how the curriculum, and its implementation, promote the students' understanding.

The interviews will last for approximately 40 minutes and will be tape recorded. All observations will be confidential, with names and times known only to myself. The results will be used only for research purposes.

If you agree to take part in the study, please sign the enclosed consent form and return it to me in the envelope provided.

With many thanks

Yours sincerely

Morag A MacCormick  
Lecturer

**ACCESS LETTER TO DISCIPLINE SPECIALIST/NON-NURSE TEACHERS**

Department of Health & Nursing  
Queen Margaret College  
Clerwood Terrace  
Edinburgh EH12 8TS  
Date

Dear

For my PhD in the Department of Education at the University of Edinburgh, I am looking into the ways in which the curriculum fosters the development of understanding in student nurses. I am particularly interested in how they learn to apply theory to practice and how the curriculum aims to produce the reflective practitioner.

I hope to collect data for my study by asking the pre-registration nursing students (BSc (Hons) in Nursing) in the department to fill in a questionnaire. Some of the students will then be asked to take part in a tape recorded in-depth interview on their experience of learning. I have already interviewed several of the nurse teachers involved in the delivery of the pre-registration course.

I would be grateful if you would allow me to interview you. I am particularly interested in your ideas of how your discipline contributes to the nursing curriculum, and how you help the students to integrate your discipline with nursing.

The interviews will last for approximately 40 minutes and will be tape recorded. All observations will be confidential, with names and times known only to myself. The results will be used only for research purposes.

If you agree to take part in the study, please sign the enclosed consent form and return it to me in the envelope provided.

With many thanks.

Yours sincerely

Morag A MacCormick  
Lecturer

**INTERVIEW SCHEDULE - STUDENTS**

Which course are you doing?

**RELEVANCE TO PRACTICE**

Which modules/topics have you been doing most recently in college?

1. Which did you like most? least?  
(Prompt - why was that? what made it best/worst? can you give examples?)
2. Have you found this typical of the whole course?
3. What has been most important area of the course for you ? what has caused the most problems for you?  
(Prompt - can you give examples?)
4. How useful have you found what you learn in college in preparing you for placement?  
(Prompt - can you give examples?)
5. In placement, is there anything that you feel unprepared for?  
(Prompt - what would have helped there?)
6. How does the way things are taught in college help you to relate them to practice?  
(Prompt - What aspects of e.g. groupwork or lectures make you think about what it means to be a nurse? Can you give examples?)
7. What difference does it make when subjects are taught by non-nurses?  
(Prompt - how do the teachers make their subject relevant to nursing? Can you give examples?)

**INTEGRATION**

8. There are several themes in your course:  
  
What makes all the themes in the course fit in together? like a jigsaw? and foundation studies and the branch studies.
9. How do all these themes link into your placements?
10. Do the assignments help you to make links with what you learned in college and what you do when you're on placement? and the exams?



## **REFLECTION**

- 11 I believe you have reflective groups in your course.  
What do you do in these reflective groups??
12. What does reflection mean to you? Why do you think it's given such importance?
13. What difference does it make to the way you practice/nurse patients?

## INTERVIEW SCHEDULE - NURSE TEACHERS

### OWN TEACHING/ASSESSING

Can you remind me which part of the course you are responsible for?

1. Can you tell me how you approach teaching your part of the course...is there any special way?  
(Prompt - for example, how do you go about selecting the content?)
2. What makes you decide on one way of presenting the material rather than another?
3. Are there any particular teaching methods that you find especially successful...?  
(Prompt - anything which helps the student to see the relevance of what you are teaching? Make them feel that this is something which they must know?)
4. Is there anything that you are required to teach or in the course in general which you think is not particularly helpful to the students?  
(Prompt - perhaps because it's someone's area of interest, laid down by the NBS?)
5. Is the part of the course which you teach assessed?  
What are the criteria for deciding what should be assessed?
6. How do you decide on the type of assessment?
7. What are you looking for in the assignment?  
(Prompt - What makes a good assignment?)

### INTEGRATION

The course document says,

*" in order to promote deep meaningful learning; reflection and integration of knowledge with practice must be facilitated systematically throughout the course"*

I think we all find this difficult...

8. How do you attempt it in your teaching and assessing?  
(Prompt - How do you promote reflection? and what is deep, meaningful learning in this context?)

Quite a lot of this curriculum is taught by non-nurses...

