EVALUATION OF AN INNOVATIVE NURSE EDUCATIONAL

PROGRAMME OF NURSE EDUCATION.

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APPENDICES

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EVALUATION OF AN INNOVATIVE NURSE EDUCATIONAL PROGRAMME OF NURSE EDUCATION.

Abstract

In 1984 the English National Board (the newly appointed controlling body for nurse education in England) invited schools of nursing to submit innovatory, and progressive programmes for nurse education. Basis for selection was the capacity of the programmes to begin to address the demands for a new type of nursing practitioner. The programmes were to be aimed at providing an education that would enable the nurse of the future to adapt to the changing needs created by an increasingly dynamic nursing profession. It was proposed that the selected programmes would act as forerunners for new educational initiatives and facilitate the transition to a more clearly oriented nursing approach.

The longitudinal study was designed to evaluate the effectiveness of one of the selected pilot educational programmes. It was premised on the assumption that traditional hierarchical nurse educational approaches may affect student self esteem and in consequence the ability of the qualified nurse to achieve the self confidence required for independent professional practice and self - growth. It rests on the argument that a positive self image and external locus of control allows nurses to become self assertive, confident and dynamic practitioners capable of embracing and initiating change in response to predicted continuing change in psycho-social health demands.

The innovations introduced in the pilot scheme included the adoption of a humanistic, student centred, adult educational model of teaching/learning approach that focuses on promoting self worth in its learners. This led to the study proposal that the effectiveness of the course can be evaluated by focusing on whether the educational changes eliminate the potentially destructive effects of earlier courses on nursing students by enhancing their self concept to the benefit of their self confidence in practice during supervised training and after qualifying. The study draws on the theories of the Self, on Attribution Theory, Social Learning Theory and in particular Adult Educational Theory with its

focus on recognition of self -worth. It utilises an eclectic illuminative evaluation method that encompasses a balance between quantitative measurement and qualitative information. The results of measurements taken of students values and perceptions of themselves and their chosen profession on entry and at differing stages of the course, are recorded together with further measurements undertaken by a sample of course graduates after a period of practice. Methods included the use of self designed and standardised instruments and individual and group interview techniques. The descriptive study also explores and compares the demographic characteristics, values, expectations and learning preferences particularly in relation to developing qualities of learner independence and student directedness. An overall participative approach takes into account the varying information needs of its diverse potential audience.

The study design recognised the importance of ensuring that the evaluation had a formative component to allow it to offer an improvement function to the quality of study of the students who participated in the various evaluation measures during their own educational process. The findings demonstrated that the programme was successful in achieving its aims. But post course enquiries into the course graduates initial staff nurse experiences, revealed a marked fall in self confidence when they were first confronted with responsibility and accountability. The high anxiety levels, and fears of 'not knowing' how to carry out more complex procedures, led to the recommendation that the initial period of preceptorship should include a supernumerary interval in which the newly qualified staff nurse could be free to 'catch up' on experiences not encountered during the clinical allocations.

It is envisaged that the findings will be of interest to the wider nurse educational arena at both local and national level. It will assist not only nurse education programme planners and those implementing the Project 2000 initiatives but also educationalists in compulsory, further and higher education. Finally as a direct record of the effects of the most fundamental changes in nursing history, it has the potential for becoming a source document for future nurse historians.

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CHAPTER ONE

Introduction

In 1984 the English National Board (ENB) invited schools of nursing in England to submit innovatory and progressive programmes for nurse education.

The programmes were to be chosen on the merits of their capacity to begin to address the demands for a new type of nursing practitioner, a nurse who would be capable of adapting to the changing needs created by an increasingly dynamic nursing profession. It was proposed that the selected programmes would act as forerunners for new educational initiatives and that the insights gained would facilitate the transition to a more clearly oriented nursing approach (ENB 1987, Clifford 1986).

The new and innovative curriculum plan submitted by the College under study was one of the six programmes selected to act as educational pilot schemes for basic nurse education leading to the qualification of Registered General Nurse (RGN).

The ENB Pilot schemes were introduced as a proactive contribution to the general debate taking place, throughout the nursing profession, concerning the following aspects of nurse education:

a. Measures to improve standards of nurse education;
b. The need to take account of the possible implications for nursing practice of predicted changes in health and societal needs;
c. Student status;
d. The educational venue for future nursing studies.

The Evaluation Study

The study reported here is a multi- methodological, longitudinal evaluation of the performance of the pilot educational programme.

The Basic Aims of the Evaluation Study

a) To evaluate the effectiveness of a programme of nurse education selected to act as a pilot scheme for future educational innovation.

b) To investigate the effect of the educational process and cultural milieu on the learners' personal worth.

The Evaluation Approach

These aims were considered in the light of the organisational ethos, and the expectations and needs of prospective audiences, of the proposed evaluation report. When balanced with the findings of an extensive literature review the conclusion reached was that an effective method for judging the course of study would be to focus on the individual and group responses of the key participants of the educational experience. The strategy would have the added advantage of ensuring important issues were not overlooked.

A longitudinal multi-methodological illuminative evaluation approach was regarded as the most appropriate means of achieving the desired depth and breadth of view.

The Framework of the Study

Since the study sought to provide an illuminative evaluation of the educational programme, as perceived by the learners, the report is focused on the phenomenological responses gathered from the 809 members of the student population during the total life of the programme. It endeavoured to provide the reader with a unique opportunity to view a varied vista of 'snapshot' images of the immediate and retrospective responses of individual and groups during their course of study and subsequent introduction into staff nurse practice.

Background to the Study

The mid-eighties were a significant period in the annals of the nursing profession. It was then that it was finally accepted that the long awaited educational reform could no longer be deferred. It had become increasingly apparent that the dynamic pace of change in health care that had been experienced over the recent decades, was likely to continue to accelerate. In the prevailing climate of radical change, it was evident that many tried and trusted educational policies and practices were no longer the most appropriate means of

preparing the 'new age' practitioner who might still be in practice or management well into the third decade of the 21st. century.

A comprehensive professional debate began concerning measures required to ensure that the design of future nurse education programmes would provide the most effective preparation for the new nurse practitioner. The present study focuses on aspects of this debate and its concerns remain surprisingly relevant despite the many changes that have occurred since its instigation.

Growth of Professional Concern

Significant information was presented in a series of reports that included:

The Annual Report of the United Kingdom Central Council for Nursing, Midwifery and Health Visiting (UKCC) 1983-1984. This called for a 'total and radical review' of the profession's foundation in order to determine the most appropriate educational policies.

1985 also saw the publication of a further series of reports that contributed to the debate including:

The Judge Report 1985. Commission on Education produced by the Royal College of Nursing (RCN);

The ENB 1985 Consultative document on the development of professional education in England.

In response to the growing concern within the profession in 1985, the UKCC Educational Advisory Committee issued a series of five project papers aimed at providing information on the major issues and clarifying options for those involved in the delivery of health care.

Paper 1 (UKCC 1985) recognised that the ENB's proposals were constrained by the legal constraints imposed, whereas the Project 2000 team had the freedom to explore and develop professional preparation for the future, and where necessary could propose changes in legislation.

A particular issue the reports sought to address concerned whether the learner should be part of the workforce, with the first duty that of delivery of care, or be a student whose chief function would be that of learning.

Status: College Student or Hospital Worker.

There had been criticism of the 'apprenticeship' model from some professional bodies and this raised the issue of status for the future nurse learner. Previous reports had recommended that they should have the status of student rather than be expected to learn while part of the workforce (Horder 1945; Wood 1947). However though the UKCC Working Group 3 (1985) emphasised the need for the student educational programme to provide 'broad based education' it nevertheless suggested that the clinical area remained the best place to learn the 'art and science of nursing'. It failed to regard change to the employment status as a matter of urgency, and simply recommended it be the subject of regular review.

Educational Venue

A related issue concerned whether the main educational venue should remain in the hospital domain or should move to institutes of higher education (UKCC 1985). The consultative document proposed that the students remain in the nursing colleges but that the colleges should have 'collaborative links' with both the Health Service and higher and advanced educational institutions. The students would enjoy supernumerary status for the first two years of their educational preparation and gradually move from 'theory centred' to 'application centred' approaches. At the end of the second year they would have progressed to making an increased contribution to the delivery of care, with eventual involvement in 'self learning and service giving' by the final year.

The Prevailing Educational Environment

In 1985, the majority of nursing students were employed by health authorities and in most programmes, when not engaged in study in the colleges, they were required to work in the service area.

Appendix 10 ENB (1985) cited 66% of the 96 weeks of a three year educational programme was the average service input for general nursing students at that time.

It was recognised that student status for students preparing for a career of practice must differ from that enjoyed by students studying academic topics. It was regarded as equally essential to ensure the right learning resources and environment in which teachers could

enable their students to develop the skills and understanding required for their professional preparation.

Programme Content

Radical changes in health and disease and the measures undertaken to treat or prevent disorder had been gathering momentum since the advent of the National Health Service and futurists such as Alvin Toffler (1972) predicted such speed of change could be expected to continue into the next decade. The direction of future demand for health care could only be a subject of speculation. However it was recognised that the demographic and social changes, combined with changes in treatment, technology, morbidity, and mortality, would all need to be considered in the light of the need for economic stringency, reduced labour costs, and increased efficiency. It was known, for example, that the shift away from hospitalisation toward community care would continue to have relevance in the light of new treatments that rendered redundant the old image of a bedridden patient dependent on nursing care.

The accompanying knowledge explosion in health care also raised the problem of cramming more and more information into the finite three year period of basic nurse education. In view of the uncertainty about the nature of knowledge and skills likely to be demanded of future nurses it was decided that the most appropriate approach to education would be to discard the former practice of 'encyclopaedic knowledge' acquisition, in favour of teaching the independent learning and analytical skills that would motivate students, increase their flexibility and instil in them the confidence necessary for pursuit of lifelong self directed learning and personal development.

The Aims of the Pilot Scheme Under Study

The overall aim of the pilot scheme at the College under study, was to test the feasibility of introducing a new and broadened educational programme that would seek to provide a sound preparation for practice to include:

a) a broad knowledge base that would meet the requirements for registration but in addition provide the foundations for the skills of reflective research based practice and lifelong learning;

b) the competencies required for safe standards of nursing care - creative, critical and decisive problem solving abilities deemed necessary for the provision of effectual individualised care systems;

c) the flexibility to meet changing demands in a dynamic, theoretical, and professional environment.

The Programme Changes

The educational changes introduced in the new programme had included establishing links with the neighbouring university. This enabled the curriculum to be broadened to include study of relevant theories from sociology, psychology and other related academic disciplines. Seminal lectures were conducted by visiting university staff and the theories were applied to nursing in follow up sessions conducted by nurse teachers. A facilitative teaching ethos was adopted that encouraged self direction in learning and the recognition of individual worth. This was accompanied by a breadth of training experience designed to consolidate the nursing theories studied and underline the relevance of the academic theories by linking theory to practice.

It should be noted that all the other pilot schemes allowed their students to enjoy lengthy introductory periods of extended college study and supernumerary status before they were expected to accept responsibility for providing patient care. However the service needs of the Health Authority, in which the college under study was based, required that the status of it's pilot students remained that of members of the workforce for approximately 67% of the duration of their educational course.

Table 1.1 The Educational Programme

Title	Content and placement	Duration
Introductory Course Foundation	**Introduction to basic skills** and eclectic knowledge including visits to the clinical are	11 weeks
Module 1 Introduction to medical and surgical nursing.	**Acute and chronic care** allocation to appropriate care venues with opportunity to practice acquired skills and knowledge under team supervision.	13 weeks
Module 2 Medical and surgical nursin	**Emphasis on Stress** - respiratory and circulatory disorders. Allocation as above to appropriate areas.	13 weeks
	SECOND YEAR	
Module 2b ** Patient Education and community nursing	**Patient education** and group teaching techniques, supernumerary status during allocation to community or ward placements supervision from clinical nurse specialists.	8 weeks
Module 3 Care of the Elderly	**Principles of elderly care** with allocation to appropriate care settings	8 weeks
Module 4 Advanced medical and surgical nursing.	**Emphasis on medical and surgical care** specifically related to gastro-intestinal tract disorders Allocations include limited experience of night duty	8 weeks
Module 5 High Dependency Care	**Care of the dependent patient** including shock, trauma, violence and death. Allocatio to theatre and accident and emergency CCU I TU limited to few on request.	8 weeks
Module Six Sexual Health	**Womens' health and maternity care** Allocation to oncology, gynaecology and maternity care Units.	8 weeks
	THIRD AND FINAL YEAR	
Module 7 Care of the Child	**Care of the well and sick child** Allocations with sick and well children in hospital or community	8 weeks
Module 8 Mental Health and Illness	**Mental health care** in the community or hospital allocations in both settings care	8 weeks
Module 9a Patient Education	**Patient education** as for 2b for those who omitted 2b in the first year.	8 weeks
Module 9 Management Module	**Management and teaching** returning to acu and chronic care allocations including limite night duty.	20 weeks

** 50% of the Cohort undertook Module 2b in their first year the other 50% omitted this module taking exactly the same course in the final year when it was retitled as 9a.

Table 1.1 comprises a summary of the educational programme and illustrates that there are two exceptions to this service requirement. One in the supernumerary allocations of Modules 2b/9a the patient education module and in the final 18 week Module 9 when the students were again supernumerary during their management experience.

The Course Programme

The 146 week programme commenced with an 11 week introductory course designed to provide a broad foundation which would equip the student with the basic understanding and practical skills that would be required in preparation for his/her first clinical experiences. It also introduced the nucleus of the eclectic knowledge on which the subsequent curriculum would revolve and expand. The programme continued on a modular basis as illustrated in the table.

The Modular System

The modules all began with an initial preparation week prior to a period of allocation to the clinical areas. This was followed by allocation to a clinical placement where the students worked within a nursing team. The objective was to provide the learner with regular opportunity to practise the skills of basic nursing care under supervision of qualified mentors. The mentors in turn were supported by the college link teachers.

At the end of the allocation the students returned to the college for a week of consolidation in which they were encouraged to reflect on the relationship of theory to practice. The consolidation period allowed time for greater depth of study and exploration of the relevance and value of their clinical experiences. They were encouraged to share their new observations, perceptions and feelings with peers and teachers. The first two modules formed a fundamental part of the course as they were focused on general nursing care and the allocations were extended to eleven weeks to allow the students to build on the nursing care skills and knowledge acquired in the foundation course.

Modules 3-8 allocations were reduced to six weeks and focused study on to more defined areas of care. The final module 9 was extended to 20 weeks and centred on developing management and teaching skills. Evidence of learning achievement was assessed by means

of continuous assessment and a varied programme of formative and summative assignments throughout the course that were closely aligned to the modular experiences.

Evaluation of the Programme

It was recognised that the evaluation report would need to address a large and widely varying range of audiences. It was therefore proposed that in order to provide answers to the diversity of expected questions and concerns the programme should provide a comprehensive review of all the intended and unintended changes. In addition it was regarded as important that there should be sufficient flexibility within the structure to allow new issues to be addressed during the progress of the course.

The Study Questions.

The initial study question focused on appraising the product and process of the programme in relation to it's efficacy in achieving the stated aims. This led to the formulation of two further questions:

1) Did the curriculum effectively provide the confidence, knowledge and competencies required for professional practice?

2) Did the educational process inspire the learners to value the goals of continued self development and independent learning that would adequately prepare them for a career of progressive practice and lifelong learning?

Further Relevant Issues of Investigation

Exploration of the literature highlighted a number of interrelated issues that appeared pertinent to the study questions. Consideration of these various aspects led to the proposal that a multi-methodological exploration of the issues would provide a revealing and illuminative evaluation of the pilot programme viewed from the perspective of its learners and in so doing provide answers to the major study questions.

The salient topics were drawn up into a list of 7 areas of enquiry and these are listed below together with a summary of the means of investigation used in addressing each aspect.

1) Formative Evaluation of the Educational Programme

The formative evaluation strategy was designed to produce an objective, ongoing record of

student perceptions, interpretations and recommendations. It sought to measure the value the learner placed on the learning experiences, teaching approaches and educational milieu. There was an emphasis on eliciting the opinions of the individual and encouraging all to contribute in the implementation, modification and adaptation of the programme.

This process of utilising the twin principles of evaluation, namely judgement and improvement continued throughout the whole course and was augmented by active involvement of the key participants. The views of every student enrolled on the course were sought at the conclusion of each module of learning.

Attention was paid to the degree to which the diverse learning needs of the students in both the college and clinical venues were met. This investigation included consideration of the institutional response to the views and suggestions of the participating students and teachers.

The measures employed in the formative evaluation and the ultimate summative evaluation (described below) included administration of comprehensive evaluation questionnaires comprising closed questions that allowed quantitative measurements and comparisons to be made. In addition there was opportunity for open response and this additional information was used to promote group discussion and constructive criticism thus providing a rich qualitative source of data. This format was also employed in monitoring the processes, effects of change, and responses to change within the student population, in the educational milieu, and in the wider socio-political climate, where it related to health care and nursing education.

2) Summative Evaluation

On conclusion of the course the students were asked to evaluate the whole course, and in particular to give a global judgement on the effectiveness of the course components in providing them with the knowledge and skill base on which they could embark on their professional practice.

3) The Learning Venues

To add to the continuing debate concerning the merits of college versus clinical arena, an instrument designed to allow a comparison of values placed by the students on the learning experiences offered by the two venues was included in the final evaluation questionnaire.

4) Levels of Confidence and Hopes for the Future

The students' confidence in their level of competency, at the completion of their studies, was regarded as fundamental to their function as competent and caring practitioners, and to their continued self development. Their degree of confidence was measured in the final evaluation questionnaire and was further explored by enquiring into their plans for the future.

5) Efficacy of the Programme in Meeting the Needs of Minority Sub-Groups

One focus of specific investigation was the examination of the programme's efficacy in addressing the needs of the small groups of atypical nursing students who were present in the student population as a result of the profession's policy of widening the entry gate. The policy had been prompted by a need to create greater diversity in age, gender, previous experience and educational background in nursing students. The resulting sub-groups at the college included males - often those pursuing second careers - and older females, seeking a career after child rearing. There were also a number of both males and females of various ages who despite lacking the academic pre-requisites had been admitted as a result of success in Access courses or DC test results. Samples were drawn from these groups to represent males, females over 24, and alternative entrants. The evaluation responses and written views and suggestions from these three samples were compared with two samples of students drawn from the 'conventional student nurse' population. These samples comprised two groups of 18 year old females; one a group accepted on the basis of 'O' level, and the other on 'A' level entry qualifications. Their scores on the Learning Preferences Inventory Scores (Rezler And Rezmovic 1981) were also compared.

6) Perceptions of Self and Professional Worth

An additional area of interest was the effect the total learning experience had on the individual's self perception and professional concepts. It was considered necessary to elicit whether any harm had befallen the learners' self esteem as a result of their learning experiences. These explorations took the form of three sub-sections:

i) Beliefs about the Self and Professional Perceptions

An investigation was carried out on the self image and concepts of the nursing profession of a sample of students drawn from the populations of three colleges of nurse education.

The three Colleges included two that presented modern and progressive educational programmes. One of these was the college under study and the other was chosen to act as a control. The third college was selected because of its reputation for offering a traditional, practically based nurse educational preparation.

The investigation included comparisons over time of the sample groups' responses to a self designed semantic differential instrument and the Learning Preference Inventory (LPI). The measures were designed to allow comparison of perception of self and professional concepts and learning preferences of the samples from the three colleges at three important stages in student development: on entry: at mid-point of training; and on completion of training.

ii) Student Characteristics such as age, gender, academic qualifications, and learning preferences of the sample populations from each college were regarded as key characteristics in the formation of base line information for the comparative study. This information was obtained from the two outside colleges by adding the three appropriate questions to the Rezler Learning Preference Instrument..

iii) Entrant Expectations, motivations and values were considered to be equally relevant and were acquired by means of a questionnaire that combined the entrants' expectations as elicited by means of Child's Job Information Checklist with questions concerning earlier experiences of caring, reasons for entering nursing, and the information sources that influenced choice of nursing as a career.

7) Post-Qualification Evaluation

In seeking to evaluate the quality and effectiveness of a programme of professional preparation for practice, it was essential to delay final judgement of outcomes until the programme graduate had enjoyed sufficient opportunity to perform in the role for which his/her study had been designed.

The means of eliciting information from practising staff nurses, who had functioned in the role for a minimum of six months drew on three interview strategies: telephone interviews; focused group interviews; and individual interviews. Areas of focus included self perceptions, learning preferences, beliefs, values and hopes for the future. In depth comparisons of two sets of twins were also carried out. One set of twins had both trained at the College under study. The other pair had separated at entry; one had enrolled at the study College and the other at the College used as a control in self perception comparisons.The interviews with the staff nurses concluded the evaluation of the pilot course.

A representation of the study structure is presented in figure 1.1.

The Composition of the Report

The advantages of time and serendipity presented by a longitudinal methodology were fully exploited in the study. There was opportunity to monitor changes taking place as the course progressed and to change direction and explore new and unexpected dimensions as they arose. This was seen as an asset in a value laden task where it would have been only too easy to impose a rigid structure based on institutional or personal values. This flexibility however compounded the major disadvantage of a longitudinal research approach, namely the need for ruthless selection, at the report stage, from the wealth of equally relevant data obtained.

The study structure presented in figure 1.1 must therefore be recognised as a 'post hoc' representation designed to guide the reader through the multiplicity of stages of exploration embraced by the study.

Summary of the Report

Chapter Two refers to pertinent writings drawn from the literature of education, psychology, and nursing. It is divided into four sections each devoted to one of the interrelated and recurrent themes on which this study is grounded. The review debates the relevance of four theories in relation to nurse education and the research study. The theories were: evaluation; self perception; social learning; and adult learning.

Chapter Three, describes the design of the study and the theoretical perspectives, and emphasises the philosophical rationale for choosing a multi-methodological research approach.

Chapter Four, describes the educational programme and evaluation research process in action.

Chapter Five, focuses on the measurement of self perception, professional concepts, and values of the students in the study college and compares them with students enrolled at two other colleges.

Chapter Six, shifts attention to the aftermath of the course seeking to describe how effectively the course graduates considered they were able to transfer and adapt to the practitioner role for which the course had sought to prepare them.

Chapter Seven, presents the study conclusions and makes recommendations for the future of nurse educational initiatives and further study.

The Rationale for the Study

The literature review revealed a dearth of longitudinal studies of basic nurse education in the United Kingdom. It demonstrated that nurse educational evaluation has largely been confined to outcomes of short courses or short periods of longer courses.

The programme to be studied was designed to act as a pilot for basic nursing courses of three year duration. It was therefore felt that the most effective method for judging the course of study and ensuring that important issues were not overlooked was to examine participant response to the educational experience, over a period of time.

This study is therefore both apposite and unique in presenting the first comprehensive and longitudinal evaluation study of a basic British nurse education programme, in its entirety.

An attempt has been made to demonstrate the benefits offered by in-depth course evaluation and to develop a new participatory and responsive approach to nurse educational evaluation that draws student and teacher into a relationship of equity. It has implications for all branches of pre-and post nurse education.

Justification for the Study

The course programme was introduced in March 1986 and it was quickly recognised that a comprehensive evaluation of the programme was a fundamental part of the innovatory exercise. To ensure lack of bias the decision was made to appoint an educational researcher whose remit was to carry out an evaluation of the total educational programme and learning milieu. This appointee was to be a qualified nurse who could share the goals and insights of those involved in the programme but would not be a member of the teaching staff. This position, funded by the Hospital Special Trustees, would allow the researcher the opportunity to maintain impartiality by combining recognition as an equal, with an image of being slightly distanced from the other concerned parties, who would include teachers, students and management staff.

The writer was appointed to this post in November 1986 and over the period of the research study, the role extended to embrace support for staff undertaking first andfurther degrees, post evaluation support and counselling to teachers, and sharing in the planning of modifications in the light of student recommendations.

As a result, at the end of the three year post, the writer was re-appointed and became a member of the Research and Development Team thus allowing the study to extend over the full life of the course.

Figure 1.1 Representation of Structure of Research Study: post hoc

ENTRY STAGE	**BASE LINE INFORMATION**
	Demographic Details
	Initial Expectations
Pre test for sample groups	Learning Preference
Entrance to mid point groups	Self Perceptions
	Professional Concepts

INTRODUCTORY STAGE	**EVALUATION**
Pre test for sample groups	Demographic Details
Entrance to mid point groups	Semantic Differential
	Professional Concept
	Learning Preferences
	Mid-foundation Discussion
	Summative Foundation Questionnaire
	Foundation Discussion

MODULAR STAGE	**MODULE EVALUATION**
	Modules 1-9a
	Module Questionnaire
	Discussion
Selected sample End of Modules	Individual Interview

MID POINT STAGE	**BASE LINE & PRE AND POST TESTS**
Pre test for sample groups	Demographic Details
Entrance to mid point groups	Semantic Differential
Post test for sample groups	Professional Concept
Mid-point to conclusion groups	Learning Preferences

COURSE FINAL STAGE	**SUMMATIVE EVALUATION**
	Final Evaluation Questionnaire
	Discussion
	Career Plans
	Confidence Levels
Post test for sample groups	Semantic Differential
Mid-point to conclusion only	Learning Preferences

POST QUALIFICATION STAGE	
Selected sample	Telephone Interviews
	Group and Individual Interviews
	Questionnaire
	Twin Interviews

Chapter Two

THE LITERATURE REVIEW

Section One: The Literature Referring to Evaluation:

The simple truth about evaluation, writes Martin Skilbeck (1984) is its normality, it is customary to reflect on our experiences, and in life we continually make assessments on the value of our actions and intentions and relate their consequences to aims. Curriculum evaluation, he suggests, is a manifestation of this, comprising the numerous appraisals that are made on how effectively the aims of education are achieved in practice, including judgements on the programmes designed to achieve these aims. Despite this fundamental view a review of the literature has revealed widely ranging, often complex definitions, interpretations and purposes applied to evaluation. An examination of the historical development of the concept was conducted in order to devise a definition and strategy appropriate to the aims of the study.

Stufflebeam , Foley, Gephart, Guba, Hammond, Mierriman, and Provus (1971) refer to the purpose of educational evaluation as seeking to '*improve*' rather than '*prove*' thus underlining the fundamental distinction between research and evaluation.

They discuss a range of interpretations of evaluation emphasising the existence of many *'essentially arbitrary'* ways of defining evaluation. They elaborate on three commonly accepted categories of definition and comment on the advantages and disadvantages of each.

The first category they label:

Measurement definitions the example supplied is that of Thorndyke and Hagen: *'evaluation as we use it is closely related to measurement, it is in some respects more inclusive, including informal and intuitive judgements and the aspect of valuing of saying what is desirable and good. Good measurement techniques provide solid foundation for sound evaluation*'. (Thorndyke and Hagen 1961 p27)

Advantages of this approach that were highlighted by Stufflebeam et al included:

a) credibility through linkage with the scientific measurement movement;

b) the objectivity and reliability of data;

c) the emergence of norms and standards;

Disadvantages identified include:

a) narrowness of instrumental focus;

b) limitation to only measurable tangible variables;

c) ignoring the judgements and the criteria on which they are formed;

d) constraints of time and cost of producing appropriate instruments.

Guba and Lincoln (1981 p.35) also refer to the development of the three categories and add their own definition of describing and judging a programme in terms of its perceived *'merit and worth'*.

Until the late 1950's. tests and grades were the usual means of evaluating the effectiveness of nurse educational programmes (Kapborg and Fischbein 1990). The nursing literature illustrates the profession's continuing tendency to compound evaluation with assessment (Scammel 1983). The distinction between evaluation and assessment is made by Morle (1984) who defines assessment as estimation of value. She cites Mariner's (1975) description of evaluation as an assessment process. Morle, maintains that a major concern of evaluation in nursing relates to the establishment of criteria, to provide a standard against which nursing actions and nursing courses can be measured. The subsequent feedback on degrees of success can assist in changes to achieve objectives.

Sarnecky (1990a p25) in her comprehensive review of four generations of evaluation refers to measurement approaches as the first generation, *'elementary'* stage, which is oriented to norm referenced measures that are standardised and objective. She summarises the process as one of determining whether students have *'measured up'* to specifications and emphasises that while tests inform on individual students they do not have application to programmes or curricula.

The close links between evaluation and accountability is emphasised by Stenhouse (1982) and Macdonald (1974) This linkage is referred to by Reilly (1975) as means of achieving *'realistic appraisals'* of the results of educational initiatives.

The word evaluation, has its linguistic roots in the term value so it inevitably encompasses value judgements. The subjectivity pervading its operation is an area of

particular concern when devising means of evaluating nursing performance. Nursing is unequivocally a subjective caring activity that places a high worth on the individual and demands a perceptive and sensitive response to client/patient need. One might argue that to attempt to apply 'hard' objective measurements to such 'soft' subjective actions would fail to take account of the key component - care. Morle (1984) in her discussion of the subjective element presents a cogent argument when she questions the feasibility of attempting to eliminate all subjectivity in nursing evaluations, and she maintains that it would be better to accept that, together with intuitiveness, it is an essential element of evaluation.

Watson (1990) omits reference to assessment in her definition of programme evaluation in nurse education - stating it is:

> *'a means by which the feasibility of a new programme can be determined, and the existence of a current programme can be justified , based on the extent to which the programmes effectively meet the identified human service needs of nursing care'.*(Watson 1990 pp.317)

Discussion with Reference to Study

In relation to the present study, it is important to recognise that some measured evidence of student knowledge and skills is of importance in an occupational preparation where the level of proficiency is assessed for the purpose of registration for safe practice. Nevertheless it was hoped to achieve a more balanced approach since the humanistic assumptions on which the initiatives of the pilot course were based sought to move away from the *'pedagogical'* stance of over reliance on test results. It was realised that an evaluative approach designed on measurement, would gain credibility and validity in the eyes of its intended audience because it would provide objective and reliable data. However it was felt to confine the focus only to measurable entities would fail to portray the reality of learner involvement in the programme. Neither would it create the level of interpretative feedback and insight that was regarded as essential to formative ongoing response to issues of concern to the key participants during the learning process.

The second category referred to by Stufflebeam et al (1971) is defined in terms of congruence.

Congruence Definitions

In this form, evaluation seeks to determine levels of congruence between performance and achievement of pre-selected behavioural objectives. Tyler (1950) proposed that the fundamental purpose of the evaluation process was one of determining the degree to which the programme actually achieved the educational objectives. His thesis was that since educational objectives are aimed at producing certain desirable changes in the behavioural patterns in the student, evaluation is the process of discovering to what extent the desired changes in behaviour are taking place. The principle of designing curricula with clearly defined and measurable behavioural objectives was also promoted by, among others Bloom et al. (1956).

Advantages

Advantages of the method enumerated by Stufflebeam et al include:

a) provision of organisation about the total process of instruction;

b) provision of information on curriculum as well as on student;

c) provision for process of feedback;

d) facilitation of judgements on product as well as process data.

Disadvantages

Disadvantages of such definitions noted by the authors include:

a) the placing of very narrow technical constraints on the evaluator;

b) assessment focused on student behavioural effects;

c) emphasis on student behaviour resulting in evaluation becoming ex facto - a terminal process.

Sarnecky (1990a p25) refers to objectives-oriented description as the key to this second generation of approaches in which patterns, and strengths and weaknesses relative to pre-determined objectives are outlined. She notes that both this and the measurement approach are based on scientific principles of an objective, empirical reality, and so fail to recognise the subjective elements of specific *'values, beliefs, norms and ethics'*.

However she applauds Tyler's contribution in increasing the scope of evaluations beyond individual achievements to embrace the ongoing curriculum and instructional performance

by incorporating a formative element to supplement the previous summative forms. Guba and Lincoln (1981) also note that Tyler's (1950) rationale, of focusing curricula on objectives, created a mechanism for continuous assessment of curricular and instructional improvement. They reiterate, however, a major criticism of Tyler's objectives model, that of *'a priori'* stipulation of objectives which restrict digression from the rigidity of formally stated objectives once the evaluation process has commenced. Other criticisms are summarised by Guba and Lincoln (1989) who include reference to Cronbach's (1963) concern regarding the delay in producing results until the development of the programme. They also refer to the views of Scriven (1967) who found the element of standard setting required to allow judgements introduced a value laden entity into what was claimed to be a scientific value free endeavour. Guba and Lincoln (1987 p 8) note a further concern that though the approach enables initiation of change and development for subsequent courses, it fails to allow changes once the programme is ongoing. One might wish, for example to *'delete useless objectives or add others that may have emerged'*.

Behavioural Effects on Nurse Education

The continuing influence of Tyler's insistence on behavioural objectives on nurse education and evaluation is well recognised (Quinn 1988; Watson and Herbener 1990). It is with regret that Woodrow (1993) reflects that despite the greater congruence of the humanistic alternative to current nursing theories behaviourism continues to be basis of nurse education.

In her cogent discussion of the issue Morle (1984) stresses the importance of ensuring that established objectives are stated in specific behavioural terms and she also recommends they should also identify terminal behaviour by name, and clearly define the important conditions under which behaviour is to occur. In addition they must contain clear definition of the criteria acceptable to performance. Morle is concerned that nurse education's' preoccupation with behavioural objectives, deriving from its efforts to gain recognition as a *'learned discipline'*, has led to neglect of other important learning issues. Nevertheless, she concludes that rather than restricting freedom to learn, objectives can encourage learner independence in planning, learning and evaluating attainments. She asserts that, in

general, educationalists consider that when a person is aware of the objects of achievement, and is enabled to recognise successful accomplishment, then there is likely to be an acceleration of learning.

Discussion with Specific Reference to the Study

In discussing the feasibility of a behavioural approach to evaluation, in this present study, it was necessary to consider it in the context of the total educational process. Despite the affirmation of humanistic ideals in the College philosophy, (see Appendix A) behavioural objectives nevertheless formed the basis of the organisational plan. They were explicitly stated at the commencement of each module assessment, and to some extent evaluation was inextricably linked to the objectives because they retained a fundamental role in the formalisation of the learning activities designed to match occupational registration demands. An objectives approach was incorporated into the continuous practical assessment component and was the means by which the students' application of their knowledge and skills in the clinical arena were judged. In nursing it is important to ensure that skill and competency is objectively determined since a key demand of the statuary nurse registration body is that achievement is at a national standard and universally recognised regardless of where it is achieved (Woodrow 1993).

However the restrictions imposed by adoption of a course evaluative approach based on pre-selected goals and objectives would have demanded constancy across time, groups, and situations, and would have limited the opportunity to change the curriculum once it was adopted. The assumption of uniformity inherent in such an approach restricts the opportunities to enhance diversity in students existing knowledge, ability, and values, or individual differences in learning preferences and styles, interests, or skill acquisition. It would require a programme based on a supposition that there is a finite amount of knowledge and skill that a student could and should acquire and further or lateral exploration of knowledge would fail to be acknowledged.

The benefits to the study in focusing the approach on achievement of objectives, would have rested in the provision of measured and quantifiable feedback, which could have been gathered during the process of the course. It would also have been possible to base

judgements on the final product by supplementing this quantitative data with summative, subjective data acquired at the conclusion of the course.

However the adoption of this singular approach would have restricted the evaluation study by occluding the feelings, interpretations and views of those most closely involved in the educational process.

It would have failed to take account of the implications for individual change that are implicit during so diverse an educational programme. Finally it would have discounted the emotive experiences that it is safe to assume the students' would have undergone during their passage through the experiences of the clinical allocations. It was deemed reasonable to expect this developmental process to have promoted transformations in areas such as attitudes, beliefs, emotional growth, and in the values placed on the worth of self and others. It was felt that the design of an appropriate evaluative approach should give equal weighting to skill and knowledge acquisition and encompass this broader concept of developmental change.

Dependence on objectives setting was regarded as incongruent with the androgogical principles stated in the institutional philosophy. A particular concern was that the choice of objectives might have imposed restrictive controls on learning, a risk occurring out of the necessity for focusing on the lowest common denominator, and the minimal levels of acceptance rather than on an optimum peak of achievement. This factor might have had the effect of discouraging the more able or enlightened to strive for heightened fulfilment. It would also have ignored the unique and diverse nature of the individual values and personal objectives that adult students bring to learning situations. (Knowles 1970).

When one considers that the central goal of the pilot initiative was to encourage independent learning, this issue of recognising the idiosyncratic nature of every student's learning preferences, style and needs becomes a pivotal aspect of importance in this study. The goal of learner autonomy demanded the development of deep surface reflective learning skills to enable the learner to assimilate and synthesise beyond the prescribed limits of the pre-selected objectives of the curriculum. (Mezirow 1981). Returning to Stufflebeam et al their final category is based on judgement decisions.

Judgement Decisions

In illustrating this category the writers give the example of accreditation visits when visiting teams render a judgement - the evaluation. Sarnecky (1990a) explains this third generation in terms of the centrality of the judgement concept; the evaluator acts as judge but is also required to be describer and technician as well. Instances of this approach include Stake's (1967) Countenance Model, The Discrepancy Model (Provus 1966) and Stufflebeam's (1971) Context, Input, Process and Product (CIPP) Model.

Stufflebeam (et al) list the advantages:

a) ease of managing the evaluation;

b) utilisation of evaluators expertise;

c) interplay of variables in situation under consideration;

d) no delay between data collection and judgement.

They highlight the disadvantages thus:

a) lack of sophistication;

b) questionable reliability and objectivity;

c) not conducive to usual tests of scientific enquiry;

d) implicit nature of process obscures data and the criteria or standards used to assess it.

Cronbach's (1963) analysis of the goal of evaluation is the improvement of specific programmes through problem solving. This, suggests Skilbeck (1984), led to the development of another level of evaluation that refers to reviews and assessment of the curriculum that are designed and organised either for appraisal to allow consideration of the teaching and learning experiences in everyday situations or for judgements to be formed on innovations.

Guba and Lincoln (1981) refer to Cronbach's (1963) suggestion that, to benefit developers of new courses, evaluations should shift focus from objectives to decision making, exploring the nature and criteria for decisions in order to devise ways in which refinements and improvements can take place during the process of the course development. They recognise the major impact of Scriven's (1967) distinction between

formative and summative evaluation and his call for the professional evaluator to render judgements, thus distinguishing evaluation from mere assessment of goal achievements. Allan and Jolley's (1987) interpretation of evaluation focuses on the judgmental process, noting that it is formed on interpretation of data directly or indirectly inferred. It is useful to examine their list of the main purposes of programme evaluation:

a) to construct and interpret a reasonably clear overall view of what is happening in a learning programme and to compare this with curriculum intentions;

b) to identify relative strengths and weaknesses as a basis for curriculum developments;

c) to identify relative changes in learners' abilities arising from their curriculum experiences;

d) to determine the effectiveness of the curriculum in preparing learners to undertake particular functions;

e) to delineate accountability of teachers and educational managers;

f) to aid management decision making about justification of resource expenditure.

(Allan and Jolley 1987 pp. 176-208).

Sarnecky (1990a) describes how Stufflebeam's (CIPP) model views decision making from the four title dimensions:- Context, Input, Process and Product noting it operates on the basis of :

1) intended ends, determined through planning intentions;

2) entended means, agreed on by structuring decisions;

3) actual means, fixed on through implementing decisions;

4) actual ends, serviced by product evaluation . Sarnecky (1990a p27)

Guba and Lincoln (1981) emphasise that the (CIPP) model is a process for gathering and applying descriptive and judgmental information with regard to the merits of aspects such as goals, structure and product. All the four dimensions offer the advantages of proactive or retrospective use, and the authors stress the particular value of the model when used in the evaluation of large programmes.

They suggest the model's main flaws are complexity of administration and the assumption that decision makers are rational and readily identifiable in large complex organisations, whereas in reality, decisions often appear to evolve rather than be explicitly arrived at. Equally it fails to deal directly with questions regarding values and standards - an issue already noted to be of primary importance to the present research study question.

A question arises regarding the evaluator's role in the judgmental process: is it to act as judge and decision maker, or merely to inform so that others may do so? Rotem and Bandaranayake, (1983) suggest that the role is aimed at helping the decision maker by proceeding to the point of making recommendations, but then letting the audience make decisions.

Guba and Lincoln (1981) describe how eventually it became evident that models of evaluation could not persist in ignoring the involvement of human factors in evaluation. This led to the recognition that it was worthwhile when creating models of evaluation to pursue a goal of *'value congruence'*. This awareness resulted in the rise in popularity of naturalistic responsive forms of evaluation .

Though, it must be pointed out, formalised evaluation studies in nursing education are relatively rare events, the literature reveals that the decision based approach to evaluation is a popular choice, Parfitt (1986) Clarke (1983) Steele (1978) are just some who chose the CIPP model in their evaluative studies of nursing programmes.

Discussion

In relation to the study, it would appear that employment of a judgement decision approach would provide information that would allow decisions regarding the worth and appropriateness of the programme. The approach would facilitate decisions regarding improvement and responsiveness to change both during the course process and on summation.

It would have the effect of minimising delay in arriving at such judgements and decisions and thus enable the development of a strategy for considering the interaction of situational variables that would enhance the study.

It was feared however that the approach would fail to provide the total evaluative picture in a form that could enable composite judgements to be formed. On balance it would appear that consideration of aspects of the decision making definition would seem to offer support for informed decisions on the worth and appropriateness of the process of the ongoing programme when made with a view to adaptation, and responsiveness to change. However it was felt the study would benefit from augmenting this approach by drawing on a wider range of evidence designed to depict the contextual reality. The resultant findings would increase the integrity of the study for the relevant audiences and reconcile their conflicting needs. Further examination of the literature highlights the growth of a new approach that involved the key participants in the evaluation process.

Participative Evaluation

Guba and Lincoln (1981) note how despite objections to the objectives-oriented evaluation, new models continued to be influenced by Tyler. Stake's Countenance model (1967) was the example discussed. Watson (1990) describes how in the Countenance Model descriptive data is divided in terms of intents and observations, congruency exists if the intended occurs. Judgement entails decisions concerning merit or worth in terms of :

1) absolute standards as reflected by personal standards;

2) relative standards reflected by characteristics of alternative programmes.

Judgement is encompassed in the process of deciding which set of standards to note and whether administrative action is to be taken. Subsequently Stake (1975) developed his Responsive Model that required the evaluation plan to address three separate aspects:

1) the programme activities rather than intents;

2) responsiveness to audience information requirements;

3) reference to the differing value perspectives of the audiences when reporting the programme's success or failure. (adapted from Stake 1980.)

The Stake Responsive Model takes account of the variation of interests and language of the potential audiences, defining such persons as those entitled, by virtue of holding a stake, to propose concerns and issues and to receive a report responsive to them. These stakeholding

audiences must include the broadest possible array of persons interested in or affected by the findings, and the first stage of the approach entails the evaluator eliciting the information needs of all interested parties.

Stake (1976) regarded description and judgement to be of equal importance in achieving understanding of educational programmes, but he recognised that increasing the value to those involved would result in a *'trade off'* of some measurement precision. and Guba and Lincoln (1981) record some of Stake's (1976) suggestions regarding ways in which evaluation can serve for example:

1. documentation of events;
2. recording of student change, and aid - decision making;
3. seek understanding and aid - remediation.

They cite his admonition, that during the process of choosing the question to which the evaluation should attend, the evaluator must follow certain steps: firstly, observing the programme rather than allowing the formulation of his/her basic plan to be influenced by course objectives, hypothesis, teaching syllabi or testing strategies. These issues he regards as part of the teaching rather than the evaluation plan. Finally at completion of data collection the information must be organised thematically, analysed, and disseminated in ways appropriate to the concerned audiences. It is here that Stake (1976) emphasises the selectivity required of the evaluator. Because the report cannot address all issues to all audiences, care must be taken to match issues and concerns to audiences, a process that he accepts may require differing reports and formats.

In summarising the advantages of the model, Guba and Lincoln (1981) point to the expansion of the objectives to encompass contextual factors and the justification of including a rationale of explicit objectives. The focus on the involvement of both description and judgement provides a means for deriving judgement standards, as distinct from absolute and relative standards.

The above writers refer to the shortcomings of the model, citing the continued adherence to the formal scientific approach to evaluation - the failure to specify the means for deriving standards or handling competing values in these standards or intents. They point to the

flaw of continuing Tyler's (1950) assumption that society has a consensus of values and regret the lack of guidance on how to deal with '*unintended effects*'.

Sarnecky (1990a p27) addresses the common criticism of questionable validity when she notes that an evaluation is judged to have good internal validity when its results are an accurate reflection of the state of the organisation and makes recommendations for the enhancement of validity:

1. the use of the best instrumentation;
2. maintenance of continual awareness of evaluator's biases;
3. random sampling where possible;
4. consideration of contextual and historical factors;
5. liberal use of methodological triangulation..

She considers that external validity is not an issue of concern in responsive evaluation because the prime area is the '*veracity and usefulness*' to stakeholders rather than generality to other groups.

Sarnecky (1990a p25) advocates a multiple purpose approach, and highlights the advantages of a variation of criteria, sources and methods. She notes that as the approach recognises a plurality of values the evaluator must act as a mediator and negotiator among the participants of the process and play a variety of roles including those of

'*technician, describer, judge and reality shaper*'.

Discussion

The emphasis on the variation in need of key audiences is particularly appropriate to the present study since there are a number of contrasting groups with differing information requirements that they may expect the report to address. Nevertheless all demand to be given sufficient insight to enable them to reach their specific appraisal of the programme's worth. The main potential audiences were identified as follows::

The 'In house' Audience which included the organisers, the college and service managers, and the college course planners, who all needed information to enable them to make informed decisions on the current and future courses. Their information needs called for both quantitative and qualitative information on course process and product outcomes.

The External Audience which included the pilot scheme initiators - the ENB, the other five Pilot scheme members, and nursing planners and educators from other colleges and educational establishments who might wish to gain an illuminative view of the effect of organisational innovative change. The information needed for this audience included numerical data and formative and summative summaries of overall course outcomes.

The Audience of Chief Participants, included in this group were the students, teachers, and clinical staff who had direct involvement in the day to day processes of the total learning experience. The information needs of this group would require to facilitate an improvement and adaptation function and would be largely met by the provision of qualitative, individualistic and phenomenological data.

Potential Areas of Exploration

Scammel (1983) lists three *'distinct and discrete areas'* for exploration by the evaluator of nursing education. These appeared to address some of the assumed needs of the above audiences. The exploration areas listed were:

1. the quality of the material, and the curriculum the course;

(This information, she suggests is gained from the quantitative and examinations, assessments, and the reactions and views of teacher, student, service staff, and outside assessors.)

2. the individual's level of progress and educational need;

(These issues can again be assessed by quantitative and qualitative means)

3. assessment of the school as a functioning unit.

(This requires identification of its strengths and weaknesses and the quality of its teaching staff.)

The diversity of the potential audiences and multiplicity of purposes for the subsequent evaluative report made the Responsive Evaluation Model appear an option appropriate to the aims of the study.

Copcutt (1993) notes the Stake Countenance Model had in fact been selected as the tentative choice of the curriculum planners at the submission stage of the pilot scheme. (see Appendix B).

While, in relation to the evaluative study, the writer had the freedom to adapt or change the overall evaluative design, it was felt that, with conversion to the responsive model and minor modifications to meet specific needs of the pilot course, the approach had the capacity to provide the foundation for illuminating the experience of studying, teaching or organising the programme. It was also considered to be an effective means of supplying information and feedback on the process and outcomes of the course of study in a format that would meet the competing needs of the three key audiences.

It was envisaged that the model would effectively reflect and portray the day to day reality of the major participants: the students who sought preparation for registration for practice; and the teachers who were instrumental in enabling them to achieve their educational development.

Guba and Lincoln (1981) support the view that responsive evaluation provides the most *'significantly useful'* approach to evaluations because:

a) it produces audience responsive information;

b) it can encompass all other models because it addresses audience concerns and can meet their needs;

c) it can focus on objectives or alternatively, if required, influence decisions, assess general effects, or extract critical judgements.

They value its potential for increasing power through its flexibility and capacity to accommodate the organisers of other models, unlike those that can only serve the organisers on which they are based.

In reviewing these opinions and counter arguments on the merits of the various models, in relation to the study, a concern remained with regard to whether any single method, however flexible and accommodating, can address the issues and concerns of so wide an audience among whom, it can safely be assumed, there would be a multiplicity of differing values. The literature review therefore continued by examining the development of interpretative, pluralistic models.

Pluralistic Models of Evaluation

Guba and Lincoln recall how Stake's (1972) proposals were further elaborated in a range of pluralistic evaluation models. Such models take account of the variation in value positions of multiple audiences, are more extensive and naturalistic in their approach, and show sensitivity to the values of those involved. Ethnographic fieldwork is used to provide feedback and judgement in the terms of reference and language of the recipients. It is aimed at presenting an interpretative view of reality reflected from the participants' frame of reference. One fundamental question that such an approach poses is whether a phenomenological approach is ever feasible? Is it possible to enter the reality of another person? Is there any common understanding - a collective reality? These issues will be explored in more detail later in this literature review when the theoretical perspectives pertaining to the methodology will be discussed. Hamilton & Parlett (1972) introduced the move from a scientific paradigm toward a more interpretative one by combining qualitative and quantitative data in a triangulation design an approach they termed illuminative evaluation. Before describing the shift in paradigm that revolutionised evaluation when it was introduced in 1972 it is useful to consider the concept of triangulation.

Triangulation

Triangulation was defined by Jick (1983) as a multi method combination of data collection that illustrates a variety of aspects of a phenomena of interest, and in so doing depicts salient contextual aspects. Jick maintains that the process of triangulation addresses criticisms of questionable validity that are applied to single method qualitative research studies and is particularly appropriate for exploration of value laden issues of which evaluation is a clear example.

Cowman (1993) describes how triangulation is used by qualitivists to achieve integration of quantitative and qualitative research processes and he concludes that by offering a bi-polar quantitative and qualitative approach it affords opportunity for creativity and flexibility in the collection and analysis of data.

Advantages and disadvantages of triangulation are summarised by Duffy (1987) who identifies three advantages namely:

1. the benefits of previously collected quantitative replies to surveys enables subsequent interviews and observations to dispense with previously elicited information;
2. qualitative data can provide initially overlooked information on participants;
3. use of a survey instrument on all participants may enable correction of the qualitative constraint of collecting data from only an elite group of the population.

The disadvantages identified by the writer include the dangers of collecting excessive quantities of data impossible to analyse, or that can be treated at only a superficial level.

Illuminative Evaluation

Hamilton & Parlett's (1972) illuminative evaluation provided an alternative from the conventional objectivity of classical, scientific approaches for assessing effectiveness of innovation. The approach was premised on the argument that though the scientific *'agricultural/botany'* paradigm matches needs when assessing the effectiveness of innovation in carefully controlled situations, such methods are inappropriate for describing the complexity encountered in evaluating educational programmes. Neither do they provide effective input into the decision making process. The authors introduced illuminative evaluation as a contrasting second paradigm, an anthropological approach, proposing it as a means of holistically monitoring the diverse application and modification that accompanies innovative educational change. A diversity, that they suggest is created by:

a) the distinctive needs of learners;

b) varying educational environments;

c) differing teacher perspectives.

The aim was to represent reality by illuminating '*situations as they exist*', from the view point of those involved, clarifying, interpreting and recording in an approach that encompasses both outcomes and context, and includes aspects such as the organisational background, learning milieu and processes and problems developed over time. This concept of evaluation examines an innovatory programme by discovering:

1) how it operates;

2) how it is applied;

3) how differing situations affect it;

4) how it affects learning achievements;

5) its strengths and weaknesses in the eyes of those directly concerned particularly the learners and teachers.

The proposed method was not prescriptive, but an adaptable general research approach. An eclectic development strategy was advocated that was designed to fit the particular type of study, the educational milieu, the nature of the eventual audience, and the issues of interest to them. The evaluator's task was to avoid manipulation or control of *'situational variables'* but to accept the complexity of the scenario as it presents in reality.

The task of illumination was to be achieved by means of observation, enquiry, and explanation with the focus on the realistic representation of the effect of the innovation on the learning milieu. Proposed methods included observation, interviews, questionnaire and testing strategies. Documentation and evidence could be drawn from background sources with the potential for combination with statistical measurements and demographic detail. Starting from an extensive data base the focus can then be reduced to allow concentration on emerging issues. This process of progressive focusing is an attractive feature of the Illuminative Evaluation strategy since it appears to address the qualitivists' potential problem of excessive data. Criticism is aimed at the lack of objectivity and failure to control bias.

Parlett and Hamilton (1972 p 8) confront the issues regarding bias, questioning whether it is possible for individual interpretation be scientific. They counter the criticisms that suggest the collection, analysis and reporting are at the discretion of the researcher and argue that one might equally claim there are no forms of research that are not prone to *'prejudice, experimenter bias and human error'*.

To address the acknowledged increase in risk of partiality when open ended techniques, progressive focusing and qualitative data are used extensively. Their recommendations include:

1. cross checking techniques;
2. ensuring report of findings include critical research processes, theoretical principles and methodological ground rules;
3. discussion of criteria for selecting or rejecting investigative areas so that others will be able to make judgements on quality. Parlett and Hamilton (1972 pp 18)

Concerns raised by consideration of the perceived shortcomings of the approach do appear equally applicable to all forms of descriptive research for example one might ask:

1. Are individual accounts of reality stable?
2. Can they be affected by prevailing mood, scenario, desirability or inclination?
3. Can one ever be sure that in gathering evidence on the perceptions of others one is accessing truth?
4. Is it possible to compound individual accounts into an overall interpretation?
5. Is there such a thing as a collective truth?

Despite the criticisms Parlett and Hamilton's (1972) 'Illuminative' strategies heralded the *'new wave'* of qualitivistic, naturalistic enquiry that led to some loss of popularity of the traditional, experimental evaluation approach particularly in the United Kingdom.

Development of Naturalistic Participant Oriented Evaluation

Worthen and Saunders (1987) describe the development of the participant oriented evaluation in the decade immediately prior to the commencement of the study and emphasise the influence of Patton (1975, 1978, and 1980) as of major import in the literature. They refer to the work of researchers who promoted this approach including among others (Hamilton 1976; Fetterman 1984; and Simons 1984).

While recognising the diversity of such approaches they point to the shared aim of addressing human issues and achieving greater understanding of self and education in context. However Stenhouse (1975) though accepting the justification for criticism of

former models of evaluation criticises the *'new wave'* evaluators for an apparent lack of *'a conceptual framework'*. He also questioned whether there they were inclined to focus too much on the curriculum's worth.

Nevertheless, despite emphasising the difficulties presented to the evaluator in summarising and communicating such a diverse range of judgements and preferences of the varied groups, Worthen and Saunders welcome the fact that this evaluation approach recognises and accommodates value pluralism.

They describe how naturalistic and participant oriented approaches use descriptive accounts in order to portray the educational concerns of the person, the chosen aspects of the programme and the situational context in which it functions. They delineate further commonalties shared by naturalistic or participant oriented approaches.

1) They depend on inductive reasoning;

2) They use a multiplicity of data;

3) They do not follow a standard plan;

4) They record multiple rather than single realities.

Worthen and Saunders (1987 pp.129)

In citing examples of this approach they include Stakes's (1967) Countenance Model in which he identifies the two countenances of evaluation - description and judgement, and his

recent Responsive Evaluation Model (1972, 1978, 1980) which they consider are more informal and pluralistic than his Countenance Model. Their conclusion echoes Guba and Lincoln's (1981) view that the Responsive Evaluation approach has potential for enhancing the quality of an evaluation study.

However they do question whether or not total commitment to any particular model carries risk. While not criticising those with specific preferences, providing consideration is given to applicability and the mode and timing of application, they state their ideal situation is one in which evaluators select according to appropriateness rather than preferred approach. The move from a single to a broader situational responsiveness is documented by Simons (1984) and by Norris (1990).

Combined Approaches

Worthen and Saunders (1987) discuss the practicalities of attempting to blend alternative approaches arguing that the wide disparity of the divergent philosophical assumptions on which the models are based make it impossible to combine them all into one. They debate the alternative of eclectic use of the approaches and admit to choosing and combining concepts from various appropriate approaches in their own work. They refer to evaluators who advocate paying careful thought to eclecticism (Cronbach 1982; Talmage 1982; Conner 1984) and conclude that inflexible confinement to single approaches must be replaced by evaluation designs that provide scope for greater creativity.

Patton (1980) promotes a creative approach to evaluation design noting it provides:

> *'a paradigm of choices emphasising multiple methods, alternative approaches and the matching of evaluation methods to specific evaluations and questions.* (Norris 1990 p 50)

Evaluation and Accountability.

It should be acknowledged that evaluation is not necessarily regarded as a favourable activity. Parsons (1980) noted the fear that her programme evaluation produced among the faculty staff. This she attributed to evaluation's implication of change, which in turn

engenders fears for the status quo, fear of interference with the curriculum, and potential threat to vested interests.

These anxieties were identified by Copcutt (1993) in her survey of the views of the teaching staff, at the College under study, regarding theirpreparation for the Pilot scheme a year after its initiation. Her conclusion was that the preparation had been too hasty, and her recommendations called for considerably more teacher preparation and for their active involvement at the planning stage of new innovations - a recommendation reiterated by Collins (1989) and Leonard and Jowett (1990) in their evaluative studies of the introduction of all six English National Board (ENB) Pilot schemes. Murphy and Torrance (1986) identify an undercurrent of power present in all evaluation procedures, and suggest that if accountability is superimposed on evaluation this inclusion in the power structure of education is made explicit. The view that evaluative evidence is used for persuasive purposes is voiced by House (1980) who is concerned with the underlying social and political agenda of the activity. He asserts that though there is an assumption of freedom of choice in the major approaches, since all lay claim to individualistic approaches with strong empirical bases, there is a tendency to discriminate by favouring the strong over the weak by ignoring the biases operating in administrative organisations' social and political structures (Norris 1990). Extensive exploration of the political implications of evaluation has been conducted by Macdonald (1974) who argues that it should be regarded as a political tool, a means of control aimed at perpetuating the status quo, the chief purpose being to exact from teachers, commitment to particular national, social, or organisational ideologies.

The final approach to be considered in this review of the development of evaluation models is the case study approach. This has become increasingly popular in general nursing research and is appropriate to the concept of evaluation.

Case Study as an Evaluation Method

This method is defined by Norris as:

> *'the study of an instance drawn from a class or as the study of a bounded system'*
>
> Norris (1990 pp. 131)

Webb (1989) describes it as the ideal way to evolve changes because it develops people's own motivations to change, and offers support in the development of new initiatives.

Norris (1990) approves Stake's (1980) claims for the method, for example the fact that it provides *'naturalistic generalisations'* for the reader and that these develop out of a persons experience by recognition of likeness and similarity of situations and occurrences. Norris also acclaims the persuasive logic of the approach, in recognising for example the unique nature of the programmes or the fact that some changes are temporary responses evolved to address specific problems or opportunities and test out ideas techniques or resources. He emphasises that if judgements are to be fair, accurate and valid they must be properly represented and notes that a significant aspect of the approach is its provision for judging action in context - a means of understanding a programme as well as representing its work. Nevertheless despite its advocates' reference to accessibility and capacity to support broad generalisations it remains, for him *'politically unconvincing'*. One reason he gives for his concern is the umbrella nature of the term naturalistic inquiry, since it embraces so many dimensions; *'responsiveness'*, *'ethnographicity'*,. *'democracy'*. He feels it is likely to *'underrepresent the diversity and be over prescriptive'*. (Norris 1990 pp. 131) However he acknowledges the existence of shared values and social philosophy, and approves the emphasis on information for the public rather than select groups. He further accepts that its basic value of commitment to informed decision making, and attention to the individual and his rights and perspective, gives it a liberal political orientation.

Despite the above concerns, the review of evaluation demonstrated that in its many guises the method of naturalistic inquiry has proved very popular in the United Kingdom over the past two decades, though the impact in nursing evaluation is more recent. It could offer considerable benefits to the study in question by providing the opportunity to create a 'window' through which those on the outside could gain insight into the totality of the educational programme from the perspective of the participants.

It should be noted that this account of the development of evaluation is of necessity selective. House (1976) identifies eight major models, and Stake (1976) enumerates nine.

Nevertheless the examination of the literature has produced a comprehensive range of strategies. The next stage of the review is to discover, from literature specific to nurse education, whether nursing researchers have found these generalist educational evaluation models applicable to nursing, and to this end the following examination of the literature specific to nursing programmes was undertaken.

Section Two

Literature Studies Specific to Nursing Education Evaluation

The above examination of the literature has explored writings from both general and nursing perspectives. It reveals that in mainstream educational evaluation there has been considerable development in approaches to evaluation but there was no evidence of a parallel development in designs for nursing educational evaluation. The literature demonstrated that there is a tendency for this to be parochial. Though large scale educational evaluation programmes have been undertaken in mainstream education (Plowden 1967), in nursing the focus has largely been on 'in house' approaches. Equally nurse educationalists appear to place a greater emphasis on course outcomes than formative evaluation of ongoing modular experiences. Yet it can be argued monitoring of currently enfolding learning processes is essential in an occupational preparation course of such long duration because it can provide valuable early identification of changing needs and circumstances. It also allows responsive adaptations to current modular components to be readily achieved. This is perceived as an issue of particular importance in the current nurse educational milieu where there is a likelihood of fundamental change, for example in areas such as demography, recruitment strategies, knowledge and skill requirement. It is not disputed that current participants, teachers and students benefit from the overall evaluation of the outcome of the programme as experienced by their predecessors. They gain valuable insight into the global views of those who have completed the learning experience and look back with hindsight. Nevertheless it is believed that this information is enhanced when supplemented by formative evaluation that is specifically designed to address the more immediate concerns regarding the programme in action - issues that often cannot be deferred until the end of the course.

The observation that nurse evaluators have largely borrowed from the generalists was supported by a specific search carried out on Educational Resources Information Centre (ERIC) database. References to evaluative models designed specifically for nursing were rare in 1987, at the planning stage of the study, and there have been few innovations since then. A recent exception is Sconce and Howard's (1994) Professional Process And Product

Model which they created after finding no appropriate model for use across college courses. Hogg (1987) designed a model for nurse evaluation which she entitled the Problem Solving Curriculum Evaluation Model, but this incorporated generalist models within its design. Other creative approaches are only suited to short course or single components of longer courses, for example Odro (1990) devised a qualitatively humanistic approach to evaluating short courses that involves pictorial imagery and Parahoo (1991) describes a *'small experiment'* in student controlled evaluation. Other imaginative ideas for small scale continuous evaluation feedback are enumerated by Boydell (1976).

The nursing literature was explored to identify how generalist models have been applied to nursing education.

The Application of Systematic Evaluation Approaches in Nurse Education.

The literature endorses the importance of systematic evaluation as a means of monitoring course effectiveness to provide indication of worth of educational programmes. Kratz (1983) stressed that references to custom and practice and expressions of goodwill would not meet increasing governmental demands for *"evidence of usefulness"*. She stresses that the requirement to demonstrate quality and value for money is as important, at the level of education, as it is at the point of care delivery. Morle (1984) echoes this view when she declares evaluation to be an area of prime responsibility for nurse educationalists.

Watson and Herbener (1990) highlighted the other major function of evaluation, that of promoting improvement. They claim programme evaluation has the role of improving all aspects of the college. This is facilitated by diagnosing problems, identifying strengths and weaknesses and by exploring alternative ways of achieving the overall aims, and advancing the philosophical and conceptual framework.

The literature appears to show a predominance of decision making approaches in nurse educational evaluation. Parfitt (1986) discusses her involvement in the development of decision making evaluative procedure based on Stufflebeam's CIPP model. She claimed her choice of model was governed by the complexity of the process of evaluation which rendered working within the confines of an accepted systems model essential. The design method was accompanied by an eclectic data collection system. In her conclusion she

stresses that for evaluation to be significant there must be opportunity for modification in response to change

A decision-making model of evaluation was also chosen by Hengstberger-Sims and Macmillan (1992) who incorporated the stakeholder approach to evaluate a problem-based teaching and learning nursing programme. They concluded the extensive feedback on course process, allowed decisions to be made in relation to the subsequent programme modification and implementation.

Clark, Goodwin, Mariani, Marshall and Moore (1983) used the CIPP model to evaluate the effectiveness of a new curriculum of a baccalaureate programme and considered the approach provided a framework for directing an effective and systematic means of curriculum evaluation. The choice of model was governed by the need to provide a systematic, comprehensive and dynamic framework for evaluating the effectiveness and worth of a major curriculum change in a College of Nursing. In their conclusion the authors suggested that the model had met the aims of providing a background for directing the evaluation process but they recommended that those wishing to implement the model for curriculum evaluation must ensure the commitment of the entire faculty and administration to the evaluation process and the selected evaluation model.

A question that comes to mind concerns the possible constraints that would be imposed by adopting a single model. Another concerns choice of criteria governing the selection of a definitive model.

Watson et al (1990) considered the merits of several models and concluded by advocating versatility and adaptability since no single model was best. She recommended that design decisions must take account of a variety of influencing factors including the purpose of evaluation, the needs of the programme, and the time, personnel and resources available. However, once selection is made, she asserts, there must be flexibility of implementation and the approach must be freely adapted to the programme.

Hogg's (1987) Problem Solving Curriculum Evaluation Model, employs an adaptive and responsive approach. She promotes her model on the grounds of its simplicity and flexibility of operation; it saves teacher time and has the capacity to accommodate ongoing

monitoring of progress at strategic times. She also refers to the benefits of the formality of its framework which effectively encourages curriculum development and planned and documented change. In her conclusion she reports that the model was well accepted by the teaching staff at the hospital where it was developed. The model incorporated the four aspects of the Stufflebeam Model combining it with Bolam's (1975) three stage innovation for education initiatives over time. It is composed of four stages:

1) **A Formative- Antecedent Stage** designed to identify strengths and weaknesses at the planning stage.

2) **An Interactive Stage** when the concern is the development of the curriculum it is at this time that problem solving strategies involve the chief participants, the students, teachers, and clinical staff in identifying strengths and weaknesses.

3) **The Implementation Stage** which is operated at the pilot stage of a new course or innovation.

4) **The Consequential Stage** which is utilised for evaluation of the individual parts or for the total summative evaluation on conclusion of the course.

Improvement Versus Accountability

Starpoli and Waltz (1978) outline the requirements for a comprehensive evaluation strategy. They stress it must be ongoing and can be both formative and summative. The formative constituent can provide the rationale for modifying the programme during progress. The summative part will focus on continuously gathered information with an the appraisal of the strong and weak points of the programme. Though the latter component does not aim to modify existing programmes it may influence the content of future programmes by demonstrating: if the curriculum was enacted as planned and if it effectively serves those for whom it was intended.

The writers note that a major focus of outcome evaluation centres on the question of whether the graduates of the programme effectively address the needs of the target population as initially planned.

Parfitt (1986) maintains that to gain a truer perspective it is necessary to adopt a holistic approach to evaluation that utilises both summative and formative exploration.

James (1983) provides a definition that centres on performance; she describes evaluation in terms of two functions one of which is improvement when the focus of concern is the curriculum development. The other function - that of accountability - is directed at assessing the worth of the course in its final stages. She agrees an evaluation system can be designed to examine both aspects, but stresses that the two must be separated at least in the initial planning stage of course approval.

In her review of current programme evaluation Watson (1990) focuses on the aspect of improvement. She acknowledges the close relationship between evaluation and currriculum development and describes the evaluative process as an integral part of nurse educational programmes that encompass continuity of change. She cites Poteet and Pollack's (1986) proposition that the main purpose should be the identification of problems, weaknesses and strengths, and notes their exhortation that the investigation must address the means of effective achievement of the objectives, philosophy and conceptual framework and seek to improve the function of the organisation as a whole.

Naturalistic Models

Other nursing researchers have eschewed the restrictive focus of a single model and advocated an eclectic approach that draws on information acquired from several qualitative interactive methodologies that when combined produce a more composite and valid picture of the educational reality. An example is (Parlett and Hamilton's 1972) illuminative technique as described above.

Illuminative Evaluation

This approach was used by McMillan and Dwyer (1986) in their evaluation of the implementation of a curriculum plan in a nursing diploma of applied science course. The study was designed to monitor the implementation, describe the learning milieu of students and lecturers, and make judgements based on their feedback for the purpose of future decisions. The technique was chosen because its variation allowed different perspectives to be examined, and enabled cross-checking of qualitative and quantitative data to be carried out. McMillan continues her discussion of the merits of combined approaches by citing

Goodwin and Goodwin's (1984) description of the benefits of an integrated approach. in particular its capacity to provide:

1) greater comprehensiveness;
2) ease of delineation of problems and of acquiring more meaningful data;
3) insight from unanticipated programme effects with ease of identification;
4) cross validation of findings by using multiple measurement strategies.

(Adapted from McMillan 1987 pp. 168)

Action Research

This method is described by MacDonald (1992) who applauds the merits of using the Stenhouse Model of action research combined with evaluation because it offers nurses the opportunity to analyse problems, and to devise programmes of action either for the resolution of problems or for the improvement of standards.

Participant Approaches

Focusing on the opinion of the participants was the method chosen by Ziv, Ehrenfeld and Hadani (1990) who examined student satisfaction with the theoretical component of their curriculum. Their study was based on the belief that students should have the opportunity to express their feelings and opinions and that knowledge of students' in-depth perceptions and recommendations would benefit the programme. The findings were that students expect teachers and directors to recognise their needs and allow them more involvement in planning their professional education. The authors recommended better co-ordination of ongoing evaluation of the curriculum and educational programme to be undertaken by students and staff. These views reflect the evaluative philosophy of the College under study where in an effort to achieve greater mutuality between student and teacher a modified Delphi approach has been developed.

The Delphi Method as a Tool for Evaluation

While the Delphi method is not a model, it has been identified as a valuable way to measure student satisfaction. The ENB (1987b) advocated the employment of a Delphi approach, promoting it as a significant means of eliciting the opinions of a group and suggesting that

the utilisation of these opinions is a particularly valuable resource in facilitating analysis and clarification of student views.

The Delphi method is a means of obtaining a consensus of group views. The name evolved from the oracle of Delphi - the source of information for ancient Greeks. Developed by Dalkey (1963), the approach elicits the opinions of a team of experts through a system of questionnaires and the resultant feedback. The collated opinions are repeatedly reconsidered by the individual team members until a collective view is achieved. A comprehensive review of the literature reporting studies that used the method is provided by Goodman (1987), who defines distinguishing features of the technique that characterise it from other means of obtaining group opinions. She particularly values its potential for anonymity, iteration with controlled feedback, and statistical group analysis.

A modified form of the method has been used by several nurse researchers, Goodman (1987) used it in her exploration of clinical nurses' views on research. It was the method chosen by Beech (1991) in his evaluation of clinical placements, and by Crotty (1993) in her study of the role of the nurse teacher in respect of curriculum issues in the development of nursing diploma courses in England.

It is noticeable that there is a dearth of longitudinal evaluations that span the entire duration of basic nurse educational courses, an omission this present study is designed to address. There is also a virtual absence of descriptions of systematic formative approaches to evaluation. It appears that there is an assumption that formative evaluation of course components is carried out by nurse teachers themselves and is afforded less attention than the overall measurement

of course outcomes that can be achieved by examining the course effects at the end of the educational programme.

This seems to be a regrettable omission since though summative strategies effectively reveal the judgements of those successfully reaching the end of the course, such opinions are at risk of bias because of their retrospective nature. Time effects would seem to have particular importance in pre-registration nursing courses where the courses are of three years duration. It is reasonable to assume that many of the learning situations will have

altered over time, and the criteria on which judgements have been reached may be inappropriate to current learners.

Before closing this discussion it is relevant to examine how others have approached the study of the ENB pilot schemes. While no other study has been undertaken into the progress of any of the pilot programmes in their entirety Leonard and Jowett (1990) undertook to compare the initial introductory courses of all six schemes, and Collins (1989) also sought to examine the effectiveness and efficiency of the six courses during the first year of operation. The former was a small scale study based on an interview approach, while the latter was a larger study which utilised an interpretative approach that included individual and group interviews, group discussion, content analysis and comparison of the six curricula in relation to organisational structure, student selection, status and assessment, and evaluation methods.

The Value of Adhering to a Model

Since the literature provides evidence that models are perceived as fulfilling the needs of nurse education, one is tempted to consider whether an adherence to one particular model would simplify the evaluation procedure. Ediger (1983) suggests the value of using a model lies in defining the parameters, and direction, and in supplying a systematic structure. This view is echoed by Ouellett and Rush (1989) who add that despite the considerable in depth literature on curriculum evaluation there is little practical guidance on how to carry out the process. They consider a plan of action in which the model can be incorporated is essential. The review led to the conclusion that an overall plan for the research design in the study would necessitate adhering to the guidelines used in mainstream educational evaluation .

Conclusions with Reference to the Study

In summary, examination of the literature revealed a wide range of options for choice of method. Advantages and disadvantages were identified in each of the major approaches, and these were considered in relation to the specific needs of the study. The advantages of devising an eclectic combined approach appeared, on balance to be worthy of further consideration. However since it was recognised that no single method can perfectly match

the needs of any particular study the final decision on method required to take account of a number of related factors. One important influencing factor is the purpose of the study and the philosophical basis on which the study question is premised.

The question arises how does a researcher reach decisions on the final research design when faced with such a plethora of influencing factors and choice of models. This issue is considered in chapter three which considers design in relation to the theoretical and philosophical perspectives of the researcher and the study milieu. Before turning to design decisions however it was necessary to review the literature concerning other salient aspects of the evaluation of the pilot educational programme and the next section is devoted to literature pertaining to the self.

Section Three

The Literature Referring to the Self.

The study hypothesis contains implicit assumptions regarding the notion of self and its implications for education, namely:

1) the sense of self worth influences an individual's behaviour and responses to experience;
2) it is affected by the views, behaviour and attitudes of others;
3) that a positive self worth is necessary if nurses are to empathise with their patients.
4) that there will be a correlation between students' self worth and their image of the worth of their chosen profession;
5) that an androgogical humanistic educational approach which recognises individual worth will encourage the maintenance or growth of a positive self worth.

The literature was reviewed to consider the veracity of these assumptions, and to examine them in relation to the study questions.

A preliminary examination revealed that the literature contained widely varying definitions and terminology pertaining to the construct of self. The initial priority was therefore to unravel some of the complexities surrounding the subject.

The Self

The *self* has interested philosophers since classical times, (Socrates, Descartes and Kierkegaard) and (Thomas 1980) reports that many current writers believe that all learning is concerned with gaining insight into the self.

James (1890) first used the Cartesian notion of a *'thinking knowing, cognizing'* entity - comprising the pure experience of the *'I'* and the contents of that experience, the *'me'*, to evolve the theory of a concept of self. It is a popular area of study to educationists who recognise the important effect an individual's level of self esteem and self confidence has on learning outcomes. Psychologists and sociologists became aware of its study potential after Mead (1934) and Cooley (1912) identified the role played by significant others, in the individual's world (Burns 1982). The contribution of these crucial others, to

the maintenance, furtherance or detriment of an individual's concept of self, render it an effective means of evaluating educational and social intervention.

Terms such as the self, self image, self concept, self esteem, and self worth, are often used coterminously. Wylie (1961) suggests the terms are so *'intertwined and overlapping'* that the only feasible approach is to discuss the constructs as a group.

The Educational Resources Information Centre (ERIC) database 1984 to May 1994 produced 25,907 self references, and this was reduced to 102 when limited to entries in nurse education journals.

The database defines the term as the perception the individual has of him/herself and includes in the category words such as ego, self image, self knowledge, and self understanding. It would seem that caution is needed in assuming that definitions have remained constant since the database records wide variation in the related terms, time scale for entry, and updating.

It is proposed that in this thesis, reference to *self* will embrace all the categories in the global term *'concept of self'*, though, this will not be an invariable rule. Alternatives will be used when another of the self terms appears more appropriate.

Thomas (1980) asserts that the prolific literature on self demonstrates its interdisciplinary importance. This varied interest and multiplicity of definitions leads one to conclude that there will be equal diversity in the theoretical approaches to the study of the concept of self.

Despite the multiplicity of writers focusing on the self and the diversity of their interpretations, Hamachek (1987) identifies two distinct meanings that are generally shared in the literature. One refers to the *'self as object'* which evolves from our capacity to stand aside and make judgements on our *'attitudes, feelings, and behaviours'*: the other refers to the *'self as process'*, and this views the *self* according to actions, the *'self as doer'*, - a thinking, perceiving, reflecting being.

Argyle (1969) and Burns (1982) also acknowledge shared elements in most self definitions. The latter describes these as:

a) a belief component, comprising the individuals perception of himself;

b) an evaluation component. The traits the individual attributes to him/herself .

Burns (1982) summarises the self concept as an amalgam of the beliefs and values an individual holds about himself. He affirms the predictive influence of these elements, stating that they determine not only what an individual thinks concerning self identity, but also what the individual thinks that the self can both do and become. Burns (1991) outlines a more detailed analysis of the composition of the self:: as outlined below.

The Self Image

This he describes as a set of beliefs regarding personal strengths, failures, and humiliations - a *'self picture'* formed from interpretation of the feedback of others and supplemented from life's experiences. The individual acts according to the *picture* - modifying behaviour to accommodate it - thus creating a self-fulfilling prophecy. Behaviour therefore validates the image and gains confirmation through feedback of others. Burns (1991) maintains this cycle is easily wrought if the self-picture is *'disparaging or incorrect'*. The risk of misinterpretation of the behavioural cues, from others towards oneself, leads Burns to describe the self image as *'subjectively interpreted'*.

Self Esteem

Self esteem is formed from judgements made on each aspect of the self image. The personal nature of the conceptions of oneself mean that they comprise both positive and negative connotations drawn or learned from society.

The self concept can therefore be regarded as a summation of beliefs about the self and the value judgements made on the individual's characteristics by society.

Although referred to in the singular it is a plurality of attitudes toward the self that vary according to the demands of numerous daily roles, behaviours, and contexts.

Rogers' (1959) theory of the self concept includes one's aspirations toward an ideal self - the self concept an individual would like to possess. He defines the elements as:

1 the self as I am. The individuals personal view of himself;

2 the other self. How s/he believes others see him/her. Cooley's *'looking glass self'*;

3 The ideal self. The type of person the individual aspires to be.

Rogers considered the self to be the basic aspect of personality and the determining factor in behaviour.

Thomas (1980) provides a list of the central points of Rogers theory pertaining to the concept of self. Those relevant to nurse education and this study are summarised:

1) The theory of the self, as part of the general personality is phenomenological *'that man lives in his own personal and subjective world'*;

2) The self concept is the organisation of the perception of the self;

3) The self concept becomes the most powerful determinant of response to the environment. It governs the perceptions of meanings attributed to the environment. Whether learned or inherent, a need for positive regard from others develops or emerges with the self concept. - Thomas notes Rogers is referring this need to learning but he considers it equally appropriate as an element of the self actualising tendency Maslow (1943);

4) A need for positive self regard or self esteem is learned through internalisation or introjection of experiences of positive regard by others - again Thomas reflects whether this might be considered an aspect of self actualisation;

5) When positive self regard depends on evaluations by others, discrepancies may develop between the needs of the person and the needs of the self concept for positive self regard. There is thus an incongruence between the self and experience. This is the result of attempting to preserve the existing self concept from the threat of experiences which are inconsistent with it,

and leads to selective perception, distortion, and denial of experience by incorrectly interpreting those experiences;

6) The individual is an integrated whole, to which he attributes one dynamic drive- that of self actualisation- a basic tendency to *'actualise, maintain and enhance the experiencing organism'*;

7) The development of self-concept is not just the slow accretion of experiences, conditionings, and imposed definitions by others. The self concept is a configuration, alteration of one aspect of which can completely alter the nature of the whole. (Adapted from Thomas (1980 pp. 177)

It should be noted that Germain (1978) argues that to refer to a positive or negative self concept is a contradiction in terms, since it is not possible to have negative concepts.

Hamachek (1987) in referring to the self esteem as the affective aspect of self perception, questions how people, in their self appraisal, decide what is *'good'*, *'worthwhile'* or *'significant'*. He cites evidence from Mettee and Riskin (1974), showing a tendency for individuals to generalise feelings of worth by drawing on comparisons with people who share similar skills, attributes and talents while those whose attributes are greatly dissimilar are dismissed as incomparable. He postulates this comparable-incomparable distinction enables individuals to disregard negative information, to protect the self image from contrast with those whose achievements are widely superior or inferior. This implies the reference groups we choose or have imposed on us are important to our perception of self. This has implications in relation to the pilot study since allocation of mentor/student dyads failed to take such factors into account.

Self Congruity and Psychological Health

Hamachek (1987) postulates that when any area of the self concept is low, self esteem is correspondingly low. He cites Rogers' (1959) findings that there is a relationship between high levels of self congruity and psychological health, and maintains that chronic levels of low concept of self in the physical, social, emotional, or intellectual areas can be caused by inappropriate goal setting.

Burns (1982) refers to the self evaluative connotations of self esteem, suggesting it implies that the individual respects him/herself, without condemnation for failings. People who meet their personal standards, and achieve their aspirations have a strong self esteem while those failing to meet their ideals possess low self esteem. In addition acceptance of themselves makes them more likely to be accepting to others.

A question arises concerning the criteria used in self judgement. If it is based on the degree we believe we measure up to certain ideals, how are these ideals arrived at and how idiosyncratic are they? Further more, in the context of the study, are these ideals inherent in the nurse recruits at entry, or are they imposed by the profession during those recruits' passage through the educational experiences?

The Role of Self Concept in Determining Behaviour

Rogers' (1959) view of the self concept as a powerful determinant of behaviour has been echoed by many writers. Burns (1979) ascribes it three roles: maintenance of consistency; determining interpretation of experience; and provision of expectancies. He suggests that, since the evaluative element of the self concept is learned, it can change as a result of new learning experiences. When experiences are congruent with existing self conceptions assimilation results, but, if discrepancies occur, defence mechanisms may act to maintain the consistency, even in the light of conflicting objective evidence.

Burns (1979) posits that this protective mechanism is a primary motivator in all normal behaviour and he warns that while the resultant interpretations and rationalisations may seem illogical to others, there is a need to adopt a phenomenological approach in which the interpretations are viewed within the frame of reference and value system of the individual, rather than the observers.

Presentation of Self

It can be recognised that presentation of *self* lacks consistency. We constantly select from a multitude of different guises, choosing according to the situational context, the social milieu, and the current company. Even in similar contexts consistency may not be maintained over time. The success of advertising media bears testimony to our constant modification of behaviours and attitudes. One is led to reflect on the rhetorical question: Can we ever really know ourselves? A negative response would cast doubt on the feasibility of the second of the study questions.

Burns (1979) acknowledges the dynamic nature of the various aspects of the self. In explaining this *'paradox of inconsistency'* he suggests that dissonance only occurs when opposing elements are relevant at the same time. He concludes that inconsistency between

concepts of self is probably normal, but that, whenever possible, there is an overriding tendency to minimise inconsistencies.

This tendency to act in a way that is consistent with the view one holds of the self is also reflected in the inclination toward consistency in interpretation. Burns asserts that nothing will prevent those with a negative self concept interpreting an action in a negative way. Even where the action is perceived as positive by both instigator and observers, meaning is determined by the view the individual holds about himself.

Hamachek (1987 p 6) observes that the behaviour we present socially is only an

' edited version .....staged to present a certain image' .

This writer uses the term *'impression management'* for the varying presentations and differing aspects of the self we project as our *'public self'*. This is a process described by Goffman (1959) as the performance of sets of stage scenarios, *'scripts'* that conform to social expectations.

Existentialism

Despite the variety of personaes in each individual's *'act'*, there is a thread of continuity. Erikson's (1959) concept of ego identity refers to the *'self-sameness and continuity'*. Erikson prefers the concept of identity rather than *self*, viewing it as a developmental process that is largely completed by late adolescence. As this is the stage of life when most students enter nursing such a view suggests that the concepts of identity of most of the students in the study would be fairly fixed prior to enrolment. If this was so one could have reasonably expected some resistance to the effects and experiences encountered in the educational programme. However education is defined as involving growth and change in behaviour, attitude, and possibly personality (Kidd 1973, Rogers 1983). This argument is supported by Thomas' (1980) claim that consistencies are accompanied by a continuing process of development of self consciousness and change to the perception of self. These views of continuous developmental change are therefore taken as justification for the study hypothesis that educational approaches affect the concept of self.

Gecas and Mortimer (1987) draw distinctions between *'identity as character'* - the kind of person - and *'identity as role'* - when characteristics are often expressed in moral terms.

They accept some role identities become diffused - an example that comes to mind being the caring nurse - but emphasise differences, in that character traits tend to be more situation specific than role identities.

The values implicit in role interpretations govern perceptions of what are success and failure. As noted earlier, the appraisals reflected from others in our social milieu influence levels of self worth and self esteem. Positive feedback is found to raise self esteem especially when received from those regarded as having importance and credibility. Conversely negative feedback has the effect of reducing self esteem. (Videbeck (1960). To enable psychological health to be maintained the individual consciously or unconsciously guards against negative effects. Defence mechanisms function to protect the vulnerability of self esteem. Secord & Backman (1974) provide examples of common defence mechanisms used in maintaining a stable self esteem including: devaluing the critic by dismissing his opinion as worthless; or rejecting the justification for the criticism. Gates (1989) found evidence of ego defensive behaviour when his sample of student nurses downgraded criticism by the teacher.

Coopersmith (1967) identified factors that impinge on an individual's perception of success or failure, and affect self esteem. They include:

1) power- to influence people and events of importance;
2) significance- the sense of being accepted by others;
3) competence- the ability to meet our personal goals;
4) virtue - ability to behave in consistency with personal beliefs and moral values.

(From Hamachek (1987 p 17).

Attribution of Failure and Success

Of particular salience to occupational preparation is 'James Law', which emphasises freedom of choice and the relation of chosen goals to different components of the self. This law led Burns (1989) to suggest that the determinant of an individual's self esteem self esteem is the degree of success or failure of achievement in relation to the position s/he aspires to. The writer warns that self imposed expectations are idiosyncratic; one person's success might be failure to another. In addition time and resource constrain the

individual from maximising all aspects of the self so there is a choice regarding which selves to present. Once selected this *'level of self regard'* can only be altered by deficiencies or successes that have relevance to such 'pretensions'. The flaw, perceived by Burns in this assumption, is that being successful will necessarily result in high self esteem. However the value society, at large, places on certain skills might well intrude; for example to regard oneself as an expert dustman might possibly fail to enhance self esteem. With regard to the aims of the study this observation suggests a need to explore the value the student holds regarding the occupation of nursing. If success in the profession is perceived as an ideal aspiration then achievements toward these goals should equate with high self regard. If nursing is perceived as merely an occupation for *'no hopers'*, or those who could not fulfil academic pre-requisites for a first choice career in medicine, then success in the course of nursing study would carry little weight in boosting self esteem.

The Effect of Self Esteem on Performance

Hamachek (1987) comments that those with positive self esteem tend toward being happier, healthier, and more productive than those who feel negative about themselves. Equally important to perception of self is the degree to which they feel their achievements and failures impact on their lives. The theories concerning the degree the individual perceives him/herself as in personal control are relevant to the study and are drawn under the heading of attribution theory Causal attributes are defined by Barron (1987) as inferences people make retrospectively about events or behaviour. According to Weiner's (1978) Causal Attribution Theory, people attribute success to one of four causes; ability,; effort; good luck; and ease of task. Of these attribution to ability is particularly associated with high levels of self esteem. Enhanced self esteem has the effect of increased confidence and competence and higher expectations for future success.

Stress management is also linked to personal perceptions of success and failure regarding oneself as being in control and leads to coping better with stress Rodin (1986). But repeated experience of failure causes feelings of apathy and helplessness. Seligman (1975) suggests a state of *'learned helplessness'* arises when people blame themselves for events over which they feel they have no control.

Locus of Control

Those holding the belief that they control their achievements and failures are described by Rotter (1966) and Phares (1987) as having an internal locus of control, in contrast with those believing that control is held by outside forces which have an external locus of control.

Self Efficacy

A related theory of personal control is self efficacy Bandura (1977). This theory concerns a person's expectations of his ability to achieve what he sets out to do. Predictions regarding success are made by summating past experiences throughout life and from social learning. Those holding a strong sense of self efficacy respond better physiologically and psychologically when faced with stress. In adulthood there is a tendency toward increased self efficacy resulting from greater knowledge acquisition. Conversely, locus of control diminishes with maturity as the individual becomes aware of the effect of chance, and powerful others, over events in their lives. (Lachman 1986).

The review literature on the self has confirmed its importance as a determinant of individual and social behaviour. This conclusion leads to the final question concerning the self concept in relation to nurse education - the impact the student nurse's self concept has both on learning and on provision of care.

The Effect of Self Concept on Nurse/Patient Relationship

The effect of the nurse's self concept on her professional interactions is raised by many writers. Rawlinson (1990) debates the views of self and self awareness in the literature and emphasises that the nurse needs awareness of his/her occupational identity, as opposed to personal identity, in order to recognise the positive and negative influences of his/her role, and in order to deliver sensitive, client centred, nursing intervention. Burns (1991) highlights the importance of professionals developing accepting relationships with clients, patients, or learners - a process dependent on the possession of a positive self concept.

The Effect on Nurse Education

The notion of control, impacting on the self concept and affecting the individual's actions and expectations raises implications for nurse education. A study by Khanna et al (1978)

observed that since 1960 college students have become increasingly external. Dufault (1985) notes those with internal locus of control are more cohesive, trusted, and self disciplined, and show higher levels of self responsibility. They also avoid unnecessary risks and contribute to group well being. Munro (1980) found student nurses, identified as having internal locus of control, scored higher on academic integration.

Images of Self and the Profession of Nursing

Weller, Harrison, and Katz (1988) reported changes in student nurses self concept and attitudes to the profession over the duration of their studies in their sample of Israeli student nurses. They noted such studies frequently find a shift from an initial idealism and optimism toward greater realism and practicality. They cite McPortland (1957) who recorded first year nurses' identification of humanitarianism and sensitivity as ideal qualities, but found third year students chose ideals in more technical and instrumental terms. Heyman, Shaw and Harding (1983) found that student nurses become increasingly attracted and identified with their profession as they progress through their course.

O 'Neil (1973) reports her finding that nursing students place high value on altruism and service to people but low value on issues considered of importance to the recognition and practice of nursing - such as theoretical knowledge economics, politics, independence, and leadership. The literature appears to support the findings of Neaves (1989) who investigated the relationship between locus of control and decision making in nursing students and sought to gain greater understanding of the persistent tendency for nurses to fail to realise their maximum potential in health care. Her results suggested that locus of control may be an important factor in the levels of independence in decision making in students, and that those individuals who have an expectancy for external control may find their ability to be professional and accountable significantly compromised. Bowman and Culpepper (1974) report a strong sense of powerlessness in practising nurses - a finding reflected by Ellis (1979) who remarked on an apparent low level of self confidence of students and practitioners. This leads to her concern regarding the impact that levels of self confidence have on their approach to new learning experiences. She calls for study into when nursing education makes the *'greatest insult on self confidence levels in its students'*

Conclusion

The literature was reviewed to examine the theory of self in relation to nursing and nurse education. It has established the importance of encouraging nurses to perceive themselves and their profession positively, and highlighted the need for nurse educators to facilitate the development of self confidence in students and practitioners. The pilot study programme was designed to extend the fundamental principles of respect for individual worth that had been incorporated into patient care regimes to the learner in the nursing school and clinical learning environment. The means selected was to apply a phenomenological approach to the educational programme. The next sections explore this concept in relation to adult education with particular reference to its implications for nurse education and the self concept of the students.

Section Four

The Literature Referring to Socialisation into the Nursing Role

The previous section recorded various concerns regarding the effect traditional nurse education might have on student self esteem and the possible repercussions on nurse - patient interaction.

The review of the literature now turns to writings pertaining to how students imbibe the practical aspects of the nursing role. The curriculum comprised two interrelated themes - theory and practice - and this section centres on the clinical practice element. As Table 1.1 illustrates the study programme began with a relatively short induction block and despite the brevity of this introduction to nursing theory and practice, once the new recruits had commenced their first ward allocation, they wore the uniform of a nurse. Though their nurse title was prefixed by the word *'student'* their mode of dress would, it is safe to assume, have led their patient/clients to expect them to possess the conventional knowledge and skills the status of nurse implies. It is proposed to examine this process of being *'thrown in the occupational deep end'* in relation to the educational development and socialisation of the Pilot Students in the clinical milieu where so much of their total learning experiences took place.

Teaching and Instruction

As noted, the pilot schemes were a response to widespread concern regarding the established nurse teaching methods. Unlike the other five schemes the curriculum design of the College under study sought to introduce the educational innovations, while at the same time retaining the traditional mode of nurse training/education that required the student to spend two thirds of the course in employment as part of the workforce. The theoretical framework for this *'hands on'* approach is commonly termed the *'apprenticeship system'* (Harvey and Vaughan 1990, ENB. 1985). It can be argued that the term apprenticeship is a misnomer since it describes indenture to a master craftsman a contract binding the master to the apprentice through the latter's learning *'journey'* from novice to expert. Learning and assessment is thus paced according to the learner's current knowledge base, learning needs, achievements, and failings. The consistency of this individualised level of

tuition and supervision of learners, though possibly ideal, is denied to the student nurse in the clinical arena, where s/he will be allocated to a new mentor every few weeks. Of necessity, in the clinical area the duties of care have supremacy over duties of teaching so the practical teaching s/he receives is rarely structured or formalised and is largely carried out in the form of witting and unwitting socialisation into the professional role.

The process of professional socialisation into nursing has been a topic of considerable research interest (McGuire 1964, Simpson 1979, Melia 1981).

Socialisation: as Identification

Styles (1982) defined socialisation as the process whereby the values, norms, and attitudes espoused by a group are transmitted to, and adopted by, novices. It enables the noviciates to identify with the group's goals and develop personal or career goals. Cocucciello (1990) asserts that professional socialisation mimics the integration and assimilation of experiences that occur continually in the wider social system. She suggests that the principal role of nursing socialisation is the transmission and transformation of the culture. The key elements, thoughts, feelings, attitudes, purposes, and spirit create the socio-cultural context of the discipline - the mores, rituals, and accepted behaviours of being a nurse. She cites Kramer's (1974) emphasis on the importance of planning students' learning experiences to enable them to incorporate, in their value system, a commitment to patient and client care - a sense of loyalty to the institutional organisation and care delivery system, and a sense of professionalism.

Socialisation: as Shared Understanding.

Abrahams and Shanley (1992 p 10) place emphasis on acquiring mutuality of understanding:

> 'the *process of being introduced to a set of shared understandings which render a set of activities meaningful'*

They maintain, this results largely from language and communication with others in the culture set. Other useful means of storing such understandings include uniforms or titles. The writers present Berger and Luckman's (1966) argument that everyday reality is *'socially constructed'* and add the concept of *'inter-subjectivity'* suggesting that both

result from the process of internalising ways of thinking shared by other culture members. Abrahams and Shanley (1992) discuss the official secondary socialisation involved in becoming officially accepted as a nurse, and emphasise how in gaining understanding of the role, students must integrate their initial lay expectations with those of role-set members. They refer to Davies' (1975) stage concept which comprises three stages:

1) a stage of *'initial innocence'* which stems from the entering students' lay knowledge of nursing that commonly reflect values of *'altruism'*;

2) the second stage -*'labelled recognition of incongruity'* arises when students encounter discrepancies between their expectations of learning caring skills and their teachers' focus on general nursing principles;

3) a *'psyching out'* stage that occurs when students simulate behaviours that teachers value and reward.

In the process the student learns the role rights, obligations, and role sets, and rules that eventually lead to him/her to adopt the self categorisation of 'nurse'. This in turn results in him/her responding in accordance with the expectations of role set members. S/he will develop standards of good and bad practice and judge the practice of other nurses in these terms.

Role Taking

Goffman's (1959) dramatalurgical concept of role taking in social interaction was described earlier. Abrahams and Shanley (1992) suggest *'inter-subjectivity'* is fundamental to social performance and that this shared sense of what things mean, and what should happen, is the foundation for conveying meanings and intentions and for formulating plans for individual actions. Following prescribed scripts enables meaningful response to others. This socialisation of the student nurse into the clinical area and the means by which s/he is introduced to the practices and realities of the clinical environment is explained by Social Learning Theory (Bandura 1971).

Social Learning Theory

According to Bandura (1971) behavioural learning can take place as a result of three types of reinforcement. Iwasisw and Goldenberg (1993) enumerates them as follows:

i) **Vicarious reinforcement**, resulting from observation of a model's performance.

ii) **Direct external reinforcement**, when behaviour is regulated on the basis of the consequences of individual experience.

iii) **Self administered reinforcement,** achieved through personal regulation of self behaviour accepted through *'precept and example'*; thus allowing students the capacity for self direction. (Adapted from Iwasisw and Goldenberg 1993).

Bandura (1977) identified four processes that influence the process of social learning. These can be summarised as follows:

1) **Attentional processes,** in which the performance of a role model carrying out the desired skill is observed.

2) **Retentional processes,** in which symbolism and rehearsal enable encoding of the modelled behaviour. Symbolic models are largely provided through communication or visual representation for example lectures, verbal instructions and video demonstrations.

3) **Motor reproduction processes,** this involves observers practising the observed role behaviour and rehearsing it through role play, enacting and extending the role as they decide on ways to apply the acts to varied situations. It involves merging motor function with cognitive application - a combination that, suggests Bandura (1977), leads to improved behaviour and decision making.

4) **Motivational processes,** centres on reinforcement, affecting behaviour by creating expectations that particular behaviour will lead to certain outcomes. The observer will imitate the behaviour if there is an assumption of reward for performance or punishment for non compliance.

(Bandura 1977 Adapted from Driggers, Nussbaum and Haddock 1993))

Student nurses are expected to learn examples of nursing procedures by observing the performance of role models. These may include members of the teaching staff, mentors, and fellow students. They then copy the performances in practice, reflecting or modifying the observed behaviour and techniques. Observations of outcomes leads to vicarious learning, and practising the procedure provides opportunity for direct external reinforcement from

mentors or others involved in the experience. As a result of the observations, actions, and acceptance of performance standards the students eventually develop their capacity for self-administered reinforcement which in turn leads to self direction. (Iwasisw and Goldenberg 1993). The limited time scale for introduction to the clinical environment may have significance on the time socialisation takes. Bradby's (1990) study of first year students status passage into nursing, found that the majority of students claimed to feel *'relatively comfortable'* within 3-4 weeks of first ward experience, and this period of adjustment is reduced to two weeks on the second ward. Her overall finding was that the total nursing socialisation process took between six to ten months, by which time the majority of students claimed they had grasped the theoretical concepts.

Thompson, Melia and Boyd (1983) also refer to the accelerated socialisation of the entrant student nurse. They suggest instances of inadequacy and inability to cope may be reactions to this rapid introduction to the role. The conditions that increase student awareness of the significant factors of the professional role therefore appear worthy of consideration.

Professional Role Development

Olsson and Gullberg (1987) debate professional role acquisition referring to *'process factors'* that affect role development. They provide examples of supportive factors - increased involvement in decision making and improved functioning and interactions - between social and professional roles. They suggest impeding factors may include the effects of role stratification, strict hierarchical patterns and statements such as *'it has always been like this and shall remain so'*. The suspicion that such factors remain operative in the student learning milieu shifts attention to the topic of teaching responsibility in the clinical area.

The Nursing Literature on Clinical Instruction.

Marriott (1991) reviewed the British and North American literature pertaining to clinical instruction over the period 1980-1990. She records that the system of training remained largely *'apprenticeship style'*; the ratio of clinical to classroom teaching being 5:1. The assumption was that teaching and support would be provided by trained nurses during the course of their work. In reality most learners spent most of their time working alone or with

other learners. Marriott fails to acknowledge that the introduction of the grade of clinical teachers in the early 1960's was created with the intention of providing consistent clinically based teaching in the clinical area. Nevertheless, she notes cost and time constraints of individualised teaching rendered the system inefficient and that in response to the recognition of these shortcomings the ENB recommended phasing out clinical teachers and introducing a better prepared single grade of nurse teacher for ward based and classroom teaching. The Board also suggest that on each ward every learner should have a qualified nurse as named mentor with responsibility for support and facilitation of learning ENB (1994).

Marriott's review of studies focused on those investigating support and teaching in the clinical learning environment. She reports that Fretwell (1980) found that in two thirds of the basic repetitive tasks, students considered they were fulfilling a work, rather than learning role. She also describes how Jacka and Levin's (1987) investigation of learners teaching, and supervision during ward placements found that students claimed to be supervised for 11-14% of time while their ward sisters estimated the learners were supervised for 46% of the time. They also found tutors spent 8% of their time on ward based supervision or teaching compared to clinical teachers 75% of their time on these activities. Despite this 42% students claimed they were never visited by a clinical teacher. A fundamental aspect of the pilot programme was the provision of an effective clinical teaching and link teacher support system in which classroom teachers were in regular contact with designated clinical areas. The key aspect was the mentor system in which each student was provided with a qualified nurse to undertake responsibility for integration, teaching, support and assessment during clinical allocations The literature notes the difficulties arising from such schemes. For example problems regarding off duty when the needs of ward cover often conflict with the need to allow learner and mentor to work on the same shift (Wall 1993, Laurent 1988). This issue was an aspect of Wall's (1993) investigation of mentoring relationships that included in its sample a group of pilot students from Cohort 15. Her study focused on the degree of congruity between mentor and student and sought to discover whether there was effective preparation for mentorship. Her

conclusions were that mentor preparation was inadequate and mentors had little support from ward sisters or nurse teachers in the performance of their role. Attempts to match student and mentor were haphazard and occasions when student and mentor were rostered together were relatively few. Frequently the students obtained their support, supervision and instruction from significant others rather than from their designated mentors. Campbell, Larrivee, Field, Day and Rutter (1994) endorse the emphasis placed on the quality of the clinical relationship between student and mentor, adding that the mentor's knowledge, critical skills and attitude are crucial factors in relation to the students ability to learn in the clinical area. They found that students felt vulnerable because they were both learning to care and feeling concerned about nursing staffs' possible reactions to their efforts. The writers point to Melia's (1987) finding that students experienced difficulty in separating their role of learner and worker. This is compounded by the limited time that the learners have to be members of the team. The overall effect is to make their position *'anomalous'* and reduce their motivation for involvement with patients. In their conclusion Campbell et al cite Wilson and Startups' (1991) comment that while students seek out role models, their image of the *'good nurse'* is built through personal observation of divergent practice and reconciliation of conflicting philosophies.