The course document also says,

*“contributing disciplines should be allowed to develop their own internal logic as well as contributing knowledge and understanding which can be integrated into the main discipline“*

9. How do you integrate this theory from other disciplines into the nursing curriculum?

## **PRACTICE**

10. And how do you help the student relate it to practice in the clinical areas?
11. Is there any way in which you help the student to use the theory to make sense of the reality of practice?
12. Are there any theories which are especially useful to the students in practice?  
(Prompt - which help them to develop their practice?)
13. Students often do question the relevance of theory, of what they are taught in college...  
Do you think there is anything which might prevent this disillusionment/  
dissonance ?  
(Prompt - for example, any way of teaching the theory).
14. Is there a special way you support the students when they are disillusioned in this way?

## **PROBLEMS**

15. Given the present lack of resources, is there anything which prevents you from teaching the course in the way you want?  
(Prompt - for example, the UKCC...NBS...college....organisation of the department...the course team.)
16. With regard to this course, what do you see as the greatest challenges in the future?

**INTERVIEW SCHEDULE - DISCIPLINE SPECIALISTS/NON-NURSES**

**OWN TEACHING/ASSESSING**

Can you remind me which part of the course you are responsible for teaching?

1. Can you tell me how you approach teaching your part of the course..is there any special way?  
(Prompt - For example, how do you go about selecting the content?  
How much freedom do you have in this area?)
2. How do you know what is appropriate to teach and when?  
(Prompt - for example, meeting with the nursing team? or other lecturers teaching in your area?)
3. Do you feel that you know enough about nursing to be able to do this satisfactorily?  
(Prompt - If not, how could this be remedied?)
4. What makes you decide on one way of presenting the material rather than another?
5. Are there any particular teaching methods that you find especially successful...?  
(Prompt - for example, help the student to see the relevance of what you are teaching? make them feel that this is something which they must know?)
4. Is there anything that you are required to teach or in the course in general which you think is not particularly helpful to the students?  
(Prompt - for example, because it's someone's area of interest, laid down by the NBS etc?)
5. Is the part of the course which you teach assessed?  
What are the criteria for deciding what should be assessed?
6. How do you decide on the type of assessment?
7. What are you looking for in the assignment?  
(Prompt - for example, what makes a good assignment?)

## INTEGRATION

8. What input did you have in the planning of the course??

The course document says,

*“in order to promote deep meaningful learning; reflection and integration of knowledge with practice must be facilitated systematically throughout the course“*

I think we all find this difficult...

9. How do you attempt it in your teaching and assessing?  
(Prompt - How do you promote reflection ? and what is deep, meaningful learning in this context?)

The course document also says,

*“contributing disciplines should be allowed to develop their own internal logic as well as contributing knowledge and understanding which can be integrated into the main discipline“*

9. How do you integrate theory from your disciplines with nursing?

## PRACTICE

10. Students often do question the relevance of theory, of what they are taught in college...  
Do you think there is anything which might prevent this disillusionment?  
(Prompt - Any way of teaching the theory, for example?)
11. Is there a special way you support the students when they are disillusioned in this way?

## PROBLEMS

12. Given the present lack of resources, is there anything which prevents you from teaching the course in the way you want ?  
(Prompt - the UKCC...NBS...college....organisation of the department...the course team..?)
13. With regard to this course, what do you see as the greatest challenges in the future?

## Appendix 5.

Tables showing the codes identified in the raw data obtained from each separate group of participants:

**Table 17 – Course Structure and Content - College 1 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	No.
Basis for learning								x	x		x	x		x	x	x	x	x	<b>9</b>
Relevance		x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	<b>16</b>

**Table 18 - Course Structure and Content - College 2 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	No
Course structure	x		x	x	x	x	x	x			x	x	x	x	x	x	<b>13</b>
Basis for learning					x	x							x		x	x	<b>5</b>
Sequence of placements	x		x	x	x	x	x			x	x	x	x	x		x	<b>12</b>
Relevance	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	<b>13</b>
Repetition	x		x	x		x		x	x	x		x		x	x		<b>10</b>

**Table 19 - Course Structure and Content - College 1 Teachers**

Code	Nurses							Non-nurses						Nurse/Disc	
	1	2	3	4	5	6	No.	7	8	9	10	11	12	13	No.
P2000 as constraint	x				x	x	3	x			x		x		3
St ability							0	x	x		x		x		4
Basis for learning							0	x	x	x	x		x	x	6
Placement sequence							0	x	x		x	x			4
Modules	x	x	x				3		x		x	x			3
Relevance		x	x	x	x		4	x	x	x	x	x		x	6
Resources		x		x			2	x	x			x	x	x	5
Workload	x	x	x	x		x	5	x	x			x	x	x	5
Keeping up to date	x		x	x	x	x	5	x				x	x		3
Ownership	x	x	x		x		4								0
Collaboration	x	x	x	x	x	x	6	x	x	x	x	x	x	x	7
Dominance of nursing			x				1	x					x		2
Freedom to assess	x						1	x	x		x	x		x	5
Freedom to teach	x	x	x	x	x	x	6	x	x	x		x		x	5