Relationship of Perceptions of Self and Professional Role Esteem:

The relationship between the image of nursing held by students and their perception of themselves and, in turn, how this relationship is affected by the educational experiences is particularly salient to the study. Kelly (1992 p 34) seeks to explain the evidence pointing to nurses lack of self esteem by referring to Buckenham and McGrath's (1983) comment that student nurses are '*groomed for subordination*' and are '*socialised to obey*', respect authority, and show loyalty to the health team. While acknowledging the causes are still unclear, Kelly suggests such effects are linked to punitive teaching styles. It is hypothesised that the moves toward greater student autonomy and equity of worth, on which the educational programme under study is premised, would have led to the abandonment of such subordinate socialisation processes in the college and clinical learning milieu. However though Bradby (1990) in her longitudinal study of status passage in first year nurses

promotes the potential of vertical integration as a means of effective socialisation. she regrets opportunities for this are minimised by the fact that nursing staff are still identified on an hierarchical rather than a collegial basis. This is further exacerbated by the fact that student experiences tend to revolve around different tasks, rather than trained staff. Bradby refers to McGuire's (1964) criticism of the authoritarian regimes. employed by British nursing, that aim to control the individual and force him/her into a professional mould and regrets the common attitude among trained staff, that students should have similar negative experiences to those they had undergone *'I went through it so they should too'* McGuire's conclusion reflects the opinion on which the study hypothesis is premised. that traditional training has the effect of degrading the individual. By encouraging the maintenance of the traditional hierarchical structure it prevents nurses undertaking independent roles that would enable nursing to progress forward.

Conclusion

This section has reviewed the literature regarding teaching in the clinical area. and considered evidence and beliefs regarding the effect traditional approaches have on the achievement of this area of professional development. The literature referring to the roles and images of nursing has demonstrated that the adoption of the perceived role and the value the individual places on that role may have a profound effect on the student's concept of self. It has shown the important contribution the mentor and clinical staff make to student learning and well being in the clinical area. It has also emphasised the need for consistent support, good role relationships. and broad practical experiences if students are to gain confidence in their ability to practise. The purpose of such endeavours is emphasised in the words of Rogers (1970p 88).

> *'The purpose of professional education is to provide the knowledge and tools whereby an individual may become an artist in his field.'*

The next section considers the teaching of the theoretical components of nurse education.

Section Five

The Literature Referring to the Adult Teaching Approach.

The literature reviewed in the previous section provided support for the humanistic theorists' claims of close links between educational approaches and students' self esteem. This section of the literature review centres on the literature pertaining to adult learning and research into the teaching/learning methods introduced in the process of implementing an adult education philosophy to nurse education.

The ENB pilot scheme proposals specified that the programmes should encompass learning/teaching strategies within the framework of adult learning principles. A basic tenet of this educational philosophy is a relationship of equality of worth between the teacher and learner. The assumption was that focusing on the learner, as an individual with unique needs, would accelerate the learning process. (Alexander 1983).

The curriculum designers recognised the importance of integrating knowledge learned in the college and clinical area. This reflected Alexander's emphasis on encouraging the learner to learn from his/her clinical experience and interaction with patient/clients and transfer the knowledge acquired in the classroom to the reality of the clinical venue. Nurse preparation has increasingly moved away from a training process toward an educational experience that combines theory with practice. Mazhindu (1990) reflects that this shift has created an emphasis on teaching and learning strategies that will equip the learners with a combined body of knowledge and awareness of basic principles on which they can build a conceptual framework that can be developed through experience.

The programme planners also introduced changes of emphasis in the educational milieu, which were designed to respect and utilise each student's existing knowledge and experience of life.

The transfer of focus toward a problem posing, putatively non-directive, humanistic mode of nurse education mirrored the principles of models of holistic individualised approach to delivery of care. Henderson's (1966) concept of nursing which offers individuals assistance and support while encouraging independence, had led to the growth of models of nursing care (Roper, Logan and Tierney 1985, Orem 1980). All such conceptions

inculcate phenomenological humanistic principles and this focus on a holistic individualised approach to delivery of care has been mirrored by a shift of focus toward a non-directive humanistic mode of nurse education.

Holistic Approaches.

Holistic education grew out of the beliefs of Freire (1970), Rogers (1967, 1983) and Mezirow (1981) who regard holistic learning and democratisation of the learner/teacher relationship as fundamental to the concept of education as a vehicle for personal growth. Rogers' interest in education grew from his work as a non-directive counsellor, when he realised that individual growth is achieved through the development of positive relationships (Coulter 1990). He equated teaching with therapy, believing that both share the goal of facilitating the client's exploration of self, realisation of a self potential, and self acceptance (Rawlinson 1990). Applying these principles to nursing requires nurses to develop their abilities to be self-directed during preparation for the register and afterwards in their subsequent careers (Coulter 1990). Holistic education has been the subject of several nurse education studies (Ramporogus 1988, O'Kell 1988, Wiley 1983).

Learning Freedom

The principle of learning freedom encompassed in the humanistic approach encourages guided or self directed inquiry (Ramporogus 1988). It is popular in nurse education as a means of teaching the type of problem solving and decision making skills that modern nursing demands. The concept of intrinsic motivation toward personal growth is a basic premise of the adult educational principles (Knowles 1970, Mezirow 1981). The *'crux'* of Knowles' theory is succinctly summed up by Sweeney:

'the increasing need of the adult to be a self directed learner who utilizes personal experience to modify his/her self concept'. (Sweeney 1990p 1210)

The term androgogy was employed by Knowles (1970) to refer to assisting the adult to learn as distinct from - pedagogy the teaching of children. Platt simplifies Knowles' (1980, 1984) explanation of androgogy by describing it as:

a) a set of assumptions about adults as learners;

b) a series of recommendations for the planning, management, and evaluation of adult learning. In turn these assumptions are based on two pre-suppositions: first, that intrinsic to adulthood is a sense of self direction; and second that, in congruence with this self directness, androgogical practice is a collaborative venture which involves the learner in most or all instructional functions.

(Platt 1988 Androgogy as a Relational Construct pp. 160))

Mezirow (1981) maintains androgogy must be defined as a systematic approach to assisting adults to both learn and develop their self directed learning abilities. He developed a Charter for Androgogy (see Appendix C) and this constituted the framework for the teaching approach for the pilot scheme.

A useful summary of self -directed learning is provided by Sweeney (1986) who describes it as a student centred teaching approach that focuses on learning as a process that continues throughout life. Arguments favouring androgogy relate to the effects of accelerated technological, social, and political change (Hughes 1994). However it is recognised that the accelerated rate of current change in knowledge, understanding, and developing technology make attempts to achieve the goal of equipping learners for life time roles no longer viable. Nurses must become lifelong learners with the capability of responding to learning needs that are unrecognised during career preparation or those that cannot be assimilated without further experience or maturity, and these factors Lawson (1982) points out are acknowledged and utilised by the androgogical approach.

Androgogy in Nurse Education

In the 1980's British nurse education welcomed androgogy seeing it as a means of liberating nurse education from the didactic authoritarian regimes that had restrained its progress toward full professionalisation. Reasons for its popularity are identified by Burnard (1990) who lists its insistence on self directedness, the development of self-image, its relationship to humanistic caring approaches, and its effect of returning some responsibility for learning to the learner.

Criticisms of Androgogy

Androgogy is not without its critics and the major criticisms are summated by Hartree (1984) who questions whether Knowles:

a) presents a theory of teaching or one of learning;

b) confuses the relationship which he sees between adult and child learning;

c) produces considerable ambiguity as to whether he refers to theory or practice.

(Adapted from Hartree 1984 p 204)

In 1984 Knowles had responded to the critics, by conceding that pedagogy and androgogy form two different approaches to programmes of education. Pedagogy he claimed is content based and androgogy process based.

In defence of pedagogy Derbyshire (1993) argues that Knowles' (1970) distinction between androgogy and pedagogy is spurious and based on untenable assumptions and considers that Knowles' subsequent reversal was *'unconvincing'*. He cites Thompson's (1989) argument that it is difficult to see how teachers could *'pick and mix'* between the two approaches, for specific sessions, or for individual students.

While it would seem such criticisms may have some validity, it seems unnecessarily pedantic to dismiss all the well documented educational advantages of androgogy - for example, learner and teacher participation and shared responsibility for learning - by calling, as Derbyshire (1993) does, for a return to pedagogy in nursing. As Davenport and Davenport (1985) point out there is a need to balance concerns against the value Knowles' androgogy has for *'public relations'*. In reviewing the suggested replacements for the term androgogy, such as self direction or teacher direction they conclude none convey the entire meaning of the original term; for example while self direction is contained in the concept of androgogy the umbrella term also embraces other important components such as immediate application of knowledge, or problem centred learning.

Several studies have been undertaken on the approaches outlined in the concept of androgogy Jones 1982) studied androgogical-pedagogical orientations of adult educators in various settings and Van Allen (1982) focused on orientation of adult learners. Burnard (1990) found students less favourable toward autonomous learning methods than their

teachers and notes the findings of Harvey and Vaughan (1990) that, despite evidence that student centred activities created more *'favourable attitudes'* than teacher centred ones, discovery learning and projects did not attract particularly approving attitudes. Other writers and researchers focusing on the subject of androgogy in nurse education have produced contrasting views. Richardson (1988) evaluated the introduction of androgogical teaching and learning methods among a sample of first, second and third year nursing students, and found that the application of androgogy and independent study contracting had generated self initiated and self directed learning behaviour. Keyzer (1980) found learning contracts were a reliable means of combining aspects of teacher centred and self directed learning in student nurses. Richardson (1987) however suggests the whole concept of learning contracts might be better received by students who welcome control and independence and are able to accept responsibility for their own learning.

Teacher Student Relationships

The teacher was identified by Knowles (1970) as the most important factor in the learning climate and this led Conti (1985) to observe that despite the existence of divergent teaching styles, a significant proportion of the adult education literature support collaborative teaching styles. The principle behind the popular approach reflects Rogers, (1983) and Freire's (1972) view that the teacher student relationship should be based on a democratic dialogue, in which each learns from the other. The importance of teaching adaptation to change was promoted by Rogers (1983) who advocated encouraging learning by a process of *'responsible freedom'* so that the individual moves toward accepting responsibility for his/her own learning, ultimately becoming what s/he is *'capable of becoming'* (in Coulter 1990).

Ways of encouraging self direction are promoted by Janhonen (1991) who includes content decisions through discussion, students directing the learning process through questions during teaching, or even allowing students to plan the studies themselves. The impracticalities of such strategies are easily recognisable in the context of the average nursing class where the range in student numbers is from 20-50. Advocates of the approach maintain such problems can be overcome by the process of the teacher acting as facilitator

rather than imparter of all knowledge. Contribution becomes shared between teacher and learner, the individual being the most important resource in the process (Pratt and Magilli 1988, Jahonen 1991). The teaching role changes to one of resource person, a member of the group, who facilitates the sharing of knowledge and experience. While not required to be 'all knowing' s/he must have credibility as an expert in the subject and possess the capacity to guide the learner in the process of learning while at the same time continuing to learn him/herself.

Rolfe (1993) agrees that the current demands for holistic practice, professional autonomy, and primary nursing can be addressed by employing a student-centred approach to learning, but emphasises the need for modifications since a radical student-centred approach would conflict with the constraints imposed by the professional body which confers upon the students a license to practise.

Learning in the context of humanistic adult education principles can therefore be summarised as learning as a process rather than a product Bruner (1961). The aims are directed less to imposing an authoritative body of knowledge, more to how students and teachers are feeling. (O.U. DS262 1981 p81).

Learning as a Process

Sheehan (1986) notes learner centred education applies to learning programmes where the ethos is self directed and takes account of differences in adult cognitive styles by providing a variety of teaching and learning approaches. He identifies three fundamental concepts of *'learner centred education'* namely:

1) *'self directed learning'* with emphasis on student autonomy;

2) *'student centred learning'*, reflecting humanistic emphasis on holistic learning and the equality of relationship between teacher and learner;

3) *'androgogy'*.

It is proposed to view the learner centred changes nurse educators have introduced by focusing on Sheehan's three categories.

1) SELF DIRECTED LEARNING

Learner Autonomy

Sheehan (1986) outlined how self directed learning involves student participation in the process of planning learning in relation to individual needs. In order to provide greater autonomy in nursing education some educators have sought to identify and meet diversity in learning needs and preferences, while others have simply introduced a variety of teaching techniques and invited students to choose their method of learning. On entry, nursing recruits bring with them well established interests, attitudes, and motivations that will affect learning styles (Dux 1989). Distinctions between learning style and learning preference is provided by Rezler (1981p 28). Learning style is described as: *'the manner in which an individual perceives and processes information in learning situations'.* Learning preference is described as: *'the choice of one leaning situation or condition over another'* Her belief is that learning preferences refer to motivation but have a relationship to learning style.

Nursing Students Learning Styles and Preferences

DeCoux (1990) records the increase in research on learning styles among health professionals in recent years with nursing students the most frequently studied. She reviews the literature on those using the commonest instrument - Kolb's Learning Style Inventory - concluding that, despite its wide acceptance, the literature provides little support for its validity or utility. Warnings regarding the questionability of the instrument in relation to nursing education are issued by Dux (1989); she refers to documented instrument weaknesses and lack of correlation of other variables. She found a general lack of significant relationships between learning styles and other variables in research on nursing students.

Keane (1993) records the views of writers who valued assessment of learning styles citing Decker's (1983) suggestion that students who were taught according to their learning styles had more favourable attitudes toward subject matter. She also refers to other studies that focus on methods for accommodating all learning styles, which suggest that exposing the student to a variety promotes greater flexibility in learning and problem solving.

(Armstrong 1987, Dunn 1988, and de Tornay and Russell 1978). Individuals may have more than one style (Dixon 1985), and it is also probable that styles differ according to the context and complexity of the teaching matter. It is a moot point whether it is practical or even desirable to attempt to match teaching and learning styles bearing in mind the multiplicity of variables that might be operating in a classroom of adult learners. This view is reflected by MacMillan and Dwyer (1990) who call for greater attention to be given to individual weaknesses in approach to learning so that personal problems and potential solutions can be agreed between teacher and student. Child (1990) also points out the importance of another factor that impacts on learner performance: the teacher's style.

Teaching Style

Despite a commitment to greater learner autonomy in continuing education, Sheehan (1986) notes that this is less evident in pre-registration nurse preparation. Studies carried out by Alexander (1984) and Gott (1982) suggest that, despite evidence of differences in learning styles, teachers still focus on *'covering the curriculum' and* continue to teach as though their learners were *'passive members of an homogenous group'*. Sheehan (1986) echoes King and Gerwig's (1981) warning that despite the acceptance of the nursing process rationale of meeting individual needs, the learners will not adhere to philosophies of personalised care if they do not experience problem solving approaches from those responsible for assisting them to address their own individualised learning needs. He reflects that Burnard's (1984) proposition, that student centred nurse education has democratised teacher-student relationships, is not supported by empirical evidence.

2) STUDENT CENTRED LEARNING

Student centred learning focuses on holistic learning, equality of relationship between teacher and learner, and its effect on promoting personal growth for both parties. Nurse educators have adopted a number of strategies designed to promote student centred teaching and self directed learning development, and these include individualised personal tutor support, and feedback in an ethos of equal respect. Such devices require removal of unnecessary hierarchical barriers. Examples of measures, found to be effective in this context, include avoidance of status signals such as nonessential wearing of uniforms,

freedom of speech, and the use of first names across college hierarchies. These strategies were largely in operation in the college, under study, prior to the commencement of the Pilot scheme.

In addition it had been agreed among management and staff that there was a need for a system of individual and course evaluation that would reduce the distance between student, teacher and manager. Other related institutional changes included contracting, non judgmental assessment, and the teacher acting as facilitator rather than didactic controller of information.

The Teacher as Facilitator

Facilitation of student centred learning requires the teacher and student holding equality of status in a democratised teaching and learning environment. (Freire 1970, Rogers 1983, Richardson 1988). Differentiation between learning entailing absorption and regurgitating facts that are soon forgotten; and learning, characterised by 'relevant *'student initiated'* learning, is referred to by Coulter (1990). She notes Rogers' (1983) emphasis on the creation of a learning environment that seeks to *'nurture'* rather than impose control, and refers to his call for teachers to exhibit facilitative attitudes, realness in the facilitation of learning, prizing, acceptance, trust, and empathic understanding.

Lawson (1982) states for true androgogical approach to be achieved teachers must focus less on programmes and more on the adoption of a *'facilitative'* approach. He believes learning must centre on solving real problems and will require more blurring of identity between teacher and taught. He calls for nurse educators to act on perceived needs of individuals and groups rather than those envisaged by educationists.

As noted, (Jarvis 1986, Sweeney 1986, Janhonen 1991) self direction, relates to freedom of choice in selecting how one learns, and requires the teacher to pay attention to learner needs. Negotiation of learning contracts is a means of achieving this.

Learning Contracts

According to Knowles (1980) contract learning is congruent with the principles of androgogy, he valued its flexibility as a chief virtue. Rogers (1983) considered its value lay in providing the student with freedom to negotiate time, pace, length, depth, and range

of study. By promoting learning by guided study and discovery, it accommodates individual differences, and emphasises the quality of the learning process as of greater import than the specific achievement level (Mazhindu 1990). This writer notes that the learner makes his/her study choices within the boundaries of course requirements. Richardson (1988 p 317) describes contracting in terms of a dialogue that is based on the teacher respecting and valuing the student to allow the necessary *'psychological freedom'* for self direction.

Grading of Achievement

Knowles (1973) considered traditional education's emphasis on achievement - *'progressively recessive'*, but he failed to provide clear guidelines regarding criteria for assigning grades. Mazhindhu (1990) registers his concern regarding estimation of other outcomes related to contract learning. He questions for example whether account is taken of acquisition of feelings, attitudes and values. He points out that assessment depends on the relationship between teacher and learner and requires the teacher to act as facilitator rather than judge. Whitaker's (1984) evaluation of contract learning found that third year students believed it to be advantageous because it complemented the theoretical base of nursing while allowing a more androgogical approach. It should be noted that in the college under present study contracting was reserved for agreeing the level and grade the student would aim for in assignments.

3) ANDROGOGY

While the third of Sheehan's categories has been debated in the preceding discussion it is worth noting that the main aim of learner centred educational endeavour has been to provide a learning environment where the individual can acquire the skills of managing all aspects of his learning so that ultimately he is capable of continuing learning and growth independently for the remainder of his life.

Learning as a Lifelong Process

Rogers (1983) promoted the notion of an ideal educational system as one that helped students develop the skills of learning. He wrote:

> *'Changingness, a reliance on process rather than static knowledge, is the only thing that makes any sense as a goal for education in the modern world'.*
>
> (Rogers 1989 pp 304)

Lifelong learning centres on the individual continuing to be self motivated to achieve growth and development through organised education. Knapper and Cropley (1985) distinguish between learning occurring spontaneously, and deliberate learning. Jarvis (1987) refers to the work of Schon (1983) which demonstrated that some practitioners reflect upon their practice rendering it actually *'reflection in action'*. This results in their practice generating knowledge about effective performance, rather than merely being practical application of theory. The implications, as Jarvis (1987) sees them, lie in recognising that the role of the teacher may be that of encouraging the *'crystallisation'* of ideas that are generated by the practitioner during practice. This need, he believes, may arise at any time in the practitioner's career. He therefore proposes that preparing recruits to become lifelong learners is one of the major roles of nurse education schools/colleges. Richardson summarises the benefits to nurse and patient: *'The nurse who is able to initiate and direct his or her learning to meet these changes is more likely to remain competent in the delivery of a humane and effective service than the nurse who has not acquired these skills'* (Richardson 1988 p 315)

Conclusion

This final section of the literature review has explored the theory of adult educational philosophy, and its implications for nurse education. It has identified the shift of emphasis toward student centred learning as a positive move toward implementation of an educational ethos. It has suggested that this change would enhance the development of student self esteem by the creation of an educational milieu in which the learner would be encouraged to grow in independence. This would enable him/her to ultimately become a problem

solving, self directed lifelong learner who identifies his educational goals; selects the most appropriate learning resources; and assesses his own accomplishments.

CHAPTER THREE

The Theoretical Perspectives

The prevailing practice, of polarising the positivist, scientific, and humanistic social science approaches, creates the need for examination of personal philosophical beliefs at the design stage. Though commonly referred to as dichotomies, the methods are simply at points on a continuum between two extremes and, ultimately, the major factor governing choice must be the best match, in relation to the nature of the question, between the theoretical and philosophical perspectives governing the individual researcher's values and beliefs, and finally the discipline in which the study is focused.

An important consideration in achieving this fit centres on the timing of decisions made on the variables on which the study will focus. Cronbach (1982) warns against early decisions, when he points out that designing an evaluation is a continuing process; the variables chosen evolve as the study progresses. If one decides to focus on one aspect others receive less scrutiny. Choice, he suggests, must rest on the effect in terms of increase or decrease in the study's credibility.

Major Influences on Choice of Study Design

Many of the reviewed writers stressed the impossibility of singling out an ideal research method. Inevitably choice of research design will reflect the aims and questions of the study, the discipline in which it is based and the researchers personal preference, beliefs and values. The literature also drew attention to the importance, of taking into account the needs of the commissioners of the study and the ethos and politics of the organisation. Finally it highlighted the fundamental importance of the needs of the key participants and audiences who have a stake in the study and hold certain expectations regarding what they will gain from its report.

Disciplinary Influence

The literature has revealed that both qualitative and quantitative methods are relevant to studies of nurse education, this leads to the assumption that there is a strong case for arguing that both methods have strengths that can be gained by utilising a multi-methodological approach.

The Study Context

Setting these apparently opposing philosophies in the context of the study requires a review of the purposes and philosophical perspectives inherent in research as an activity including the more specific concerns of evaluative research which Nixon views as a

'fundamental paradigm shift from measurement to rich description'.

Nixon (1992 p. 6)

The Theoretical Frameworks:

Pure and Applied Research

Though there is a noted tendency to create a dichotomy between pure and applied research, Ackoff, Gupta, and Minas, (1962), while making a distinction between pure and applied research in terms of providing answers to a question or solutions to a problem, recognises a *'reciprocal relationship'* between the two. Pure research will eventually impact on real life situations and applied research will engender theoretical questions that require investigation by pure research.

Evaluation Research

An argument raised earlier suggested that evaluation and research are two separate entities Worthen and Sanders (1969) raise concerns regarding the tendency to exaggerate the divide between research and evaluation. Their comments on the distinction between the role of explanation is of particular salience in this study. They acknowledge the substantial confusion regarding the issue of evaluators' explanations of the phenomena they are evaluating, but argue that this is not the *'primary purpose of evaluation'*. A *'proper and useful'* evaluation can be conducted without providing an explanation of the causes that result in the programme being valued as good or bad. Similarly it need not explain how the effects were produced.

These contrasting views demonstrate the basic differences between the concepts of educational research and evaluation. The present study endeavours to embrace both, by observing the protocol of rigorous and systematic research, while conducting a descriptive evaluation of the experiences involved in undergoing a programme of vocational education. Consideration of the purposes and the categorisations of pure or applied research also led

to the conclusion that the adoption of an applied approach was the most appropriate choice for the study. While such decisions affected the broad framework of the research design, further decisions regarding the methodology were influenced by considering the number of other methodological dichotomies that have been debated in relation to research and general and nursing educational evaluative studies. Such arguments appear largely inter-related and in some instances spurious but they have led to the creation of various perspectives that have salience to the decisions concerning the choice of methodology of the present study. Those regarded as relevant to the design of the study include:

i) The quantitative versus qualitative debate.

ii) The merits of objectivity as opposed to subjectivity.

iii) Positivism versus anti-positivism including interpretivism, phenomenology and humanism.

iv) The concepts of determinism or voluntarism.

v) Realist or nominalist views.

The focus of these dimensions largely centres on philosophical and disciplinary arguments regarding the gulf between scientific experimental research methods, valued by scientists, and the interpretivist qualitative research paradigms generally preferred by social science and related disciplines.

Quantitative versus Qualitative Paradigms.

Though the various dimensions are presented as separate entities they can all be placed within the context of these two paradigms. Worthen and Sanders (1969) explain the distinction of the two approaches by referring to the developments in the 1950s and '60s when evaluations were largely conducted in the experimental tradition. The concern about the feasibility of such approaches in classroom situations was reported in the previous section which recorded the move toward qualitative and naturalistic methods in the 1970's. Though they refer to the criticisms regarding the rejection of objectivity the authors welcome recent developments toward recognition of the benefits of integrating both methods within an educational study.

Positivism versus Anti-Postivism

Burrell & Morgan (1979) debate three sets of opposing assumptions related to the issues of positivism and anti-positivism. They set out assumptions of an epistemological nature regarding how knowledge can be gained and passed on to others. They question whether knowledge is *'hard'* and real, possessing the capacity for transmission in a tangible form, or alternatively *'soft'* subjective and constructed from each individual's unique and personal experiences.

Objectivity versus Subjectivity

The positivist attention is focused on objective and controlled measurement with the major aim of establishing cause and effect relationships between variables, and generalisation beyond the subjects under investigation. The scientific method meets demands for rigour but it should be noted that although experimentation is a characteristic of quantitative research, quantificative research is not limited to experimentation. Precisely defined instruments can be used to collect measurements on pre-defined variables e.g. questionnaire, semi- structured interview, and other instruments.

Subjectivity

Subjective researchers criticise quantitative methods as mechanistic and reductionist suggesting they fail to take account of the social context in which the phenomena under study is rooted. The knowledge base in qualitative research is largely subjective and the researcher seeks insights into patterns of human interaction of the subjects under study. Focus is on their perceptions, values, beliefs, modes of life, and beliefs, and their knowledge, interests, and overall backgrounds. The chief criticism objectivists level at qualitative research is its lack of concern for achieving objectivity. Subjectivists however argue that too close an adherence to the observance of laws aimed at achieving total objectivity may result in the loss of reality and dismissal of the richness of human experience and interpretation. The questions raised by Eisner regarding the importance of objectivity in research are particularly salient to this argument. His contention is that perception and understanding are dependent on a basis of presuppositions that cause us

to be selective about what we see and what we overlook:

'All methods and all forms of representation are partial'. (Eisner 1986 pp. 15).

Realist or Nominalist Views.

Opposing concepts of social reality are based on the realist - nominalist debate. Realists believe that objects have an existence separate from the individual; the world exists independently and it is possible to know it as it really is. The nominalist contends that objects of thought are mere semantics without tangible reality outside the individual. This issue is discussed by Cohen (1986) in relation to educational research when he questions whether social reality is based on a reality that is external or internal to the individual? Is it objective, or the subjective result of individual cognitive creation?

Determinism or Voluntarism Philosophies

Another of Burrell & Morgan's (1979) assumptions, that appears salient to the discussion, focuses on the relationship between man and his environment and encompasses two contrasting images. The first determinism regards human beings as products of external circumstances, whose experiences and behaviour are mechanically governed by the environment. The second - the philosophy of voluntarism - perceives the individual as being in possession of a creative self will, with the ability to control both his/her own actions and the environment. These three sets of assumptions influence the methodological perspective of the final design and the salient approaches are considered as follows.

Quantitative Research Approaches.

Classic experimental designs are popular in first level education as a means of assessing the introduction of educational innovations. However the problem of controlling all but the salient variable has been raised as problematic. This factor is even more relevant when, as in this study, one is dealing with adult education with its multiplicity of variables including learners widely disparate motivations, pluralistic values, and differing knowledge and experiences. Another area of concern in relation to choosing experimental designs is the question of the ethics that arise where one group is selected to have a different, possibly advantageous condition, solely on the basis of random assignment to varying condition or control groups. While this is a particular ethical issue in medical or nursing research where

randomisation might, in extremes, lead to kill or cure, it could also be argued that it is ethically indefensible in education where it might create inequality of opportunity. Such concerns can be effectively addressed by employing a qualitative approach.

Qualitative Approaches

Those who favour a non-positivist, humanistic approach will tend toward qualitative idiographic methods of explaining and understanding the world through subjective phenomenological data. Research conducted by educationists, evaluators, clinical psychologists, sociologists and nurses generally focus on humans and their behaviour (Read 1993). Design decisions salient to the present study centre on temporal or locational aspects such as longitudinal or cross sectional options, field or action studies. One option considered was to observe the students in their course of study.

Observation

Both participant and non-participant forms of observation allow study of people's behaviour in their natural environment illuminating how they conduct their lives, interact, and practice skills and judgement. Participant observation was considered in relation to the present study but finally dismissed because of concern about the ethical implications of :

a) the effect on student learning of close scrutiny of their interactions with teachers and clinical staff;

b) the possible detrimental effect, on patients well being, of an observer being present during nurse patient interactions.

Surveys

Survey techniques are a popular method of research in nurse education and are used by qualitative researchers in descriptive surveys. Data collection is aimed at description of things as they exist, seeking to portray reality *'in words and figures'* Ogier (1982). The forms of survey that were considered in relation to the present study included comparative, field, short and long-term, cross sectional, and cohort studies.

Comparative Studies

Comparing different groups is an effective means of monitoring course outcomes and Treece and Treece (1986) point to the advantage of having a standard against which to measure effectiveness of new procedures. While comparative analysis of the course would have been desirable the unique nature of the pilot course made such comparisons unrealisable. Nevertheless it was decided that certain aspects of student development could effectively be compared with samples of students at similar stages of study enrolled at other Colleges.

Field Survey

This is conducted in the context of the subject's situational reality. The researcher investigates without manipulating the field of study or the participants. It was considered of fundamental importance that the process of evaluation devised in the study ensure the unbiased exploration of the students' views within their situational reality.

Short or Long Term Studies

Major disadvantages of long term or longitudinal educational studies include maintaining subject contact and the resultant large samples required to combat this (Treece and Treece 1986). However they provide the opportunity to monitor change and its effects over time. In relation to the present study access to the Pilot study population was unimpeded since the researcher's role was that of evaluator for the duration of the course. Loss of access was only likely to occur as a result of attrition or withdrawal of co-operation.

Another problem in longitudinal educational studies is that of attributing cause, since some changes will be due to the effect of other factors, for example maturation, and motivation, as well as environmental and experiential elements. The effect of unidentifiable change over time was considered at the design stage of the study, and it was accepted as an unavoidable constraining variable. It was felt that it would be undesirable as well as impractical to seek to maintain constancy in a course of occupational preparation designed to encourage personal growth and development in an individualised self directed learning environment.

Cross Sectional Survey

Cross sectional studies are an alternative to longitudinal studies that share the main advantages but effectively reduce the length of time a study takes. While longitudinal study may take place over considerable time, cross sectional surveys reduce the length of overall time by studying simultaneously several groups at differing stages in the course. This approach could effectively address the temporal limitations imposed on the study and help to reduce the constraints, noted above, regarding causation.

Cohort Studies

Cohort studies are popular in evaluative research because it can be assumed that the group will share similar learning experiences and characteristics. Information is collected from the same population, though different subjects may be used at different times. It would however be important to identify the unique characteristics of the individuals within the cohorts as it cannot be assumed that membership of a group or involvement in shared experience equates with a corporate identity or group cohesion.

It was envisaged that such an approach would also address the success of the programme in creating innovative learning techniques aimed at matching the altered needs of the nursing profession. It would seek to explore issues of concern to the institutional organisation; provide ongoing response to identified needs; and answer the potential questions of the key participants. Finally it would encompass the author's humanistic value orientation enabling exploration of the programme's effect on the self esteem of its learners during their professional preparation, and after qualification.

In view of the diversity of methods adopted in the study it is proposed to describe the varying methods, sampling methods, instrumentation, and strategies as part of the description of each area of the evaluation study as it evolved. Careful consideration of the theoretical perspectives within the context of the study led to the final formulation of a framework for the descriptive research design which is reviewed in the following section.

Section Two

The Research Design

The literature revealed a multiplicity of issues that require to be taken into account in the design of the study. It led to the recognition that the most effective focus of the evaluation would be the extent to which the innovations in the programme of nurse education promoted professional and personal development in the learners. Evaluation of success in achieving the course objectives would be based on the degree to which the course graduates had acquired the self directed learning skills necessary to equip them to cope with future change. Success would also be judged on the effect of the processes and outcomes of the learning experience on the individual student, and, on completion, the extent to which s/he perceived him/herself as possessing the 'ideal' qualities and range of abilities required for competent practice as a professional nurse. The review emphasised the need to devise an approach that would enable judgements to be based on both idiographic and nomethetic research findings. Consideration of the philosophical arguments demonstrated the importance of choosing an approach that could address not only the issues raised in the research question but also personal factors pertaining to the researcher and to the question under study. These include:

a) the nature of the research enquiry;

b) the humanistic beliefs and values of the researcher;

c) the psychological and sociological foundation of her knowledge base;

d) her professional discipline of nursing and wide experience in counselling;

e) her personal preference for interactive investigative approaches.

The nature of these characteristics led to the choice of a descriptive and multi-dimensional design that straddles the quantitative, qualitative paradigms. The central focus was the achievement of a balance between measured, analytical, objective research information and phenomenological representation of the reality and experiences as viewed from the participants' frame of reference. Recognition of the criticisms of the various evaluative approaches has led to the conclusion that the value laden nature of the study demands that findings are exposed to verification and validation by an eclectic triangulated approach.

The literature also indicated that an illuminative design would effectively present the range and combination of 'snapshot images' and dynamic portrayals required to allow the diverse audiences to make informed judgements on the effectiveness of the educational programme in meeting its multifarious aims. The design would draw on a number of methods by exploring a range of dimensions and issues and then combining them together to verify and validate the individual findings. This approach, it was considered, would create an illuminative portrait of the realities from the perspective of the key participants.

An important dimension of the triangulation was the collection and analysis of demographic information from the total population. This would include age, gender, and qualifications on entry. This information was augmented by information concerning each student's learning preference acquired in the first days of entry by means of Rezler's (1972) Learning Preference Inventory. See Appendix D. The student profile was regarded as a means of identifying sub-sections for closer exploration and to establish norms. Comparative analysis with samples of other colleges was included in the chosen design. Other comparisons would centre on the varying academic standards on entry, previous occupations, attrition, assessment achievements, and individual responses to learning experiences.

The literature had demonstrated the importance of encouraging active involvement of key participants if the evaluation was to achieve the aims of reflecting true reality, facilitating growth, aiding decision makers and, not least, achieving significant improvement effects.

A phenomenological survey approach formed another section of the triangle; this was selected to allow exploration and comparison of the realities, values, and judgements of the student participants regarding their formative and summative learning experiences. Findings from such measures would enable identification and monitoring

of changes in attitude and perceptions to be achieved at group and individual level. The continuity of regular systematic exploration was regarded as fundamental to the process of early recognition of change and prompt action. Interview techniques were chosen to elicit description and clarification of views and encourage shared involvement in decision making for course improvement and for individual growth.

The literature had provided support for the rationality of focusing the study on the self as a predictive means of judging the achievement of the course aims. A small comparative study was undertaken using two samples from the Pilot Cohorts and drawing on small samples of students from two other colleges of nursing one of which offered a conventional nurse education and the other - a more progressive college - was used as a control. For the purpose of this arm of the triangle a semantic differential instrument was designed to explore and correlate the students perception of self and concept of nursing. In addition the sample all completed Rezler's LPI and provided demographic information.

Another dimension of the study was an exploration of the students' pre-entry experiences, values, and motivations that had led them to a career in nursing and a questionnaire was designed to enquire into these aspects. (see Appendix I.) Expectations regarding their chosen career were elicited by administering Child's Job Information Index. (See Appendix J.) The final dimension was the focused group and individual interview techniques that were selected as a means of eliciting retrospective views of the course after the course graduates had actually been functioning in the role for which the course had been preparing them. These included individual interviews of two sets of twins with the aim of obtaining descriptive cameos of their perceptions of their learning experiences. Three of the twins were pilot students: the other fortuitously had been educated at the control College used in the comparative study. The population from which it was proposed to draw samples would comprise the total pilot intake over the three years of the study, sampling methods where employed would be opportunistic.

Summary

After consideration of the influential factors related to the study questions, it was decided to adopt a multi - methodological approach that would include quantitative measurement. This was expected to provide evidence of effectiveness of the process and outcomes of the programme in achieving its dual aims of meeting the learning needs of the participants and producing the confident flexible and competent practitioner required to cope with future changes in health care. In tandem, a qualitative component would enquire into the experiences of those undertaking the educational programme for the purpose of

ongoing course improvement and judgement. It would attempt to provide a window through which those outside could view the effect of the educational experiences, knowledge acquisition, and achievements have on the individual in terms of personal and professional development.

Limitations of the Research Study Design

The chief limitation to the design was that since it was an evaluation exercise on a pilot educational scheme, generalisation beyond the programme under study would not be possible. However it was envisaged that this constraint would be compensated by its provision of a comprehensive longitudinal study of the educational innovations of the learning milieu during a period of radical professional and educational change. Another restriction was the decision, made prior to the author's appointment, to limit the evaluation study to the theoretical component of the course, thus largely ignoring the important contribution the clinical experiences and instruction made to the students' learning. Nevertheless it was hoped that the research enterprise would provide an illumination of the learning experiences introduced in the programme as well as fulfilling an important ongoing and summative improvement function to:

a) the College, it's management, teaching and ancillary staff;

b) the clinical management and staff;

c) the people most directly concerned the students and the patient/client groups whom they will care for during their educational experience;

d) the audience to whom the reports on the programme's effects was directed.

Finally it was hoped that the project would enable the development of a model of systematic course evaluation that could be used by other colleges and branches of nursing education.

Section Three

Methodological Conclusions

In summary, the literature review and the considerations of the theoretical perspectives reinforced and justified the original assumption that to focus on nursing students' concepts of self would be a feasible means of evaluating the effectiveness of an occupational preparation programme that seeks to develop, in its graduates, autonomy and professional confidence. The choice of an eclectic illuminative evaluation method encompassing a participative approach was supported and the importance of ensuring that the evaluation report addresses the information needs of a diverse potential audience well demonstrated. The review also highlighted the importance of ensuring that the evaluation contained a formative component so that it would offer an improvement function to the quality of study of those students who participated in the various evaluation measures during their own educational process.

(A conceptual model of the evolved framework is included in Figure 3.1)

Long Term Aims

The literature demonstrated that while it would not be possible to generalise beyond the small and restricted sample under study, the information gained would facilitate and enhance student teacher relationships in the College. It was further envisaged that the findings would reveal trends that would interest the wider nurse educational audiences at both local and national level.

Redefinition of The Study Questions

The literature review led to a revision of the study questions which became:

1) Do the educational innovations enable the programme to meet the demands of the profession for a new creative accountable and autonomous practitioner capable of independent learning and continued professional growth in a climate of perpetual social and professional change?

2) Does the teaching approach and ethos of the college promote the development of self confidence and positive self concept in its students and graduates?

The review also revealed that it would be necessary to explore seven related issues in order to gain answers to the study questions. These seven issues are listed below and redefined as sub-questions:

1) Formative Evaluation of the Educational Programme

Sub-question i) What were the students' ongoing perceptions, interpretations, and recommendations regarding the quality of the course components, the learning modules, experiences, and teaching approaches?

2) Summative Evaluation

Sub-question ii) On completion of the course what were the students' opinions regarding the efficacy of the course as a whole in providing them with the knowledge and skill base necessary for their commencement of accountable professional practice?

3) The Learning Venues

Sub-question iii) How did the completing students compare the value of the learning experiences of the two learning venues college and clinical arena?

4) Levels of Confidence and Hopes for the Future

Sub-question iv) What were the completing students levels of confidence regarding their readiness to function as competent and caring practitioners capable of continued self development?

5) Efficacy of the Programme in Meeting the Needs of Minority Sub-Groups.

Sub-question v) Did the minority sub-Groups within the student population consider the programme had met their specific needs?

6) Perceptions of Self and Professional Worth

Sub-question vi) What effect did the total learning experience have on the individual's self perception and professional concepts?

7) Beliefs about the Self and Professional Perceptions,

Sub question vii) What was the comparison between the concepts of the nursing profession and the self esteem of samples of students drawn from three colleges of nurse education?

8) Post-Qualification Evaluation

Sub-question vii) How did the course graduates evaluate the quality and effectiveness of a programme of professional preparation for staff nurse practice after functioning in the role for a minimum of six months practice?

Feasibility of the Study

The literature revealed the feasibility of the study questions and the choice of methodology appeared to have the potential for supplying the answers, meeting the needs outlined and offering opportunity to make recommendations salient to the interests of potential audiences.

There were no apparent ethical issues and access to all personnel and documentation was given. The study was therefore commenced.

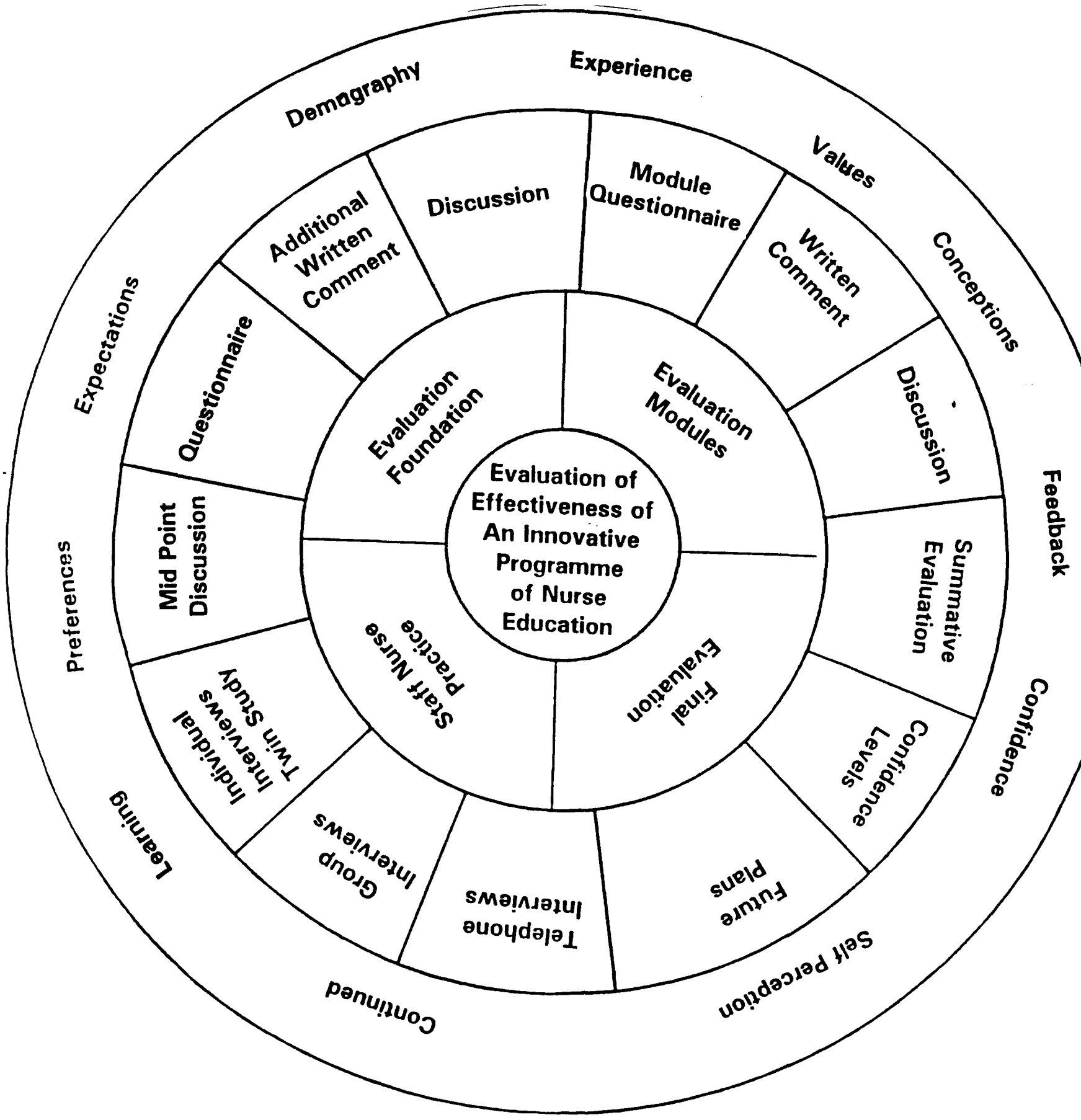


FIGURE 3.1 A CONCEPTUAL MODEL OF THE EVOLVED FRAMEWORK.

CHAPTER FOUR

The Course in Action:

Introduction

This chapter focuses on the process of the educational programme and seeks to explore how effectively the aims of the course were addressed in practice at various stages in its progress.

The chief intention is to provide the reader with a multi-faceted illumination of the reality of the process of occupational preparation from which the novice nurse entrant was expected to emerge transformed into a registered, competent practitioner.

Data is presented on:

a. The character, responses, achievements and values of the student population;

b. The reactions, opinions and responses of the teachers and clinical staff who facilitate and implement the learning process;

c. The effect of changes, created by the initiative, on the educational milieu.

The eclectic approach used a combination of methods aimed at producing a broad representation to provide a means of validation and reduce risks of biased interpretation. This took account of Sarnecky's (1990a) observation that though external validity is of less concern in qualitative approaches, it is enhanced by *'methodological triangulation'*. As the literature on evaluation demonstrated eclecticism was a popular choice of evaluation design among writers including several nursing researchers.

Evaluation of the Learning Experience

The system of responsive evaluation employed in the programme had its roots in Stake's (1976) model but though the aims remained constant the strategies were continually evolving along creative lines (Patton 1980). A primary goal was the creation and maintenance of a constructive dialogue between student and teachers. This would provide the identified 'stake holding' audiences with feedback on student experiences (Stake 1980). It would also have a formative improvement function allowing staff to be responsive to changes or idiosyncrasies in learner needs. The measures were also designed to enhance each participant's self esteem by demonstrating the importance placed on the

needs of the individual and the worth of his/her opinion (Thomas 1980). Encouragement of open lines of communication was regarded as fundamental to such an exercise and this recognition prompted the shift in approach from the Stake Countenance Model toward the adoption of the tenets of a naturalistic evaluation. As a result the system gradually evolved into a modified form of Stake's Responsive Model. The modified strategies sought to answer directly to the key participants, the students and teachers involved in the educational programme. This programme was founded on the acceptance that all these participants would hold a multiplicity of existing values. Attempts to explore such variation in values required equal flexibility and diversity in the means used to identify them. (Parlett and Hamilton 1972, Simons 1984).

All participants were offered equal opportunity to contribute and were invited to draw attention to the issues they regarded as important to their learning, their well-being, the overall educational decision making and the planning process.

The Background to the Pre-Registration Evaluation

The Total Pilot Population.

The pilot study educational programme was offered to all pre-registration students over a period of eight years from the admission of the first intake in March 1986 to the completion of the final student cohort in November 1994. The total population of pilot entrants over that time was 809.

The Students Under Study.

Sampling was opportunistic since, for each facet of the study triangulation, selection of subjects was based on convenience of access to teaching groups, as they reached the appropriate developmental stage.

The educational timetable controlled when groups of students would all be available in one place at the same time. In consequence there was a reliance on the random grouping of entrant cohorts to address possible accusations of bias. It is acknowledged that since entrants are selected on the grounds of defined criteria and subsequent interview, the effects of bias cannot be entirely discounted.

The Entrant Population

The annual maximum of 150 pre-registration student entrants was spread over three intakes, at four monthly intervals, with 45 to 50 admitted in the first week of the months of March, July, and November. The total population comprised 18 cohorts. Following the introduction of the pilot programme in 1986 this was the only programme undertaken by the college RGN entrants until the final intake in November 1991.

Timing and Sampling

Initially the time allocated for the study was limited to three years and, though this was subsequently extended, the original time span influenced the study design. The samples in this section were drawn from the ten cohorts that enrolled in that period.

For the purpose of the study the entrant groups are labelled 1-18 in order of entrance, with the first cohorts named as Group One.

Student Characteristics

Profiles of the characteristics of the ten cohorts on which this part of the study is focused are provided (see Table 4.1 and 4.2). It can be seen there is considerable variation across the groups over the three year period and this should be borne in mind when interpreting findings. Possible explanations for the variability include the effects of the so called 'demographic time bomb' the result of a 35% fall in the birth rate that occurred in Britain two decades earlier (Conroy and Stidson 1988,). The consequent fall in the number of young adults who would reach maturity in the late 80's and beyond prompted strategic recruitment in the occupations and professions that targeted training and further education opportunities on people in the age range 18 to 21 years.

To address the predicted recruitment crisis, pre-emptive changes in the College selection criteria were introduced in the College in the mid-eighties. These measures were largely effective in preventing the short fall, so that recruitment remained relatively constant and fairly trouble free (Hartley 1988). The strategies resulted in more diversity in the student population by augmenting the conventional intake of 18 year old female school leavers with males, and more mature applicants. The enlarged recruitment population embraced those with broader life experiences including, second career entrants and older women who had delayed their careers until completion of their family. It also encouraged recruitment of

those who, while possessing the necessary qualities, did not have the pre-requisite academic entry qualifications. Acceptance of this sub- group was based on success in the access courses or DC tests. This category of less academically qualified entrants were labelled by Remington as 'high risk' of failing in nursing. Table 4.1 reveals that repercussions from the recruitment changes took effect from the third cohort. It shows a tendency for March intakes to be atypical in respect of the number of entrants accepted on the basis of the result of a DC test and in consequence the March intakes also show a trend toward a higher mean age since in general it is older candidates who do not have the educational pre-requisites. (See Table (4.2). The evidence from the two demographic tables suggest that the likely explanation for the seasonal differences is that the July and November groups tend to be made up of 'preferred choice' school leavers, accepted on the basis of relevant degree, 'O' or 'A ' levels. The tables also reveal how the majority of entrants were recruited locally. There is no evidence of consistency or seasonal pattern in male recruitment, this leads one to question whether this was an artefact of selection and interviewing policies and supports the doubts about the objectivity of selection. The interviewers were drawn from a large pool of senior clinical and teaching staff of varying levels of experience and the lack of consistency lends support to concern, expressed earlier, that the process was exposed to risk of subjectivity and personal bias.

The Programme of Study

After completing a comprehensive foundation course, the students embarked on a modular programme of study. This was timetabled in such a way that, following joint study of the first two modules, the cohorts were halved. (See figure 1.1). One half followed the programme consecutively, while for the other half, study on Module 2b patient education module was postponed until the penultimate module when it was re-entitled 9a.

This allowed the two groups to progress on a staggered programme preventing the descent of over 40 students, on the same specialist areas at one time. The entire Cohort was reunited in the final module of study. Recourse to a whole cohort was therefore limited to the foundation course, or during the periods of college attendance for preparation and consolidation of Modules 1 and 2, and during the final module. At these times they

remained either as one group or in small tutorial groups depending on the mode of instruction. It was therefore necessary to take account of each cohort's timetable when planning the evaluation programme.

Evaluation Format

The procedures and instruments used to elicit the students' evaluation of the quality of the educational programme were regarded by the teachers and management as of fundamental importance in ensuring the efficacy of the programme initiatives, modifications, and implementation. In addition the programme was intended as an experimental exploration of proposed educational innovations that were envisaged for future nurse education. In order to fulfil these two major demands it was recognised that it was essential to devise a strategy that would provide systematic and objective evidence of the successes and failures of the innovative strategies adopted.

The evaluation system was required to produce a series of ongoing reports, to be supplemented by a final and comprehensive report that addressed the multiple needs of a readership far beyond the conventional 'in house' audience, for whom conventional evaluations are usually targeted. There was also an implicit commitment to demonstrate consistency with the college philosophy (see Appendix A) of offering the learners autonomy in learning, equality of recognition and personal responsibility for their growth and development (Freire 1970, Rogers 1967 1983). The development and modification of instrumentation and procedure for evaluating the programme is described in the following sections.

Table 4.1 Distribution of Age, Gender and Recruitment Area of Group Entrants

Month of entry	Grou	Total entry	Gender		Age		Recruitment		
			Male	Female	Mean	Range	Local	Oth/UK	Abrd.
March	1	24	5	19	22	18: 29	15	9	
July	2	49	2	47	19	18:22	36	13	
November	3	48	3	45	19	18:32	31	16	1
March	4	46	9	37	20	19:23	43	3	
July	5	49	3	46	19	18:24	35	14	
November	6	48	7	41	20	17:36	36	12	
March	7	45	3	42	22	18:44	34	10	1
July	8	48	4	44	21	18:37	42	6	
November	9	48	3	45	19	17:33	34	12	2
March	10	48	7	41	23	18:37	35	11	2
Total	-	**453**	**46**	**407**	**Mean**	**range**	**341**	**106**	**6**
			10%	**90%**	**24yrs**	**17-44**	**75%**	**23%**	**1%**

Table 4.2 Cohorts' Educational Qualifications at Entry

Gp	Month Entry	Total Entrant	DC entrant	Minimum five 'O' lev		Minimum 'A' level		Deg.	Knowledge of subject O, A or degree level		
				no	mean	no	mean		Biol	Socio	Psych
1	March	24	0	6	8.	12	2	4	13	4	3
2	July	40	0	35	8.4	6	1.67	1	20	8	6
3	Nov	48	5	27	7.19	15	1.53	5	34	6	6
4	March	46	5	10	7.1	17	2.12	4	34	10	4
5	July	49	2	37	11.0	6	1.83	2	32	11	7
6	Nov	48	3	17	7.29	23	1.74	1	33	8	2
7	March	45	11	22	6.59	11	1.82	2	25	4	3
8	July	48	6	34	6.79	7	1.29	1	38	9	6
9	Nov	48	4	35	6.8	9	2.	0	33	8	6
10	March	48	12	24	5.7	10	1.7	2	23	10	4
			Percentage of students with DC. test.'O' or 'A' level or Degree as highest entry qualification.						Percentage of students with knowledge of specialist topics		
	Total	453	9.5%	O	54%	A	26%	D 4	B 62	S 17%.	P 10%

Section Two

The Initial Instrumentation of Evaluation

In this section the initial instrumentation and evaluation strategies used in the pilot scheme are described. A system of evaluation was already in operation prior to the writer's appointment, and its prior development and introduction is described by Copcutt (1984, 1993). The decision to retain the instrumentation and basic evaluation model was made in order to maintain consistency and facilitate comparisons.

(A copy of the adapted Stake's Countenance Model 1972 that was used in the initial programme submission to the ENB is included in Appendix B 1)

Within the evaluation structure there was considerable freedom to develop and modify the methods used in the exploration of individual and group values and to initiate a proactive approach to changing needs in relation to the educational programme. This allowed the adopted practice of formative, responsive and continuous modification in response to the participants' judgements to be echoed in the evolving evaluation methodology.

Stages of Evaluation

The course evaluation programme was divided into three separate phases based on the main stages of student development. Differing instruments were employed in each phase but the fundamental principle of eliciting the responses of the participants for the twin purposes of judgement and improvement, through problem solving (Cronbach 1963, Stufflebeam, 1971), remained paramount. The three defined evaluative stages were:

1) **The Foundation Course:** which combined formative and summative approaches;

2) **The Modules 1-9a:** largely confined to a formative, reactive approach;

3) **The Final Module:** which employed a summative strategy.

Despite the differences in emphasis the instrumentation for each of the three areas maintained the basic principles of seeking individual and group opinion, and encouraging constructive criticism in a shared evaluative undertaking.

Format of the Instruments

The instruments for evaluating the theoretical input of the course drew on both quantitative and qualitative information and the basic instrument was the Evaluation Questionnaire A (see Appendix Ea)

Evaluation Questionnaire A.

Questionnaire A was devised to measure individual and group responses to the learning experiences by obtaining information on the respondents' perception and values of the foundation course and subsequent learning modules.

It was completed by all students who attended the last day of each of the learning modules 1-9a, and the foundation course for the early Cohorts One, Two, Three, and Four.

The items in the questionnaire were designed to explore a wide range of issues related to the content, teaching approaches, and integration of theory and practice. In addition views on the organisation's commitment to the student centred philosophy and the learners' response to the strategies were also an area of specific focus.

Respondents were required to indicate their views on the effectiveness of the content in enabling both personal and modular aims to be achieved. Other issues explored included the effectiveness of the preparation for the clinical experiences. The quality of opportunities for consolidation, sharing, and reflection of the learning achieved, were a topic of exploration. The students' perceptions of the educational milieu and their response to the overall teaching and interactional approach were a further subject of enquiry.

Suggestions for resolving identified problems and recommendations for future programmes were actively encouraged.

A final open section provided opportunity for additional comment or clarification of response and students were encouraged to identify issues requiring further debate.

The Design of Questionnaire A.

The initial instrument was designed in a modified Likert style with a five point scale. This format was modified following analysis of Cohorts One and Two's responses to the foundation evaluation. Collation of these had demonstrated a marked tendency for students to deliver a central - neutral response. As a result the mid point was omitted and a 4 point range from 'Strongly Agree' to 'Strongly Disagree' was used in all three forms of course evaluation questionnaires. This afforded the added advantage of allowing an overall bipolar percentage of positive or negative responses and a mean score to be calculated for each questionnaire item.

Analysis

Collation and analysis took place immediately after the completion of questionnaires and the subsequent discussion was carried out as soon as was practicable that day. The same means of analysis was applied to each of the three evaluative instruments. The responses were converted into a numerical score from 4-1 with 4 being the most favourable. Conversion of the responses to numerics provided opportunity to calculate a mean score and percentage of positive response for each item and facilitated comparison across items, learning modules, cohorts, or sub-groups.

The responses to the open questions were analysed by content analysis, and the identified categories formed the opening agenda for the evaluation group discussion. This discussion provided opportunity for the sharing of views, and for consideration of individual recommendations for addressing issues of concern. It also enabled the writer to seek any necessary clarification and ensure veracity of the subsequent report by means of the process of reiterative feedback. The subsequent module evaluation report included tables with the percentage of positive scores and the mean score included. It presented the questionnaire findings and a summary of the additional comments and discussion. It was distributed to all senior managers, course planners, teaching teams, and student and clinical representatives.

Assessment of Internal Consistency of Module Evaluation Questionnaires.

Internal consistency of the instrument was statistically measured by means of Cronbach's Alpha Coefficient, (Cronbach, 1951). Samples were drawn from different groups and from each module. Cronbachs alpha coefficients were calculated for each year and each module in order to assess the internal consistency of the module evaluation questionnaire. the questionnaire was made up of either 30 or 34 items and low Cronbach alpha coefficients indicate that the items have little in common. The results were as follows:

Module	Year	N	No.items	Cronbach Alpha Coefficient
1	1989	27	30	0.76
2	1989	24	30	0.85
3	1987	11	30	0.70
	1989	18	30	0.83
4	1987	33	30	0.88
	1989	28	34	0.94
5	1987	33	30	0.96
	1989	28	34	0.94
6	1987	23	34	0.89
	1989	14	34	0.96
7	1987	34	34	0.93
	1989	30	34	0.93
8	1987	15	34	0.86
	1989	31	34	0.90

The findings demonstrated that all the coefficients were high, indicating a good internal consistency amongst items.

Foundation Questionnaire B.

At the end of the foundation course Cohorts One to Four completed two instruments Questionnaire A. described above and Questionnaire B (see Appendix Eb). This instrument focused on response to the key specialist topics on which the foundation was based. The key topics were an integral part of the whole educational programme course and were expanded on throughout the whole course. They comprised:

1) Psychology;

2) Sociology;

3) Professional Studies;

4) Health Studies.

A dual teaching approach was applied to these topics throughout the course. Key foundation lectures were delivered by members of the academic staff from the neighbouring university. These large formal lectures were then followed up by small group seminars conducted by the nurse teachers who applied the concepts specifically to nursing.

The teachers conducting the seminars were drawn from specialised, topic teaching teams their membership having been, initially rather loosely, based on their skills, aptitudes, and interests, (Copcutt 1993).

Additional Topics for Evaluation

1) **Research Theory and Application** was an underlying theme of all the topics studied and the teaching was shared throughout by academic and college teaching staff. In addition other nurse teachers were responsible for the teaching of two other specific topics these were entitled:

2) **Physiology**

3) **Nursing Theory and Practice**

Throughout the whole course there was however considerable additional input from visiting lecturers many of whom were clinical nurse specialists or experienced members of the clinical and community nursing staff.

The Format of Questionnaire B

The evaluation tool B (see Appendix Eb) was designed expressly for the foundation course for the purpose of enabling the students to indicate their separate responses to both the key lecture and the applied sessions. The respondents scored the four topics once for the lectures and again for the applied sessions. They were asked to judge in relation to perceived strengths and weaknesses on a semantic differential scale in which the opposing items were:

Relevant	__	__	__	__	Irrelevant;
Of interest	__	__	__	__	Boring;
Thought provoking	__	__	__	__	Uninspiring;
Easily understood	__	__	__	__	Confusing

There was an additional open question which enquired into the perceived strengths and weaknesses of both approaches.

There was opportunity for students to add further comments from their own frame of reference. They were also invited to make recommendations for future courses or express views or suggestions on any aspect of the learning experiences and day to day running of the course that they wished to be debated in the evaluative discussion.

The evaluation tool B was less structured than Questionnaire A with the purpose of allowing the respondents more freedom to choose their own criteria for judgement. This was intended to provide the college staff with the opportunity to gain added insight into any particular attributes of the newly recruited cohort that might demand specific attention or programme modifications.

Mode of Analysis

The results provided a measure of positive or negative response for each topic and for both teaching approaches. As with Questionnaire A the responses could be converted into a numerical score from 4-1. Again analysis of the responses to the open questions were content analysed and categorised to initiate debate at the evaluation discussion.

Early Modification to the Strategy

Following the completion of the two instruments in tandem for the first pilot groups it became apparent that the quality of the combined closed and open questions elicited from Questionnaire B provided the necessary information relevant to the students' stage of development and offered the added benefit of allowing the students to make these early judgements within their own terms of reference. It was therefore decided to issue only questionnaire B to students on completion of the foundation course for all students entering after Cohort Four.

Discussion and Feedback

Feedback, debate, and confirmation of Questionnaires A and B was undertaken at the same session for the first four cohorts and subsequently Questionnaire B formed the total agenda for the cohorts who followed after Questionnaire A was omitted from the foundation course. Timing and format of the discussion remained as described above. The questionnaire findings and summary of additional comments were reported with an account of the discussion and the report of the findings distributed to senior managers, course planners and teaching teams, and student and clinical representatives.

The Final Course Evaluation Questionnaire

The design of the final Evaluation Questionnaire C (see Appendix Ec) sought to discover how the students evaluated the course, in total. It was completed the day after the students had undertaken their final examination.

While it offered no benefit to the education of the respondents it gave them an opportunity to make a significant contribution to the educational programme of the students who would follow them. Considerable value was placed on their holistic judgement of the course since they were then in a position to perceive how the various elements linked in total, and their suggestions for future courses were of particular salience to future programme planning.

The tool sought to examine the students' views on how effectively the theoretical and practical content had prepared them for commencing practice as staff nurses. It enquired into opinions on teaching methods, assessment procedures, and pastoral care and invited overall views on whether the course had been successful in meeting their individual needs and expectations.

As before the format included a four point scale with the additional open question exploring the students' views of how the course might be adapted to match their needs. In the initial format a concluding question sought to measure satisfaction with the overall educational milieu by asking the respondents to indicate whether they would recommend the college to other prospective nurses.

This was later expanded by additional questions to embrace measurement of individual self confidence regarding the prospect of undertaking staff nurse duties. It also sought to measure the value of the contribution of the two main teaching components those taught in the college; and those gained in the clinical arena. Finally the respondents' views regarding future employment were explored in greater depth.

Again, analysis followed the same pattern, content analysis of the findings was undertaken and the findings debated in the final evaluative discussion. The results were presented as tables, with the percentage of positive scores, and the mean score, recorded. The report drew on the additional comments and summary of the discussion.

The next sections focus on the evaluation in process and describe the modifications that were gradually introduced to the evaluation method.

Section Three

Evaluation of the Foundation Course

The comprehensive foundation course was designed to provide the fundamental grounding in nursing theory and practice and the physiological knowledge base required for the initial clinical experiences. It created a footing on which the programme built progressively through the modular system.

Introduction of the Evaluation Procedure

The introduction to the evaluation procedure had been deferred until mid-point to give the entrants time to become familiar with the College conventions and protocols; adapt to the teaching regimes and settle into the routine of studying nursing. It was assumed they would then be in a position to make preliminary judgements and identify unmet needs. There would still be time for them to benefit from active response to their evaluations and recommendations during the remainder their foundation course. The intention was to demonstrate, at an early stage, that the philosophy of respecting student autonomy was extended to evaluation.

An informal Introduction to Evaluation

Small group informal discussions were conducted by the writer with no other staff present. A brief summary of the evaluation strategy was propounded and the group were assured that a developed form of this facility for confidential communication of a consensus of group views would continue throughout the course of their study. Details regarding the research study were given and it was emphasised that the writer was an educational researcher and not a member of the teaching staff. Guarantee was given that the writer's duties would never include marking assignments, writing references, or making any judgement on their performance or personal or group characteristics. Assurance was given of the writer's overwhelming commitment to ensuring they received quality in their nurse education programme. It was emphasised that all opinion was equally valued and that co-operation in evaluation would result in student empowerment since their views and suggestions would influence course planning actions and modifications. It was pointed out that continued use of this facility would guarantee that they would not simply be passive

receivers but active participants in the learning process with the facility for involvement in the adaptation or modification of the course activities. It would provide opportunity for identification of their learning needs to the benefit of themselves, their teachers, and the students who would follow them. It was emphasised that while constructive criticism was welcome, praise for valued aspects would be effective in ensuring the continuation of favourable elements in their learning environment. Assurance was given that confidences would be respected in the delivery of an unbiased account of evaluative views.

Action In Response to Student Opinion

It was explained that, though it was not feasible to promise all recommendations for change or adaptation would be acted upon, their corporate views would be circulated to all concerned in the planning or implementation of the learning programme.

Dissemination of Findings

The process of collating the findings of the evaluative questionnaire was explained, and the students were told how a summary of additional comments and an account of an evaluative discussion were used in a triangulation of investigations at the conclusion of every module of learning. They were given details of the circulation of the evaluation report that summed up their collective views, and told that the distribution list included the educational management, teaching teams, and student and clinical representatives.

They learned that all the students enrolled in the college shared equal opportunity for involvement in the overall educational decision making and planning process. This proffered level of participation is endorsed by the work of Ziv et al (1990) who discovered that student nurses commence their education with the expectation that they will be provided with opportunity to express their views and share with their teachers in the programme planning.

Confidentiality

A dilemma arose out of the conflicting needs of providing the students with the degree of confidentiality that would give them the freedom to evaluate without fear of censure and of identifying students for future comparisons of individual or group views for study purposes.

Identification for Study Purposes

This was resolved by asking members of each cohort to agree to the issue of an individual research code number for use whenever they were required to evaluate throughout the course. An assurance was given that the codes would be accessible only to the writer and used for research purposes only. While the application of the code number was entirely voluntary, the students readily complied as they recognised the contribution they could make to their own learning and the information needs of the wider audience. The codes were assigned by random number to each member of the cohorts and recorded on lists that were circulated to the appropriate groups whenever confidential identification was required.

The mid- point evaluative discussion was deliberately kept as an informal and unrecorded interaction between the students and the writer. It was regarded as the fundamental key to gaining the rapport and mutuality of respect between the writer and the students that was regarded as essential to the achievement of the broad aims of the educational programme and the study. This relationship was to form the foundation for the atmosphere of trust and student confidence in the evaluation system.

It was therefore regarded as essential that following the session, it could be clearly demonstrated that the opinions and comments had been conveyed to, and considered by, course planners and implementers. It was equally important to ensure that subsequent feedback by course managers, included reference to actions and decisions generated by the evaluative discussion.

The Mid-point Evaluation of the Foundation Course

As described, the primary purpose of the introductory session was to acquaint students with the evaluation process. The emphasis was on promoting a relationship of trust between students and the writer and demonstrating the latter's commitment to student autonomy.

The Procedure

To promote open discussion each cohort was divided into small groups and the discussions were introduced by the writer posing the question:

> *Now that you have had time to adjust would you care to discuss how you feel the course is progressing?*

The almost invariable response was of appreciation at finding someone, slightly distanced from the teaching staff who would listen to their concerns, a frequent rejoinder to the enquiry: being: *'Where were you until now?'* The opportunity to pour out their feelings in an unbiased ear was often referred to in terms of an opportunity for reflection and reassurance in an intense and anxious period of learning that many claimed to find totally overwhelming.

Despite the preliminary exhortation to award due praise, this initial discourse was invariably negative and largely confined to the airing of grievances or anxieties.

Family Demands

The students voiced doubts and fears that can be recognised as commonly arising on commencement of a long term educational commitment. A frequent complaint from those with home and family ties concerned the level of demand on their time as they struggled to adjust the balance of loyalties resulting from embarking on full time study while still maintaining previous role responsibilities. This reflects the findings of Bradby (1989) in her study of the rites of passage of neophyte student nurses.

Teaching Approaches

Considerable self doubt was voiced concerning ability to pass the end of foundation examinations. Fear of imminent failure and subsequent dismissal generated widespread criticism of the teaching methods particularly experiential approaches. The students had expected to be given all the necessary information and resented any call upon them to seek facts for themselves.

This demand for pedagogical approaches in the early stage of a new course of study is consistent with the recognition made by Knowles (1980) that in the early stages of a new

course of learning uncertainty causes self directed methods to create anxiety. There were echoes of Harvey and Vaughan's (1990) finding that student nurses dislike experiential learning in the frequent expressions of bitter resentment at methods which were widely interpreted as *'lazy'* teachers opting out. It was also held that teachers discounted the *'tremendous commitment'* made by students on entering the college and were dismissive of the implications for those who failed to pass the examinations and were forced to give up their chosen career. A frequent complaint was that dismissing worries by saying - don't worry it will be alight - did nothing to reduce anxiety.

The commonest recommendation was that more time be devoted to didactic teaching of physiology. This tendency for student nurses to be preoccupied with physiology in preference to other topics of equal importance is documented by Sutcliffe (1993).

Reassurance was repeatedly sought regarding the depth of learning demanded particularly in physiology. Despite 63% holding a qualification in human biology or physiology based subjects (see Table 4.2) most found it difficult to apply previous knowledge to the nursing oriented learning they were now required to achieve in a relatively short time. Calls for a reduction in pace were consistent across cohorts and despite various changes the concerns regarding physiology input were never fully addressed.

Other concerns were usually the result of misunderstandings or general enquiries of a 'domestic' nature concerned with the 'day to day' running of the course.

It must be emphasised that the teaching staff made considerable efforts to empathise with the new entrants, and gave them ample opportunity to seek support or address areas of concern, but, when this was pointed out the common response was that the students felt inhibited by the conventions of teacher student relationships which preclude negative comment on the quality of the content or teaching approach.

Feedback

The discussions offered an early opportunity for students to contribute to the process of matching learning opportunities to needs. Their views were reported to the course manager who gave feedback on proposed actions or compromises. For example complaints of communication failure between staff and students regarding general expectations of them

and inadequate notification of timetable or venue changes was immediately remedied by the course manager introducing a short briefing session at the start of each week for the remainder of the course. Such demonstrations of recognition were highly valued by the Cohorts and set the scene for the more structured evaluation that would take place at the concluding sessions of each cohort's foundation course. 'Domestic' issues could usually be speedily responded to but such alacrity was not always feasible and it was re-emphasised that action could not be taken on every cohort suggestion.

Feasibility of Response to Recommendations

Cohorts' views were often completely at variance with each other and rapid response would have left all involved in a constant state of flux. Where changes to the teaching programme or content were feasible the usual practice was to consider the views of at least one other cohort before implementing change.

Some issues raised could not be changed and despite attempts at compromise these remained contentious. A request to make the topics more meaningful by linking the eclectic academic themes was one instance. Taking the concept of pain, as an example, each of the key topic areas, it was suggested, could focus on relevant aspects of pain - the psychology, physiology, sociology, and nursing care of pain etc. Such recommendations, though attractive in concept, would have required total restructuring of the whole curriculum and course strategy. Other suggestions could often be attributed to the students' developmental stage when lack of insight into the wider context of both nursing and the course led to their failure to perceive the wisdom of some proffered learning. A common example was the demand at mid and end of foundation evaluation for a reduction in *'irrelevant'* sociology input with an increase in the much more *'important'* physiological aspects of disease. Nevertheless the evidence of attention to student views had a cumulative effect on the value students could be seen to place on evaluation. A recurring remark being:

> *'It's good to be asked - it makes you feel less of a number and more of a person with something to give.'*

Summary

The contrived informality of the first evaluation precluded a formal report, and the opinions were simply conveyed by the writer to the course manager in a verbal form.

The above account is therefore a generalised summary of the issues that were repeatedly raised in the informal sessions and does not focus on the views of any of the specific cohorts. Anxieties regarding study time, examination demands, and physiology teaching approaches were consistent and unchanged over time despite frequent modifications in response to student views. For example, in the initial stages of the course, students were streamed for physiology according to the results of a pre-test. Early cohorts rejected streaming as ineffective and in response after Cohort Four, a generic approach was applied to physiology tuition supplemented by optional remedial tutorials. Nevertheless physiology concerns continued as a recurring theme, and later groups called for streaming to be reintroduced though this was never achieved since reductions in teaching staff numbers meant it was not feasible..

Evaluation on Completion of the Foundation Course

At this point it is necessary to provide an anecdotal account of the second cohort's evaluation discussion of their foundation course experiences.

Evaluation of the Cohort Two Foundation Course:

Observation of this event was the writer's first evaluative encounter following appointment. The experience acted as a catalyst for the subsequent developments in the overall development of the evaluation strategy. The discussion was conducted as a forum in which all 49 students engaged. Each teaching team was called on in turn, to address issues and concerns raised by the Cohort concerning their contribution to the foundation programme. The session was led by a course manager, and recorded in hand written note form, by the writer.

As was inevitable in a new and evolving course of instruction, 'teething troubles' had arisen and many that had impinged on the student's learning experiences had remained either unexpressed or unresolved during the eleven weeks of the course.

Some students seized the opportunity to air their repressed concerns to a wider audience. Consequently each team met with an emotive barrage of grievances voiced by a small but very vocal group of students who appeared to have the tacit support of the remainder.

The effect was overwhelmingly negative and the teachers quite naturally became defensive. The end result was that nothing positive was gained from the exercise for either party. The teachers were left feeling humiliated and frustrated that the positive aspects of the new innovations were so summarily dismissed by the students. The students complained that no-one was prepared to listen or try to understand their grievances.

Early Modifications To The Evaluation Strategy

Initial efforts to prevent a repetition of such a confrontation set in motion the development of techniques of evaluation in which student and teacher were encouraged to share in the evaluation enterprise. This resulted in the formation of closer relationships, effectively moving each party toward greater tolerance and recognition of the other's point of view. It led to evaluation slowly losing its negativity and coming to be regarded as quality assurance measures in education. This development reflects the ethos of an evaluation approach that the writer terms 'equality evaluation'.

The evidence for the above claims will be unfolded in the succeeding sections of this chapter, and include discussion and comparisons of module evaluation findings within and across cohorts and subgroups.

The First Evaluative Innovations

Following consultation with the teachers, a more constructive evaluation strategy was devised. The main purpose was to avoid risk of further emotive evaluative encounters; so a decision was made to exclude all teaching staff from evaluation discussions.

In addition, in a measure designed to avoid empowering vocal minorities to speak for the silent majority, the emphasis in the evaluative report was shifted toward individual viewpoints. This was achieved by including salient verbatim comments made on the questionnaires and this was accompanied by a measured account of the degree of support for such views. The subsequent group discussion sought to clarify issues raised and allow the suggestions to be debated.

A randomly chosen summarised example demonstrating the effect of the changes is provided in the copy of the Module Evaluation Report from Cohort Seven at the conclusion of this section.

Evaluation of the Foundation Course: The New Procedure

The procedure described was adopted following the modifications begun in November 1986. The questionnaire was distributed with the confidential code numbers. A reminder was issued outlining the objectives and the group was asked to be constructive in their judgements and make suggestions where appropriate. Completion took place in the presence of the writer and timetabled when all students were likely to be present ensuring a response rate of 100%. The questionnaire data was collated and an agenda devised to air the views and suggestions in small group discussions.

Evaluation Discussion

Discussions took place later on the day of completion. Group size was limited to a maximum of 25. All student members were required to be present and they were reminded that attendance was in their own interest. Recording was carried out by the writer in note form. The altered strategy meant that other members of staff were not present at the sessions. The students were encouraged to perceive the evaluations not as a *stick to beat the teacher* but an opportunity to make positive contribution to their own learning experiences, to identify strengths or weaknesses in the content and presentation, and to make constructive suggestions as acknowledged 'experts at the interface' of the learning experiences.

Despite initial scepticism typified by statements such as:

'I am willing to speak out but I don't expect anything to be done'

- the new practice was usually welcomed by the students particularly as they saw increasing evidence that their views were being reported and acted upon. Table 4.3 provides a comparison of the group responses of three cohorts and records general comments on the student responses to the changes.

The Table demonstrates that the applied nurse teaching sessions were more popular with the students and that the key lectures of Sociology and Professional Study were particularly

rejected. The additional comments referred to the boredom, excessive length, and apparent irrelevance of topics such as sociology.

To demonstrate the distribution of the negative attitudes the evaluation scores of Cohort 7. are presented in Table 4.4 and accompanied by a record of the most frequent responses to the open questions regarding the best and worst aspects. This group was chosen randomly from relevant cohorts joining the course after the modified methods had been well established.

Table 4.3 INPUT ON SPECIALIST TOPICS.
Calculated Positive Scores

	Coh. Five (n=43) %Pos	**Coh. Six** (n=43) %Pos	**Coh. Seven** (n=40) %Pos
Sociology Lectures	65	58	49
Applied Sessions	84	85	79
Health Study Lectures	96	85	83
Applied Health Study	97	86	97
Prof. Study Lectures	34	37	38
Applied Prof. Studies	77	67	41
Psychology Lectures	100	62	34
Applied Psychology	92	94	72
Physiology	67	77	83

Conclusion

The students' views after eleven weeks preparation reflect the uncertainty that they were still experiencing regarding their ability to cope with the demands of their new career. However their concerns require to be taken in the context of the students' early stage of progress in their rite of passage into nursing (Bradby 1989)

It is reasonable to assume that some of their self doubts and anxieties resulted from their imminent requirement to perform as useful members of the clinical workforce. It is important to consider the effects of the probable conflicts of values they would be experiencing as they became aware that would finally have to confront the discrepancies between their lay expectations of nursing and the reality awaiting them (Davis 1975). It is possible that many of the complaints regarding adequacy of preparation, inappropriate teaching approaches, and the general regime, were defence mechanisms referred earlier concerning the perception of self (Secord and Backman 1974). For example, there is the possibility that the students might have been making preparatory rationalisations that would allow transfer of blame to the organisation if they were subsequently forced to withdraw from the course. Alternatively they might have been influenced by anxiety regarding their ability to cope if confronted with the fearsome experiences depicted by popular fiction and hearsay. Other ego defence mechanisms that possibly affected reactions include selective perception, or distortion, and denial. Equally possible was a devaluation of the teachers' opinions since, as Gates (1974) found, there is a tendency to protect the self image by deprecating those who make judgements incongruent with the individual's self perception. The next section describes further modifications to the evaluation strategy as a shared enterprise.

Copy of Evaluation Report Annual Report 1989

General Comment

It has been noted that owing to initial inexperience, the students inevitably commence their training with limited concepts of nursing and this affects their judgement of course content. However despite their lack of understanding of the realities of nursing they tend to use, as their criteria, the degree to which they perceive a topic as relevant to nursing. It can be understood that given the lay stereotype of nursing that they appear to possess it would be relatively easy to recognise the relevance of Physiology, Psychology and Health Studies but the relationship of Sociology or Professional Studies to nursing would be less obvious. This is reflected in the students' evaluations, a summarised account of which follows:

Psychology

A generally highly valued topic frequently described as interesting and understandable.

Negative criticism focuses on the timing and spread of lectures rather than the content;

Applied Psychology is also valued by the majority, who refer to the informal nature of the sessions which facilitate rapport between peers and with teaching staff. Negative comment reflects the discomfort, some experience, when required to undertake exercises that threaten defence mechanisms; **

Health Studies lectures are also valued and described as useful information. Relevance to nursing is frequently recognised and the students enjoy the variety of speakers and topics. Opportunity for discussion is welcomed.

Negative comments include criticism of complex language and confusing figures and emphasis on the negative effects of behavioural practices such as smoking or overeating.

**Writers note: This is understandable when one considers that exercises designed to reveal the true self, demand a courage and maturity that may not have developed in students who are still largely in their teens or early twenties. (see Table 4.1) It is encouraging to note that since the Fifth Cohort evaluations, comments about the threatening nature of self revelation have diminished.

Applied Sessions These are generally welcomed as an opportunity to participate and the project is generally regarded as a means of acquiring knowledge for oneself.

Negative comment is generally concerned with what is regarded as the excessive number and length of sessions;

Sociology lectures The relevance of Sociology largely escapes the students, often resulting in frustration and the frequently reiterated complaint that the lecturers appear to assume the students possess a pre-existing knowledge of the subject - its definition and concepts.

Applied Sociology This is generally more favourably evaluated; the opportunity to gain understanding of social and cultural effects is welcomed. Practical exercises and games are regarded, by most students, as an enjoyable way to learn. Negative comment is chiefly levelled at timing. A suggestion was agreed that applied sessions should precede the lectures, to enable basic concepts to be learned in preparation.

Professional Studies: The lectures, were appreciated because the topic encouraged debate on issues previously not considered. Less favourable comment centred on the tedium of long teaching sessions and teaching style. Some questioned the value of a topic, that is perceived as lacking in importance to nursing.

Applied Professional Studies Though many students find the topic difficult to apply, relevance is seen to become clearer over time again there was concern regarding boredom in long sessions.

Physiology - Recognition of a need for a more specialised and structured input was made as a result of student evaluations from Cohorts one, two, and three Subsequent courses have therefore included a specialist physiology component, the topic is taught solely by a team made of school staff. It has been well received and welcomed as relevant and important, favourable comments focus on teaching standards and style. The students perceive this component to be the most crucial part of their preparation, and negative comments are largely concerned with their view that it does not appear to be sufficiently weighted as such in the timetable. The group suggested that input be increased to provide daily tuition in the topic.

Distribution of positive ranks of Cohort 7 (n=40)

Sociology Lectures	**4**	**3**	**2**	**1**	
Relevant	5	17	10	8	Irrelevant;
Of interest	12	3	14	11	Boring
Thought provoking	4	15	13	8	Uninspiring
Easily understood	4	19	11	6	Confusing

Best Aspects

Provision of a wide perspective, particular when related to nursing (8)

Worst aspects

Excessive length, depth and complexity, unenthusiastic teaching approach (33)

Applied Sociology	**4**	**3**	**2**	**1**	
Relevant	20	15	4	1	Irrelevant;
Of interest	13	19	5	3	Boring
Thought provoking	7	20	10	3	Uninspiring
Easily understood	19	14	7	-	Confusing

Best aspects

Clear relevant and participative teaching (17) *'learning what we came to learn'*

Worst aspects

Length complexity and repetition (9)

Health Studies Lectures		**4**	**3**	**2**	**1**
Relevant	27	10	1	1	Irrelevant;
Of interest	23	12	5	-	Boring
Thought provoking	17	16	6	-	Uninspiring
Easily understood	24	5	9	-	Confusing

Best aspects

Informal and participative teaching approach (8)

Worst aspects

Length, repetition and complexity in too little time (8)

Health Studies Applied	**4**	**3**	**2**	**1**	
Relevant	36	3	1	-	Irrelevant;
Of interest	36	4	-	-	Boring
Thought provoking	29	8	3	-	Uninspiring
Easily understood	35	5	-	-	Confusing

Best aspects

Good delivery useful information with informal approach (11)

Worst aspects insufficient time and teaching input (8)

Professional Studies	**4**	**3**	**2**	**1**	
Relevant	3	8	18	10	Irrelevant;
Of interest	2	9	15	13	Boring
Thought provoking	10	10	4	15	Uninspiring
Easily understood	6	13	13	8	Confusing

Best aspects

Comprehensible informative presentation (4)

Worst aspects

Excessive length and complexity of sessions (15)

Profess. Studies Applied	**4**	**3**	**2**	**1**	
Relevant	9	11	8	9	Irrelevant;
Of interest	6	9	11	11	Boring
Thought provoking	4	8	16	9	Uninspiring
Easily understood	8	11	13	5	Confusing

Best aspects

Clear concise teaching approach (6)

Worst aspects

Intensity (3)

Psychology	**4**	**3**	**2**	**1**	
Relevant	10	8	18	2	Irrelevant;
Of interest	7	2	9	21	Boring
Thought provoking	4	8	15	11	Uninspiring
Easily understood	7	6	13	12	Confusing

Best aspects

Increased understanding of own and others behaviour (3)

Worst aspects

Depth, over elaboration and complexity of language without clarification .(8)

Psychology Applied	**4**	**3**	**2**	**1**	
Relevant	16	16	6	1	Irrelevant;
Of interest	11	17	7	4	Boring
Thought provoking	11	17	7	4	Uninspiring
Easily understood	15	15	5	4	Confusing

Best aspects

Increased awareness through participation with peers/teachers(17)

Worst aspects

Sharing experiences coercion into personal revelations/participation (12)

Physiology	**4**	**3**	**2**	**1**	
Relevant	39	1	-	-	Irrelevant;
Of interest	31	8	-	1	Boring
Thought provoking	18	14	4	3	Uninspiring
Easily understood	10	12	13	5	Confusing

Best aspects

Informative and supportive teaching approach of material related to nursing(21)

Worst aspects

Excessive, rushed, and often disjointed presentation of complex information (20)

Additional Individual Comment

Thirteen students suggested that three hour lectures were too long to sustain interest.

It was suggested that reducing the length of sessions to an hour would effectively address this.

Five students expressed concern that insufficient time was devoted to practical instruction. Two stated they felt inadequately prepared for clinical practice.

It was suggested that a booklet on practical aspects would be helpful.

Other points raised concerned domestic issues such as teaching venues, time tabling. There was concern expressed by three students that some teachers' approaches failed to accord older students with respect for their maturity and wider experience. The technique of 'brainstorming' was identified as particularly ineffective by two students who regarded it as inconclusive and time wasting.

Account of the Group Discussion

The Foundation Course was generally appreciated and the majority considered themselves ready to commence work in the clinical environment. There was, however, concern expressed that practices taught in school varied from those carried out in the wards and there were calls for a more realistic approach in College.

Group Recommendations

1) Reduce physiology tuition groups; allocate a session each day to the topic; and accommodate the range of differences in individual learning styles.

   The group described how they perceived this topic as the most important component of the course and there was general agreement in the words of a spokesperson who claimed: *'All the other topics slot in, it's no good knowing about the patients social strata if you don't know the position of his lungs'.* The Group however acknowledged the ready accessibility of help in all topics when requested.

2) Introduce more practical instruction and practice, devoting the first week entirely to the topic.

3) Mark and issue assignment grades before course completion.

4) Provide all students with experience of the range of shifts including a night shift.

5) Provide early information regarding social facilities, local groups, student status and legality of student's position in relation to patients.

6) Delay Sociology assessment until later when its application to nursing can be appreciated.

7) Set the maximum lecture time for any topic at one hour thirty minutes.

8) Maintain consistency in identifying aims on commencement of sessions.

9) Restrict emphasis on learning through *'silly games'*. While it was appreciated that participation had been encouraged they had often been unwelcome due to inhibitions resulting from the group size.

Section Four

Further Adaptations Over Time

The previous section outlined how initial efforts to prevent a repetition of the Cohort Two confrontation had set in motion the development of more responsive techniques of evaluation. The development continued with a series of strategies aimed at encouraging student and teacher to share in the evaluation enterprise. The resulting formation of closer relationships, effectively moved each party toward greater tolerance and recognition of the other's point of view. Evidence for this will be unfolded in the discussion and comparisons of module evaluation findings within and across cohorts and subgroups. It shows how evaluation slowly lost its negativity and came to be regarded as quality assurance in education. This development reflects the ethos of an evaluation approach that the writer terms 'equality evaluation'.

Further Strategic Adaptations

The adapted strategy was used effectively for the following two years but it became apparent that the time had come for further modifications to be initiated. The discernible attention to students' views had led to each party developing a more positive and constructive disposition to evaluation and such attitudes rendered the recurrence of earlier conflicts highly unlikely. The absence of the teacher had created the following constraints:

1) Response was unnecessarily delayed as many of the questions or recommendations could have been responded to immediately rather than awaiting feedback through the system;

2) There was concern regarding the evidence suggesting that evaluation is perceived by teachers as a political tool (House 1980, MacDonald 1974). This raised the possibility that teachers appointed after the earlier debacle might harbour suspicions that the motives behind the closed door strategy were partisan;

3) A further constraint arose out of the students burgeoning confidence in evaluation. The marked increase in contributions had led to excessively long reports.

Finally exclusion of the teachers had constrained the achievement of one of the primary objectives of the writer's concept of 'equality evaluation', that of creating a shared relationship between teacher and student that would allow educational evaluation to become a joint venture in the pursuit of greater quality in education.

Introduction of a 'Delphi' Approach

To counter the effects of the above constraints a new evaluation strategy was devised. This approach was based on a modified 'Delphi' technique in which the students were regarded as the experts on the basis of their first hand experiences of the modular learning experience that they were currently evaluating. The aim was to present a consensus of group opinion and the changes were reinforced by setting evaluation ground rules that were acceptable to both students and staff. (See figure 4.1)

The imposition of the ground rules enabled the following further changes to be adopted:

a) The teaching team leader or deputy was to be present at all evaluative discussions with the exception of the informal introductory one. S/he would participate as an equal member and be required to observe the ground rules, answer questions raised, consider the feasibility of any suggestions made, and where necessary suggest possible compromises;

Figure 4.1 The Evaluation Ground Rules:

1) Confidentiality is assured and there is no requirement for any member to accept responsibility for an individual comment;

2) The opinion of every member of the discussion group is equally valued and respected;

3) Evaluation must focus on professional issues rather than personal attributes of individual teachers, students or staff;

4) Evaluation must not be regarded as a forum for grievance; praise should be given where it is due. Negative comment must be constructive rather than destructive;

5) In the additional comments and subsequent evaluative discussion a problem solving approach is adopted which requires critical comment to be supported, whenever possible, by examples and suggestions;

6) The adoption of defensive attitudes and over rationalisation is to be avoided;

7) Marginalised views, while welcome and valued, cannot be included in the report which is a record of a consensus of group opinion.

b) To reduce the length of the verbatim reports there would be a new approach to the debate and its subsequent reporting. The collation of the questionnaire would continue to include identification of issues and statements that would be used to draw up an agenda for debate to elicit the views of the majority. But only those views that reached a consensus, at a level decided by the group, would be included in the report. The discussion would become more purposeful with the requirement that a problem solving approach be applied. Whenever possible, negative comment would be clarified by clear example and accompanied by recommendations for addressing the issue;

c) The role of the writer would change from discussion leader to facilitator and mediator. As a participating member of the group, who was present at all evaluations, she would be called upon to place the views expressed, in the context of the course as a whole. She would make reference to relevant evaluations from groups

at varying stages of the programme and give account of subsequent actions, modifications, and conclusions that had been taken in response. This would also allow the recognition of a recurrence of marginalised views to be brought to the groups attention for further discussion.

d) Defensiveness, or attempts at identifying expressed views or personnel involved, would be avoided, and all issues and verbatim quotes drawn from the questionnaire responses would be introduced by the writer using the third person;

e) The writer would use a process of reiteration in which her interpretations of the discussion would be 'fed' back to the group and if necessary rephrased. Conclusions were recorded in note form to be transcribed in the subsequent report. The teacher would act as witness to the accuracy of recording.

Reactions to the Changes

Though the strategy was welcomed by the teachers, their presence at the sessions was initially unpopular with the students. Early in the evaluation programme of each new cohort there would be a plea for the teachers to be excluded with suggestions that their presence caused members to feel inhibited from making criticism in front of them.

Assurance was however given that the teachers also had agreed to the ground rules, and, in due course the groups came to recognise that teachers were not labelling those who raised contentious issues but understood and often shared the same value orientation.

As a result the evaluation discussions developed so that they came to be regarded as opportunities to build shared relationships. Accusations and 'them and us' type of recriminations then became reduced to a minimum.

The sessions were also an additional learning experience as the students could observe and practise constructive, non- confrontational criticism. They could witness at first hand how criticism can be accepted without rancour and see respect shown for those voicing negative views on the course content or presentation.

A detailed description of the development of these new measures is included Appendix 6 in the paper The Development of Module Evaluation: a Delphi Approach (Hartley 1995).

Comparison of Cohort Opinion.

It would however be wrong to discount the findings of the early evaluations prior to the above innovations. This initiator period was a time when forward thinking and dynamic action were moulding and re-adapting the course to match the learner and the institutional needs and evaluation had a major part to play in its accomplishment.

The following is an excerpt from an annual report on the early Cohorts' evaluations two years after commencement.

> **Evaluation Report Annual Report 1989**
>
> In the analysis of the foundation course and modules the majority of responses to the items on the evaluative instrument are positive.
> To demonstrate this it is intended to focus on the findings of the module evaluations of the second intake who have progressed to Module 6. Comparison can be drawn on group response to the evaluative items across the varying modular experiences. The table depicts a summation of the responses of one half of the group. It can be recognised that there is a wide variation in response to the specialist experiences from module 3-6. This appears to affect, not only differences in student motivation and the acceptability of some subject areas, but also the effects of differing assignment demands, and changing teaching approaches required for the presentation of speciality subjects.

In Conclusion the Report noted

> For expediency the evaluative process, to date, has concentrated largely on collective responses to the course. It is now proposed to focus on individual and sub-group responses to the study.
> The goal of both the school and its learners is not simply registration to practice, but the promotion of individual professional practitioners of nursing. To achieve this nurses need not only the knowledge and skills, measured by theoretical and practical assessment, but also the confidence and critical, creative thinking ability to practise and apply the knowledge to novel situations. In addition if they are to remain in nursing after qualification they must be equipped to cope with the professional challenges of change, it is in exploration areas that future evaluative measures will increasingly be directed.

Table 4.4 COHORT TWO: Comparison of Evaluative Responses Modules 1- 6.

Positive responses expressed as a percentage: Module	**1**	**2**	**2b**	**3**	**4**	**5**	**6**
The content of the preparation week was relevant to clin. exp.	74	97	100	100	48	89	62
There was sufficient opport. to discuss practical experience	64	86	87	71	90	100	33
The preparation & consol. blocks were well structured & logical.	86	73	81	64	62	89	57
Sufficient free study time provided	98	76	90	100	90	100	76
The environment stimulated learning	74	57	67	64	57	83	48
Teaching methods were varied	74	76	95	93	86	83	67
Problem solving approaches were commonly used by staff	100	100	86	57	95	89	24
Teaching was adapted to needs	81	81	76	57	81	83	52
If help or guidance needed from teachers I felt able to ask	95	94	95	100	76	100	86
The nursing process was applied consistently to study of nursing	95	97	86	78	90	89	48
Theoretical assessments were approp. & fair	93	86	57	93	90	100	86
I was able to discuss assignment work with my tutor	98	16	81	86	81	n/a	76
There was ample time to discuss assignment work with peers	96	94	76	93	86	n/a	52

Summary

The report on Cohort Two demonstrated an encouraging move toward greater positive appraisal of the first six course modules. This was despite the initial doubts and fears expressed at the end of the foundation course. This supports the view that much of the student concern reported at the end of their intensive foundation period stemmed from the conflicts arising from the 'culture shock' of realising their initial expectations had little basis in reality.

It would appear that success in passing the end of foundation course examinations had reassured the less confident students of their ability to reach the academic standards demanded of them and had thus reduced their need for 'backup' defence mechanisms.

Finally it seems fair to suppose that the increasing experience gained in the clinical areas had consolidated earlier learning by integrating theory and practice and had led to some recognition of the relevance of the issues they had earlier eschewed as irrelevant to nursing.

However it would be imprudent to draw on the evaluations of one specific Cohort particularly as Tables 4.1 and 4.2 demonstrate that, though this cohort represented the typical pre. or early-pilot intake at that time when characteristics of female school leavers with the pre-requisite 'O' levels were the norm, it can be recognised, in retrospect, that the Cohort were atypical of the pilot population as a whole.

An additional flaw that would arise from singling out this one Cohort's reactions to the programme, lies in its members position as early pioneers in a new educational programme. One cannot discount the possibility of self fulfilling prophecy creating a 'halo' effect as they 'blazed a trail' as new and more academic nurses of whom much was expected and perhaps also feared.

There is the possibility that these factors might have created an unusually compliant, or conversely, nonconformist group. To counter such possible criticisms it is necessary to broaden the 'illumination' by moving forward to a point when the course was well established, when the demographic changes to the student population had become more commonplace, and when the formative changes generated by earlier evaluations had been well established.

Selection of Further Cohorts for Evaluation Scrutiny.

Comparisons are therefore presented of two later Cohorts entering within the same year.
The module evaluations of the second of the two teaching groups comprising half of Cohort Five and Six were selected for analysis and comparison.

Choice was based on the centrality of their position in the sample population span of entry. This was a period when the major modifications to the curriculum had taken place, there was relative consistency in the staff, and in the overall learning environment.
It was proposed to focus on examining the level of variation in the individual and group evaluative responses and to follow this with further comparisons on relevant sub groups within the student population.

Table 4.5 represents the two cohort's responses juxtaposed for comparison. For brevity some items from the questionnaire have been omitted as superfluous and the wording has been abbreviated. The modules 3, 5, and 9a were selected because each offered a key dimension of the total learning experience.

Module 3: Elderly Care

The third Module was chosen from the early general nursing care modules on the basis that it provided opportunity to apply basic nursing care in a wide range of care situations involving a vulnerable client/patient group.

Module 5: High Dependency Care

This experience was selected from the specialised modules, because it offered the most varied range of experiences covering aspects of care in theatre, accident and emergency departments, or experience in coronary care or intensive treatment units.

Module 9a: Patient education

This was the penultimate module for this sample; the students were now very experienced and able to draw on a more composite picture of the course as a whole. Other reasons for selection centred on its topic of patient education in clinical or community settings, and the supernumerary status it offered.

Table 4.5 Comparison Of Three Varying Module Evaluations: Cohorts 5 And 6.

	Module 3					Module 5					Module 9a				
Abbreviated Items	Coh 5 (n=23)	mn	Coh. 6 (n=17)	m		Coh 5 (n=21)	mn	Coh 6 (n=17)	m		Coh 5 (n=17)	mn	Coh 6 (n=18)	mn	Tot.
Relevance of preparation	(17)74	2.3	(17)100	3.		(21)100	3.4	(16)94	3.		(17)100	3.3	(18)100	3.1	93%
Theory & pract. Integrated	(12)52	2.5	(16)94	3.		(21)100	2.6	(13)76	2.		(17)100	3.0	(18)100	3.1	90%
Opportunity to discuss practise.	(23)100	3.2	(17)100	3.		(19)90	2.7	(16)94	2.		(17)100	3.1	(18)100	3.1	97%
Sufficient private study time	(19)83	2.8	(17)100	3.		(20)95	3.0	(16)94	3.		(17)100	3.0	(18)100	3.0	95%
Environment Stimulated lng.	(19)83	2.6	(11)65	2.		(19)90	2.8	(16)94	2.		(16)94	3.0	(18)100	3.0	88%
Problem solving teaching	(19)83	2.8	(16)94	3.		(20)95	2.9	(14)82	2.		(17)100	3.0	(18)100	30	92%
Teaching recog. individ. needs	(12)52	2.4	(13)76	2.		(21)10	2.6	(15)88	2.		(17)100	3.0	(18)100	3.0	85%
Teach. support on request	(23)100	3.0	(14)82	2.		(21)100	3.1	(17)100	3.		(17)100	3.1	(18)100	3.1	97%
Fair Theoretical assessment	(22)96	2.9	(16)94	2.		(21)100	3.0	(17)100	3.		(17)100	3.0	(18)100	3.1	98%
Able to discuss assign.- teacher	(17)74	2.5	(14)82	2.		(11)52	1.9	(10)59	1.		N/A		N/A		68%
Research applied to-Nsng	(20)87	2.8	(14)82	2.		(21)100	3.1	(13)76	2.		(17)100	3.2	(18)100	3.0	91%
Able to identify own lng goals	(19)83	2.7	(16)94	3.		(21)100	2.9	(15)88	2.		(17)100	3.1	(18)100	3.1	94%
Stud particip. encouraged	(23)100	3.1	(17)100	3.		(21)100	3.2	(17)100	3.		(17)100	3.1	(18)100	3.2	100
Pers. initiative encouraged	(23)100	3.0	(16)94	3.		(21)100	3.1	(17)100	3.		(17)100	3.1	(18)100	3.2	99%
Stud. independ. facilitated	(23)100	3.0	(17)100	3.		(19)90	3.0	(16)94	3.		(17)100	3.1	(18)100	3.2	97%
Treated as adult teachers	(23)100	3.0	(17)100	3.		(21)100	3.2	(16)100	2.		(17)100	3.0	(18)100	3.2	99%
Crit. Questions encouraged	(23)100	3.1	(17)100	3.		(21)100	3.1	(16)94	3.		(17)100	3.0	(18)100	3.2	99%
Teach. feedback progress	(5)22%	2.2	(11)65	2.		(16)76	2.6	(9)53%	2.		(17)100	3.0	(17)94	3.1	66%
Stud. opinion/ criticism sought	(21)91	3.0	(17)100	3.		(21)100	3.1	(17)100	3.		(17)100	3.1	(18)100	3.1	98%
Valued as equal by teach. staff	(23)100	3.0	(16)94	3.		(21)100	2.6	(16)94	2.		(17)100	3.0	(18)100	3.2	84%

The Table shows that overall the ratings are positive. For example though the members of Cohort 5 responded quite negatively in module three to the item concerning the consistency of teaching in matching individual needs they had become positive about this aspect in the module 5 and 9a and scored all items as positive by module 9a.

Cohort 6 was initially quite negative about the learning environment but rated it positively by module 9a and in fact rated all but one item positively by module 9a. There was a tendency for the item on discussion of assignments to be less positive in both groups overall, as was feedback on progress. This was due to the fact that many students interpreted feedback from the teacher purely in terms of assignment grades and, since assignments were usually marked after the module had been evaluated, this item frequently failed to produce any response.

Additional Comments

While the collective measurements were a useful indication of general opinion and attitudes to the learning modules they tended to indicate little variation across cohorts. It was the collective responses ensuing from the qualitative examination of additional comments and group discussions that produced the most valuable insights, and allowed feelings and concerns regarding the educational programme to be monitored. Comparisons of the comments of the two Cohorts 5 and 6, and their debate on the three modules provide examples of the variation of views and the type of recommendations made.