**Table 20 - Course Structure and Content - College 2 Teachers**

<b>Code</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>No.</b>
P2000 as constraint				x						<b>1</b>
St ability			x	x		x	x			<b>4</b>
Placement sequence	x		x	x	x					<b>4</b>
Relevance	x	x		x	x		x			<b>5</b>
Repetition		x			x		x	x		<b>4</b>
Move to HE	x	x	x				x	x		<b>5</b>
Resources	x	x	x		x		x	x	x	<b>7</b>
Workload	x	x	x	x				x	x	<b>6</b>
Distance	x			x	x		x			<b>4</b>
Keeping up to date	x	x	x	x	x	x		x	x	<b>8</b>
Ownership of course	x	x								<b>2</b>
Collaboration	x	x	x	x			x	x	x	<b>7</b>
Freedom to teach	x	x	x	x	x	x	x	x	x	<b>9</b>
Freedom to assess		x	x			x				<b>3</b>



**Table 21 - Course Structure and Content - College 2 Teachers**

Code	1	2	3	4	5	6	7	8	9	No.
P2000 as constraint				x						1
St ability			x	x		x	x			4
Placement sequence	x		x	x	x					4
Relevance	x	x		x	x		x			5
Repetition		x			x		x	x		4
Move to HE	x	x	x				x	x		5
Resources	x	x	x		x		x	x	x	7
Workload	x	x	x	x				x	x	6
Distance	x			x	x		x			4
Keeping up to date	x	x	x	x	x	x		x	x	8
Ownership of course	x	x								2
Collaboration	x	x	x	x			x	x	x	7
Freedom to teach	x	x	x	x	x	x	x	x	x	9
Freedom to assess		x	x			x				3

**Table 22 - Teaching, Learning and Assessment - College 1 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	No.
Peer learning	x	x	x	x		x	x		x	x	x	x			x	x	x	x	14
Challenge	x	x	x	x	x	x	x	x		x	x		x	x		x	x	x	15
Freedom to learn	x	x	x	x	x					x	x	x			x	x	x	x	12
Freedom not to know					x	x		x	x	x		x				x	x	x	9
Self-evaluation		x			x					x	x	x			x	x	x		8
Taking responsibility		x	x	x	x	x	x	x	x	x	x	x			x	x	x	x	15
Assessment	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	18
Exam as challenge										x									1

**Table 23 - Teaching, Learning & Assessment - College 2 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	No.
Peer learning	x	x	x					x		x		x	x	x	x	x	10
Challenge	x	x			x			x	x	x			x	x		x	9
Freedom to learn	x	x								x	x	x	x			x	7
Freedom not to know											x		x	x			3
Taking responsibility	x				x	x	x	x	x	x	x	x	x	x	x	x	13
Teacher limitations	x	x	x	x	x	x	x	x						x	x		10
Lectures	x	x	x	x	x	x	x			x	x		x	x			11
Assessment	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	16
Exams, need for	x	x		x				x	x		x	x			x		8

**Table 24 - Teaching, Learning & Assessment - College 1 Teachers**

Code	Nurses							Non-nurses						Nurse/Disc		
	1	2	3	4	5	6	No.	7	8	9	10	11	12	13	No.	
Variety of t methods	x	x	x	x	x		5	x	x	x	x	x	x	x		7
Group learning	x	x	x	x	x	x	6	x		x						2
Challenge	x	x	x	x	x	x	6	x	x	x		x	x	x		6
Self evaluation	x		x		x	x	4									0
Sts taking resp	x	x	x	x	x	x	6	x	x		x	x	x	x		6
Freedom in st learning	x	x	x	x	x	x	6			x		x				2
Over assessment	x	x	x	x	x	x	6	x	x				x			3
Exams			x	x		x	3	x		x	x		x	x		5
Assignments	x	x		x			3	x				x	x			3

**Table 25 - Teaching, Learning & Assessment - College 2 Teachers**

Code	1	2	3	4	5	6	7	8	9	No.
Variety of t methods	x		x	x			x	x	x	6
Group learning	x	x	x	x	x			x	x	7
Challenge	x	x	x	x	x	x	x	x	x	9
Sts taking responsibility	x		x		x	x	x	x	x	7
Freedom in st learning			x	x				x	x	4
Assessing the curriculum		x	x	x	x	x		x	x	7
Over assessment				x						1
Exams				x	x					2
Assignments	x		x	x						3