Module Three

Cohort 5 completed this evaluation prior to the Delphi modifications. There was reference to the appropriate insight and interest gained (6 students) but the aims of the consolidation failed to reflect the aims (5 students). Repetitiveness of structure was criticised with reference to a *'rehash'* of the foundation content (12 students). The amount of psychology and sociology input was regretted. (3 students), the latter being perceived as lacking relevance to nursing (2 students).There was a call for more patho-physiology with less focus on theoretical nursing models.

This alleged 'overemphasis' was referred to as *'an excuse to base nursing theoretically rather than practically'*. In the discussion the group again raised the issue of a need for greater understanding of physiological implications of degenerative disease - dementia, and arthritis. One comment uttered was:

'I did not know enough to understand how any person could be so different'.

The chief value was regarded as the greater insight into bereavement. The group recommended introducing:

a) signs and symptoms related to care together with psychological and sociological implications;

b) increased teacher support in the clinical area.

In contrast Cohort 6 (Delphi evaluation) agreed module 3 provided a valued learning experience because it had dispelled their negative preconceptions about the 'Cinderella' service of elderly care as a *'hopeless exercise'*. The positive interest shown by the medical teams in the elderly patients' futures was applauded accompanied, by corresponding regret for the rare instances when it appeared some staff failed to display this awareness. The repetitive focus on bereavement had, it was suggested, led to despondency without useful purpose - serving only to *'open up old wounds'* for some.

The Group called for more student participation in the form of projects and workshops. They particularly regretted that the value of forum style teaching approach was impaired by the length of time needed *'to gather courage to engage in discussion'*. This, they acknowledged, was a characteristic of their particular group. It also led to frustration when, by the end of the session, some had failed to express their strongly held views.

It was recommended that teachers prepare an alternative agenda to fall back on if group participation was not forthcoming.

Module Five

The tendency for widely varying qualitative response appeared to diminish with the increasingly specialised modules when there was a closer alignment between taught preparation and practical experiences gained. For example preparation needs for meeting the demands of theatre nursing were more easily predicted than was possible for the earlier generalised experiences. Both Groups appraised the effectiveness of the overall preparation in allaying fears, anxieties and criticisms. Recommendations were confined to constructive but entirely 'domestic' changes concerning the preparation and consolidation programmes.

Module 9a

At this late point in the course the merging of values had become more apparent. Factors identified by both groups tended to concern course presentation and the value of carrying out teaching practice. Teaching support was acclaimed by each group, but Cohort 6 suggested clinical staff needed greater awareness of modular aims and objectives. A booklet outlining the general aspects and demands of mentoring for distribution to each mentor was recommended. While centred on the module's specific needs, this suggestion might also indicate that the group were beginning to reflect ahead to their future mentor role and were growing in awareness of the of implications of being on the 'other side'.

NB The reader interested in a further exploration of the early Cohorts' responses to the module evaluation questionnaire A are referred to Copcutt (1993) who compared the results of the second and third cohorts' responses to this instrument, measuring the specific items related to student centred learning.

Conclusion

Examination of a sample of module reports indicated a trend toward greater positiveness in evaluation as students progressed. Their comments and judgements also revealed a tendency for them to become more objective and balanced. The recommendations made also grew progressively more constructive and feasible.

Possible explanations are that:

1) As the students grew more experienced they became more aware of the value of the educational programme's value;

2) They became more articulate in expressing their views and opinions;

3) They, recognised the empowerment evaluation offered them toward achieving the goal of directing their own learning and gaining greater involvement in planning;

4) They became increasingly influenced by the system and began to the reflect indoctrination and assimilation of the institutional values;

5) They became more sophisticated at re-verbalising what they felt the teachers and organisers were expecting to hear.

The next section will explore these possibilities by examining the views expressed by individuals and sub-groups within Cohorts.

Section Five

Comparison of Sub-Group Evaluations

Comparison of cohort evaluations in the previous section raised alternative explanations for variation in evaluation responses to similar learning experiences. A method of confirming which explanations applied arose from the presence of specific sub-groups whose responses could be compared.

Particular sub-groups displayed behaviour discernibly different from the rest. To avoid distraction all students were required to remain until all evaluation questionnaires were completed. In addition the writer stayed behind at the end of the session to provide a discrete opportunity for individuals to 'talk down' emotive issues raised. For example it enabled those who had found some aspects of the debate frustrating or distressing to explore their feelings, or distance themselves from what they regarded as unjustified criticism of some aspect of the modular experience. It gave those who had been reluctant to publicly air views incongruent with the consensus view the chance to point out their marginality.

Mature Female Students

In the mid and foundation course evaluation this opportunity was popular with mature female students who appeared to seek attention and reassurance by emphasising their individuality, and the distance between their needs and anxieties in comparison to the majority. It appeared that this more mature sub group, whose appearance and demeanour made them markedly unlike the student majority, were anxious to seek permission to be different by recounting their personal difficulties and doubts about their ability to learn, or to cope with family and travel demands.

The Self Efficacy theory reviewed in the literature (Bandura 1977, 1986) appears relevant here. The theory proposes that the individual's expectations regarding success or failure are bound up with earlier experiences. Perhaps, for some, their tardiness in seeking a career was bound up with earlier failures. The theory would explain why they had overcome their fears sufficiently to enter College because it suggests that, as one matures, self efficacy increases. In contrast Locus of Control theory posits that added life experiences reduce locus of control because of the increase in awareness of the control others have over one's

life (Lachman 1986). Nevertheless their self efficacy appeared to remain impaired compared to their more confident younger peers.

It was interesting to note however that as they progressed their confidence appeared to grow in direct proportion to their pace of assimilation into the student culture. Manner of dress and language style quickly conformed to that of the student majority and the values they expressed similarly became indistinguishable from the younger female students. They were then no more likely to seek individual discussion than others.

One observable difference however persisted; this was their apparent enhanced commitment to evaluation - an assumption made on the grounds of their consistency in being last to complete the questionnaires.

Male Students

Another observable difference emerged in the behaviour of the male students who, in contrast to the young female majority, sought to extend debate beyond the session. A pattern developed in which a particular group of male students would regularly remain behind for further discussion.

These impromptu debates were lively interactions in which they drew on examples from their experiences and interpretations providing insight or clarification within their specific gender oriented terms of reference regarding the issues raised in the wider debate. They seemed particularly inclined to identify gender issues which they avoided in open discussion. In response to the writer's enquiry into why they regularly remained for further discussion while the younger female majority tended to 'rush away', they suggested this conformed with their general impression that the 'typical' young female student lacked career commitment and was more likely to be interested in non - occupational interests and pursuits. The implication was that they, as males, were more willing to spend time on their career and educational development. They did not acknowledge the possibility that their minority position, as males in a predominantly female profession-they comprised only 9% of their peers (see Table 4.1) and 10% of the nursing profession (Hutt 1988) - might have influenced their motivation, or have engendered a desire to be seen to be keen. Consideration of such possibilities will be returned to later.

Despite these possible counter arguments it did appear to the writer from the speed of questionnaire completion, that the 'conventional' student sub-groups did have a rather superficial, cavalier approach to this part of the evaluation procedure.

It is emphasised that this attitude was never evident in their voluble contribution to the evaluation discussions, where it was the writer's subjective opinion that, particularly in the young female groups, there was an observable fall in initial negativity and 'cynicism' and a corresponding growth in constructive criticism as the course progressed.

It is however important to recognise that, for the two groups entering at 18 years of age this three year period coincided with the final burst into adulthood - what was described in the literature as a period of identity and developmental transition. (Erikson 1959).

It would be spurious to claim that such positive changes could be solely attributed to the educational programme, without acknowledging the role general maturation could have been expected to play.

The Sample

To explore possible response differences across sub-groups, samples were drawn from Cohorts Four, Five, and Six and Eight, Nine, and Ten. Selection of these groups was based on their central position of entry in the total programme population and the presence of members from the minority sub - groups of interest.

Sampling was on the basis of entry qualification, age and gender, and all the selected groups comprised 10 students. Control of age and gender was dependent on relevance and feasibility. Sampling from the population who met the defined criteria was then randomised. Tables 4.6 and 4.7 present a summarised account of their group details and Tables 4.11 a-e includes the demographic details of all the members of each group. This included their entry Learning Preference Index scores and illustrates the means and standard deviations of the total groups.

It should be noted that owing to the limited number of students meeting the criteria in the three sub-groups DC, males, and mature women sampling was flawed in that each group included members who could have been allocated to one or both of the other groups. For example, some in the male sub group could have been included in the DC group, and some

DC subjects met the mature women criteria. For this reason sophisticated statistical analysis was not possible. The alternative of reducing the number of subjects in the samples was considered but was eventually dismissed because it was felt that, despite their lack of generalisability, the sample size of 10, was capable of suggesting interesting trends that would contribute to the overall comparisons and the study as a whole.

Table 4.6 Mean Scores Age and Learning Preference Index

	Age		Con		Abs		TSt		SSt		Ind		Int	
S-Gp	Mn	SD	Mn	SD	Mn	SD	Mn	SD	Mn	SD	Mn	SD	Mn	SD
1	23.9	5.3	59.5	12.3	46.0	6.2	60.1	17.5	45.7	13.7	48.5	11.8	50.4	12.2
2	18.	-	58.1	7.7	45.5	6.7	68.3	9.8	34.8	7.	43.5	12.	61.3	10.3
3	18.	-	61.4	10.1	49.0	8.3	68.1	16.	32.8	6.	37.3	8.7	66.4	11.5
4	24.0	4.5	65.4	12.4	46.9	9	60.1	14.8	39.0	14.5	51.4	16.	52.2	12.8
5	32.4	6.8	63.6	8.0	45.0	6.3	67.6	7.7	37.2	9.2	48.4	11.9	53.0	11.4

KEY

S Gp= Sub-Group.	**Mn=mean**	**SD=Standard Deviation**
1= DC Entrants	**2= 'O'Level Entrants**	**3 ='A' Entrant**
4= Male Entrants		**5= Mature Female Entrants**
LEARNING PREFERENCES		
Con.= Concrete	**Abs.= Abstract**	**TSt.=Teacher structure**
SSt. =Student Structure	**Ind. = Individual**	**Int. = Interpersonal**

Table 4.7 Means and Standard Deviations: Total Sub-Groups Sample

	Age	Concrete	Abstract	T.Struct.	S.Struct	Individual	Interpers.
Mean	23.2	62.3	46.41	64.8	37.92	45.80	56.61
St.D	5.9	3.0	1.5	4.3	2.1	2.3	2.3

Group One DC Entrants, comprised students who had entered by the alternative 'gate' either as a result of the DC test or Access. Their ages ranged from 19 to 37 years with a mean age of 23.9 years and a median of 25.5 years. There were 3 males. Their learning preferences appeared to show a reasonably balanced approach to group or individual learning activities. There was a high mean score for concrete rather than abstract learning preferences - a preference that could possibly be attributed to maturity and greater breadth of practical occupational experience, including, for many, responsibility for others.

Group Two 'O' Level Entrants, entered on the basis of 5 or more 'O' level passes. Because of the high incidence of entrants in this category it was possible to achieve greater homogeneity by drawing this sample entirely from members of the female population who were 18 years of age on entry, and this is generally reflected in the standard deviations of their LPI scores.

There was an apparent similarity to Group One in relation to concrete and abstract learning but a greater preference for teacher structured, rather than student structured, approaches, and group work rather than individual learning. A likely explanation is that these preferences were the result of their recent experience of compulsory education.

Group Three 'A' Level Entrants, entered with 1 or more 'A 'levels. Again it was possible to restrict sample selection to females 18 years of age on entry. This was demonstrated in their LPI. scores. Predictably their learning preferences indicated they were considerably more abstract thinking than the other groups, though they still showed a strong preference for concrete learning, and they shared with Group Two a strong preference for teacher structure and group learning. Their advanced studies did not appear to have engendered enthusiasm for individual learning activities.

Group Four Male Entrants. These students' entrance qualifications ranged from DC to graduate level and there was an age range from 18 years to 29 years with a mean of 24 years and a median of 23.5 years. The presence of DC entrants together with the range of age and past occupational experience may partially explain the similarity of their learning preference scores to the DC entrants with regard to teacher structured approaches and abstract preferences, but there was again a large variation among individuals as the standard deviation shows. Overall however they appeared to prefer concrete learning, supporting the frequent comment made by males in the student population that this resulted from their previous practically based work or studies. The trend was toward a balance with regard to group or individual learning.

Group Five Mature Students, were all women who entered college at age 24 years or over, their age range was from 24 to 43 years. The mean age was 32.4 years with a median of 33.5 years and their qualifications again ranged from DC. to graduate level. As noted

there was also a proportion of mature students in the male and DC sub-groups but, in this group, the standard deviation of their learning preference suggests that they were marginally more homogenous than the other two mixed groups. While it had not been feasible to control age in the sampling for these three groups there was a tendency for students in all three categories to be older, more experienced, and, in a number of cases entering nursing as a second career.

Their learning preferences show similarities with sub-groups Two and Three in relation to teacher structure but indicate a more balanced approach to learning either alone or in groups, reflecting, in this respect, the flexibility demonstrated by the DC and male sub-groups supporting suggestions that this trend may be associated with maturity or breadth of occupational experience.

Conclusion to the Comparison of Sub-Group Learning Preferences

It is accepted that the size of the sample is too small for generalisation.

While there appears to be differences in learning preferences across the sub-groups the wide variation in individual LPI scores necessitate that individual scores be examined before making assumptions about their influence on attitudes. A record of the demographic details of all the subjects in each of the five sub-groups is included in Table 4.11a to 4.11e at the conclusion of this section. Plausible explanations for differences appear to lie in varied previous experience. Recent school leavers exhibited a tendency toward group learning and teacher directedness. Mature entrants, including those in the male and DC entrant sub groups, could be reasonably expected to have developed enhanced life skills as a result of wider experience and responsibilities and this might explain their apparent tendency to be more individual, flexible, and pragmatic as learners.

The next stage of the exploration involved examination of the evaluation responses of the various members of the sub- groups.

Analysis of Questionnaire Responses

For purposes of comparison five module questionnaires were randomly selected from the total of nine questionnaires (modules 1-9a) completed by each of the ten members of the five sub-groups.

The purpose of randomisation was to eliminate possible bias in selecting evaluations of favoured or unpopular learning modules. For brevity the analysis of the closed responses to the questionnaires was confined to those items concluded to be of particular relevance to the study, as indicated by the literature review.

The twelve items selected were those dwelling on:

a) Course content in terms of facilitating integration of theory and practice;

b) Varied teaching techniques, including problem solving approaches;

c) Recognition of individuality in learners and encouragement of students in the achievement of personal learning goals;

d) The educational milieu as a stimulant to learning, to include availability of pastoral care the encouragement of student involvement and independence which included the value placed on students as individuals of equal worth.

The percentage of positive responses for each item in the five sub-groups was calculated together with a mean score for each item. See Table 4.8

Interpretation of Responses to Selected Items

The table shows the sample's highly positive ratings of the selected aspects of the course. This comparison covered a wide range of evaluation questionnaires analysed and it further illustrates the progressive trend toward an increase in positive responses as the course unfolded. The result of this was observed in the recording of ratings for the penultimate Module 9a in Table 4.4. As noted earlier the specialised modules 4 to 9a attracted more positive responses. This was assumed to result from a combination of growth in students' understanding and the more focused experiences gained in the highly specialised areas. The table also demonstrates differing responses to individual aspects of the course across the groups.

Table 4.8 Sub. Group Responses to Selected Questionnaire Items.

N.B. Mean with a potential of 4.0

Selected Questionnaire Item	Grp.1	Grp.2	Grp.3	Grp.4	Grp.5
	pos mn %	pos mn %	pos mn %	pos mn %	pos mn %
Achievement of integration of theory and practice	90 2.8	84 2.8	92 3.0	88 2.9	84 2.9
College environment stimulated learning	72 2.7	68 2.7	88 3.0	68 2.7	82 2.8
The variation in teaching method	88 2.6	70 2.7	90 2.9	70 2.8	78 2.8
Problem solving teaching approach	80 2.9	80 2.8	92 2.9	86 3.2	88 3.0
Response to individual learning needs	82 2.8	68 2.7	90 3.0	70 2.7	74 2.8
Availability of teacher guidance on request	94 3.2	90 3.1	100 3.2	96 3.1	96 3.2
Encouragement of student participation	96 3.1	100 3.2	100 3.2	96 3.1	100 3.3
Student independence facilitated	84 2.9	94 3.1	94 3.1	92 3.1	88 2.8
Student opinion sought	86 2.9	88 2.9	92 3.0	78 2.9	98 3.1
Felt valued as of equal worth.	88 2.9	90 3.0	92 3.1	96 3.1	96 3.1
Achieved personal goals	100 3.0	78 2.8	88 2.9	80 2.9	88 2.9
Treated as adults	88 3.1	70 3.0	86 3.0	92 3.1	82 3.0

KEY

Grp.1=	**DC entrants**	**Grp 3 =**	**'A' level entrants**
Grp 2 =	**'O' level entrants**	**Grp 4=**	**Male entrants**
	Grp. 5= Mature female entrants		

Sub-Group One

Surprisingly the least academically qualified alternative entrants, were 100% positive in claiming to have achieved their personal goals. In view of the evidence of pragmatism displayed by their learning preference scores, one might question whether this was because they were particularly astute in setting achievable goals for themselves.

An alternative assumption might be that this sub-group are more likely to try harder to achieve since they have do not have academic evidence on which to prove their equality of cognitive worth. They appeared to value the teaching approach particularly in relation to student participation.

It is likely that the greater incidence of experience in managing homes, jobs, and family in this sub-group explains the finding that they would have appreciated an increase in problem solving teaching approaches and greater encouragement of student independence. They responded positively to the item concerning the value placed on them as of equal worth but were less positive about the response to their individual needs. This appears to reflect concerns expressed in the foundation course regarding the meeting of their individual needs. These were apparently still not alleviated since they were least positive in response to this item.

Sub-group Two

The 'O' level group shared with males in being least positive to items concerned with content, teaching methods, and the learning environment. It was in the area of teacher/student relationships that differences appeared, the 'O' level sub- group appearing to feel much less valued as adults. However, together with all the other sub-groups, they appreciated the encouragement of student participation and they were very positive about the facilitation of student independence. Unlike their 'A' level peers they responded considerably less positively to variation in teaching styles and shared identical ratings to the DC entrants regarding the teachers use of a problem solving approach. They were least positive about response to their individual learning needs, their treatment as adults, and their achievement of personal goals.

Sub-group Three

The 18 year old female 'A' level Sub-Group can be seen to be the sub-group who were most consistently positive in their responses.

They shared with all the sub-groups a strongly positive response to availability of teacher support and guidance. They rated the integration of theory and practice more highly than the other subgroups.

Sub-group Four

The Male Sub-Group were least positive about the items focusing on the educational milieu, the teachers' style, including response to individual needs, and their achievement of their own personal goals. They did not rate highly the seeking of their personal opinion.

Nevertheless they were positive about the value placed on their equal worth, their treatment as adults, and the availability of teacher support. They believed the aims of integrating theory and practice had been achieved.

Sub-group Five

The mature women were most positive about opportunities for student participation and valued the seeking of their personal opinion. They apparently felt positively about their treatment as of equal worth, but were less positive regarding variation in teaching style, the teachers' response to individual needs, and their treatment as adults. This perhaps reflects a continued concern about the marginality that they complained of in the foundation course evaluations.

Another source for comparison was the open comments the respondents added to the questionnaire. The comments were therefore examined for further evidence of these apparent trends.

Additional Comments

Though the students were encouraged to add additional clarification and suggestions for improving future courses, they were not compelled to do so. If they failed to add anything this could not be construed as disinterest or lack of commitment since it was possible that they had been able to express their views adequately through their response to the closed questionnaire items. Nevertheless it was felt that comparison across groups might help to confirm or refute assumptions about differences in attitude to evaluation and the aspects of the course under study.

The number and nature of each sub-groups' additional responses were therefore analysed.

Variation in Additional Responses Across Sub Groups.

Sub-group One, 50% of the DC entrants made additional responses. The total number of statements was 59. Of these 52% were positive, 24% negative, and 24% were recommendations.

Sub-group Two, 44% of the 'O' level entrants contributed additional comments. The total number of statements was 87, and of these 40% were positive, 40% negative, and 20% were recommendations.

Sub-group Three, 66% of the 'A' level entrants added additional comments. There were 101 separate statements, and of these 51% were positive, 30% negative, and 19% were recommendations.

Sub-group Four, 52% of the male level entrants added additional comments. There were 87 separate statements, and of these 46% were positive, 37% negative, and 17% were recommendations.

Sub-group E, 48% of the mature women entrants added additional comments. There were 54 separate statements, and of these 52% were positive, 28% negative, and 20% were recommendations. The variation in the nature of the five sub-groups' additional comments is represented in Table 4.9.

The figures indicate that the 'A' level group showed a much greater tendency to add comment than the other groups. They were much more positive than negative in their judgements. The DC entrants were much less inclined to make additional comment, but were twice as likely to be positive than negative when they did so, they were also the most inclined to make recommendations. The 'O' level sub-group made fewer comments and were equally balanced between positive and negative comments. The males were the least likely to make recommendations and the mature women were the most reluctant to add comment at all.

Table 4.9 Variation in Additional Comments from Five Subgroups.

	Gp One	Gp Two	Gp Thre	GpFour	Gp Five
Total Number Additional Comments	59	87	101	87	54
Percentage of group making comments	50%	44%	66%	52%	48%
Percentage of positive statements	52%	40%	51%	46%	52%
Percentage of negative statements	24%	40%	30%	37%	28%
Percentage of recommendations	20%	20%	19%	17%	20%

For further comparison of the positive and negative statements across the sub-groups, content analysis of the statements was carried out and it was found that the issues raised by

the sub-groups could be placed in seven categories. The percentage of responses to these items in each sub-group are recorded in Table 4.10.

Table 4.10 Categorised Issues Raised By the Sub-Groups. (Expressed as a percentage)

Category	Grp 1	Grp 2	Grp 3	Grp 4	Grp 5
Module Content	23%	20%	24%	30%	41%
Module Structure	6%	27%	13%	17%	20%
Teaching style	3%	8%	16%	17%	6%
Teaching support	10%	10%	11%	5%	15%
Relationship Theory/practice	5%	11%	9%	2%	6%
Examinations	16%	6%	4%	4%	2%
Teacher/student reationships	10%	6%	3%	13%	6%

Comparison of Additional Comments

While recognising that added comments cannot be interpreted as measurements of value this comparison does appear to show that, in terms of open written comment, the chief focus was on the module content and structure of the course, and this was reflected in the fact that the majority of the suggestions focused on these aspects. There were however considerable differences in the comments concerning other aspects, such as teaching style across the sub-groups. While this was apparently regarded as worthy of extra reference by the 'A' level and male students, the mature women, DC, and 'O' level students were less likely to elaborate on it. It was also noticeable that the issues regarding examinations and assessments was much more likely to be raised by the least academically qualified DC sub-group, apparently matching earlier observations of their pre-occupation with measured achievement. This group shared with the males in more frequently referring to teacher student relationships but the males were less concerned with adding comment on teacher support issues than the other groups, since they evaluated these aspects positively in the questionnaire. This can be construed as indicating that they had found this adequately met

their need for expression. The 'O' and 'A' level subgroups were more likely to comment on the relationship between theory and practice than the other sub groups.

Conclusion to the Comparison of Sub-Group Evaluative Response

The assumption of differences in attitudes and response to evaluation in certain sub-groups of the student population appeared to be supported by the comparisons made, but, since the summarisation does not reveal why the sub - groups responded as they did, a closer qualitative examination of the general essence of the statements is called for. Further since these sub-groups appear to be representative of the total population, their views will be taken to reflect the wider population's views on the modules 1-9a of the programme. A balanced selection of the sample's statements is presented in the next section.

Table 4.11 -a Demographic Details and Learning Preferences: DC Sample (n=10)

L. P. I. SCORES

Ss	Age	Gen	Qual		Conc	Abst	TStr	St.Str	Indiv	Interp
1.1	24	F	DC		61	45	47	58	55	49
1.2	24	M	DC		52	54	72	46	54	37
1.3	37	F	DC		63	37	62	39	50	64
1.4	21	M	DC		82	55	39	47	32	60
1.5	27	M	DC		71	46	76	40	49	33
1.6	24	F	DC		60	49	88	27	33	58
1.7	24	F	DC		61	41	44	66	59	44
1.8	19	F	DC		47	47	36	56	60	69
1.9	19	F	DC		82	52	70	23	32	56
1.10	20	F	DC		58	39	67	55	61	34
Mean	**23.9**				**59.5**	**46.0**	**60.1**	**45.7**	**48.5**	**50.4**
S.D.	**5.3**				**12.3**	**6.2**	**17.5**	**13.7**	**11.8**	**12.2**

Table 4.11 -b Demographic Details and Learning Preferences: 'O' Level sample (n=10)

L.P. I. SCORES

Ss	Age	Gen	Qual		Conc	Abst	TStr	St.Str	Indiv	Interp
2.1	18	F	'O's		71	41	80	35	38	50
2.2	18	F	'O's		59	44	55	41	56	60
2.3	18	F	'O's		56	43	51	51	62	52
2.4	18	F	'O's		47	48	72	41	39	68
2.5	18	F	'O's		49	54	73	28	43	68
2.6	18	F	'O's		50	47	60	44	30	84
2.7	18	F	'O's		62	52	79	33	26	63
2.8	18	F	'O's		65	54	75	35	35	51
2.9	18	F	'O's		64	35	68	39	54	55
2.10	18	F	'O's		58	37	70	36	52	62
Mean	**18**				**58.1**	**45.5**	**68.3**	**34.8**	**43.5**	**61.3**
S.D.					**7.7**	**6.7**	**9.8**	**7.**	**12.**	**10.3**

Table 4.11-c Demographic Details and Learning Preferences: 'A' Level sample Sample (n=10)

L. P. I. SCORES

Ss	Age	Gen	Qual		Conc	Abst	TStr	St.Str	Indiv	Interp
3.1	18	F	'A's		75	43	54	39	40	64
3.2	18	F	'A's		73	40	75	30	30	67
3.3	18	F	'A's		63	45	68	38	26	75
3.4	18	F	'A's		54	55	87	26	32	61
3.5	18	F	'A's		69	61	81	23	30	51
3.6	18	F	'A's		45	59	54	34	39	84
3.7	18	F	'A's		55	40	75	33	45	67
3.8	18	F	'A's		56	47	75	29	33	75
3.9	189	F	'A's		69	42	34	41	55	74
3.10	18	F	'A's		55	58	78	35	43	46
Mean	**18**				**61.4**	**49.0**	**68.1**	**32.8**	**37.3**	**66.4**
S.D.	-				**10,1**	**8.3**	**16.**	**6.**	**8.7**	**11.5**

Table 4.11 -d Demographic Details and Learning Preferences: Male Sample (n=10)

L. P. I. SCORES

Ss	Age	Gen	Qual		Conc	Abst	TStr	St.Str	Indiv	Interp
4.1	24	M	DC		83	56	59	37	38	42
4.2	29	M	Gr		63	65	65	19	61	42
4.3	26	M	Dip		67	34	86	39	35	54
4.4	23	M	'O's		56	41	71	35	44	68
4.5	19	M	'A's		78	38	36	38	73	52
4.6	20	M	'A's		58	50	64	36	60	47
4.7	19	M	'A's		53	51	71	25	60	55
4.8	32	M	'O's		51	44	43	74	74	29
4.9	27	M	DC		79	44	58	41	31	62
4.10	21	M	'A's		66	46	48	46	38	71
Mean	**24.0**				65.4	**46.9**	**60.1**	**39.0**	**51.4**	**52.2**
	4.5				**12.4**	**9.**	**14.8**	**14.5**	**16.**	**12.8**

Table 4.11- e Demographic Details and Learning Preferences: Mature Female Sample (n=10)

L. P. I. SCORES

Ss	Age	Gen	Qual		Conc	Abst	TStr	St.Str	Indiv	Interp
5.1	37	F	'O's		71	46	70	34	31	63
5.2	31	F	"A'		49	48	55	57	56	50
5.3	43	F	DC		76	38	76	28	42	55
5.4	36	F	'O's		63	38	72	30	47	65
5.5	24	F	A		75	47	63	31	48	49
5.6	24	F	'A's		60	40	63	49	35	68
5.7	30	F	Os		66	45	67	33	43	61
5.8	37	F	Os		66	43	69	38	66	33
5.9	24	F	'O's		47	60	81	32	50	45
5.10	38	F	DC		63	45	60	40	66	41
Mean	**32.4**				**63.6**	**45**	**67.6**	**37.2**	**48.4**	53.0
S.D.	**6.8**				**8.0**	**6.3**	**7.7**	**9.2**	**11.9**	**11.4**

Section 6

Qualitative Analysis of Individual and Group Views.

Despite the acknowledged limitations, analysis of the comments provided measured insights into the nature, distribution, and strength of feeling regarding the main issues raised. It broadly supported assumptions of variation in evaluative response across the different sub-groups. However, beyond separation into the three defined categories, no account was taken of the views expressed in the comments.

This section compares and contrasts individual viewpoints expressed by members from the sample sub - groups.

The suggestion that demographic variables influence attitudes to nursing was reinforced by Sweeney (1990) who includes effects such as age, gender, and educational attainment in his list of factors of significance. He also listed marital status but this was not an issue of enquiry in the present study because it required a level of intrusion that could not be justified.

Selection of comments was based on the capacity of these comments to summate views of the majority or convey what were perceived as particularly revealing individualised views. It is hoped that this will provide the reader with a 'taste' of the pervading values and feelings that were engendered during the respondents' progress through the modules 1-9a. Inclusion of demographic details is reserved for instances where the writer feels such knowledge will aid interpretation and are listed in Table 4.12. Unless otherwise indicated the statements can be construed as expressing views represented fairly universally and across sub - groups. Where possible a balance of views expressed is recorded.

Comments on Content and Structure of Module Preparation

There was similarity in the comments of the five sub-groups regarding content, as could be expected. The chief intent was to place a value on the knowledge acquired in terms of meeting the students' immediate learning needs. The predominant focus for all groups was the degree of interest and relevance of theory in relation to their allocation experience. The commonest positive remark is summed up in the phrase: *'preparation was interesting and logical - an enjoyable, thought provoking learning experience'*.

The most frequent negative comments on the content centred on the expressed viewpoint: *'insufficient theory for my clinical experience'*. There were repeated suggestions for transfer of sessions from the consolidation to preparation of the module so that the knowledge could be applied in the allocation, but the impracticality of this was generally accepted, as is clarified by a DC. entrant's statement: *'some issues need to be in preparation but I recognise this is not always possible'*. Such criticisms were usually countered by an acknowledgement that the theory would equip them for future relevant experiences.

Content and Structure: Module Consolidation

As previously described, the consolidation blocks were intended to build retrospectively on the clinical allocation experience. Opportunity for reflection, and sharing was therefore provided to allow the preparatory theoretical links, to be applied, and expanded to accommodate the differing manifestations each student had encountered from observation and practical application.

This approach was appreciated by Respondent 4.6 who commented: *'the consolidation was useful as it derived greatly from our clinical experiences, which is my idea of the function of a consolidation block'*

Respondent 4.9 whose high concrete learning preference probably led him to approve of the balance of the approach to both preparation and consolidation noted: *'the most important things were included in preparation and were followed up well in consolidation'*.

The majority of students appeared less convinced of the value of the approach.

The most frequent structural criticism was that information that, if acquired prior to the clinical experiences, would have enhanced interpretation and learning gains, was delayed until consolidation. This complaint reflected views reiterated regularly by members of the total pilot population.

It seemed however that some were able to make the cognitive associations between theory and practice in the context of the practical experiences as suggested by the comment: *'experience in the allocation put theories into perspective'*.

Despite the teaching staff's efforts to encourage a relaxed milieu in which there would be time for creative activities and exploration, and study flexibility together with teacher and peer interaction, this approach was frequently vilified as time wasting. A typical negative statement sums up such attitudes: *'nothing beneficial taught, unstructured, filling in time'*

Recommendations often reflected the view proposed by Student 2.2 who may have been influenced by her balanced learner independence and interpersonal preferences LPI scores, when she suggested that it would be feasible to condense consolidation attendance to three days to allow two days for private study.

Student 3.1, a highly concrete scorer on LPI., also appeared to represent the views of a cross section of students when she compounded her view that the consolidation lacked substance by stating her general regrets about the programme's overall change from the medical to an eclectic model. It appeared she was uttering a heartfelt plea when she demanded: *'when will we have a good, structured week where we are taught topics that are relevant to nursing. For example conditions and diseases rather than sociology which has no relevance to the clinical area?'*

A call from Respondent 5.1, for the inclusion of more case studies to promote understanding of *'what happens to patients'*, appeared to reflect her learning preference for teacher structured and concrete learning approaches.

Visiting speakers were a frequent subject for comment. These speakers were commonly specialist members of clinical nursing staff. They were referred to favourably by members in each of the sub- groups, and this reflected the high regard that was regularly voiced for 'hands on' clinical nursing speakers in all the modules. References centred on the credibility of such experts and the clearly defined relevance and practicality of information provided in such sessions. This did not please a small minority represented by the counter statement of Respondent 4.5, a student with a high concrete and independent learning preference, noting that such sessions could be: *'dull and too specialised'.*

However, in general, outside speakers were particularly likely to be valued by his 'A' level peers. This suggests that the most academic sub-group were possibly better equipped

to accommodate the specialised technical application such experts brought to their teaching sessions.

Recommendations for Content and Structure

Common recommendations largely consisted of identifying sessions that could be effectively re-timetabled, omitted, or altered in input or presentation. Avoidance of repetition or imbalance was regularly emphasised.

A plea, not uncommon among the total pilot population, came from an 'A' level entrant who highlighted the importance of sensitivity in course planning, to ensure repetition of certain themes was not emotionally detrimental. She described how the prominence of one such theme had led to a preoccupation with death and cancer. Her statement creates an image of despair: '*College left me feeling down and depressed. Why can't staff realise people get upset talking about cancer all the time?'*

Other comments on structure were concerned with length of allocation experiences or timing of learning components and study periods.

Study Opportunities

The amount of free study time was a popular area for comment. A typical positive comment referred to the: *'ample free study for assignment work, library visits, and tutor contact'*.

Conversely the more frequent negative focus was on its limited amount, its distribution or its timetabling.

One 'O' level entrant complained that free study opportunities were spread out over the week rather than concentrated into two or three days off when '*more useful things'* could be achieved. Demands for more free study time while in college and during ward allocations came from all the sub - groups. The 'A' and 'O' sub-groups were particularly likely to recommend this.

Regret was expressed that conflicting work demands on clinical staff reduced opportunity for ward based teaching sessions. In addition staff shortages were the probable cause of alleged failure of clinical staff to recognise student supernumerary status in Module 2b.

This led Respondent 4.5 to advocate that supernumerary students should be omitted from the duty rotas since if students were listed; they were *'often used to cover the ward.* This echoed a complaint frequently raised by the programme population regarding the difficulty in maintaining supernumerary status in the patient education module 2b or 9a.

Time Management

Time was apparently a particular pre-occupation of both the 'O' and the 'A' level sub-group. Examples of references from members of these two sub - groups, included the favourable: 't*ime spent more profitably... less hanging around for lectures'.* But another sought to emphasise the diversity of pressures: *' time demands from clinical work, nights, theory and assignments projects, and extra hours of overtime that were not repaid in off duty led to high levels of stress'.*

Other timetable recommendations were largely confined to identifying the sessions requiring to be re-timetabled or those that could be effectively omitted or altered in input or presentation.

A recurring example of this concerned relevance of some topics to the module experiences summed up by an 'A' Level Student 3.7 who complained *'Time would be better spent on clinical conditions.... sociology has little relevance to the clinical area'.*

Teaching Techniques

Complaints regarding the length of sessions that had been made in the foundation course continued to be raised in the modules. Some also repeated dissatisfactions regarding presentation and discussion techniques. Such events it was claimed failed to achieve sharing of knowledge because anxiety of awaiting his/her own forthcoming performance precluded any benefit from the presentations prior to an individual's own contribution.

Androgogical Principles: Valuing Student Opinion

Nevertheless others, particularly 'A' level and male students, valued discussion and sharing of views and experiences. Recognition of student opinion was also an issue for many.

Positive comments are summated by a DC entrant with a high student structured and independent LPI. score who stated that the teaching staff on a particular module had *'appreciated all opinion good or bad'.*

In contrast DC Respondent 1.1 suggested that *'though criticisms were sought they were not accepted'*. On another occasion the same writer noted that when seeking help and guidance for assignment work: *'criticism was inconsistent and non-committal'*

Androgogical Principles: Recognition of Individuality

Respondent 3.7 regretted the lack of recognition of individuality in learning styles: *'occasionally staff do not treat us as individuals with our own learning styles'*.

This was extended by 'O' Level 2.3 whose perfectly balanced teacher structured - student structured score, and high independent learning preferences were consistent with her demand for: *'more emphasis on individual concerns and learning needs'*.

Androgogical Principles: Equality of Relationships

Teacher/student relationships were a common concern raised. The mature and DC. entrants in particular praised the support, friendliness, and interest received from the teachers, but there were some occasions or individual behaviours that resulted in adverse comments. Negative views on teacher relationships appeared to be linked to the teacher's level of commitment to the educational ethos. This impression was reinforced by the writer's personal observation that criticisms appeared to be largely reserved for learning encounters with certain members of staff who had made clear, to the writer, that their preference and expertise lay in didactic teaching approaches. Some DC and mature women complained that a few teachers showed disregard for student opinion.

DC Respondent 1.5 reflected a sentiment expressed by several others from the five sub - groups: *' I appreciated being treated as an adult'* though some added the proviso - *'for a change.'*

Androgogical Principles: Teacher Support - Learner Independence

Many linked teacher support to respect for their adulthood. This was a particularly common theme in the male sub-groups whose comments largely centred on the overall quality of teaching approaches. Several referred to aspects of teaching incorporated in androgogical principles when referring to the value of teaching methods: *'The teacher supported me, it was nice to be treated as an adult'*.

Another male sub-group theme referred to the encouragement of independent learning. Male Student 4.6, a respondent with a high independent LPI score, referred to the: *'strong emphasis on self direction; I was encouraged to learn what I needed to learn'* This view was echoed by the mature student 5.1 who stated how she valued the: *'freedom of learning'.*

Though some males were strongly opposed to such forms of teaching, it was the male students who were most inclined to comment on teaching approaches.

Male Student 4.1 who entered with a high concrete but low student structured and independent LPI. scores interpreted the encouragement to learn for himself particularly negatively. He wrote: *'some teachers methods are awful - for example telling us to read around parts we have said we don't understand - surely a teacher's job is to explain?'* This student also reflected objections to the presentation approach : *'I still don't like being sent to the library and feeding back to the group the results of library research!'* Similar sentiments were repeated from members of the 'O' level sub-group who emphasised how learning was impeded as a result of the anxiety generated.

Respondent 4.3, a student with a high teacher structured score, valued a particular teacher's approach of: ' *seeking out existing knowledge and building on it'.*

Another basic androgogical approach, that of utilising a student's previous knowledge and experience, was raised by Male Student 4.8 whose relatively high student structured LPI. score was matched by his independent learning preference. He stated: *'tutors need to understand that some students have worked in other occupations and have wide experience. Mature students - I am 33 - need to have topics pitched at a higher level.'*

The behaviour of his peers was criticised by Student 4.4 a male with a high teacher structured and interpersonal LPI. score. He described his embarrassment when some of his fellow students, on finding a session under stimulating: *'fail to participate, making a difficult job harder for outside speakers and inhibiting those wishing to learn.'* This student on another occasion referred to his appreciation of: *'the teachers' attempts to approach subjects from new angles'.*

Opportunity for participation and discussion was appreciated by members from all the sub - groups, while 'O' Level Student 2.3, who showed a well balanced LPI. score, noted how she: *'appreciated discussion at an individual level, rather than in clinical terms.'*

An 'O' level entrant resented the demand for proof of attendance which she regarded as inconsistent with the organisational ethos of mutual trust and respect. She stated: *'demanding proof of attendance does not take account of the fact that, as adults, we are responsible for our learning objectives'.*

Assessment issues were also a recurring issue:

Examination and Assignments

The DC entrants appeared to have the greatest concern regarding assignments. References were made to: *'lack of adequate preparation for examination'* and *'insufficient examination guidelines'.* Respondent 1.1 regretted *'vital weeks wasted trying to discover what was needed'.*

Concern was expressed by both DC and 'A' level students regarding the lack of teacher support for assignments while on allocations. This was highlighted as a particular problem in the 18 week assignments. It should be pointed out that such support was available on request, by means of a telephone call to the relevant teacher, but students repeatedly complained that making contact was difficult and time consuming. Their insistence that they should not be required to do this provided evidence of the apparently widespread belief that teachers should visit students regularly during allocation. In fact no such undertaking was ever made by the organisation. The ubiquity of this belief, regarding regular spontaneous teacher support in the clinical area, suggests that it was an impression given and reinforced by clinical staff who had benefited during their earlier training programmes from the input from the former clinical teachers.

Males tended to repeat the DC entrants' concerns about measured achievements, noting for example the: *'very vague questions'* or: *'insufficient time to express my thoughts'.* Respondent 4.2, a graduate with a particularly low student structured LPI. score, referred to lack of constructive criticism, noting: *'Assignment feedback did not provide guidelines on how to address weaknesses'.*

This concern regarding examination timing, format, and feedback was apparently linked closely to relationships with the teachers

Teaching Support

Teacher support was a recurring theme for all the sub-groups but the mature sub-group particularly focused on the level of friendliness and approachability in the teacher. This was often compounded with treatment as an adult.

Mature Student 5.4, who had a high teacher structured score, noted that the motivation created by the: *'relaxed and entertaining atmosphere, in which we were treated as adults, was both informative and thought provoking'.*

Another student DC 4.1 referred to a teacher whose: *'fresh and well expressed ideas taught us to think and problem solve for ourselves, and who showed apparent enjoyment in working and helping us to learn'.*

'A' Level Student 3.4 appeared to have had her high teacher structured learning preference met according to her reference to the: *'helpful teacher who gave us opportunity to speak freely about our feelings and discuss any problems that arose'.*

Incidents of treatment as adults were much appreciated, as evidenced by an 'A' level student two thirds of the way through the course: *'the first time we have been really treated as adults'.* Another Respondent 3.2 however reflected the equally frequent positive view by remarking: *'opinions and grievances were viewed equally - I felt of equal worth."*

Overall Response

The writer has attempted to avoid accusations of bias by presenting a balance of opinion whenever possible but it must be recognised that overall the respondents were positive about their learning experiences. The most frequent comment was stated simply and succinctly in the phrase: *'I enjoyed and valued the interesting learning experiences'.*

This overwhelmingly favourable response may however be partially obscured by the writer's obligation to faithfully record both positive and negative views.

Less predictable negative opinions had often been described in greater depth by the respondents as they sought to provide clarification of what were often complex issues of concern. The possibility should also be acknowledged that, since negative criticisms by

their nature demand action and therefore hope of possible benefits to the critic, there may be a greater stimulus for criticism than for offering praise or satisfaction, which in general brings benefit only to the receiver.

Summary

The exploration of differences between sub - groups was prompted by assumptions that there was variation in commitment to evaluating and improving the course programme. There was also the possibility that in two of the sub-groups there was a predominance of members holding a rather superficial attitude to evaluation.

The conjecture that some of the 'O' and 'A' level entrants were less committed to evaluation was based on the younger students apparent preoccupation with time and with hurrying away as soon as possible.

This had been reinforced by received institutional beliefs and by the small group of male students who had dismissed the apparent disinterest of their female peers as an aspect of young and frivolous behaviour consistent with an overall lack of motivation.

The evidence produced by the above comparisons disputes such assumptions since the 'O' and 'A' level entrant sub-groups were found to have made considerable contribution. This was evidenced by the particularly wide and varied observations and improvement recommendations in their open responses.

A more feasible, confidentially verified, explanation, for their confirmed absorption on the issue of time centres on finance.

Younger student nurses (who would include less well represented male students) were more likely to be solely dependent on their relatively inadequate salary, and many sought to supplement this by 'moonlighting' in the private nursing field during time away from college. The more mature students, not discounting those in the DC and male sub - groups, were perhaps less likely to do this as they were more were likely to be in established relationships with the potential to share financial responsibilities at a time of restraint.

While outside employment was not regulated against, it was clearly detrimental to the physical and educational well being of full-time student/workers. It meant time was precious as they sought to balance conflicting demands for social relaxation, private study,

assignment, and projects submissions, as well as performing as members of the workforce during allocations, with work as nursing aids in private nursing homes.

Another premise was that the male respondents, a group of whom had demonstrated enthusiasm about evaluation issues, would make superior contribution to evaluation. This expectation was reinforced by Auster's (1979) finding that male students show more willingness to make critical comment on their nurse education than their female peers. This was not confirmed. In this analysis the male sub - group, appeared, in general, to hold a limited value orientation that could be effectively reduced to two basic rather egocentric concerns: those related to relationships: and those concerning examinations and assessments.

The findings continued to demonstrate the mature female entrants' lack of confidence and need for support, and appeared to match earlier evidence of self doubts about fulfilling the demands, and keeping up with the conventional students.

The focal point of examinations and assignments was equally predictable in the least academically validated DC entrants who, with the males, centred on teaching approaches.

It was beyond the aims of the study to explore whether the DC entrants' insecurities extended to continuous practical assessment processes but their recommendations for the written assignments imply a preference for pragmatic approaches. For example: calls for *'variation in techniques,' .... 'multiple choice questions,' ..... 'orals'*; and for greater support, preparation, and guidelines for projects and assignments, were often made.

Finally the consistency with which the focus of individual statements matched expectations based on their demographic and learning preference scores provides support for the validity of the observations made in this section.

The next section returns to exploration of collective views by analysing and comparing the values placed on the educational programme as a whole in the final course evaluation.

Table 4.12 Demographic Details of Identified Participants

LPI SCORES

Subject	Age	Gend	Qual	Con	Abst	TStr	SStr	Ind	Int
1.1	24	f	DC	61	45	47	58	55	49
1.5	27	M	DC	71	46	76	40	49	33
2.2	18	F	'O's	50	44	55	41	56	60
2.3	18	F	'O's	56	43	51	51	62	52
3.1	18	F	'A's	75	43	54	39	40	64
3.2	18	F	'A's	73	40	75	30	30	67
3.3	18	F	'A's	63	45	68	38	26	75
3.4	18	F	'A's	54	55	87	26	32	61
3.7	18	F	'A's	55	40	75	33	45	67
4.1	24	M	DC	83	56	59	37	38	42
4.2	29	M	Gr	63	65	65	19	61	42
4.3	26	M	Dip	67	34	86	39	35	54
4.4	23	M	'O's	56	41	71	35	44	68
4.5	19	M	'A's	78	38	36	38	73	52
4.6	20	M	'A's	58	50	64	36	60	47
4.8	32	M	'O's	51	44	43	74	74	29
4.9	27	M	DC	79	44	58	41	31	62
5.1	37	F	'O's	71	46	70	34	31	63
5.4	36	F	'O's	63	38	72	30	47	65

KEY

Subject=Group code Age=Age on course entry Qual=Entry qualification

Con= Concrete Abs= Abstract TStr=Teacher Structured

SStr=Student Structured Ind=Individual Int=Interpersonal

Section 7

Final Course Evaluation.

Analysis of the foundation and module evaluations has demonstrated the consistency of positive response to the educational programme. It has also provided evidence of the students' growth in critical and constructive judgements. Support was also found for the assumptions that maturity, gender, and life experience influence interpretation and response to aspects of the programme content, structure, assessment, and teaching regimes.

At the completion of the students' educational programme the method of evaluation again drew on interpretations from a combination of data sources.

The First Cohorts

Before turning to the results of the analysis of final evaluation responses it is proposed to look back at the first impressions of the course expressed by Cohort One as they reached the completion of their course.

As noted previously the first students were excluded from the previous explorations because it was feared their position as 'trailblazers' for the course might have influenced their experiences. It was suggested that 'halo' effects and self fulfilling prophecies might confound the findings. In addition, selection for the first course had taken account of anticipated demands on the first students, as pilot representatives, of a totally new concept of nurse educational policy. Such demands necessitated choosing individuals who showed evidence of possessing sufficient strength of personality to combat the anticipated difficulties and possible hostilities they might experience.

They were atypical, compared with cohorts admitted both before and immediately after their entry. The demographic differences can be seen by returning to Table 4.1. This Cohorts' progress as members of a 'new elite' would have been watched with interest and possibly a little suspicion by their traditionally trained seniors who were perhaps justified in speculating that their training and skills might be devalued by these 'new', more academic, nurses. It is reasonable to assume the Cohort's behaviour and aptitudes would have been closely scrutinised where and whenever they were encountered.

Nevertheless in considering their summative views on course completion, these constraints were outweighed by their sole position as front-runners of the pilot course:

a) They had encountered the first reactions to the implications of the educational innovations;

b) They were unique in being able to reflect on how the first effects of the application of new knowledge and skills had been received in the clinical arena;

c) They were in a position to comment on any accumulative change in attitude, that took place over the three year period, in staff or patients as such transformations in student performance became the norm;

d) They had studied in juxtaposition to the other 24 members of their entry group who had concurrently studied on the last traditional RGN course in the College. This provided the 'pioneers' with a yardstick with which they could directly measure their knowledge and performance with the traditionally trained.

As their course drew to a close in 1989, their summative final evaluations were therefore of special interest and an account of the 'first impressions', of a small sample, was sought to provide a baseline for later explorations.

Sampling

Four weeks prior to the final evaluation the Course Manager was asked to select four students to engage in a short focused interview. Sampling was based on convenience - simply four willing students who were in the right place at the right time.

The Objective

The objective was to explore their views and feelings as they anticipated their imminent transformation from student to staff nurse.

Timing

The timing demanded careful balance, between the need for them to have reached a point when they could effectively reflect on the course in total and avoiding the risk of last minute anxieties affecting their views as they approached their final examinations. It was equally necessary to conduct the interviews sufficiently early to eliminate possible

recency effects influencing their eventual responses to the formalised final course evaluation proceedings.

Location

The interview took place in the College, in the early afternoon, during the students' free period. It was conducted by the writer and tape recorded.

The Interviewees

Coincidentally, two of the respondents were male and two female. The men were graduates, and one of the women's entry was based on 'O 'levels and the other 'A' level.

Table 4.13 records the demographic details of the four respondents.

Table 4.13 Demographic Details of Four Finalist Interviewees

				LPI Scores					
Ss	**Age**	**Gend**	**Qual**	**Con**	**Abs**	**TSt**	**SSt**	**Ind**	**Int**
H	23	m	Dg	37	51	55	60	51	54
I	23	m	Dg	72	31	36	86	46	47
J	18	f	O's	68	47	48	51	50	68
K	19	f	A.s	47	75	69	48	26	56

KEY					
Ss	**Subject**		**Age**	**Age on Entry**	
Gend	=	**Gender**	**Qual**	=	**Entry qualification**
Con	=	**Concrete**	**Abs**	=	**Abstract**
TSt	=	**Teacher- Structured**	**SSt**	=	**Student Structured**
Ind	=	**Individual**	**Int**	=	**Interpersonal**

Procedure

The four students were asked to focus on the effectiveness of their preparation for their future staff nurse practice. They were asked to judge the quality of the nature of the course content, and the value of the teaching approach, and to discuss whether they felt they possessed the necessary skills that would allow them to carry out their new roles with confidence. They were assured of complete confidentiality.

Reporting

Editing was confined to removing evidence that might enable subjects to be identified.

Account of the Interview

Respondent 'H' questioned whether he had acquired sufficient experience for the new role:

'I'm not too sure about the future. Sometimes I feel, we have been educated to be students rather than staff nurses. I am worried because staff nurses' duties are so different to students'. The staff nurse appears to undertake total responsibility for everything and everyone. How did she learn how to do it? I suspect she taught herself. I haven't been taught to make decisions - perhaps it comes with experience'

Respondent 'I' suggested these anxieties stem from having only observed traditionally trained staff nurses in practice:

'The idea is to prepare a different type of staff nurse. In this I think the course has been successful. If our clinical skill base is strong we will be capable of practice as qualified nurses. Our course has quite rightly shifted to a rounded holistic base. We have had less practical experience than the traditional student but despite this I think the course will prove successful.'

Respondent 'J' also hoped their enhanced theoretical base would compensate for any deficiencies in practical experience:

'the lack of practical experience worries me but I have benefited from the excellent depth of theory.'

Respondent 'I' enlarged on their strengths:

'I think the work we have done on the theory of health as part of the total society, with its emphasis on psychology and the individual, will produce a more rounded approach to care. The Pilot nurses will be more confident in themselves than earlier nurses. I like this emphasis; it's right for nurse training to shift toward teaching communication and counselling skills'.

Respondent 'H' agreed:

'People usually attribute my skills in this area to my age, but I believe it is how we've been taught.'.

Respondent 'K' suggested she had been helped to be assertive in practice:

'The course has helped me to be professionally confident by causing me to do things I would not normally have chosen to do'.

Respondent 'H' returned to the prospect of confidence in managing a ward:

'I feel I need more experience in taking up responsibility for myself and others. You hear practising staff nurses say, - 'I was left in charge early in my training.' It's good we have been protected from such pressures until the final module but I'm left with the questions: Have we been over protected? Are we now too vulnerable?'

Respondent 'I' referred to the quality of the course structure:

'I think one of the most important things has been the way we were prepared before our clinical experiences and allowed to consolidate after. Sometimes we've criticised but, in general when it works well it's very effective.'

Respondent 'H' raised the issue of assessment methods:

'I liked the notion of continuous practical assessment, it's not as bad as a single test or examination.'

Respondent 'K' disagreed:

'I have felt the pressure of continually being assessed - there has been a lot of stress'.

Respondent 'I' complained that the system was too structured:

'Its more what the staff expect - they can be quite rigid. You do need guidelines, but they should not be imposed in black and white terms'.

Respondent 'H' was also worried about apparent inflexibility in assignment marking:

'They should recognise my individuality; my style is to be brief and it should be catered for. I do not think word limits should be rigid; some may need more words to express themselves. You should also be able to choose how you write about specific areas. If you want to focus in depth on a single issue you should be allowed to'.

Respondent 'I' noted the motivational aspects of contract grading:

'You do need standards, but what I like is that the method is flexible in allowing you to submit 2-3,000 word assignments. This allows you to indicate what you know, why you know, and how it can be applied. Contract grading motivates because it

encourages people to opt for top grades, where you must look in greater depth. It has increased my confidence in my ability to opt for A or B - I know I can do it. I don't feel it is competitive; you all have strengths. It doesn't matter if you're a genius or not; you either qualify or you don't.

Respondent 'I' also referred to the self directed teaching approach and its effect on development of professionalism:

'From the information point of view in discussion you may perhaps go away without all the knowledge a designated lecture might have given. You perhaps sometimes miss out. Its not just that I'm a graduate and 26; it never crossed my mind that post-school education would ever be anything but an adult relationship, especially in nursing where you must have confidence in yourself as a professional. The idea of being treated as less than equal is alien to nursing.

Respondent 'J ' admitted having no pre conceptions at entry:

'I just didn't know what to expect'.

Respondent 'H' suggested that self direction was essential to surviving the system:

'Nursing training covers a wide range of relationships. You are working as a professional and doing an important, though underrated job. You work a full day and study at night. In conventional College or University you do as little as you want. In nursing you have to be self directed - you have to put the effort in'.

Respondent 'H' referred to the effect of the hierarchical regimes on confidence and professional and self concept:

'You do get caught up by old style 'matron' types who believe in imposing authority, in the misguided belief it will improve discipline. If someone shouts at you in your first year it can be upsetting, and it does make you question yourself: 'Who is it that is out of step here?' But you learn to cope. From a personal point of view I have developed the social skills to handle it diplomatically. You get a lot of it, because there are a lot of people deeply suspicious of the pilots. It's easy for us to judge them, but we don't hear their points of view'.

Respondent 'K' reflected on their practical skill preparation:

'It increased my self confidence but lack of practical experience may begin to tell in our first year of staff nurse practice. I still think a wider range of allocations would have allowed us more opportunity to put theory into practice'.

Respondent 'H' felt they had failed to gain sufficient grounding in basic general nursing care:

If you have been in specialities too long you may doubt your strengths. It's a drawback of the course that we have not worked in general wards since our first year. I dread a 'first year' coming and asking me something simple that I just don't know. It would be nice to draw on wide experience and say: 'Yes! I've come across that before'. It seems to me the traditional 'third years' knew everything when I was a 'first year'.

Respondent 'H' hoped their breadth of knowledge would equip them for any care demands:

'As we have a broad knowledge base it may supply us with all we need to know. Maybe it won't be necessary to be as specific as the traditionally trained'.

Conclusion

It would be wrong to generalise from such a small sample particularly as, despite the interviewer's attempts to involve all equally, there was a remarkable imbalance in contribution between the males and females. It is interesting to see that the earlier observations of patterns of male enthusiasm and female reticence to discussion continued here. This adds further confirmation to the writer's growing impression, that while men show a tendency to prefer verbalising their opinions rather than writing about them, women, in contrast, are inclined to be constrained in open discussion, preferring to reserve expression of their views for the written word.

Respondent 'I' was positive about the values of the course in relation to the strengths and skills gained from the holistic content. In keeping with his highly student structured learning preference he valued the teaching and assessment approach. He was less sure how the reduction in practical experiences might affect his practice but was fairly confident he had the right grounding for the new role.

Respondent 'H' was prepared to admit to some concern about his level of competence in undertaking responsibility for himself and others and meeting the demands for problem solving skills that he had observed apparently coming naturally to the traditionally trained. He suspected that they had learned from experience during their training but feared embarrassment for the 'pilots' who would be forced to gain the experience while coping with the many other responsibilities of the new role.

He had valued the communication skills he had acquired but his easily recognisable reflective personal qualities had led to him question whether there had been sufficient flexibility in relation to assessment techniques. He had adopted a mature approach to the imposition of hierarchical discipline when encountered. He appeared to share Respondent 'I's view that it was axiomatic that nurses, as professionals, have an automatic right of equity and, as adults, have the necessary motivation to be self directed learners.

Respondent 'J' was reluctant to voice her opinion beyond valuing the theoretical input and sharing with 'H' his doubts about the level of practical experience.

Respondent 'K's preference for teacher structure may have led to her finding continuous practical assessment pressurising. She had also regretted that the system of allocation to specialities had reduced overall practical experience limiting the integration of theory and practice. She appeared to acknowledge an inherent lack of self confidence but felt development of her professional confidence had been encouraged by the participative teaching approaches.

Evaluation on Course Conclusion

The final evaluation sought a summative view by encouraging the completing students to take a holistic review of the course.

They were asked to reflect on the various learning components and clinical experiences they had undergone during the three year period. They were also to express their views on the efficacy of the course in preparing them for the professional demands they could expect to meet in their role as staff nurses. They were invited to suggest ways in which to improve the programme.

The students were asked to complete the evaluation questionnaire C on their last morning in College, and the evaluative discussion took place later in the same day.

Having begun the review of final evaluation by focusing on the first Cohort it seems apposite to continue by examining the views of the last three.

Final Course Evaluation Results: Cohorts Sixteen, Seventeen and Eighteen.

The following is an amalgam of the final three end of course evaluation reports. The issues raised accurately reflect the feelings expressed by preceding Cohorts. The measurements are accompanied by the percentage of positive scores and these have remained consistent in being highly positive in all the cohorts' final evaluations. The text is a summarised account drawn from the reports of the discussions of the various issues identified by the questionnaire instrument. The summated findings are presented in the following pages.

Responses to the Final Evaluation of the Last three Cohorts

FINAL EVALUATION OF TRAINING

Theoretical Instruction Cohorts 16, 17 and 18 (n=125)

	Definite yes	Generally yes	Generally no	Definite no	% pos.
The course adequately covered the theory as listed in the syllabus	16	109	0	0	100
The management content gave a sound basis for commencement of work as a staff nurse	18	93	11	0	88
The input on teaching gave a sound basis for commencement of work as a staff nurse	16	107	2	0	98

Discussion Regarding Distribution of Theoretical Instruction

In the three discussions there was agreement that the theoretical input had been satisfactory. The chief regrets were that there would have been greater benefit had the course provided:

1) More anatomy and physiology with closer linkage to disease and its management, with emphasis on the role of drug treatments and effects. Though it was recognised this was already incorporated into several modules the general view was that it should be an integral part of the total course from foundation onwards;
2) There was a universal call for increased management input, suggesting that after the first year this should then become an underlying theme in all subsequent modules;
3) More study days were recommended particularly during allocations.

Clinical Instruction **Cohorts 16, 17 and 18 (n=125)**

	Definite Yes	Generally yes	Generally no	Definitely no	% pos
The course provides the range of practical skills listed in the syllabus.	46	76	1	0	98
The skills were made relevant to the theoretical programme	37	84	0	0	97
Practice was gained with Mentor supervision	42	71	9	0	90

Discussion of Clinical Instruction Factors

There was general agreement that they had experienced a wealth of valuable and wide ranging clinical allocations. The chief regret was that competing pressures on staff time had reduced opportunities for work with mentors, since duty rotas had to be drawn up to meet the work demands rather than learner needs.

The Students identified areas where they considered they would have liked more clinical practice/expertise. These included:

1) Ward technology prior to the final management module;
2) Practical skills. This was a recurring request and regular examples included more specialised nursing procedures which are not regularly performed or in some cases even observed by students in the clinical areas. Practical solutions to the dilemma of the lack of opportunity for student observation and practice of such relatively uncommon but important nursing skills were never forthcoming;
3) Increased counselling experience. It was equally regretted, though accepted as inevitable, that opportunity for observations of such sensitive interactions in the clinical area were also rare;
4. The Cohorts called for gynaecological and oncological allocations for all students, and also short experiences in the specialist departments of Accident and Emergency, Operating Theatre, Intensive, and Coronary Care Units.

Assessment Procedure Cohorts 16, 17 and 18 (n=125)

	Definite yes	Generally yes	Generally no	Definitely no	% pos
The assessment process enabled me to develop professionally.	35	89	1	0	99
Continuous practical assessments seemed fair and appropriate	38	78	0	3	93

Discussion of Assessment Practices

The Cohorts appraised, continuous practical assessment as the fairest and most appropriate means of measuring individual progress. However there were concerns that it carried a strong element of subjectivity and that benefits were largely dependent on the personality of the mentor. The absence of a standardised approach led, it was suggested, to some mentors apparently judging students in terms of staff nurse competencies, or on student personalities rather than skills. It was pointed out that often practical assessment was carried out despite limited experience of working with the student. It was recommended that mentors be provided with more guidance on relevant expectations for student performance.

The students generally considered practical achievements were of greater relevance than examination results and, as result, two of the three Cohorts suggested that there should be greater weight placed on practical assessments. This, it was felt, would also be effective in balancing the needs of those less able in examination techniques.

Personal Support Cohorts 16, 17 and 18 (n=125)

	Definite Yes	Generally yes	Generally no	Definite no	% pos
The personal tutor system enabled me to gain support when I needed it.	46	68	10	1	91
The Module tutors discussed my progress and gave support when needed.	36	75	9	4	89

Teacher Support

All three Cohorts were keen to express their appreciation of the high standard of teacher enthusiasm and tutorial support. This, it was stressed, was an essential element of the course and appreciation was expressed that personal as well as professional needs were addressed despite restraints of time and student numbers.

General Evaluation (n=125)

	efinite yes	Generally yes	Generally no	Definite no	% pos
On completion I feel competent to practise as a trained nurse.	26	90	7	1	93
The course fulfilled my expectations.	22	91	11	0	90

The Course as a Whole

There was agreement that the course had been enjoyable with well planned modules. Content was valued as interesting and varied, and the clinical role models were widely appreciated. The learning environment was perceived as positive with the provision of well planned and professional teaching. The students' development as individuals had been recognised and appreciated and particular tribute was paid to the peer support that had been effective in enabling them to continue during periods of high stress. Excessive stresses were identified as emanating from:

1) The extensive National Health Service and Nurse Educational changes which had resulted in dire effects on teaching and clinical staff morale;

2) The perception of a threat of increased competition for jobs from future students who would be awarded more advanced qualifications;

3) Resentment that the level of study they had achieved in their course had not, in their opinion, been accorded the academic recognition it warranted.

In general the Cohorts claimed that they felt confident regarding their practical skills but were concerned that these had been adversely affected by the economical and political climate which had placed limitations on the clinical milieu as well as on creating an environment of change and uncertainty in the nurse educational field as a whole.

They had been disappointed that such changes had resulted in reduction in their practical experiences where allocations had been altered to accommodate large influxes of students in a diminishing clinical arena. It was generally felt that reductions to placements should have been addressed by lowering new intake numbers rather than impairing the quality of experience of existing students.

There was a suggestion that a free catching up module would address problems of variation in opportunity for specific practical experiences. Concern was expressed that the teacher/student ratio in nurse education should not be reduced to meet financial targets.

Adaptations to Final Course Evaluation

Adaptations had been made to the final day, summative evaluation Questionnaire C in response to needs arising during the programme's 'lifetime'. The first was designed to measure in greater depth the completing students' views regarding the contribution of the two major course components in preparing them to meet the duties demanded in their future role of staff nurse. They were asked to indicate their perceptions of the value of the clinical and theoretical components in equipping them for specific functions of the role. This would allow comparisons to made on the value placed on the two integral aspects of the course.

The alterations to the design of the instrument extended explorations of the finalists' future career plans. Recognition of the need to enquire more deeply into long term plans evolved in the early 90's when completing students began to voice concern at reduction in career prospects. Jobs were increasingly scarce and the clinical areas no longer guaranteed employment to all qualifiers. This part of the questionnaire was influenced by an instrument created by Nessling (1990) as a means of measuring career plans in 'returnees' to nursing.

The modifications to Questionnaire C also sought to examine more closely the finalists levels of confidence as they progressed toward the new role responsibilities. The first adaptations were devised to explore the value placed on the two teaching components and enquire into future plans. The instrument was piloted by Cohort Eight who completed it in conjunction with their final evaluation questionnaire. The students raised no objections to its format or content and the findings were deemed useful by the managers, teachers and student and clinical representatives to whom the final report was circulated. The additional questions were therefore introduced for all completing students from Cohort Nine onwards. The second modification the measure of confidence component was piloted in the same way on Cohort Fifteen who again raised no objection, and, after consultation with the Final

Report distribution members, the modified Final Evaluation questionnaire was used for the evaluation of Cohort Sixteen. The modified sections of the Questionnaire C are included in Appendix E-d.

The Instrument

The adaptations designed to measure the two key learning components and the level of confidence achieved on course completion were based on 8 categories of duties required of practising staff nurses. Each category was sub-divided into four examples of duties that had been taught in both the clinical and college milieu. Selection of the categories and duties was made by referring to current job descriptions and consulting with managers of the post basic staff nurse development course.

Respondents were asked to rate the clinical and theoretical input in terms of effectiveness in preparing them for these duties. Rating was on a scale of 1-4 where 4 was very effective and 1 of little or no effect. Analysis consisted of calculating the mean score for each item. After piloting by Cohort Eight and consultation with experts in the teaching and clinical field the additional questions were accepted by the 'in house' report audiences and inserted into the questionnaire.

Comparisons of Two Cohorts' Evaluation of the Theoretical and Clinical Input.

The analysis of two cohorts' responses to the question measuring the contribution of two major teaching components theoretical and clinical were compared. Cohort Nine was selected because it was the first group to use the instrument following adaptations made as a result of piloting, and Cohort Twelve because they joined the College exactly a year later. Their opinions regarding their preparation for the selected duties are recorded in the following series of Tables.

Dependent and Independent t Tests

Statistical analysis was undertaken by means of dependent and independent t test between each Cohorts responses and between the paired Cohorts results. In the analysis of findings of the t tests where there were significant differences between the groups Cohorts Twelve and Nine the Levenes Test for Equality of Variances was carried out and the results of those items that were significant are listed below:

Reference is made when significant differences were identified.

The Responses of Cohort Twelve and Nine

Patient Care		**Cohort 12**			**Cohort 9**		
		Clin.	**Theor**		**Clin.**	**Theor**	
		mean		Sig	mean		Sig
1)	Assess patient needs	3.5	3.3	ns	3.5	2.7	.00*
2)	Plan patient care	3.0	2.7	ns	3.7	2.6	.00*
3)	Evaluate/review patient plans	3.0	3.0	ns	3.0	2.3	.00*
4)	Apply nursing theory to practice	3.2	2.9	ns	3.1	2.8	.04

Though Cohort Twelve responses to the two learning components were not significantly different the means of Cohort Nine were all significantly different. This implies that a consistently higher value was placed on the learning achieved in the clinical area in comparison to the theoretical input of patient care. A possible explanation may be that in the intervening year, between the two courses reaching conclusion, pressures had climbed in the clinical area due to staff reduction and financial restrictions.

Learner Support		**Clin.**	**Theor**		**Clin.**	**Theor**	
		mean		sig	mean		sig
5)	Assess learner needs	3.0	2.7	04*	3.0	2.9	ns
6)	Teach/supervise learners	3.2	2.9	.02*	3.1	2.6	.00*
7)	Evaluate/reassess learning	3.0	2.9	ns	2.9	2.6	.02*
8)	Act as student mentor/role model	3.0	2.9	ns	2.8	2.3	.00*

There was a significant difference in the value placed on the clinical learning experience Item 5 ($p=.04 < .05$) and to Item 6 ($p=.02<.05$).

In Cohort 9 statistical difference were found in Item 6 ($p=.00 < .05$); Item 7 ($p=.02 < .05$); and Item 8 ($p=.00 < .05$). This would imply that overall in relation to patient care, there appeared to be a higher value paced on clinical learning regarding patient care - a finding that would appear to support the quality of learning at the interface of care.

The difference between cohorts was also significant in items 2 and 4 Item 2: Levene's test (:F=5.52 p=.02). Item 4 Levene's test (:F=7.23 p=.00)

As noted a possible explanation may be clinical staff reductions which may have affected both morale and teaching opportunity.

There was also a significant difference between the two Cohorts in Item 6 Levene's test: (F=4.53 p=.03) which may again be attributed to staff constraints

Communication		**Cohort 12**			**Cohort 9**		
		Clin mean	**Theor.**	sig	mean	**Clin**	**Theor.** sig
9)	Communicate with patient	3.0.	3.0	ns	3.6	2.0	.00*
10)	Communicate with relatives	3.3	2.5	.00*	3.2	2.5	.00*
11)	Communicate with multi-disciplinary team.	3.2	2.6	.00*	3.1	2.1	.00*
12)	Act as patient educator	3.3	3.0	.05*	3.3	3.1	ns

There was a similar distribution of values in this aspect of communication. Only in Communication With the Patient in Cohort Twelve and in Acting as the Patients Adversary were there no significant differences between the two aspects of learning. There was a higher value placed on the clinical in relation to theoretical input in Multi-Disciplinary Communication and Talking to Relations. This is an area that students frequently highlight as an example of a topic that can only be learned in the practice arena. There was a significant difference in Cohort Nine response to Item 9 (Levene's test:F=7.60 p=.00) which may be an artefact of teacher student interactions.

Management	**Cohort 12**			**Cohort 9**		
	Clin.	**Theor**		**Clin**	**Theor**	
	mean		sig	mean		sig
13) Assist in Ward/Unit management	3.2	2.8	.01*	3.1	2.3	.00*
14) Accept responsibility for actions of junior staff	3.1	2.6	.00*	3.0	2.4	.00*
15) Accept responsibility for health and safety of junior staff	3.0	2.6	.02*	3.0	2.4	.00*
16) Be prepared to confer with senior staff when necessary	3.2	2.5	.00*	3.2	2.3	.00*

Again the two Cohorts appeared to value the clinical input more greatly, perhaps implying a need for an increase in theoretical content regarding management which was left until the final Module of learning when students were under pressure at the prospect of final examinations and job seeking.

Professionalism	**Cohort 12**			**Cohort 9**		
	Clin.	**Theor**		**Clin**	**Theor**	
	mean		Sig	mean		Sig
17) Apply research findings to practice	2.9	3.0	ns	2.7	3.3	.00*
18) Accept accountability for own action	3.3	3.2	ns	3.2	3.2	ns
19) Implement Hospital and Professional policies	3.2	3.0	ns	3.1	3.0	ns
20) Continue independent learning and self development	3.1	3.0	ns	3.0	3.3	.03

There was more equity of response in this area. Only in Cohort 9 was there a significant difference in response to Item 17 $p=.00 < .05$; placing a higher value on the theoretical input in this area. This may be because the final theoretical assignment required the submission of a research proposal.

Conclusion

The differences in the Cohorts' responses to the inputs of the two teaching arenas show that there was a tendency for the two Cohorts to share similar values with a clear preference for learning in the clinical area. This suggests that, in the selected areas, the pattern of providing two thirds of their course learning content in the clinical milieu matched the general learning needs of this sample. However the responses of both groups demonstrate a need for greater focus on the management skills in preparation for meeting the demands of the staff nurse role. This poses questions concerning the wisdom of removing the students from the clinical area for the first eighteen months of their nurse preparation as laid down in the current Project 2000 educational programmes.

Measurement of Confidence Levels

The insights gained from the findings produced by the exploration into the value placed on the two educational venues led to the conclusion that the same categories could be used to define the level of confidence the finalists had in performing their forthcoming staff nurse duties. The students were asked to rate the duties on a scale of 1-4 where 4 was very confident and 1 was completely lacking in confidence in ability to carry out the duties. Analysis of responses was expressed as a percentage. The findings of responses of Cohort 16 are presented in Table 4.14 (n=45)

Table 4.14 Measurement of Confidence Levels Cohort 16

Patient Care	**4 %**	**3 %**	**2 %**	**1%**
1. Assess patients needs	53	44	2	0
2. Plan patient care	40	60	0	0
3. Evaluate/review patient care plans	42	55	2	0
4. Apply nursing theory to practice	29	62	9	0

Learner support	**4 %**	**3 %**	**2 %**	**1 %**
Assess learner needs	11	69	20	0
Teach/supervise learners	11	78	11	0
Evaluate/reassess learning	15	73	11	0
Act as student mentor/ role model	13	62	22	2

Communication	**4 %**	**3 %**	**2 %**	**1 %**
Communicate with patient	93	7	0	0
Communicate with relatives	63	33	4	0
Communicate with multi-disciplinary team	40	2	0	0
Act as patient educator	38	60	0	2

Management	**4 %**	**3 %**	**2 %**	**1 %**
Assist in ward/Unit management	1	82	7	0
Accept responsibility for actions of junior staff	9	53	35	0
Accept responsibility for health and safety of junior staff	18	60	22	0
Be prepared to confer with senior staff when necessary	58	35	4	2

Professionalism	**4 %**	**3 %**	**2 %**	**1 %**
Apply research findings to practice	31	62	7	0
Accept accountability for own actions	47	47	4	2
Implement Hospital and Professional policies	29	62	9	0
Continue independent learning and self development	62	33	4	0

4.15 Table - Cohort 16: Expectations regarding future employment.

		Fairly Easy	Difficult	Extremely Difficult
1	Areas worked in as a learner.	[15%]	[21%]	[64%]
2	In NHS nursing outside the region.	[3%]	[76%]	[21%]
3	In non NHS nursing jobs.	[18%]	[70%]	[12%]
4	A job unrelated to nursing.	[36%]	[54%]	[9%]

Expectations about occupation in two years time

1	A similar NHS nursing job	[12%]	5	Having a job break.	[9%]
2	A higher grade of NHS nursing job.	[61%]	6	Left work permanently	[3%]
3	A nursing job outside NHS	[9 %]			
4	A non nursing job	[15%]			
	Specified others: Higher Education				[3%]

Hopes of Eventual Grade in Nursing

1	Staff Nurse	[9%]	2	Senior Staff Nurse	[15%]
3	Staff Midwife	[9%]	4	Senior Midwife	[3%]
5	RSCN - Staff Nurse	[6%]	6	RSCN - Senior Nurse	[6%]
7	Health Visitor	[9%]	8	District Nursing Sister	[27%]
9	Sister/Charge Nurse	[21%]	10	Clinic. Nurse Spec.	[5%]
11	Tutor/Teacher	[3%]	12	Unit Manager	[3%]
13	Community Midwife	[3%]	14	Practice Nurse	[3%]
Specified others: DK		[3%]			
Leave nursing		[3%]			
Hospital Management		[3%]			

Future Aspirations

The final adaptation sought to explore the students' expectations in regard to their ability to gain employment. It enquired into the respondents' plans and aspirations for the immediate and long term future. The responses of Cohort 16 are illustrated in Table 4.13.These responses show that, despite the concerns about the job situation and worries concerning the competition from future more qualified nurses, there was optimism about the future and evidence of constructive plans for a future in nursing for approximately 85% of the final Cohorts.

Summary

The interviews, evaluation of the course, and the measurement of both confidence levels and the input of the two key components all summate to point to a general satisfaction with the programme and a feeling of confidence on completion. It demonstrated the particular value the students placed on the learning experiences acquired in their involvement in the clinical and community areas. This was also reflected in the analysis and discussion of summative evaluation.

It reflects the findings of other nurse researchers who also found evidence that on conclusion of their courses nurses reflected positively. It can however be seen that despite the finalists' recognition of the strengths gained from the eclectic curriculum they regretted the move away from a medical model in nurse education. This was largely because they considered they had been left feeling less equipped to understand the disorders and altered physiology they would meet in their patients. They were acutely aware of a lack of awareness of the physiological basis of pharmacology, and this omission left them feeling ill equipped to administer drug treatments to their patients. This equates with the conclusions drawn in Section Three that student nurses demand a particularly high standard of knowledge and understanding of physiology.

Conclusion to Chapter Four

Overall the sample's formative evaluations of the programme were overwhelmingly positive and this was representative of the responses of the total population over the 9 years that the programme was in operation.

It was particularly apparent in the analysis of the responses to the closed questions that were selected for scrutiny in all three instruments. Confirmation was gained by a random selection of 30 module 1-9a evaluation reports drawn from the Cohorts 2- 18 which showed 77% positive. response to all the items included in questionnaire A. There was a trend toward increasingly positive response as the course progressed, reflecting the findings of Heyman (1983) who found increasing attraction and identification with their profession during student nurses' course progress

The Sub-Groups

The sub-groups provided support for assumptions of differing values and learning needs among the student population, and there was clear indication of a need for more emphasis on the minority groups specific learning needs. There was an identified need for greater opportunity for valuing and sharing their existing knowledge and skills if the members of these groups are to be made to feel fully integrated into the overall student population.

Final Course Evaluation

The finalists provided clear evidence of high levels of self confidence in the practical duties and skills required for future practice. Though there was some apprehension about certain aspects of drug management and levels of understanding of patho-physiology, the measurement findings conflict with Ellis's (1979) finding that students and practising nurses lack self confidence. The students' levels of confidence and self perception are the subject for examination in the next chapter which seeks to discover more about the nurse as an individual.

CHAPTER FIVE

The Individual: A Person Of Worth

Introduction

The efficacy of even the most creative and innovative of educational programme ultimately depends on the motivations, abilities, and participation of its pupils, and it was therefore expedient to discover more about the students undertaking the programme under study.

The findings in the previous chapter provided an insight into the collective evaluation responses of selected cohorts, and of sub-groups drawn from the cohorts. This was supplemented by a selection of relevant contributions from individual members.

The combined evidence suggested that the course programme was, in general, positively valued. The findings also revealed wide differences in needs, values, and interpretations among the sub-group members. This gave support to the relevance of the philosophical rationale of providing an individualised, student centred learning regime. The reported findings however led to the conclusion that the recognition of student individuality and diversity was not universally addressed either in the provision of the appropriate flexibility of teaching or in the operation of a readily available, supportive, and accepting, pastoral care system.

Nevertheless the findings of the evaluative measures indicated that the large majority of respondents had been willing to participate in the constructive appraisal of the programme, and had actively engaged in suggesting improvement and adaptations for the benefit of future students. Despite criticisms about structure and presentation the overall judgement implied that the course had provided the appropriate knowledge and experience required to allow its members to confront the varied demands made on them during their passage through the learning process.

Finalists also indicated they felt a reasonable level of confidence in their overall ability to undertake the new responsibilities that awaited them in the role of qualified nurse practitioners. Though these findings addressed some of information needs of the intended audiences other issues remained to be explored.

It would not be reasonable to judge final outcomes of a programme of preparation for practice simply on the subjective judgements of the participants during, or at the conclusion of, the course of study. Final judgements must be postponed until the practitioners have been tried and tested in the role for which they have been preparing. However before turning to the effectiveness of post qualification practice there is a final series of relevant pre-basic issues to be addressed.

The literature review revealed that several writers shared concern regarding the effect that traditional aspects of nurse education have on student morale, self confidence, and perceptions of self worth. This led to the question of whether nursing attracts a particular personality. The findings of several reviewed studies led to the assumption that, in general, entrants have positive self concepts and a tendency to seek self fulfilment through nurturing and altruism. However the alternative argument presented was that it was pre-existing low concepts of self that caused the aspirants to choose an occupation where they would be able to compensate for these inadequacies by imposing power over the sick and weak.

The hypothesis on which the study was premised was founded on two assumptions:

a) that nurses began their course with positive concepts;

b) that the programme's equitable milieu and philosophy of respect for individual needs would enable such concepts to be maintained or enhanced during the course of learning.

The literature suggests that a basic tenet of nurse education was to cause the student 'no harm' but some of the reviewed writers raised the issue of whether certain aspects of the teaching and clinical milieu were detrimental to student morale. The arguments for student directed teaching approaches are grounded in the assumption that the students are taught in an equitable climate of worth but some of the 'illuminations' revealed in the previous chapter suggest that, for many, this was not a reality either in the college or in the clinical milieu. One interviewee expressed the oft repeated concerns of many when he referred to the continued presence of over-dominant and imposing ward sisters, and there was substantial evidence of anxieties and insecurities revealed in the triangulation of explorations reported. Such findings cast doubt on the equity of the milieu and demand that attention be paid to the

expectations, values, concepts, and motivations held by the members of the student population when they entered the College. This chapter will therefore report on their values and expectations and explore the concepts of self the nursing students held on commencement. It is from this base-line information that conclusions will be drawn regarding changes brought about by the educational experiences.

Section Two:

Entrant Expectations

Several writers have placed emphasis on the entering student's expectations as a predictor of success in training (Stoller 1978, Borrill 1988, Child et al 1988, Murray and Chambers 1990, and Mendez 1991), and reference has been made to the findings of Bradby (1990) that mistaken or idealistic prior beliefs may affect the status passage of the neophyte. This section therefore describes an examination of the pre-conceptions of nursing held by a sample of pilot students at the commencement of their nurse education.

Nursing Career Decisions

The evidence produced by the evaluations of the foundation course show some support for the image of an unprepared and misinformed beginner. This leads one to question how the aspirant arrives at the decision that nursing is the appropriate career for him/her. Who or what source provides them with relevant information regarding the roles, duties and demands expected of either a student or practising nurse?

Those who have engaged in caring activities or have friends or family in the profession may arguably be assumed to be better equipped to judge their capacity to cope with the role demands. Stoller (1978) however warns against assuming that opportunity to observe certain actions results in full understanding, for example the observer may not have the implicit understanding of the underlying rationale behind the observed activities. She notes this may even apply to nursing aids or care assistants since status differentiation may have denied them access to the background knowledge or information required for interpreting observed activities. While acknowledging this need for caution, it was felt that enquiry into previous caring experiences remained a feasible dimension of exploration.

In normal circumstances, if career decisions are made on arbitrary or invalid grounds, one would expect an initially high attrition rate. Indeed in the past course withdrawal has been the focus of several studies (Singh and Smith 1975, Murray 1983). However the implementation of the pilot course coincided with the burgeoning economic recession. The impact of reduced job opportunities at this time creates doubts regarding the reliability of assuming that the low attrition rates can be used as a measure of student

satisfaction during periods of high unemployment. Misfits may be forced to remain due to limited alternatives. Table 5.1 records the details of withdrawals from Cohorts 1-10. It includes details of gender and entry qualifications though, for brevity, 'O' and 'A' levels have been compounded into one category. The attrition pattern offers some support for suppositions of retention of 'reluctants' since there was a tendency for those who did leave to be equipped with higher qualifications and therefore equally eligible for other careers or training. The rate for graduates was 9% but for alternative entrants it was only 5%. It can be assumed that, for the latter, the current career opportunity would have had a higher value perhaps being their ' one big chance'.

Attrition From the Course

The attrition rate for the pilot course was relatively low, Table 5.1 reveals that the overall rate for the first 10 cohorts was 9%. The table also identifies the point at which each individual's departure took place. It demonstrates that 82% took place in the foundation or Modules 1 and 2 and that there were no further withdrawals after Module 6. The timing suggests that the majority of departures were due to wrong career choices, and this was confirmed by 38% of leavers who cited this as their chief cause for departure. The table also shows that 49% of all wastage was from entrants who enrolled in 1987. This was attributed to a 'last minute trawl' for recruits for the March and November 1987 courses. The July Cohort was filled in advance, as was usual with those who had applied in preparation for leaving school, but changes in recruitment strategy created by the adoption of the clearing house system, led to a shortfall in applicants for the other two intakes. This resulted in the unique situation in which recruits were enrolled only weeks after expressing an interest in studying on the course. The subsequent rate of departure led to the writer's conviction that it is beneficial to have a 'psyching up' period of several months between application and admission to allow for pre-emptive role rehearsal and social adjustment. A period of time when the aspirant can by pre-reading, voluntary activity, and 'networking' appropriate contacts begin to learn the jargon and customs and plan strategies for the forthcoming changes that the new role will impose on his/her life.

Table 5.1 Record of Attrition From the Pilot Course Cohorts One to Ten

Coh	Initial intake	Disc	%	Mn ag	M	F	Gr	O/A	DC	FC	Md 1	Md 2	Md 2b	Md 3	Md 4	Md 5	Md 6
1	24	2	14	24	1	1	1	1	0	0	1	0	0	0	0	0	1
2	49	7	14	19	1	6	1	4	1	1	6	0	0	0	0	0	0
3	48	5	10	21	2	4	3	2	0	2	1	1	0	1	0	0	0
4	46	12	26	20	2	10	2	10	0	3	5	2	0	0	1	1	0
5	49	3	6	19	0	3	1	2	0	0	1	1	0	0	1	0	0
6	48	7	15	23	3	4	1	6	0	2	3	0	2	0	0	0	0
7	45	2	2	19	0	2	0	2	0	1	1	0	0	0	0	0	0
8	48	1	2	19	1	0	0	0	1	-	1		0	0	0	0	0
9	48	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	48	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tota	453	39		20	10	30	9	27	2	9	19	4	2	1	2	1	1

Code **Disc** = **Discontinues** **M** = **Male entrants**
F = **Female entrants** **Gr** = **Entrants with degree**
O/A = **'O' or 'A' Level entrants** **DC** = **Alternative entrants**
FC = **Foundation Course** **Md** = **Module**
Coh = **Cohort**

Career Selection

Child, Borrill, Boyden, Bygrave (1988) sought to address the issue of ensuring decisions to pursue a nursing career were based on 'realistic insights'. They developed a self selection tool - the Job Information Checklist (see Appendix J-a) - as a means of providing 'would be' applicants with greater understanding of nursing education and practice. It also enabled them to identify areas they needed to explore further before reaching a final decision regarding a nursing career.

This aspect of eliciting the student perceptions of their self selected career; their motives for choosing it; and how they expected to learn and subsequently apply their knowledge in practice led to the recognition of the primacy of the task of identifying and enlightening the naive beginner. It was envisaged that the process would allow prior misconceptions about the work and study involved to be shed - effectively creating a 'clean slate' - a neophyte who was ready to accept reality and benefit, without delay, from the programme of occupational learning and preparation.

Entrants' Prior Expectations of Nurse Education and Nursing Practice

In order to investigate the entering students' preconceptions, reasoning, and motivations regarding their educational preparation and eventual occupation, an entry questionnaire was devised. The instrument sought base line information on entrant expectations and perceptions, previous occupations, and the influential factors that had led to their career choice. A copy of the Entry Experience and Expectations Questionnaire is included in Appendix I.

Occupational History

Experience of work in related fields was an area of particular interest since, despite the aforementioned reservations, it could be assumed that such work would have provided some basic insight into the demands of nursing.

Nursing selection criteria include a preference for experience in the field of care assuming it to be an indication of motivation and commitment. However as Land (1994) noted that there were widely varying interpretations, among selectors, regarding what constitutes appropriate job experience. Final acceptance was not dependent on such experience but where it was absent, it was usually recommended that some form of experience be gained while awaiting course commencement. No follow up was made to discover if such suggestions were acted upon.

Paid Employment

The chief focus was on paid employment since it was more likely to be defined, consistent, and subject to some degree of training and development. A job title was asked for together with an estimate of the length of employment in former posts.

Voluntary Experience

Information regarding the nature and amount of voluntary experience was also sought. Claims of voluntary caring experience made at interview, were often euphemistic in terms of acquisition of prior understanding of caring activities. The 'experience' was variable and in many cases, later found to be confined to merely observing superficial care giving. It extended across a broad spectrum from assisting at a play group through accompanying

the handicapped on outings to relatively rare incidence of active involvement in the physical management of the elderly and or infirm.

Length of Engagement

Investigation of the time spent on such activities was also included. The range of involvement was wide though many of the reported 'voluntary' activities were performed as part of a school or college course requirement covering only a few hours in total duration. There were however a few instances of voluntary commitment that covered regular weekly attendance over a period of years.

Career Choice

Sources of influence that led to the recruits' choice of career was a subject of enquiry as was the age of decision to enter nursing. Was it, as the common public perception of nursing suggests, a long term ambition - an emotive, vocational commitment maintained since childhood? Alternatively, was a reasoned decision based on consideration of career advice and options? The literature review noted that beginners with noble vocational aspirations often became disillusioned. Equally there is the possibility of a romanticised fictional effect which in the UK might be referred to as the 'Mills and Boon' influence.

Waiting Time

Enquiry regarding views on the appropriateness of the length of time spent awaiting entry was included in order to discover the period of waiting that had proved most effective in providing time to engage in individual pre-course preparation.

Reason for Choice of College

Reasons for choosing the College were explored and it was envisaged this that information would also be useful for future recruitment purposes.

Concepts of Nursing

Entry expectations were elicited by using Child et al's (1988) Job Information Checklist. Though, as noted, the checklist was devised to provide potential applicants with information on nursing as a career it was felt that the tool would be equally valid as a means of identifying the entrants' beliefs regarding the education and practice on which

they were newly embarked. The author's permission was gained to incorporate the instrument into the questionnaire.

Piloting of the Expectation Questionnaire

Piloting was undertaken with 40 pilot entrants from Cohort Ten and this was supplemented by 5 randomly chosen teachers, engaged in their course presentation. All completed and reviewed the expectation questionnaire: no objections to its use were raised by either group of participants. The findings were collated, and found to provide the required information. Completion of the instrument then became part of the introductory strategy for all entrants commencing after Cohort Three. Subsequently minor changes were made to meet changing needs over the life of the programme.

Administration of the Expectation Questionnaire

The questionnaire was completed by all entrants in the presence of the writer before any formal lectures or classes were undertaken. The results were collated, categorised and presented to recruitment and course managers in the form of percentages to allow comparison and monitoring over cohorts. It enabled areas of misunderstanding to be promptly addressed and changes in beliefs occurring over time to be identified.

The Sample

The report of the results of a mid-course entry were regarded as an appropriate means of illustrating the general response to the questionnaire, and Cohort Fourteen was randomly selected from the relevant cohorts . The findings are supported by the findings of the final Cohort Eighteen's responses. Comparison with this final group was carried out to identify any change that might have occurred over the intervening period between the mid-programme and final intakes.

There were few significant differences so, in the interest of brevity and avoidance of lengthy statistical elaboration, the results are confined to percentages, and discussion is limited to issues of salience to the study.

The Results

The occupational history of the respondents' engagement in full or part time posts from Cohort Fourteen is presented in Table 5.2. Since the intention was to make judgements on the overall quality and length of such experiences the post held for the longest period is the one recorded.

The table demonstrates the breadth of experience the students claimed to have gained and shows that approximately 44% of Cohort Fourteen had been involved in caring experiences in a full or part time capacity. This figure had fallen to 37% in the final cohort presumably due to the continued fall in job opportunities. Twenty one (48%) of Cohort Fourteen students had been in full time posts, the most common of which was that of care assistant- ten (23%). Eleven (26%) had not been employed since leaving school or college. The length of time Cohort Fourteen respondents had been in the full time paid jobs ranged from 1 to 9 years with a mean of 5.9 years and a median 5.5 years. The mean duration of part time jobs was 5 .1 years and the range was 1-9 years with a median of 6 years. Eleven (26%) of these respondents had recorded part time jobs, the most common being child care. The mean number of part time hours was 15.1 a week.

Table 5.2 Nature of Paid Employment Cohort Fourteen

Type of Work (n=43)	F.Time	P time	Total
Care Assistant	8	2	10
Dental nurse	2	0	2
Medical receptionist	1	0	1
Medical technician	2	0	2
Child care	1	3	4
Sales	1	4	5
Catering	1	1	2
Clerical	1	1	2
Industry	2	0	2
Finance	1	0	1
Veterinary nurse	1	0	1
Total	**21**	**11**	**32**

Key F.Time= full time, P Time = part time

Voluntary Occupations

Only nine (21%) of respondents from Cohort Fourteen claimed to have had no experience of either paid or voluntary caring in its broadest sense. Similarly only 18% (8) of Cohort

Eighteen had no previous caring experience. Those employed in caring activities were less likely to engage in voluntary activities; only one reported also engaging in voluntary care. Others listed a number of different activities. The largest group had performed the activities as part of courses of study and the most common undertakings involved visiting the elderly or handicapped in their own homes or residential establishments. Table 5.3 illustrates the nature and motivation for Cohort Fourteen's activities whether self initiated or carried out as work experience for study requirements.

Table 5.3 Voluntary Activities: Self Initiated or for Study Purposes .

(n=43)	Self initiated	School initiated	Total
Visiting	7	3	10
Child care	1	3	4
First aid	0	1	1
Care assistant	1	2	3
Unspecified	0	11	11
Youth leader	0	1	1
Education assistant	0	1	1
Total	**9**	**22**	**31****

**Some recorded engagement in several voluntary activities.

Influences on Career Decision

The responses to the question regarding sources that led the recruits to arrive at their career choice were analysed. The findings demonstrate the important role played by family and friends who are nurses - 34% of the Cohort Fourteen and 28% Cohort Eighteen. These findings reflect those of Kersten and Bakewell (1991) and Land (1994). In addition 50% of both groups valued the help of the career information and advisory service.

Age of Career Decision

As noted the age of decision to become a nurse is important as a predictor of career success. In this study the decision was generally found to have taken place prior to school completion; 53% of Cohort Fourteen and 68% of Cohort Eighteen decided between the ages of 13 to 16 years. Early ambitions, reached before 12 years, accounted for only 23% of Cohort Fourteen and 20% of Cohort Eighteen. Chief reasons given for choice of a nursing career can be categorised under the umbrella term of altruism, a reason cited by 21% of Cohort Fourteen. The impact of previous relevant experience was referred to by

19% and 7% simply wanted a career. Almost 12% of Cohort Fourteen and 5% of Cohort Eighteen named experience in the workplace as the main influence. The implications are that recruitment opportunities exist among women seeking to re-enter the job market after child raising, men and women encountering redundancy or unemployment, and those in work but seeking career change.

Reactions to Time Awaiting Entry

The mean length of waiting time following acceptance was 12.7 months and the range was from of 3 to 24 months. This data was available for Cohort Fourteen only. Delay in entering was regarded positively by 81% of the respondents. Some added comments for example: '*The wait was just right*'; ' *I didn't mind how long, it was worth it*'; '*it allowed me to try other jobs*'. Of those who felt it was too long the negative comments focused on diminishing motivation over time: '*Sometimes had second thoughts*' .

Reasons Governing Choice of College

The reputation of the College was the chief influential factor in choice of study venue; it was cited by 74% of Cohort Fourteen and 86% of Cohort Eighteen as the governing factor. Location in relation to home was important to 26% of Cohort Fourteen and 54% of Cohort Eighteen. These findings support those of Land (1994), though she found college reputation lost its influence if an earlier place was offered elsewhere.

Nursing a First or Second Best Choice.

The responses to the question regarding other careers was regarded as an indicator of nursing as the preferred career compared with its acceptance as a compromise because more desired occupations were unachievable. The other occupations considered were largely 'people oriented'. For example: police; teaching; or child care; and occupational or physio. therapy. A popular consideration was the armed forces. The findings show that nursing was not a secondary option. 23 (53%) of entrants claimed they had never even considered any other career. Of those who had considered other careers 9 (45%) had actually worked in the capacity of their initial choice of occupation; three (15%) had attended for interview; and 8 (40%) had merely made enquiries.

Knowledge of Nursing as a Job.

Finally the responses to Child et al's Job Information Checklist were collated. The results are presented in Table 5.4.

Incorporated into the Job Information Checklist is an answer check list and information sheet designed to enable the respondent to mark their answers and acquire further information where their responses were incorrect. In the table the correct responses, as identified by Child et al, are highlighted to allow the reader to compare the level of correctness between the groups. While the ideal would be 100% correctness of corporate response, it was felt that 80% would be reasonable in view of the respondents' level of experience. Responses falling on or above the level are therefore are encircled to highlight those significantly correct by this definition.

Interpretation of Results

It can be seen that assumptions of widespread misconception among entering nurses were supported by the scores of both groups. Only nine items (21%) were scored correctly by Cohort Fourteen based on an 80% correctness score. Cohort Eighteen produced some evidence that this lack of insight in entrants had begun to be addressed since they scored 30% of items correct at 80%. Nevertheless the overall results lead to concern that the entrants knew relatively little about the career on which they had embarked..

Areas of Awareness

Some responses were predictable, as acknowledged by the authors Child et al (1988) who felt inclusion was nevertheless justified by the opportunity it gave for clarifying information This predictability was reflected in the high proportion of correct responses for example - Question one regarding the pre-requisite of 5 'O' levels; and - Question 5, referring to gender. Equally predictable was the awareness of issues specifically emphasised in the 'marketing' of the course, for example continuous assessment - Question 8. The Cohorts also identified the clinical arena as the major learning venue Question 6, a point likely to have been emphasised at interview in view of the availability of alternative degree courses. This awareness was also apparent in the proportion of correct responses to Question 9 concerning combining ward work and study. There was a slight difference in response

regarding requirements to work night shifts - Question 11 and - Question 12 concerning organisation of nurses' work. Not surprisingly, in view of the prevailing public image of hard working, exploited nurses (Raynor 1984), both groups were well aware of the demanding nature of nursing in physical and emotional terms. However they recognised the change and variety nursing offers - Question 20, and doubted whether they would experience boredom - Question 31. In view of the diminishing range of traditional nursing care posts it was encouraging to see that they appreciated the range of other available jobs available after qualifying - Question 32. They were surprisingly confident that they would not have to perform tasks without prior practice - Question 21; perhaps this was too broad a question. It should be remembered that the instrument was being used for a purpose for which it was not specifically designed.

Widespread Misconceptions

Areas where there was widespread misconception were taken to be items where the proportion of correctness fell below 30% - Question 4 referring to nursing as a vocation was an example. A possible explanation can be drawn from the writer's experience of younger students' frequent requests for a definition of the word vocation, implying that such values do not have a place in modern idiom or, in consequence, current ideology. Question 18 also accrued a considerable proportion of incorrect responses, indicating a not unreasonable expectancy that students would not be burdened with responsibility or be required to work alone early in their career. One might argue that Child's expected answer that students do have responsibility, so early, demands a definition of what he regards as responsibility prior to the questionnaire completion, and further that compounding working alone with responsibility confuses the issue. It would seem logical for even the most unenlightened novice to assume that certain mundane tasks would not be required to be performed under supervision.

It is interesting to note that, in response to Question 19, Cohort Fourteen take a more pragmatic view of patient gratitude than either the instrument's designers or their peers. Perhaps this may be explained, in the latter case, by their greater previous care work experience, compared to that of the final Cohort Eighteen.

It is of some concern to find both groups so supremely confident that they will learn to cope with responsibility - Question 24. Again there appears to be an undue optimism regarding the opportunity to use personal initiative. It is possible that they had been misled by descriptions of the college philosophy of autonomy that they would have learnt at interview or during recruitment. Surprisingly few of Cohort Fourteen were prepared to predict whether nursing would prove stressful and it is difficult to rationalise this degree of hesitancy. One can only assume that some aspect of their introduction, prior to the completion of the questionnaire, had led to this uncertainty and discrepancy with their peers. Finally the response to Question 34 regarding further training reflects the greater emphasis and realism placed on continuing education in an increasingly competitive job market.

Areas of Confusion

The tool was particularly valuable in identifying areas of confusion. These were taken to be responses that did not produce consistency in answers, whether correct or incorrect, between or within the Cohorts. One of interest to the study concerned a lack of unity regarding the need for nurses to possess a specific personality - Question 3. This issue was raised in the literature and is the subject for discussion in the next section of this chapter. Another item that met with a disparate response concerned whether nurses are required to spend most time on technical duties - Question 13. This uncertainty regarding a fundamental part of their future student role casts doubts on the efficacy of their exploratory information sources as do their responses to questions - 14; 15; 17; 20 and 24. Evidence of such lack of understanding leads to the recommendation that recruitment and selection must address the more fundamental issues involved in studentship and professional practice if applicants are to be fully aware of the implications of choosing nursing as a career.

Conclusion

Examination of student expectations and the basis on which career decisions are formed suggest career choice is a fairly arbitrary procedure. Though some broad experience in the caring field is common, the quality of this experience in providing insight into nursing

activities, values and obligations is apparently overvalued by both the aspirant, nurse selectors and the nursing profession as a whole.

A considerable proportion of entrants indicated that they had reached a decision after consultations with family and friends who are nurses. They had also relied on further information from career advisers. The findings suggest that those who offer either formal or informal advice must recognise the enormity of this responsibility and ensure that their advice is comprehensive, up to date and accurate.

This issue of ensuring that applicants know 'what they are letting themselves in for' becomes one of major importance in relation to Project 2000 when students will be removed from discovering the truth of clinical reality for a much longer period. This creates the possibility that some doubts and misconceptions may remain unresolved until the student and the educating institution have invested considerable time and energy. Course withdrawal on the grounds of career choice error, at this late point, is costly to both the individual and educational establishment.