**Table 26 - Sharing Experience - College 1 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	No.	
Diff Persp					x	x			x	x	x		x	x	x	x		x	10	
Peer exper	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	18
Teacher exper	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	17
Reflection	x	x		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	16
Prev Exp, use of	x			x		x		x						x	x					6
Holism	x				x	x	x	x	x				x	x	x	x	x	x	x	12
Reality in teaching	x	x	x	x	x	x	x	x	x	x	x			x	x			x	x	15
Practice	x	x	x	x	x		x	x	x	x	x	x		x	x	x	x			15

**Table 27 - Sharing Experience - College 2 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	No.
Diff Persp	x	x		x	x	x	x	x	x	x	x	x	x	x		x	14
Peer Exper	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	16
Reflection	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	15
Teacher Exper	x	x	x	x	x	x	x	x	x	x	x	x		x		x	14
Prev Exper								x									1
Holism	x		x			x		x	x								5
Reality in teaching		x	x		x	x	x	x	x	x	x	x	x	x	x	x	14
Practice	x	x				x	x				x	x			x	x	8

**Table 28 - Sharing Experience - College 1 Teachers**

Code	Nurses							Non-nurses						Nurse Physiologist	
Code	1	2	3	4	5	6	No.	7	8	9	10	11	12	13	No.
Diff perspectives	x	x	x	x	x	x	6	x	x	x		x			4
Using st exper	x	x	x	x	x		5	x	x	x	x	x	x	x	7
Using own exper	x	x	x	x	x	x	6	x	x	x		x	x	x	6
Reflection		x	x		x		3	x	x						2
Holism	x						1		x				x		2
Reality in teaching	x	x	x	x	x	x	6	x	x		x	x	x	x	6
Ideal v. actual	x	x		x	x	x	5					x			1

**Table 29 - Sharing Experience - College 2 Teachers**

Code	1	2	3	4	5	6	7	8	9	No.
Diff perspectives			x	x			x			3
Using st exper	x	x	x	x				x	x	6
Using own exper	x	x	x		x	x	x	x	x	8
Reflection	x	x	x			x	x		x	6
Holism	x		x					x		3
Reality in teaching	x		x	x	x	x	x	x	x	8
Ideal v. actual	x	x	x	x	x	x			x	7

**Table 30 - Relationships - College 1 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	No.
Support - group	x	x	x	x		x	x				x				x	x	x	x	11
Support - staff	x	x		x		x	x		x	x	x				x		x	x	11

**Table 31 - Relationships - College 2 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	No.
Support - group					x	x		x	x			x	x	x			7
Support - staff	x	x			x	x	x	x	x	x		x		x	x	x	12

**Table 32 - Relationships - College 1 Teachers**

Code	Nurses							Non-nurses					Nurse/Disc		
Code	1	2	3	4	5	6	No.	7	8	9	10	11	12	13	No.
St. support	x	x	x	x	x	x	6								0
Sts pers dev				x	x	x	3								0
St confidence		x	x		x		3								0
Authority figures			x			x	2	x							1

**Table 33 - Relationships - College 2 Teachers**

Code	1	2	3	4	5	6	7	8	9	No.
St Support	x	x	x	x		x		x		6
St pers dev	x									1
St numbers		x	x	x	x			x		5

**Table 34 - Issues which span more than one category - College 1 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	No.	
Confidence		x	x	x	x	x	x	x	x	x	x	x		x				x		13
Personal Dev	x				x	x	x	x	x	x				x	x	x	x	x	x	12
Knowledge	x	x	x	x		x	x		x	x	x	x	x	x	x	x	x			15

**Table 35 - Issues which span more than one category - College 2 Students**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	No.
Confidence		x	x	x	x	x	x	x			x	x	x	x	x	x	13
Personal Development							x	x	x	x	x	x		x		x	8
Knowledge			x	x			x	x		x	x		x		x	x	9

**Table 36 - Issues which span more than one category - College 1 Teachers**

Code	Nurses							Non-nurses					Nurse/Disc		
Code	1	2	3	4	5	6	No.	7	8	9	10	11	12	13	No.
Knowledge		x	x		x		3	x	x	x	x				4

**Table 37 - Issues which span more than one category - College 2 Teachers**

Code	1	2	3	4	5	6	7	8	9	No.
Knowledge	x		x	x	x	x	x		x	7