The topics raised in this section suggest choice of nursing as a career is made to fulfil a wide range of needs, but it leaves unanswered the question as to whether or not student nurses possess a particular personality? The next section will seek to explore this issue further.

TABLE 5.4

Results of Job Information Checklist(RGN)

GROUP Cohort 14 (n=43), Cohort 18 (n=44)

NB a) Child's Answers are Highlighted in **Bold**.

b) A reasonable level of correctness is judged to have occurred when the group response is at 80% or above. Responses at this level are **encircled.**

(1)	If you have 5 'O' levels you can be considered for training as a Registered General Nurse(RGN)	**Yes**	No	?
	Cohort 14	**93%**	25	5%
	Cohort 18	**95%**	2%	1%
(2)	You must have work experience in a hospital before going into nurse training	Yes	**No**	?
	Cohort 14	37%	**58%**	5%
	Cohort 18	7%	**93%**	-
(3)	Nurses should have a specific type of personality	Yes	**No**	?
	Cohort 14	35%	**60%**	14%
	Cohort 18	61%	**39%**	2%
(4)	Nursing is a vocation in life.	Yes	**No**	?
	Cohort 14	65%	**14%**	21%
	Cohort 18	72%	**16%**	11%
(5)	Nursing is a job suitable for both men and women.	**Yes**	No	?
	Cohort 14	**98%**	2%	-
	Cohort 18	**98%**	2%	-
(6)	During training most of the student nurse's time is spent studying, in the nursing school/college.	Yes	**No**	?
	Cohort 14	5%	**88%**	7%
	Cohort 18	7%	**91%**	2%

(7) When they first start training, student nurses, are mainly observing on the wards.		Yes	**No**	?
	Cohort 14	37%	**37%**	25%
	Cohort 18	59%	**32%**	9%
(8) Student nurses are assessed throughout training		**Yes**	No	?
	Cohort 14	**97%**	2%	-
	Cohort 18	**100%**	-	-
(9) Student nurses have to work on the wards and study at the same time.		**Yes**	No	?
	Cohort 14	**88%**	2%	9%
	Cohort 18	**91%**	4%	-
(10) Student nurses do only general nursing until they are qualified.		Yes	**No**	?
	Cohort 14	28%	**51%**	16%
	Cohort 18	54%	**34%**	11%
(11) Student nurses work on night shifts.		**Yes**	No	?
	Cohort 14	**79%**	5%	12%
	Cohort 18	**84%**	14%	2%
(12) Nurses' work is organised by doctors.		Yes	**No**	?
	Cohort 14	9%	**79%**	12%
	Cohort 18	-	**95%**	4%
(13) Student nurses spend most of their time doing technical nursing (e.g. injections, blood pressures).		Yes	**No**	?
	Cohort 14	46%	**46%**	7%
	Cohort 18	18%	**59%**	23%

(14) Many student nurses, feel squeamish about coping with blood, sick and excrement.

	Yes	No	?
Cohort 14	**39%**	35%	25%
Cohort 18	**52%**	4%	14%

(15) In the ward team student nurses and staff nurses all do the same type of work.

	Yes	No	?
Cohort 14	25%	**39%**	35%
Cohort 18	32%	**54%**	14%

(16) Nursing is hard, tiring and emotionally demanding.

	Yes	No	?
Cohort 14	**88%**	2%	9%
Cohort 18	**93%**	-	7%

(17) Student nurses easily fit in when they start working on the wards.

	Yes	No	?
Cohort 14	32%	**5%**	63%
Cohort 18	45%	**32%**	23%

(18) From their first day on the ward student nurses are given responsibility and may have to work alone.

	Yes	No	?
Cohort 14	**19%**	67%	14%
Cohort 18	**25%**	59%	16%

19) Patients are grateful and co-operative.

	Yes	No	?
Cohort 14	**21%**	28%	51%
Cohort 18	**39%**	39%	23%

(20) Nurse training is exciting and interesting because there is so much variety and change.

	Yes	No	?
Cohort 14	**90%**	2%	7%
Cohort 18	**98%**	2%	-

(21) Student nurses are always taught a procedure before being asked to practise it on the ward.		Yes	**No**	?
	Cohort 14	95%	**2%**	2%
	Cohort 18	98%	**2%**	-
(22) Student nurses soon learn to cope with death.		Yes	**No**	?
	Cohort 14	44%	**14%**	2%
	Cohort 18	52%	**27%**	20%
(23) Inexperienced student nurses are seen as a nuisance by qualified staff		Yes	**No**	?
	Cohort 14	5%	**51%**	19%
	Cohort 18	16%	**64%**	20%
(24) Student nurses soon learn to cope with responsibility.		Yes	**No**	?
	Cohort 14	81%	-	19%
	Cohort 18	84%	**9%**	7%
(25) Qualified nurses have plenty of time to spend with patients.		Yes	**No**	?
	Cohort 14	12%	**46%**	39%
	Cohort 18	9%	**77%**	14%
(26) Student nurses are encouraged to use their own initiative.		Yes	**No**	?
	Cohort 14	79%	**30%**	56%
	Cohort 18	95%	**2%**	2%
(27) Student nurses are allowed to answer patients' questions and relatives' question.		Yes	**No**	?
	Cohort 14	14%	**30%**	21%
	Cohort 18	36%	**32%**	32%

(28) Nursing is stressful.		**Yes**	No	?
	Cohort 14	**14%**	30%	56%
	Cohort 18	**79%**	14%	7%
(29) After qualification nursing becomes less stressful.		Yes	**No**	?
	Cohort 14	9%	**60%**	14%
	Cohort 18	7%	**79%**	14%
30) Nursing dying people is always upsetting		Yes	**No**	?
	Cohort 14	58%	**14%**	28%
	Cohort 18	73%	**20%**	7%
(31) Nurses have little opportunity to get bored.		**Yes**	No	?
	Cohort 14	**79%**	7%	14%
	Cohort 18	**91%**	2%	7%
(32) After qualifying, there are a variety of jobs a nurse can do.		**Yes**	No	?
	Cohort 14	**86%**	6%	14%
	Cohort 18	**98%**	2%	-
(33) Newly qualified staff are always given a job in the hospital where they trained		Yes	**No**	?
	Cohort 14	7%	**65%**	32%
	Cohort 18	4%	**75%**	20%
(34) Nurses need to do further training in order to get promotion.		Yes	**No**	?
	Cohort 14	53%	**16%**	30%
	Cohort 18	75%	**14%**	11%
(35) Most nurses work in hospitals.		**Yes**	No	?
	Cohort 14	**65%**	23%	12%
	Cohort 18	**52%**	34%	14%

Section Three

Exploration of Values

This section describes an exploration of a sample of nursing students' perceptions and beliefs about themselves and their chosen profession. The focus is premised on the writer's assumption that diversity and individuality within the nursing population are attributes to be fostered and encouraged as necessary adjuncts to the developmental growth of the individual nurse and the nursing profession as a whole.

Influence of Personality.

The previous section concluded by returning to the recurring question regarding the relationship between an individual's personality and nursing career decisions. The motivating factors or specific qualities that lead to particular occupational choices remain subjects of general research for occupational psychologists and an area of specific interest to recruitment officers in nursing.

Some of the observations, presented in the last section, appeared to support the argument that choice of career is not a reasoned decision based on self assessment of personal qualities but is, in fact, fairly arbitrary. This would imply that it is the subsequent combination of role socialisation and the demands of the job that tailor the initially disparate personalities, eventually moulding them into the corporate image the profession presents to the world. Many writers however take it as axiomatic that possession of certain characteristics influences occupational self selection.

Characteristics Appropriate to Nursing

Child et al (1988) note that certain aspects of personality and intellect are likely to be beneficial in meeting the multiplicity of demands of modern nursing. The examples provided include competency in communication and technical and management skills. The authors consider it logical to assume that certain personality traits, needs, and attitudes affect the individual's coping skills in the performance of the job.

Self Selection

According to theories of self efficacy (Bandura 1977) the act of selecting nursing as a career implies that the individual has judged him/herself capable of succeeding in

the role. In reaching this conclusion it is likely s/he will have taken into account the likelihood of being required to meet exacting emotional demands.

One can also assume due consideration will have been given to the well recognised duties of caring for the dependent patient including performing for him/her the intimate tasks that, in health, would have been his/her personal and private responsibility. It is therefore conceivable that the person choosing to become a nurse has an image of self that encompasses some of the qualities contained in the public's general image of a typical 'angel' nurse. Such qualities as for example, enduring patience, tolerance, and willingness to work hard for the benefit of others.

Altruism

The literature review referred to the claims of altruistic motivation made by many nurse entrants. These include a desire to care for those who suffer and to further their recovery. Others question whether such noble values are intrinsically motivated; Land (1994) posits that some aspiring nurses may be secretly dependent on what she refers to as the *'therapeutic community'* of nursing. The review of the self perception literature led to speculation that nursing may attract submissive inadequate personalities who seek to bolster their self image through exercising power over weaker individuals.

Consideration of such arguments culminated in the recognition that, in order to draw conclusions regarding the effect of the educational regime on the students' self perceptions and values, it was necessary to establish their pre-entry images of themselves and of the profession. It would also be expedient to discover if these beliefs and attitudes were affected during the course of their nurse education.

Effects on Self Esteem

One of the study sub-questions related to the hypothesis that the focus on individual worth, that was fundamental to the total ethos of the pilot study programme, would avoid the former potentially damaging effects on student self esteem. It is the writer's view that in the past harmful effects occurred as a result of the hierarchical system of traditional nurse training in which the value of the individual was measured purely in terms of seniority. Junior nurses were expected to conduct themselves with

unquestioning obedience and servility. In addition it was postulated that the traditional training approach had marginalised diversity and promoted conformity thus maintaining a restricted stereotype that harked back to the militaristic foundation on which the nursing profession was grounded. The programme's individualistic innovations were designed to overcome such traditional impositions.

Comparisons of Progressive and Traditional Educational Programmes

To establish the success of the pilot educational programme, in this specific context, the exploration was broadened to allow comparison with students from two other nursing colleges. One was College C, which claimed to be offering a conventional programme based on traditional lines while the control College M was an organisation with a reputation for providing a modern nursing curriculum.

It was proposed to investigate the pilot programme's capacity to maintain or enhance the students' self and professional concepts by measuring the two elements at three specific points in the educational process in the three colleges namely; on course entry; at a central point in the three year programme; and on course completion. Comparisons would include measurements of the self perception and professional concepts of the nursing profession of opportunistic samples drawn from each institution's student population. It seemed reasonable to assume that on entry there would be congruity between the responses to the two sections of the instrument since those with a positive concept of self would be likely to have chosen a profession that they perceived as worthy of themselves and conversely, if they had low self worth, they would probably place a low value on the profession which they considered matched their capabilities.

The Sample

Access to two cohorts of students from each nursing college was obtained and the course managers of the next entrant cohort arranged for the writer to visit and administer the questionnaire at the allotted times. The first of the two samples from each College would be entrants in their initiation period. Permission was also gained for subsequent access for a post test to be undertaken between the twelfth and eighteen month of their studies. The second sample would be first tested in the early to mid point of their

second year and their post test was timed to take place immediately prior to the conclusion of training. In this way in a period of eighteen months pre and post data would be obtained from subjects at three points in the three year course of education for the entrant sample at entrance and mid-point, and, for the mid point sample, at mid point and course conclusion. In the study College members of Cohort Ten agreed to co-operate immediately after entry and Cohort Six willingly participated as they approached the mid point of their course. Permission was also gained from the other two colleges to obtain additional baseline demographic information and learning style measurements from both sets of samples.

Demographic details of the participants from the three colleges are included in Table 5.6.

The Semantic Differential Method

Osgood's (1952) semantic differential technique was selected as a means of eliciting the data required. Osgood devised the method as a standardised means of measuring meaning. The method involves the use of a scale on which the differing meanings individuals apply to certain words can be represented. It also employs factor analysis to identify and aggregate the related factors to allow comparisons to be drawn between both individuals' and groups' semantic interpretations.

The instrument comprises a series of descriptive pairs of adjectives one of each pair of words is placed at one end of a continuum and its semantic opposite put at the other end. The participant is asked to judge the meanings of the bipolar adjectives, by placing a X on a on a seven point scale. In describing the procedure Osgood and Suci (1969) used the following example:

HOUSE

Straight__:__X_:____:____:____:____:____Crooked

The accompanying text instructed the respondent that if they felt the concept was *'quite closely related'* to a particular side of the scale the cross should be placed accordingly, as in the example.

(Osgood and Suci in Snider and Osgood 1969 p 45).

The Concepts of Self and the Nursing Profession Questionnaire

For the purpose of the present study a two part instrument was devised. This included the concepts of self and the nursing profession that had been identified, in the literature, as relevant to nurse education. Modern and traditional nursing values were used in the selection of the items for the instrument. Qualities currently valued by modern nursing were identified from nursing advertisements, course curricula, and job descriptions. Colleagues were also asked to define the qualities regarded as particularly desirable in their varied clinical working places. Following the omission of words with similar meanings the list included:

Professional	Assured	Sympathetic	Responsible
Reflective	Democratic	Friendly	Optimistic
Outgoing	Practical	Achieving	Research Aware
Judicious	Organised	Confident	Valued
Creative	Autonomous	Leadership	Progressive
Teamworker	Empathetic	Critical	Enthusiastic
Committed	Caring	Academic	Dynamic

Traditional descriptive words were obtained from pre-NHS nursing textbooks and were augmented by suggestions from six nurses trained a generation ago, including the writer, who recalled the prevailing beliefs, and values that appeared to have been operative during their nurse educational experiences. Some of the words were less applicable to the independent practice of nursing today, but, several occurred in both lists. Included were many of the qualities demanded of a 'good' nurse referred to in the literature review.

The traditional list comprised:

Speedy	Obedient	Sensible	Prudent
Polite	Punctual	Respectful	Conscientious
Calm	Kind	Neat	Discreet
Honest			

(It was interesting to note that some of the selected adjectives in the lists of adjectives were the same concepts used in Osgood's original instrument for example speedy, kind and calm as above.) 28 modern descriptive words and 13 encompassing earlier values were produced. Consultation with expert nursing colleagues from varied clinical and nurse education fields led to the inclusion of independence, altruism, persistence and patience. All the words were paired with their semantic opposites, and in the first section of instruments the word pairs were placed at the extreme poles of the scale on which the participant was required to judge the words in relation to accuracy of description of him/herself. To maintain consistency with the other scaled instruments used in the study the scale was reduced from Osgood's original seven down to five points.

The usual study pattern of scaling from 4 (the most accurate description) down to 1 was supplemented by the opportunity to assign a zero by means of a cross placed outside the scale on the right hand side to indicate either an inability to differentiate between the adjectives or a wish not to respond. The order of presentation of positive or negative adjective in the right or left column was randomised. In part two of the instrument the 46 key words were incorporated into short descriptive statements regarding the nursing profession and the participant was required to indicate his level of agreement/disagreement with the statements on a Likert type 4 to 1 point scale with the additional option for indicating a zero outside the scale to indicate inability to differentiate or failure to co-operate in responding.

Piloting the Instrument

The instrument was piloted with Cohort Four, on entry, and Cohort One on their course conclusion. A group discussion of the instrument followed immediately after completion. The group reaction to the questionnaire was largely favourable. Once they had fully understood what was required they had found it quick and easy to complete but it was suggested the instructions should include examples of completed items. This idea was adopted and incorporated in the introduction to each of the two parts of the instrument. The students also suggested minor semantic changes. For example some word pairs were felt to be irritatingly facile; the predictability of response, to kind/unkind or polite/impolite might, it was suggested, lead to failed responses. Other changes suggested sought to increase clarity by replacing less familiar words such as altruistic/uncharitable or judicious/injudicious with more modern terms.

In addition 10 nurse teachers, chosen randomly from the permanent teaching staff list, also completed the instruments and described them as both comprehensive and easy to understand and complete. A member of the teaching staff suggested that the written instructions should be accompanied by a verbal emphasis of the zero option for respondents' unable or unwilling to respond to an item. This practice was adopted and strictly adhered to whenever the questionnaire was administered.

Following the suggested adaptations 46 semantic pairs remained and the second part of the instrument - which incorporated the same words contained in brief statements about the profession - was accordingly modified. The instrument was then adopted for use. A copy of the semantic differential questionnaire Concepts of Self and the Nursing Profession Questionnaire is included in Appendix Ka.

The Procedure

Each sample group was given identical instructions and details of the study, which was described as an investigation into current nurse educational practice for the pursuit of a higher degree. Assurance of confidentiality was given and an identification code was issued. The participants were told they were not obliged to co-operate but if they agreed it was expected that they would comply with a request for a post test in about a years time.

Completion of the instruments was undertaken in class in the presence of the writer and were completed by all but one of the students present in the two external colleges and by 100% of those present in the study college. The post tests took place at the convenience of the various timetables but all were conducted within the allotted period. Numbers for the post test were reduced by attrition, natural absences, or possibly withdrawal of compliance, but were nevertheless considered within reasonable limits for comparison purposes.

Analysis

A wealth of data was obtained and this was prepared for computer analysis and submitted to an SPSS programme (Release 3). Parametric tests were the method of choice for analysis, because they have the ability to examine the effect of several independent variables on the dependent variable and to allow a study of the interactions. Some statisticians further claim that parametric tests are more powerful at picking up significant differences though the argument does not have universal agreement (Open University: D303 1982 pp 26). In the past it had been argued that parametric tests should be used only for interval and ratio data, but Youngman (1979) identified semantic differential scales as a particular example where ordinal relationships can generally be treated as interval for the purpose of analysis. It has now become widely accepted that parametric tests have more flexibility and rarely distort results for ordinal data providing the sample size is sufficient (Munro 1993). However an assumption for parametric tests is that they follow a Gaussian curve so it was necessary to ensure that the distribution was satisfactory before a final decision could be reached. Other analytical tests to which the data was submitted included correlation, and factor analysis. In addition a multi-variate analysis of variance was used to allow simultaneous consideration of differences between time and educational courses. A univariate test was undertaken to identify courses or groups in instances where the findings of the multi-variate analysis had revealed significant findings.

Tests employed in Analysis

Since parametric tests are used in instances where the distribution is normal it was important to ensure that false assumptions were not made concerning the normality of distribution of the variables to be measured in the sample. Consideration was therefore

given to the question of the distribution of the statistics and table 5.5 includes a report of an examination of the distribution for the self and professional scales.

Table 5.5 Summary Distribution Statistics for the Self and Professional Scales

Item	Scale	N	Skewness	Kurtosis	Mean	Sd	Min	Max
1	Self 1	205	.185	-.245	1.99	.38	1.18	3.09
2	Self 2	205	.176	.621*	2.28	.29	1.60	3.40
3	Self 3	205	-.251	.499	3.16	.38	1.92	4.00
4	Self 4	205	-.105	.975*	2.01	.35	1.00	3.13
5	Selfp 1	170	.355*	-.208	2.00	.34	1.27	2.91
6	Selfp 2	170	.013	.647*	2.34	.28	1.70	3.40
7	Selfp 3	170	-.130	-.518*	3.20	.35	2.36	4.00
8	Selfp 4	170	-.215	.568	1.99	.34	1.00	2.88
9	Prof 1	205	-.242	.655*	2.46	.31	1.60	3.40
10	Prof 2	205	.125	-.338	3.31	.31	2.50	4.00
11	Prof 3	205	.268	.510	2.76	.38	1.67	4.00
12	Prof 4	205	.047	.283	2.12	.39	1.00	3.22
13	Profp 1	170	.431**	.587*	2.53	.27	1.80	3.40
14	Profp 2	170	.171	-.587*	3.31	.30	2.63	4.00
15	Profp 3	170	.040	-.157	2.80	.33	1.83	3.67
16	Profp 4	170	-.081	.625*	2.26	.35	1.33	3.22

Significance markers indicated as follows:
Values required for significant deviation from normality (for n=200 cases)
Skewness:

* p<.05	.280	(item 5)
**p<.01	.403	(item 13)

Kurtosis:	*p<.05	+.57	(items 2,4,6,9,13,16)
		-.49	(items 7,14)
	**p<.01	+.98, -.63	(none)

The conclusion reached was that:

1. Skewness is not likely to be a major problem with only 2 variables showing deviation from normality.
2. Kurtosis is more prevalent with the tendency towards positive kurtosis (peakedness), but not excessively so.
3. Since the variables are being employed in between-groups testing they should be reliable so long as a suitably robust test (the Scheffe) is used, and interpretations are appropriately cautious.
4. Since the kurtosis is positive (i.e. scale discrimination around the centre is reduced) the effect would be to reduce the number of significant results rather than exaggerate them.

Analysis of Reliability were also undertaken and the results are recorded Appendix K Table K-d

The Results of the statistical analyses are reported in the next section.

Section Four

Results of Analysis.

It was acknowledged in section Two that recruitment and selection processes vary across nurse educational institutions and, though there is a national pre-requisite of five 'O' levels for nurse entry, interpretations vary resulting in a wide range of attributes being used as criteria between colleges. It must therefore be acknowledged that the capacity for assuming there is comparison of 'like with like' in this area of the study is tenuous and generalisations are made with caution.

Demographic Details of Samples

The three colleges from which the semantic differential comparisons were made were drawn from a radius of 40 miles. The pilot college (P) and the modern college (M) are both teaching hospitals while the conventional college (C) is a small district general hospital. The literature has shown that student choice of college is generally governed by its reputation, locality, and type of course offered. All three hospitals were recognised as popular centres for nurse education.

The demographic details for the three colleges however reveal differences in the characteristics of the samples (see Table 5.6). Taking the alternative entrants' tests as a guide College C had the most (mean=2.00) while College M the least (mean= 1.26) there were also gender differences 19% of the College P sample were male compared with 17% at College C and only 12% at College M.

The ages differed across the three colleges the mean age of College C sample was 23. 4 years, while at College P it was 21.1years, and it fell at College M to 20.8years, there was a marked difference in the age range. The sample for College P had an age range from 18-44 16% of whom were mature students (i.e. 24 years or over) The College M sample had a narrower range from 18- 35 years with 14% mature students but the College C sample age ranged from 18-44 and 30% were mature students. The Table demonstrates the variation in sample characteristics.

TABLE 5.6- Demographic Details of the Three College Samples

	College P (n= 76)		College C (n=63)		College M (n=69)	
Variable	**Mean**	**Sd**	**Mean**	**Sd**	**Mean**	**Sd**
'O' levels	5.65	2.30	5.80	2.04	6.51	1.98
'A' levels	1.64	.91	2.11	.90	1.83	.89
DC. Test	1.76	.43	2.00	.00	1.25	.46
First Degree	2.66	1.15	2.00	.00	1.25	.46
Age	21.1	4.8	23.4	5.97	20.8	3.13
Age Range	18-44		18-35		18-44	
% age 24yrs. & over	16%		30%		14%	

Gender	M	F	M	F	M	F
	19%	81%	17%	83%	12%	88%

Mode of Analysis

Because of the need to make comparisons and draw correlations from the relatively large amount of information which included demographic details, and semantic differential questionnaire and LPI responses, it was decided that analysis would require to be carried out by means of a computer programme. The results of the pre. and post responses to the semantic differential instrument completed by the samples from the three colleges were therefore coded and subjected to relevant procedures within the SPSS computer package.

Correlation

Pearson Product Moment Correlation Coefficient was computed with the purpose of measuring the strength and direction of relationships. This correlation technique is the favoured method for factor analysis (Child 1990). The resulting matrices are included in Appendix K Table K-b. and Table K-c. The tables demonstrate that though none could be classified as very high there was evidence of reasonably strong relationships between the variables. This interpretation took

account of the sample size of 197. Strengths of 0.26 to 0.49 were taken as indicative of low correlation while those in the 0.50 to-0.69 range were interpreted as moderate, a definition advocated by Munro (1993).

Factor Analysis

To aid interpretation of the information produced by the combined instruments it was necessary to reduce the data into intercorrelated grouped factors. Factor analysis using

both Varimax Rotation and Kaiser's Oblique Rotation of the two 46 by 46 matrices of correlations was carried out to allow identification of common factors between the variables, the rationale for using the two rotational procedures is discussed later.

Self Description Part One.

Table 5.7a records the Self Perception principal components analysis, and the Eigenfactors illustrate the total amount of variance in the unrotated factor matrix. Altogether 14 factors had Eigen factors of 1.0 or above leading to the conclusion that the findings were occurring above the chance level. They accounted for 65% of the cumulative variance, however in the interest of practicality fourteen factors was too many for the purpose of analysis and interpretation, it was therefore necessary to reach a decision on the number of factors to extract, bearing in mind the needs of the study question, and the need for brevity, clarity and lack of bias in interpretation.

Determination of Number of Factors

Turning first to the literature, there is evidence of considerable debate among eminent writers concerning the number of factors that should be selected. The main concerns can be summated in terms of parsimony, subjectivity in choice of factors; sampling adequacy; factorial simplicity and research utility.

Parsimonious Data Reduction

Bennett and Bowers (1976 p 448) argue that the main aim of factor analysis can be described as *'parsimony of description'* and this reinforces a view promoted by Nunnally (1967 p305) who calls for *'statistical parsimony to be given 'paramount consideration'*

Cattell (1966) and Nunnally (1967) emphasise the need to consider the range of factors and Cattell (1966 p206) suggests the key question is *'where do we stop factor extraction'*. He identifies the primary aim as removal of the *'comprehensive non trivial common variance'*. He promotes the Scree test as a quick and convenient approach to reaching a parsimonious decision. In this test a graph of the latent roots is plotted in relation to the numbered factors, this produces a characteristic curve from which deductions can be made regarding the number of factors to extract. The general view is that the number of factors to be extracted should be taken from the initial point at which the Scree slope straightens

out (Cattell 1966, Child 1990). These writers also propose that a convenient rule for estimating the number of variables is Kaiser's criterion of only using factors with latent roots greater than one - i.e. those with eigen values greater than 1.0 - though it should be noted that Cattell (1966 p207) regards this criterion as less reliable when there are fewer than 20 or more than 50 variables in the sample. Another concern raised by various writers centres on the risk of subjectivity.

Subjectivity

There appears to be an acceptance that complete objectivity is not compatible with factor analysis. Crawford (1975) cites a number of studies where the employment of different analytic psychometric or statistical criteria resulted in inconsistencies in the number of factors identified . Dubois (1965 p 461) emphasises that choice of number of factors is inevitably subjective when he notes that factor analysis is an *'art dependent on the skill and intuition of the investigator'*. He points out it is not a series of *'precisely defined procedures yielding a rigorously objective result.'* Cattell (1966 p207) accepts this constraint when he advocates researchers should use two or three independent tests for confirmation.

Sampling

Cattell's (1966) concern with sampling size was raised earlier in relation to Kaisers criterion, it is echoed by Nunnally (1967 p355) who in emphasising the importance of employing a large sample of persons to a useful rule of taking at least ten times as many subjects as variables. Kaiser and Rice (1974) have devised the Measurement of Sampling Adequacy (MSA) to provide a means of avoiding sampling error.

Factorial Simplicity

Thurstone (1947), Cattell (1966), Kline (1986) all argue that simple structure is essential. Nunnally (1967 p328) also agrees but cites Thurstone's (1947) view that *'no one can completely specify the best approximations of simple structure'*

Kaiser 1974) has developed an Index of Factorial Simplicity (IFS) to facilitate statistical measurement of this aspect.

Research Utility

The need for utility is summed up by Nunnally (1967 p355) when he remarks that the results of Factor Analysis should be *'more significant' than a statistical test, exactness being of less importance than considering the 'reality of factors'*

Conclusion

There appears to be general consensus that a parsimonious decision on the number of factors can reasonably be based on the results of a Scree test, the researcher's intuition and research utility but ideally the decision should be confirmed by the results of one or two further tests.

Finally Bennett and Bowers (1976p 28) provide a list of five characteristics of an 'interpretable' factor loading matrix choice of factors that can be used as criteria on the resulting rotated factors namely:

i. Each variable should exhibit at least one (non significant) loading.

ii. If there is are *n* factors there should be several variables with non-significant loadings in each factor.

iii. For every pair of factors there should be several variables with non-significant loadings in one, but significant loadings in the other.

iv. Where there are four or more variables for every pair of factors, a large proportion of loadings should have non significant values in both.

v. For every pair of factors, there should only be a small proportion of loadings in both.

Justification for Choice of Four Factor Solution

The arguments for a choice of four factors are presented in relation to the Self Perception variables, but it will seen later that the tables 5.8a to 5.8d presented in the discussion concerning the Part Two Professional Concept section of the questionnaire also justify a four factor solution.

Table 5.7a lists the initial statistics of the principle components of the self description questionnaire. It illustrates the Eigenfactors, the total amount of variance in the unrotated factor matrix and provides the Eigenvalue percentage drop. This is illustrated in Table

5.7b which provides a graph plotting the Self Perception Eigenvalue Scree Plot for 20 factors together with the Eigenvalue percentage drop for the 20 factors.

Examination of the findings of the Scree test identified values 4,5, and 6 as candidate solutions. and Table 5.7c provides further endorsement for the decision by presenting Measures of Sampling Adequacy and an Index of Factorial Simplicity (Kaiser and Rice 1974) for both self perception factors four to ten. The Tables illustrate that there are 14 Eigenvalues that meet Kaiser's criterion of being greater than 1.0. In addition the MSA and IFS scores both show scores greater than 80 a point considered by Kaiser to be commendable.

Finally examination of the rotated factors in Table 5.7d shows that the five criteria listed by Bennett and Bower (1976) are consequently met by a four factor oblique solution. (See later)

The interpretation of the findings and the discussion of relevant issues raised above appear to justify the decisions:

a) to use a four factor solution;

b) to focus on Self Perception as an effective means of addressing the research demands, in order to allow conclusions to be reached on the research hypothesis.

Rotated Factors

The next stage in the process of eliciting meaningful interpretation and comparison of the relationships was to identify the related factors derived from the factor analysis and to consider the strength of correlation within the factors. The preferred analytical method was considered to

be an oblique rotational solution. This preference is based on its ability to display correlations among factors, a quality which Youngman (1979) suggests is of value when the variables themselves are closely related. Child (1990) debates the issue of differing emphasis placed on rotational techniques on either side of the Atlantic. He notes that, though many British psychologists argue that orthogonal rotation allows the identification of factors independent of each other, American psychologists are more likely to favour the oblique solutions on the grounds that the interrelationship of the majority of human

behavioural characteristics makes it the more logical analytical approach. In a recent paper Cattell (1995 p 207) states his belief that 'the true position of natural determiners is impossible to find by orthogonal solutions'. He suggests that, since the teachings of philosophy maintain that there is an interrelationship between all *'forces of nature'* Varimax should be *'expunged'* from the list of programmes used.

Table **5.7d** lists the extracted factors together with their identifying item number and semantic pairing. In view of the aforementioned conflict of views the table records for comparison the results of both Varimax (in normal type) and Oblimin (in italics) rotations. In both instances those highlighted in heavy type have a factor loading of .35. The two rotations shared some

similarity but the oblique solutions were chosen for the purpose of study because of their ability to reduce the salient factors, facilitate labelling and provide the added dimensions of inter-relationship measurement. All subsequent discussion of the extracted factors under study is therefore derived from the oblique solutions in both the self perception and professional concepts.

Labels were assigned to the four factors, based on the attributes of the 3 or 4 highest loaded factors, and the Four Extracted Self Concept Factors were labelled:-

Factor A	Dynamism	Factor B	Submission
Factor C	Unconventionalism	Factor D	Academic

Interpretation of the Self Perception Oblique Factor Loadings

A. Dynamism, the self perception Factor A encompassed 10 variables above the .35 cut off point. These include cheerfulness, gregariousness and assertion, items that appear to form a group embracing signs of a positive self esteem.

B. Submission, in self perception Factor B the 10 variables tended to be those items that focus on lowered self esteem - placidity, subservience to others - lack of assurance.

C. Unconventionalism, in self perception the 12 salient variables in Factor C appeared to cluster in direct opposition to the traditional concept of an efficient nurse, (for example disorganisation and selfishness were items that were highly loaded) appearing to indicate a rejection of the conventional 'angel' stereotype.

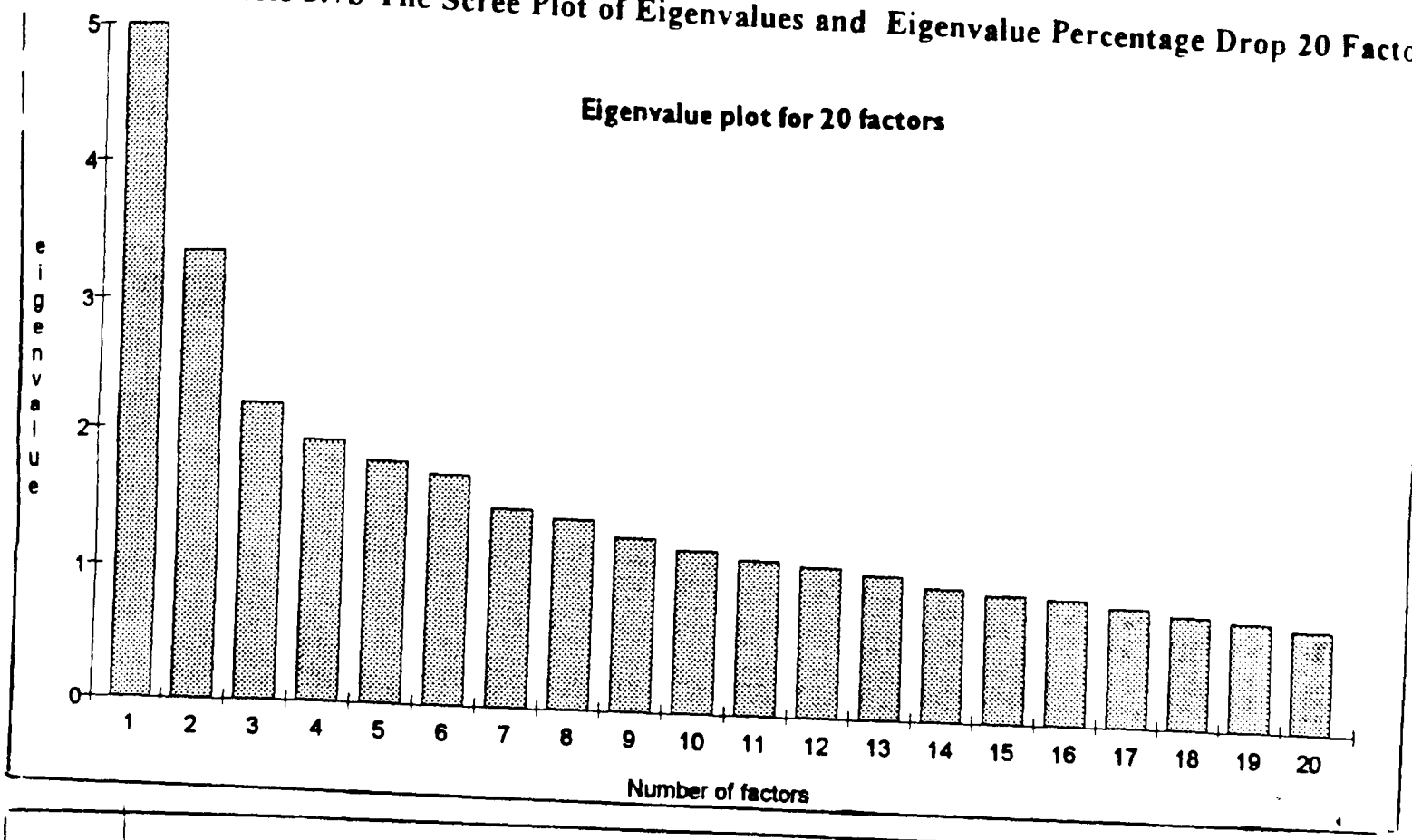
D. Academic, in self perception Factor D the 8 salient loadings were in the area of progressive academic knowledge and creativity.

The overall findings appear to support the assumption that the proposed use of the instrument would allow comparisons to be made on the degree of self esteem and level of confidence of the students from the three colleges at different stages on their training course. However before a final decision could be made the initial analysis of the factors derived from the professional concept section of the questionnaire was examined.

Table 5.7a Self Concepts Principal Components Analysis: Initial Statistics

Variable	Eigenvalue	Percentage of Variance	Cum PCT	% Eig. val.drop
1Self	9.01	19.6	19.6	0
2.Self.	3.34	7.3	26.9	62.9
3.Self.	2.21	4.8	31.7	33.8
4.Self.	1.93	4.2	35.9	12.7
5.Self.	1.80	3.9	39.8	6.7
6.Self.	1.72	3.7	43.6	4.4
7.Self.	1.49	3.2	46.8	13.4
8.Self.	1.43	3.1	49.9	4.0
9.Self.	1.31	2.9	52.8	8.4
10.Self.	1.23	2.7	55.5	6.1
11.Self.	1.17	2.6	58.0	4.9
12.Self.	1.14	2.5	60.5	2.6
13.Self.	1.09	2.4	62.9	4.4
14.Self.	1.01	2.2	65.1	7.3
15.Self.	.97	2.1	67.2	4.0
16. Self.	.95	2.1	69.3	2.1
17. Self.	.90	2.0	71.3	5.3
18. Self.	.85	1.9	73.1	5.6
19. Self.	.82	1.8	74.9	3.5
20. Self.	.77	1.7	76.6	6.1
21. Self	.74	1.6	78.2	3.9
22. Self	.70	1.5	79.7	5.4
23. Self	.69	1.5	81.2	1.4
24. Self	.64	1.4	82.7	7.2
25. Self	.61	1.3	84.0	4.6
26. Self	.58	1.3	85.3	4.9
27. Self	.56	1.2	86.5	3.4
28. Self	.53	1.2	87.7	5.3
29. Self	.52	1.1	88.8	1.8
30. Self	.48	1.1	89.9	7.6
31. Self	.46	1.0	90.9	4.1
32 Self	.43	1.0	01.8	6.5
33. Self	.40	.9	92.7	6.9
34. Self	.38	.8	93.5	5.2
35. Self	.36	.8	94.3	5.6
36. Self	.33	.7	95.1	8.3
37. Self	.31	.7	95.7	6.4
38. Self	.28	.6	96.4	9.6
39. Self	.27	.6	97.0	3.6
40. Self	.24	.5	97.5	11.1
41. Self	.23	.5	98.0	4.3
42. Self	.20	.5	98.5	13.0
43. Self	.18	.4	98.9	10.0
44. Self	.17	.4	99.3	5.6
45. Self	.17	.4	99.6	0
46. Self	.16	.4	100.0	5.8

Table 5.7b The Scree Plot of Eigenvalues and Eigenvalue Percentage Drop 20 Factors.



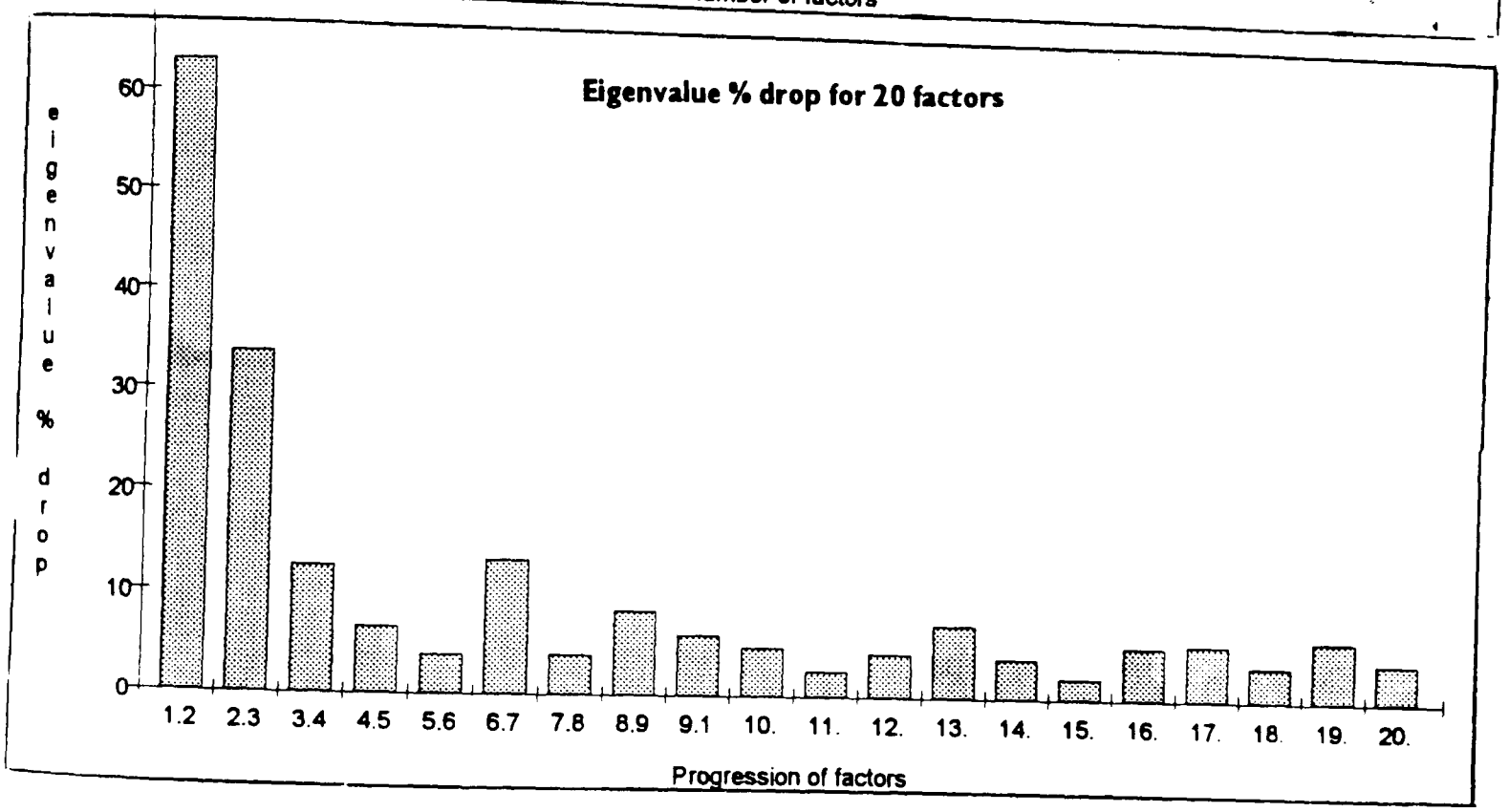


Table 5.7c Measures of Sampling Adequacy and Index of Factorial Simplicity Self Perception Factors Four to Ten.

Self Perception	RMSC	MSA	%var	IFS
Factor 4	.2005	.81	35.46	0.82
Factor 5		.81	39.06	.0.78
Factor 6		.81	42.56	0.73
Factor 7		.81	45.80	0.71
Factor 8		.81	45.69	0.69
Factor 9		81	51.48	0.69
Factor 10		.81	54.13	0.67

Table 5.7d Self Concepts Varimax (plain type) Oblique Pattern Matrices (italics)

Variables Decimal points omitted	1	*A*	2	*B*	3	*C*	4	*D*
07 Cheerful/sad	**52**	*63*	13	*-0*	25	*-3*	04	*27*
19 Distant/friendly	**-5**	*-6*	00	*-0*	-1	*24*	37	*04*
43 Dynamic/dull	**54**	*57*	-1	*07*	42	*09*	-0	*32*
41 Humourless/humorous	29	*-5*	24	*02*	-3	*-1*	19	*-0*
42 Teamworker/isolate	**41**	*50*	07	*23*	**37**	*-0*	-1	*14*
38 Assertive/submissive	**63**	*46*	-4	*-4*	00	*-0*	-0	*19*
21 Communicative/uncommunicative	**69**	*45*	-1	*-2*	-0	*-2*	00	*22*
27 Speedy/slow	**52**	*38*	13	*16*	25	*-1*	-0	*28*
06 Reflective/impulsive	**17**	*-3*	30	*05*	-0	*-1*	28	*00*
09 Optimistic/pessimistic	**39**	*30*	-2	*-2*	07	*-0*	01	*17*
18 Unsupported/supported	-3	*-2*	-0	*00*	00	*24*	23	*08*
23 Empathetic/detached	38	*25*	01	*-0*	**52**	*-1*	**42**	*25*
16 Obedient/questioning	-2	*04*	**43**	*68*	**48**	*24*	-0	*02*
36 Leader/follower	**61**	*46*	**49**	*-5*	-0	*-0*	-0	*16*
46 Placid/argumentative	-1	*-2*	**49**	*50*	20	*03*	19	*23*
32 Disrespectful/respectful	-3	*-0*	**-5**	*-4*	-2	*26*	-0	*-3*
10 Timid/outgoing	**-5**	*-4*	**49**	*48*	-0	*-0*	-0	*-2*
35 Autonomous/obedient	08	*-2*	**-3**	*-4*	-2	*07*	**35**	*24*
02 Unsure/assured	**-5**	*-1*	**19**	*41*	27	*33*	-0	*-1*
03 Sympathetic/unsympathetic	09	*-0*	**42**	*38*	12	*-1*	-0	*11*
45 Smart/ungroomed	34	*19*	**40**	*35*	15	*-2*	-1	*14*
17 Confident/unconfident	**63**	*31*	-2	*-3*	-0	*-2*	00	*21*
29 Uncritical/critical	-1	*04*	21	*28*	06	*-0*	-2	*-2*
15 Disorganised/organised	**41**	*12*	29	*19*	-2	*74*	-0	*-0*
20 Neat worker/untidy	**41**	*-0*	29	*-0*	-2	**-5**	-0	*04*
31 Punctual/unpunctual	30	*03*	**39**	*17*	-1	**-5**	-1	*-0*
24 Selfish/unselfish	**-2**	*-0*	**-3**	*-1*	17	*50*	18	*06*
30 Committed/uncommitted	**51**	*09*	22	*-0*	-1	**-5**	-0	*14*
44 Impractical/practical	**-5**	*-3*	-2	*-1*	02	*-4*	26	*00*
08 Bossy/democratic	-0	*38*	-2	*07*	**46**	*47*	-0	*05*
22 Undervalued/respected	-5	*-2*	-0	*13*	17	*46*	11	*-0*
26 Reliable/unreliable	09	*-1*	**42**	*19*	12	*-4*	-0	*08*
37 Valued/disregarded	**59**	*18*	01	*-2*	-1	*-4*	-0	*17*
13 Unenthusiatic/enthusiastic	**-6**	*-3*	05	*21*	12	*40*	15	*-0*
01 Professional/unprofessional	**55**	*10*	10	*-1*	-1	*-3*	09	*29*
05 Unaccountable/accountable	**-3**	*03*	-1	*03*	11	*28*	-1	*-2*
28 Knowledgeable/unknowledgable	23	*16*	-1	*13*	65	*26*	08	*69*
34 Academic/unacademic	**54**	*06*	11	*00*	13	*-0*	**38**	*64*
25 intelligent/unintelligent	**40**	*-0*	00	*-1*	04	*-0*	**41**	*56*
40 Progressive/traditional	**51**	*21*	22	*-0*	-1	*-00*	-0	*50*
12 Achieving/unachieving	**55**	*-0*	10	*-1*	-1	*-3*	31	*47*
11 Research aware/unaware	26	*-1*	15	*05*	05	*-0*	34	*46*
39 Creative/unimaginative	**39**	*14*	-0	*-0*	14	*02*	25	*46*
14 Realist/idealist	17	*-2*	**30**	*10*	-0	*-1*	28	*35*
04 Calm/tense	**41**	*18*	13	*10*	13	*-1*	08	*37*
33 Caring/uncaring	**38**	*20*	24	*20*	14	*-2*	-0	*27*

Part Two Semantic Differential Professional Concepts

Initial statistics from the second part of the semantic differential are listed in Table 5.8a showing that the first four principal components accounted for 30% of the cumulative variance and (17) items had an Eigenfactor over 1.0 accounting for 70% of the variance..

Table 5.8a and 5.8b again justify the use of four factor solution and though the MSA scores for sampling adequacy at .69 and Index of Factorial Simplicity .68-.80 in Table 5.8c are slightly lower than in the Self Perception table 5.7 c they are still considered adequate.

Table 5.8b includes a listing of the four factors produced with both the Varimax and the Oblimin programme of rotation. Factor loadings above the cut off of 0.35 are emphasised by heavy type, and as before solutions derived from Varimax are presented in plain script and Oblimin in italics. The original statements have been abbreviated to facilitate recording.

The reduction from 17 items with an Eigenfactor of 1.0 was again governed by the findings of the scree test which revealed 4,5, and 6 as target solutions (see Table 5.8b). As before the choice of four factor rotation was made on the basis of the scree test, parsimony and research utility. The groupings of extracted factors appeared to meet the needs of the study and the distribution of factors with significantly high loadings in the self perception and professional concepts led to the assumption that the comparisons of the three colleges would be feasible.

Labels were assigned to the four Professional Concept factors based on interpretation of the basic attributes of the 3 or 4 highest loaded factors they were:

Professional Concepts

Factor A	Professionalism	Factor B	Obedience
Factor C	Traditionalism;	Factor D	Commitment

Interpretation of the Oblique Factor Loadings of the Professional Concepts

In the analytical findings of the professional concept section of the questionnaire the characteristics with highly significant loadings included:

A. Professionalism. In professional concept Factor A the 10 salient variables appeared to closely match the needs of the study, since the focus was on the areas of specific interest - leadership, authority, and academic knowledge.

B. Obedience. In contrast the 8 extracted variables with loadings over .35 in professional concept Factor B centred on uncritical obedience, and passive acceptance of authority.

C. Traditionalism. The 6 variables above the cut off level in professional concept Factor C reflect the conventional 'Nightingale' values such as practicality, and the maintenance of professional distance by avoidance of sentiment or emotional involvement.

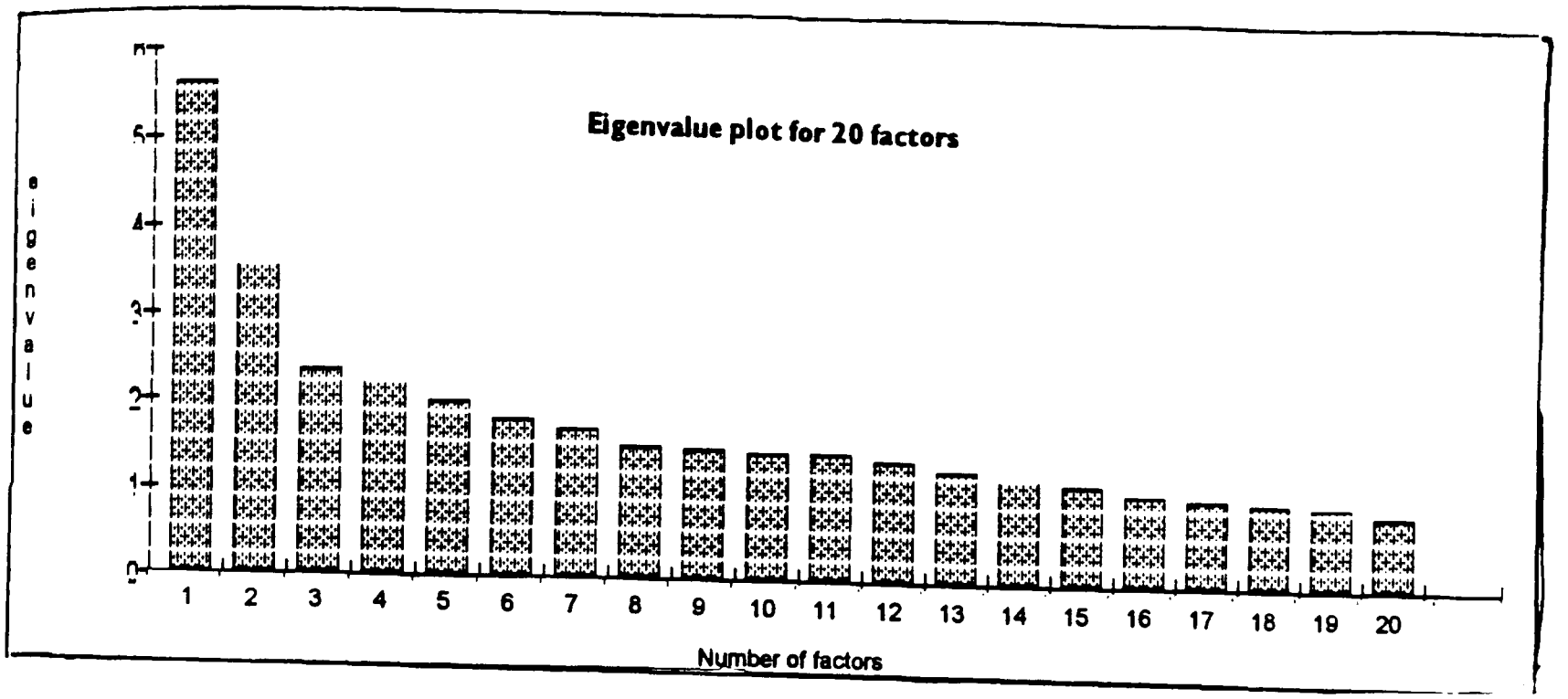
D. Commitment. In professional concept Factor D the 9 items with high loadings were those associated with vocational commitment - placing the needs of others first - displaying a calm and positive persona at all times. Qualities, clearly still relevant in modern nurse education but which are given a much more fundamental emphasis in traditional nurse training programmes.

The analysis therefore led to the conclusion that the factors defined in the two parts of the instrument would enable comparisons to be made between the progressive and traditional educational programmes and allow conclusions to be drawn regarding acceptance or rejection of the null hypothesis that any differences found between or within the college scores in students' confidence or worth regarding themselves or their profession were purely due to chance.

Table 5.8a Principal Components Analysis Initial Statistics Professional Concepts

Variable	Eigenvalue	% of Variance	Cumulative % Var.	% Eig. val.drop
1. Prof.	5.61	12.2	12.2	0
2. Prof	3.57	7.8	20.0	36.5
3. Prof	2.37	5.2	25.2	33.6
4. Prof	2.23	4.9	30.0	5.9
5. Prof	2.01	4.4	34.4	9.8
6. Prof	1.82	4.0	38.4	9.4
7. Prof	1.71	3.7	42.1	6.0
8. Prof	1.54	3.3	45.4	9.9
9. Prof	1.52	3.3	48.8	1.2
10. Prof	1.48	3.2	52.0	2.6
11. Prof	1.40	3.1	55.0	5.4
12. Prof	1.31	2.9	57.9	6.4
13. Prof	1.25	2.7	60.6	4.6
14. Prof	1.16	2.5	63.2	7.2
15. Prof	1.06	2.3	65.5	8.6
16. Prof	1.03	2.3	67.7	2.8
17. Prof	1.02	2.2	70.0	0.9
18 Prof	.97	2.1	72.1	4.9
19 Prof	.95	2.1	74.2	2.0
20 Prof	.85	1.9	76.0	10.5
21 Prof	.81	1.8	77.8	4.7
22 Prof	.79	1.7	79.5	2.4
23 Prof	.75	1.6	81.2	5.0
24 Prof	.65	1.4	82.6	13.3
25 Prof	.63	1.4	84.0	3.0
26 Prof	.58	1.3	85.3	7.9
27 Prof	.55	1.2	86.5	5.1
28 Prof	.52	1.1	87.6	5.4
29 Prof	.51	1.1	88.7	1.9
30 Prof	.49	1.1	89.8	3.9
31 Prof	.45	1.0	90.8	8.1
32 Prof	.43	1.0	91.7	4.4
33 Prof	.42	.9	92.7	2.3
34 Prof	.42	.9	93.6	0
35 Prof	.38	.8	94.4	9.5
36 Prof	.35	.8	95.2	7.8
37 Prof	.32	.7	95.9	8.6
38 Prof	.28	.6	96.5	12.5
39 Prof	.28	.6	07.1	0
40 Prof	.26	.6	97.7	7.1
41 Prof	.24	.5	98.2	7.6
42 Prof	.20	.4	98.7	16.6
43 Prof	.17	.4	99.1	15.0
44 Prof	.16	.4	99.4	5.8
45 Prof	.14	.3	99.7	12.5
46 Prof	.12	.3	100.0	14.2

Table 5.8b The Scree Plot of Eigenvalues and Eigenvalue Percentage Drop 20 Factors.



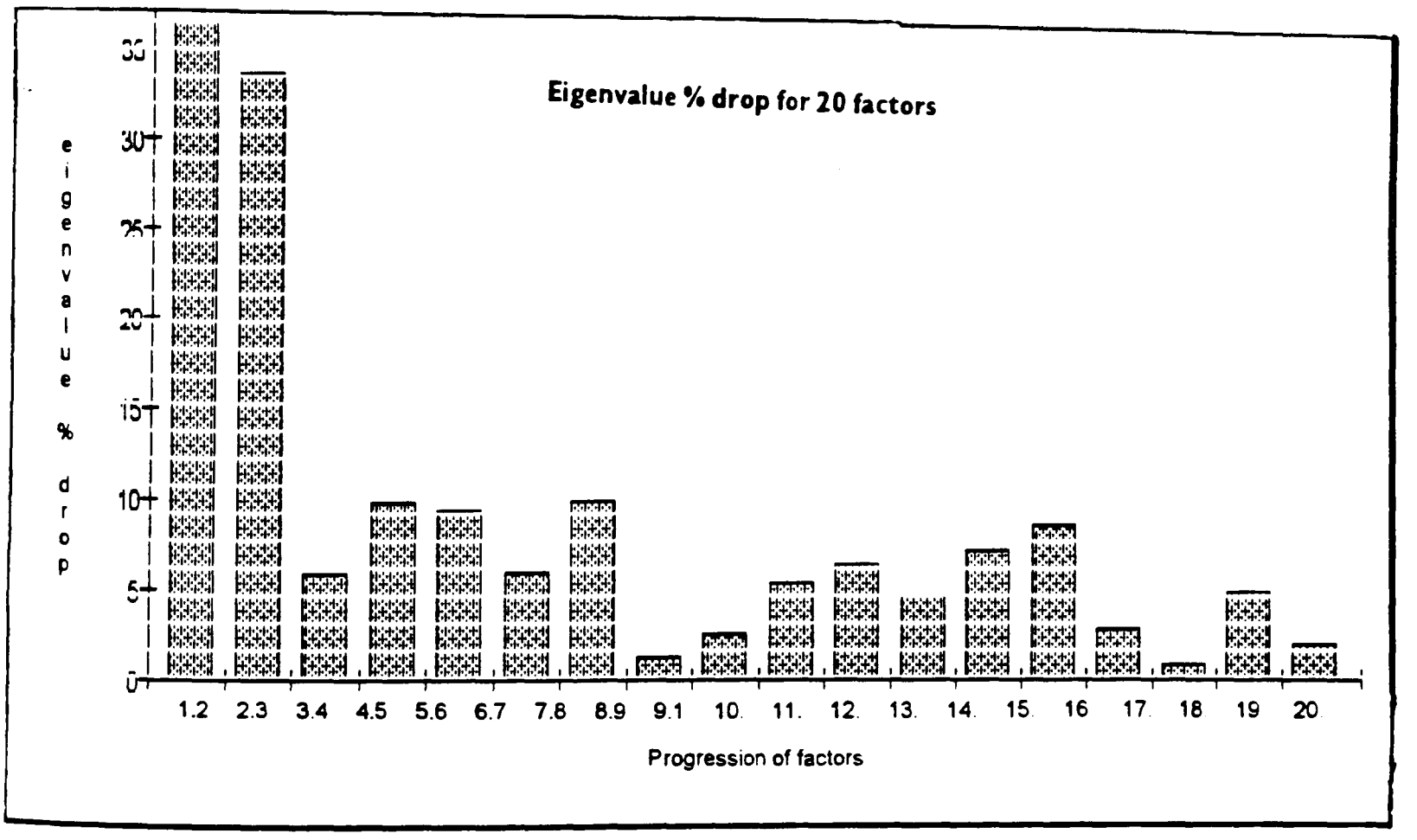


Table 5.8c Measures of Sampling Adequacy and Index of Factorial Simplicity Professional Cocepts Factors Four to Ten.

Professional Concepts	RMSC	MSA	% Var	IFS
Factor 4	.1358	.69	28.61	0.80
Factor 5		.69	32.63	0.78
Factor 6		.69	36.13	0.73
Factor 7		.69	39.35	0.71
Factor 8		.69	42.40	0.69
Factor 9		.69	45.35	0.69
Factor 10		.69	48.20	0.67

Table 5.8d Professional Concepts Varimax (plain type) Oblique Pattern Matrices (italics) Decimal points omitted

Abbreviated Questionnaire Items	1	*A*	2	*B*	3	*C*	4	*D*
45 Maintains neat appearance	**49**	*58*	02	*-1*	**3**	*2*	-1	*01*
08 Air of Authority necessary for advising.	**40**	*57*	11	*-0*	3	*1*	-2	*-0*
40 Applies traditional values	**47**	*56*	05	*-0*	1	*-0*	-2	*02*
36 Needs leadership qualities	**40**	*54*	-2	*-3*	**3**	*0*	-2	*-1*
31 Is punctual	**50**	*49*	-0	*-1*	2	*1*	-0	*11*
34 Is engaged in academic discipline	23	*48*	01	*-0*	2	*-0*	-3	*-2*
27 Works speedily	23	*43*	22	*18*	1	*-0*	-2	*-0*
32 Respectful to senior staff	**46**	*40*	**38**	*26*	0	*0*	-0	*29*
20 Sees untidiness as bad workmanship	**48**	*34*	09	*00*	-0	*-0*	-0	*29*
09 Appears optimistic	**42**	*33*	02	*01*	-1	*-2*	-1	*20*
02 Displays assurance	32	*32*	06	*10*	-1	*-2*	-2	*08*
10 Needs to be outgoing	**38**	*30*	06	*-0*	-0	*-0*	-0	*18*
37 Needs value of other professionals	33	*28*	18	*03*	1	*2*	08	*17*
01 Professional/unprofessional	31	*25*	-0	*-0*	-0	*-0*	-1	*11*
38 Is professionally assertive	30	*26*	**-5**	*-6*	3	*0*	-0	*-0*
29 Should not criticise policy	16	*40*	**62**	*63*	-0	*-0*	**-3**	*-0*
18 Requires support to cope	18	*05*	**-4**	*-5*	1	*0*	06	*01*
21 Needs communication skills	27	*02*	**-5**	*-5*	-0	*-1*	06	*16*
35 Obeys all disciplinary team	29	*37*	**51**	*47*	-0	*-0*	-2	*15*
26 Must be reliable	**57**	*27*	**-3**	*-4*	0	*-0*	05	*32*
39 Must be a problem solver	27	*06*	**-4**	*-4*	-0	*-1*	03	*12*
16 Never argues with authority	27	*31*	**51**	*43*	-0	*0*	-0	*19*
42 Must use a multi-disciplinary approach	-0	*-0*	**41**	*34*	-0	*2*	20	*17*
41 Requires a sense of humour	21	*11*	-2	*-3*	0	*0*	02	*06*
11 Role in research is just another fashion	04	*11*	32	*05*	**5**	*7*	41	*05*
23 Empathic role is exaggerated	-1	*07*	32	*12*	**5**	*6*	27	*-1*
22 Is undervalued in society	06	*12*	05	*-2*	**4**	*4*	20	*-0*
05 Is unfairly expected to be accountable	05	*21*	**48**	*33*	3	*4*	10	*-0*
44 Is practical	03	*24*	08	*-0*	0	*4*	**53**	*33*
03 Is not overly-sympathetic	-0	*02*	19	*08*	2	*3*	19	*01*
46 Never argues in conflict situations	22	*12*	16	*22*	-3	*-2*	-1	*21*
28 Feels knowledge needs exaggerated	-1	*-1*	23	*19*	0	*2*	17	*01*
13 Displays enthusiasm	**68**	*25*	14	*-0*	-1	*1*	28	*66*
12 Is rewarded by sense of achievement	**37**	*-1*	-1	*-3*	-0	*2*	**50**	*55*
30 Requires commitment	**39**	*-0*	-0	*-1*	-0	*0*	**35**	*53*
04 Remains calm	**39**	*02*	06	*03*	-3	*-1*	14	*50*
33 Must always be caring	23	*-1*	04	*05*	**-4**	*-1*	21	*49*
07 Must always remain cheerful	**48**	*15*	-0	*-1*	-1	*-0*	13	*45*
24 Puts needs of others first	**42**	*14*	17	*04*	0	*1*	21	*44*
15 Is never disorganised	**52**	*16*	**-1**	*-1*	-2	*-1*	06	*44*
17 Appears confident	**62**	*36*	-0	*-2*	-0	*-0*	03	*38*
25 Need not be intelligent	08	*-1*	26	*17*	-0	*2*	34	*34*
06 Is never impulsive	18	*-0*	22	*24*	-3	*1*	04	*33*
14 Dismisses idealism	25	*05*	19	*14*	-1	*-0*	10	*33*
19 Adopts a friendly manner	**47**	*27*	07	*-1*	0	*0*	04	*29*
43 Must be a dynamic practitioner	15	*-1*	-2	*-2*	-1	*-0*	17	*25*

Conclusion

Despite the lack of a perfectly normal curve, reliability was indicated by the findings from the distribution and reliability tests. The results of the skewness and kurtosis tests led to the assumption that parametric tests were appropriate since the aberrations were mainly due to excessive peakness rather than skewness and would not present a problem as long as the results were interpreted accordingly.

The overall findings led to the conclusion that the factors defined in the two parts of the instrument would enable comparisons to be made between the progressive and traditional educational programmes and allow conclusions to be drawn regarding acceptance or rejection of the null hypothesis that any differences found between or within the college scores in students' confidence or worth regarding themselves or their profession were purely due to chance.

Statistical Analysis over Time and Courses

The sub-scales for each of the two parts of the questionnaire that had been devised through factor analysis, and the pre and post responses scores from the three Colleges were subjected to further SPSS computer analysis. The intention was to discover whether differences between the college samples, or changes over time, were of statistical significance.

Pre and Post Tests and Between College Analysis

The responses were subjected to further computer analysis using a Mutivariate Analysis of Variance (MANOVA) programme. The technique enables the findings to be examined for relationships among dependent as well as independent variables it is regarded as more powerful than a series of separate analyses of variance. Munro (1990 points out it is more economical and suggests that the interpretation of results is improved by considering the results of a single analysis. In her discussion of the analytical approach Munro (1990) notes that it offers the advantage of including the inter-relation among the outcome measures. It reduces the risk of Type 1 errors (rejection of a true null hypothesis) that

conducting a series of analyses for each outcome measure entails, and because of its capacity to test for interactions it enables conclusions to be reached on differences in approach or variations occurring between pre and post tests. Munro cites the three advantages over several univariate analyses identified by Goodwin (1984) :

1) ability to keep alpha at a known level;

2) ability to increase power;

3) ease in computation and interpretation.

In the interests of brevity the statistics are presented at a basic level to provide a simplistic account of the changes over time and between the courses offered at College P;C and M. There were 8 separate measures built into the MANOVA: four self perception and four professional concepts and univariate tests were confined to identifying the groups where the multivariate findings were significant.

Appendix K-e presents the MANOVA statistics of the findings and illustrates the comparisons of between courses, pre and post tests and interactions including the means and standard deviations.

MANOVA

The MANOVA analysis was carried out to discover whether there were differences between the factors across the college samples or over time, and if so, to confirm whether they were statistically significant. The outcome measures included: between the colleges; time; and the interactions between college and time. Table 5.9 illustrates the significance of the findings.

Table 5.9 MANOVA Table of Significance

Factor	n	Between Colleges	Time	Interact. Coll/Time
Self A Dynamism	205	*	ns	ns
Self B Submission	205	ns	ns	ns
Self C Unconventionalism	205	ns	ns	ns
Self D Academic	205	*	ns	ns
Prof A Professionalism	205	ns	*	ns
Prof B Obedience	205	ns	ns	ns
Prof C Traditionalism	205	ns	ns	ns
Prof D Commitment	205	**	**	ns

* significant <0.05 level **significant <0.0 level

The table indicates there were significant differences in some of the factors between the colleges, and in terms of time. Interaction between college and time however, was not significant in any of the eight factors at the < 0.05 level.

To discover more about the differences between the variables that were revealed by the MANOVA an ANOVA was undertaken on the significant variables .

ANOVA Between Colleges: Significant Factors.

The univariate tests were undertaken to discover if there were significant differences between the colleges across those of the four self, and four professional factors that showed significant effects in the MANOVA analysis; i.e. Self Perception Factors A Dynamism, and D Academic; and Professional Concept Factors A Professionalism; and D Commitment.

Scheffe Test

In addition to the ANOVA a Scheffe test of significance was also undertaken for each item. Where the findings were significant at $p < 0.05$ level, the results of the more rigorous Scheffe Test these are included with the results in the ANOVA table 5.10.

Table 5.10 Analysis of Variance by Total College: Self Perception

	Coll. P (n=73)		Coll.M (n=63)		Coll.C (=69)				
Pre Test	**M.**	**Sd**	**M.**	**Sd**	**M.**	**Sd**	**FRatio**	**FProb**	**Sig**
A Dynamism	1.96	.37	2.06	.37	1.93	.37	2.1563	.1184	Ns
B Submission	2.33	.25	2.24	.27	2.23	.38	2.6468	.0733	Ns
C Unconventionalism	3.17	.44	3.16	.40	3.13	.26	.2148	.8069	Ns
D Academic	1.97	.38	2.07	.35	1.99	.29	1.16594	.1928	Ns

	Coll P (n=63)		Coll.M (n=51)		Coll.C (=56)				
Post Test	**M.**	**Sd**	**M.**	**Sd**	**M.**	**Sd**	**FRatio**	**FProb**	**Sig**
A Dynamism	2.01	.32	2.05	.39	1.92	.31	2.2456	.1091	Ns
B Submission	2.31	.27	2.34	.25	2.36	.30	.3666	.6937	Ns
C Unconventionalism	3.23	.38	3.13	.35	3.21	.31	1.3585	.2599	Ns
D Academic	1.93	.39	2.05	.33	1.99	.26	1.8878	.1546	Ns

No two Colleges found to be significant at the 0.05 level - Pre or Post.

Analysis of Variance by Total College: Professional Concepts

	Coll. P (n=73)		Coll.M (n=63		Coll.C (=69)				
Pre Test	**M.**	**Sd**	**M.**	**Sd**	**M.**	**Sd**	**FRatio**	**FProb**	**Sig**
A Professionalism	2.50	.34	2.46	.24	2.38	.32	2.8163	.0622	Ns
B Obedience	3.37	.33	3.28	.32	3.25	.24	3.2274	.0417	*
C Traditionalism	2.76	.43	2.77	.35	2.73	3.34	.1705	.8434	Ns
D Commitment	2.23	.42	2.08	.31	2.02	.38	6.0317	.0027	*

Scheffe Test Professional Concept Pre D Commitment

* Prof B The Colleges were not significantly different at 0.05 level.

* Prof D Commitment Groups, C and M significantly different at 0.05 level.

Commitment		**Colleges**		
Mean	**Cohort**	**M**	**C**	**P**
2.02	M			
2.08	**C**			
2.23	**P**	*		

* denotes pairs of groups are significantly different at the 0.05 level

	Coll P (n=63)		Coll.M (n=51)		Coll.C (=56)				
Post Test	**M.**	**Sd**	**M.**	**Sd**	**M.**	**Sd**	**FRatio**	**FProb**	**Sig**
A Professionalism	2.50	.27	2.53	.25	2.41	.29	.3688	.6921	Ns
B Obedience	3.31	.35	3.32	.25	3.30	.28	.0595	9423	Ns
C Traditionalism	2.79	.39	2.80	.28	2.81	.30	.0357	.9649	Ns
D Commitment	2.36	.38	2.17	.31	2.23	.31	4.7721	.0097	*

*Prof Post D Commitment College P significantly different from College C at 0.050

Scheffe Test Professional Concept D

Commitment		**Colleges**		
Mean	**Cohort**	**C**	**M**	**P**
2.17	C			
2.23	M			
2.36	P	*		

Time

To discover any significant changes between the total pre and post scores, independent *t* tests were carried out for the eight factors from the combined pre and post test results from the three colleges. Appendix K Table K-e presents the results of all the independent *t* tests and is accompanied by the paired *t* tests results from each individual college. Since the pre and post tests showed significant differences between the colleges it was necessary to identify the time when such changes took place. The Questionnaire been completed at three specific times during the courses. (For a reminder of the total study structure please refer to Figure 1.1). One of each college samples undertook the pre test at course entry, with a mid course post test ; and the other sample from each college took a pre test at mid point, and a post test on course conclusion. Paired *t* Tests were carried out on the pre and post results from the six samples. Appendix Table K-e illustrates the findings of the time scale dependent *t* tests. The discussion and presentation of graphs and tables centres on the variables that were found to be statistically significant either between or within the colleges

1) Self Perception Factor A - Dynamism

The MANOVA results indicated there was a significant difference between the groups at pre test in the self perception factor labelled Dynamism. (College P (M= 1.96; College M 2.09 and College M = 1.92: *F=3.38, p=.036)* This difference is illustrated in Figure 5.1.

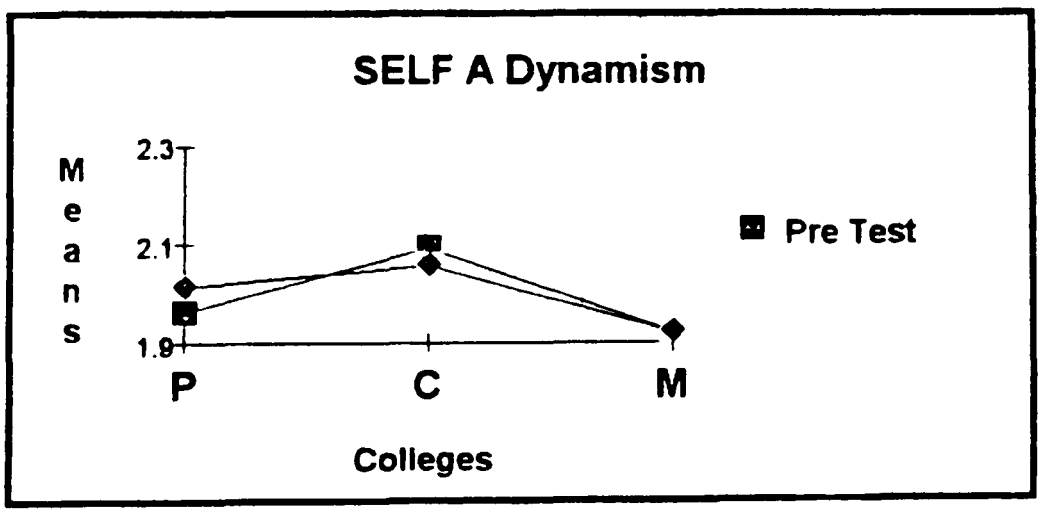


Figure 5. 1 MANOVA Results Self Perception Factor Dynamism

Self Perception Factor Dynamism. It should be noted that the items that were highly loaded in the self perception factor labelled dynamism, including those concerned with leadership, communication, assertiveness, and teamwork. A common feature of these factors and the label factor dynamism is that they represent qualities of confidence and high self

esteem. Comparison of differences in this factor in between colleges and over time was therefore of particular salience to the study aims.

In contrast to pre assumptions the graph illustrates that the difference between the colleges highlight College C as the most positive at pre and post tests. When examined more closely, in terms of changes over time, at specific colleges the *t* test, (see Table 5.11) showed there was a significant change between the pre and post test means of College P group from course entry to mid point (pre test M.=2.19; post test mean =1.98p=0.03<0.05). This implies that the entry students at the study college perceived themselves as less dynamic after the first half of their training course. This perception appeared to have stabilised in the latter half of the course. By contrast College M had remained constant presenting a relatively low self perception in this factor. In the mid point to conclusion group there was no significant change between pre and post test *t* tests. It appears that compared to the study and control colleges College C students began with more Dynamism/Confidence and maintained this increased self esteem during the course. It can be argued that the Traditional College C selected confident entrants in the first place and it will be later proposed that this confidence results from the greater diversity of the College C's sample in terms of age, life experience and educational and occupational experiences as evidenced by Table 5.6.

Code for Summarised *t* Test Results

Samples			
P	= Sample from College P	M	=Sample from College M
C	=Sample from College C	All	=Total Sample
Variables			
Self Perception Factor A Dynamism		Self Perception Factor B Submission	
Self Perception Factor C Unconventionalism			
Professional Concept A Professionalism		Professional Concept B Obedience	
Professional Concept CTradionalism		Professional Concept D Commitment	
Time			
E-M=Course Entry to Course Mid Point		M-C= Mid Point to Conclusion	
P-P =Pre Test to Post Test			

Table 5.11 *t* Tests Results Self Perception Factor A Dynamism - College P

College P Self Factor A	N	M.	Sd.	Df.M	Sd	Corr	Tval	*df*	2 tail *p*
Course Entry		2.19	0.35						
Dynamism	19			0.21	0.41	0.33	2.24	18	0.03
Course Mid Point		1.98	0.35						

Self Perception Factor D Academic

Again the MANOVA found significant differences in Factor D Pre test scores between the Colleges (College P M.=1.95; College C; M.=2.14; College M M.=1.97 *F*=4.46,*p*=.01<0.05*)* see figure 5. 2.

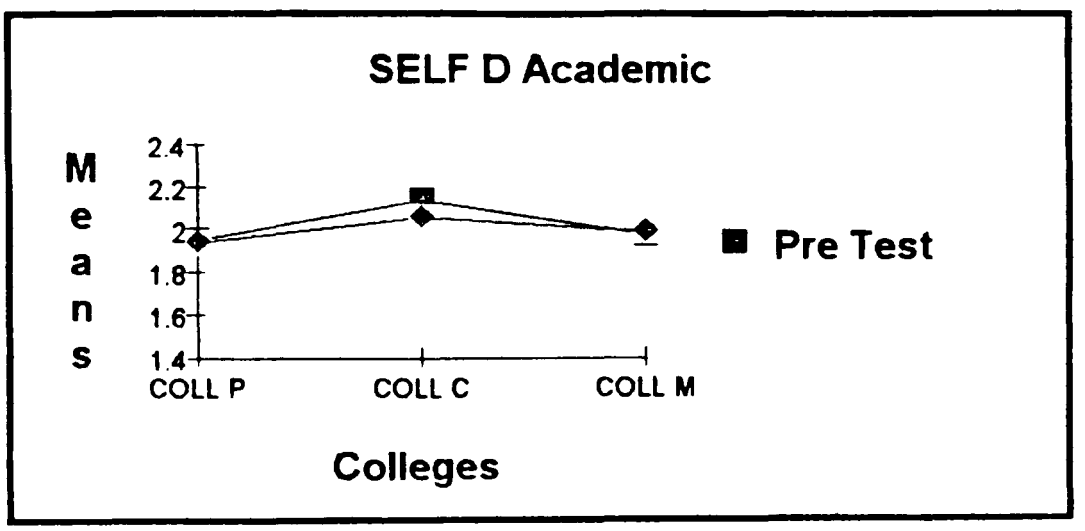


Figure 5.2 MANOVA results Self Factor D Academic

The MANOVA indicated a significant difference between the colleges in respect to this factor. It appears that the least academically qualified College C sample viewed themselves as academic at pre test but as less academic as the course progressed. This finding was not supported by the further ANOVA or *t* tests. By post test any difference had levelled out and they were significantly no different to those in the progressive colleges in respect of this self perception factor. Perhaps this can be attributed to the students at College C becoming aware of the proposals for Project 2000 that promoted a more knowledge based nurse education than they were currently experiencing.

Professional Concepts

Professional Pre Test Professionalism

The MANOVA indicated significant differences in the time outcomes in the Colleges*(F*=3.98 *p*=.048< 0.05*)*. (see figure 5.3 and Table 5.17??)

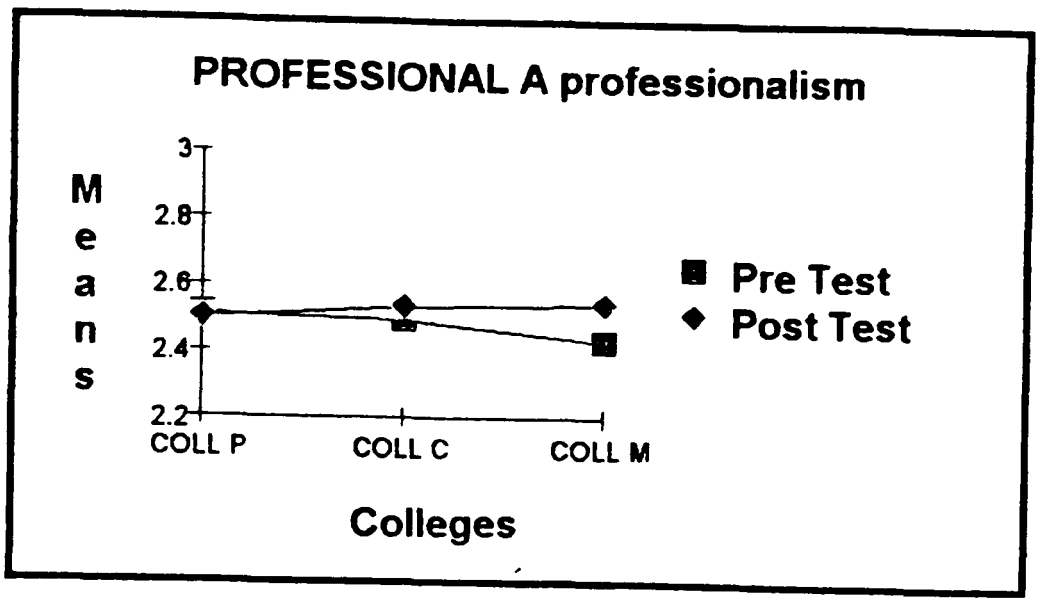


Figure 5.3 MANOVA Result Professional Concepts Factor A Professionalism

Results of *t* Tests: Professional Concept A:Professionalism

The pre and post *t* test for the Professional Concept Factor A Professional Concept A are illustrated in Table 5.12.

Table 5.12 Summary of *t* Tests for Professional Concept A - Professionalism

Group	Test 1	Test 2	N	Mean 1	SD1	Mean2	SD2	*t*	*df*	*p*	
All Groups	Pre	Post	167	2.47	0.29	2.52	0.27	1.93	166	<0.05	*
College M	Pre	Post	56	2.43	0.30	2.54	0.29	-2.80	55	<0.01	**
College M	Mid	Conc	26	2.25	0.29	2.53	0.35	-.4.08	25	<0.01	**

The College M Pre and Post *t* test results for this factor revealed that there was a significant difference between the means (pre M. =2.43; post M. 2.54 *p*=0.0).

The time scale *t* tests showed for the same factor at College M showed that the change had occurred in the period from mid point to course conclusion. This appears to suggest that in terms of professionalism the College M students came to develop more positive concepts of their profession as they reached the end of their course. (See Table 5.13) There were no significant differences in the post test for this factor.

The time scales indicated that College M concept of nursing as a profession was delayed until the conclusion of their course This implies it was only as they reached the point when

they would be practising as nurses that they regarded it as a professional occupation. It is difficult to find an explanation for this without access to their curriculum but it appears to be due to some unidentified factor in their studies that differed from that of College P and College C.

Professional Concepts: Commitment

The MANOVA identified significant differences in the between college and time outcomes for this factor (Between Groups F= 5.85 p=.00; Time = F=24.32=p.00) Both were significant at the p<0.0 level. Figure 5.4 comprises a graph illustrating the MANOVA findings.

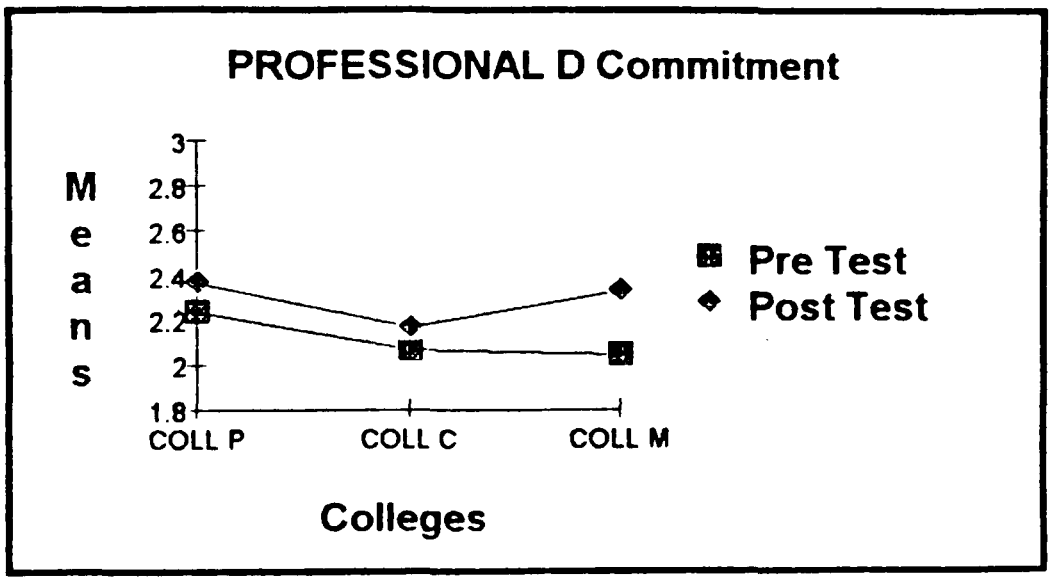


Figure 5.4 MANOVA Results Professional Concept D Commitment

The ANOVA results reflected the differences between the means of the three colleges at both pre and post tests in Factor four Commitment. (Pre test College P: M. =2.23: College C M. =2.08; and College M 2.02,p=0.0). This is illustrated in Table 5.13).

Table 5.13 ANOVA Results: Factor D Commitment

	College P		College C		College M				
	M.	**Sd**	**M.**	**Sd**	**M.**	**Sd**	**FRatio**	**FProb**	**Sig**
Pre Test	2.23	.42	2.08	.31	2.02	.38	6.0317	.0027	*
Post Test	2.36	.38	2.17	.31	2.23	.31	4.7721	0.0	*

The Scheffe Test showed significant difference between Colleges C and M at 0.05 level.

Table 5.14 Summary of *t* Test Results for Professional Concept D - Commitment

Group	Test 1	Test 2	N	Mean1	SD1	Mean2	SD2	*t*	*df*	*p*	
All 24	pre	Post	167	2.12	o.37	2.26	0.35	-4.98	166	<0.0	**
P 25	Pre	Post	60	234	0.40	2.63	0.39	-2.29	59	<0.02	**
C 26	Pre	Post	51	2.07	0.29	2.17	0.31	-2.04	50	0.04	**
P 27	Mid	Conc	33	2.03	0.13	2.24	0.33	-.3.29	32	0.00	**
M 28	Md	Conc	26	1.88	0.36	2.20	0.31	-6.78	25	0.0	**

Professional Concepts Factor D Commitment Post Test

The post test ANOVA also revealed significant differences in the Post Test means (College P M. = 2.36; College C M.=2.17 and College M, (M. =2.23 p=0.00) are also included in Figure 5.14 It seems that though at the pre test there was a significant difference between college P and College M by the post test the significant difference indicated by the Scheffe Test was between College P and College C at the p= 0.05 level.

Table 5.14 shows that the univariate *t* test for the complete sample identified significant overall differences (pre M.=2.12 post M.=2.26 p=0.0). There is an increase in commitment over the whole course. The Table also shows the time when the changes took place at each college At College P there was a positive change between the mid point and conclusion (Mid Point M.=2.03; course conclusion M.=2.24 p=0.0)

Learning Preference Analysis

The LPI scores were subjected to One way ANOVA (the LPI results are presented in Appendix O), only one finding was significant and this was for College M - Student Structured pre test score (mean =37) significantly different from College P (mean=40) and College C (mean= 43 p=.04<.05). An ANOVA on the three Colleges' six samples revealed little to add to the debate but it proved sensitive in identifying significant differences between the two sets of samples. A *t* test was carried out on the pre and post on LPI results and this proved sensitive in identifying significant differences between the two sets of samples. There was a significant difference in the value of *t* in the concrete pre and post test for College C pre test (mean=60.77) and the post test

(mean=67.33p<.05). The Pre and Post Test ANOVA between the three Colleges and the six groups added little to the observations made by the T test analysis. The overall analysis of the LPI scores supported the findings of the Semantic Differential Explorations that there were significant differences in the samples from the three colleges.

Discussion of Overall Findings

The investigations in this section sought to test the null hypothesis that any differences occurring between the samples in relation to their self perceptions or professional concepts arose simply as a result of chance. The results have demonstrated there were significant differences between the samples in the significant variables therefore the first null hypothesis was rejected. The null hypothesis also stated that any changes taking place in the significant variables over time, between or within the colleges, were not the result of differences in the course content or teaching approaches but were due to chance. The analyses showed significant change occurring over time allowing the second null hypotheses to be rejected and a claim made that there were significant differences between the students' perceptions and concepts. Significant differences were found in the changes over time in the three samples of students, depending on college studied at. It was concluded that where the differences were between the traditional College C compared with Colleges P and M a tentative assumption could be made that this resulted from traditional didactic teaching styles imposed at College C as opposed to College P and College M's student directed teaching. Where College P differed from College M as in the Factor D Commitment one might, again with caution, attribute differences to College P's course innovations which included a curriculum broadened to include Psychology, Sociology, and Management Studies and Practice. However the overall findings revealed an anomaly in the belief on which the study was founded. This was that the idea of offering students freedom in learning in a training milieu that respected their individuality, and specificity of needs, would enable them to develop more positive self and professional concepts than those who had experienced a hierarchical training regime. This assumption was not supported by the findings and the suggested explanation offered is that the assumption that the adoption of a humanistic college philosophy would lead to similar changes in the students' clinical

learning milieu was a false premise. Account was not taken of the entrenched hierarchical attitudes that still prevail in some clinical areas, nor of how this would counter any efforts for change introduced by the teaching staff. The traditionally trained students appeared to be more confident as a result of their traditional skills and perhaps because of their familiarity with the existing attitudes. It was the students from the modern control who appeared to feel threatened by the prospect of practising as staff nurses, and carrying out their duties of care in the clinical arena.

The question of whether student nurses possess a certain personality was extended to allow the acceptance or rejection of the counter argument that any consistencies in entry characteristics between the entrant groups were likely to be the result of varying recruitment and selection methods. To seek answers to these questions the entrant self perceptions at the three colleges were examined. If certain characteristics lead those who possess them to choose a nursing career one would expect to find similarities in the entry self perceptions and professional concepts in the three groups of entrant questionnaire responses. This appeared to be the case suggesting that in general there is either a tendency for entering student nurses to possess the personality traits of obedience/submission, and traditionalism or that selection procedures favour such qualities. However, since despite course differences there was no significant change over time, it would seem more feasible to accept the former proposition that in this respect student nurses have a propensity to regard themselves as compliant and traditional and that this is congruent with their professional concept of nurses. The evidence regarding the other factors suggest recruitment and selection to be the major factor that governs student nurses' qualities and that these are influenced by the need to match the varying institutional and course demands.

The overall findings revealed that relationships exist between the factors of interest, but it cannot be accepted as proof because other variables may have influenced the sample of students selected. There is the possibility that the results were due to age or academic differences; to the fact that two of the Colleges were aligned to teaching hospitals who shared reputations as dynamic centres of excellence while the third is a tried and trusted

establishment much revered for its traditional values and down to earth approach. It was not in the writers remit to seek to enquire into the curriculum of the other College's curricula but this remains a hidden variable, and its influence cannot be discounted.

Nevertheless the exercise produced a wealth of data and allowed the hypothesis that there would be differences in the Pilot students' self and professional perceptions compared to conventionally trained sample to be accepted.

When viewed in conjunction with the findings from other explorations undertaken in the previous chapter it would appear that the educational programme was fulfilling the requirement to maintain positive self perceptions and professional concepts. Before attempting to judge the overall efficacy of the pilot programme's innovations a final dimension is added to the illustrative view of the educational experience. This is quality of practice achieved by the course graduates and is the topic of the next chapter.

CHAPTER SIX

Exploration of Performance after Qualification.

Introduction.

Since the course was a preparation for professional practice it was essential that the evaluation continue beyond the end of formal study, although for many of the students, and possibly some teachers, the achievement of the qualification was perceived as the fundamental goal of the course. In reality, for the course graduates, who planned to remain in nursing, the course ending marked the true beginning for which the years of study and involvement in clinical work had been a rehearsal. The real value of the course could only be judged in terms of their ability to function in a climate where they were fully accountable for their own practice and decisions. Judgement of their accomplishments in the staff nurse role would also focus on their capacity to accept responsibility for the safety and welfare of their patient/client, of their fellow team members, and finally of themselves.

Methods of Exploration of Professional Performance.

The main investigation of the former students' subsequent performance in practice was timed to take place four years after the first cohort completed training. This delay was planned to allow time for a proportion to have had opportunity to attend post basic courses and for some to have been promoted. However unforeseen changes had meant that the working environment in which the first students now practised was very different to the one envisaged when the study design was first planned.

The Prevailing Clinical Environment

It was unfortunate that deferment of the final stage had led to enquiries into post qualification performance taking place in an atmosphere of radical professional and organisational reform. Political and economic strategies had caused widespread re-deployment and redundancies in the confines of the regional health locality as well as in the NHS. as a whole. The recent creation of hospital trusts had also resulted in more localised planning and control, and wide reaching fiscal policies had led to reviews of care

provision, staff distribution, grading, and skill mix. Recommendations had included rationalisation of staff, institutional mergers, or closure of beds, wards, and departments.

There was a defined programme of further reductions in all levels of clinical staff planned in response to falling patient care needs arising from earlier discharge into the community or from increased day surgery. In addition the regional specialist hospitals faced a decrease in patient demand created by the wider choice of treatment venues open to health care fund holders. Added to this the Patient Charter demanded that treatment of patients be commenced with minimal delay. Referring doctors therefore found it expedient to arrange patient admission to local hospitals rather than to await admission to the larger more distant specialist centres that often had long waiting lists.

The long term targets for the specialist organisations were however based on an original assumption of continued service to a population drawn from beyond their geographical areas. There was therefore an urgent need for rationalisation of the services and facilities on offer.

The teaching hospital to which the College under study was aligned, was one of the regional specialist centres severely affected by reduced demand from beyond its geographical boundaries. In consequence the clinical staff were experiencing extremes of distrust, stress, and anxiety, and understandably the general level of uncertainty was reflected in an overall lowering of staff morale, and professional and self esteem. Work loads were considerably increased and there was an overall fear of a decline in future job and training prospects for all qualified nurses.

Data Collection Methods

It was considered important to take account of these conflicts when choosing a method for collecting information. It was necessary to avoid placing extra demands or increasing pressure on the staff by selecting a method that imposed a minimum of disruption and limited the number of subjects invited to participate in this section of the study. The methods of approach considered were those of survey or interview and the advantages and disadvantages of each were considered in the light of the identified constraints.

Survey Method

The advantages of a survey approach were considered to be its capacity for collection of salient information at minimal cost while creating the opportunity to explore the views of a large sample. It was however rejected on the grounds it would be unreasonable to ask overburdened nurses to devote time to completing questionnaires.

Interview Methods

The advantage of an interview method was regarded to be its facility for reducing the risk of *'halo'* effects or desired responses sets by obtaining the information in more natural circumstances.

Individual Interviews

The benefit perceived in interviewing subjects individually was considered to be the opportunity it would provide for enhanced rapport and interpretation through non verbal communication. Formal or informal discussion techniques could enable clarification or further probing of statements to be carried out. The approach was also regarded as more congenial to respondents who are reluctant to voice negative opinions in group interactive situations

Focus Groups/Group Interviews

Focus groups or group methods are also regarded as effective means of eliciting answers to research questions. Focus interviews are structured around specific issues; the method of focus group interview is equally appropriate to groups or individuals (Crabtree 1993).

Advantages of Focus/Group Interviews:

a) Costs. Savings are largely in terms of acquiring data from a number of respondents at one time and in a single venue. There is a cost saving in interviewing several people at once.

b) Recall and reclarification of detail. Other noted advantages are related to group dynamics and include the relaxation of inhibitions, a widened range of responses, and recall and reclarification of details that had been forgotten. (Crabtree 1993).

c) Open debate. Both individual and group interview methods tend toward open ended questions allowing respondents to express views in their own terms - an important point,

bearing in mind that this freedom had been readily accepted by the participants as a means of airing opinion in the pre-registration part of the study.

d) Shared opinion. Reverting back to the well tried and familiar group approach would possibly have the effect of recreating the earlier enlivened debates enjoyed among the pilot participants. Crabtree (1993) draws attention to the marked difference in the opinions one is likely to gain from a discussion among several people in terms of dynamics and widened debate.

e) Transcription and analysis. Focus groups permit some defrayment of costs of transcription and analysis and enable views to be expanded through the sharing of ideas and opinions. Also clarification and probing are facilitated.

Disadvantages of Group Approaches:

a) Time and costs. Expenses remain high however because of the need to restrict group size to allow members opportunity to contribute fully. Group size should ideally not be more than sixteen (Harris and Bell 1990). There is also added difficulty in arranging for busy people to collect in one place at a specific time - an issue of particular relevance the prevailing circumstances described above. Costs of individual interviews are frequently referred to as higher but, as they can be arranged to limit travel expenses to only the researcher's travels, the relative costs may not differ widely.

b) Group Dynamics. A further disadvantage is related to the dynamics of the group. Quieter members are often constrained from voicing their opinions if they are in disagreement with the high profile or powerful members. It is also difficult to obtain clarification of a personalised nature that would aid analysis and understanding.

c) Interviewer Characteristics. Constraints imposed by the interviewer in relation to gender, status, social class, non verbal behaviour, desired response and assumed expectations are recognised as factors that may act as confounding variables in group or individual interview techniques (Treece and Treece 1986). It would seem that many of these constraining factors could be avoided by the use of telephone interviewing techniques.

Telephone Interviews

The use of telephones in interview research has grown in popularity with the advent of private telephone facilities across the social classes (Lavarakas 1993).

Advantages of Telephone Interviews:

a) The social distance created allows the benefits of social interaction to be exploited without the constraints raised above. It provides a greater capacity for eliciting truthful views in situations where the respondent wishes to voice criticism or raise contentious views.

b) Costs. There are large savings in terms of cost effectiveness and time, and there is a greater likelihood of gaining the spontaneous opinion of the respondent rather than an amalgam of the views of others. Such amalgams may occur as a result of discussion in either group interview or postal survey. The possibility of a trend toward telephone interviews leading to brevity of answers for open ended questions is raised by Groves (1989). Though Groves suggests this is a constraint it could be argued that, if it results in concise responses, a tendency for subjects to respond briefly can facilitate transcription and analysis.

Disadvantages of Telephone Interviews

a) Limitation of non-verbal communication. The writer is well acquainted with the drawbacks of telephone interviews, as a result of several years employment as a telephone counsellor to a severely disabled client group. A particular difficulty is that of gaining rapport without the aid of non verbal communication techniques. This applies equally to the interviewer, who is left to interpret with only half the message, and to the interviewee who must form impressions on the trustworthiness and motivation of the caller without benefit of visual cues. Such constraints may be partially reduced in the case of the research study where both parties have been acquainted for several years. Nevertheless lack of non verbal cues can still lead to loss of quality of information since it means decisions on judicious probing cannot be grounded on interpretation of facial expression, body movement, and posture.

b) Electronic interference. The facility to perceive emotional response by change in voice patterns is also diminished in telephone conversation because electronic interference acts to flatten pitch and distort tone. Extra sensitivity to hesitation or changes in breathing rate can be developed to partially compensate for these limitations.

c) Fatigue. Another disadvantage is the length of time one can reasonably expect people to be interviewed on the telephone. Lavarakas (1993) suggests calls should be limited to no more than 20-30 minutes because after this fatigue will intervene. He points out that this contrasts with face to face interviews that can easily continue for an hour. Mail questionnaires overcome this limitation on content because they can be completed in more than one sitting. However it should be possible to extend this device to telephone interviews by spreading calls over more than one occasion if greater complexity is required. The element of distance in the encounter possibly makes it is easier to refuse co-operation but this was not an expected problem in view of the sample population's ready compliance in the past.

The Approach Selected

The interview approach was judged to be the most appropriate means of obtaining reliable information but the mode of interviewing was governed by the need to avoid unfair demands on the overworked and pressurised staff during their off duty time. The advantages and disadvantages of all the alternatives were considered with this in mind and a telephone interview approach was selected on the grounds that this would be effective in providing spontaneous qualitative information while placing minimal demand on the respondent. The report of the telephone interviews are the subject of the next section.

Section Two

The Telephone Interviews.

The interviews were to be conducted by the writer with staff nurses who had been former pilot students and had practised as staff nurses for a minimum of six months. The main purpose would be to enable a cross section of the completing cohorts to give a retrospective evaluation of the course and to invite them to voice their judgements on how effectively they felt the course had prepared them for responsible and accountable practice. Since the purpose was to investigate their perceptions of the effectiveness of their performance as general nurses, selection of the area or speciality in which they worked was considered unnecessary.

Access

Access to students who had completed the course was facilitated by the students awareness of the ongoing study. All were acquainted with the writer, and the aims of the study and had in the past invariably shown willingness to co-operate. They knew that a sample of practising staff nurses would be invited to co-operate further following experience as staff nurses.

Sampling

After qualification it is customary for the completing nurses to seek appointments in local and nation-wide venues, and some travel overseas. Even those who obtain posts in the locality can still be spread over a number of wards and units and be distributed in a variety of caring environments and institutions. Some find posts in the community; others enrol for further courses of study. However, many of the former students were still working on campus or in the close vicinity of the College.

Access

The easy access to a large sample of local subjects was clearly an asset, but it was felt that those who had moved on would also be of interest. Locating former students wherever they were based throughout the Country would involve considerable time and cost and, to allay this, it was decided to capitalise on friendship networks to generate a sample.

It was reasonable to assume that the bonhomie generated as a result of three years of shared study would mean most respondents would have contact with at least one former student, so a snowball sampling method was chosen as a cost effective method.

Access to the first respondent from a nearby ward was gained through a link teacher. This nurse was contacted and asked to co-operate, and, as part of the procedure, requested at the close of the interview to provide a contact number for another former student. It was stressed that contacts did not have to be restricted to those employed locally.

The Procedure

It was felt important that, as professionals the respondents should be given opportunity for self appraisal within their own frame of reference. The interview format was therefore, only loosely semi-structured. It was however, felt that, within this proviso, respondents should be asked to form their judgements by comparing themselves with a peer of similar grade who had studied on a traditional pre-registration nursing course.

While the criteria, level, and depth of the self appraisal was to be left to the individual, the respondents would be guided toward focusing on the strengths and weaknesses they considered that their specific type of training had bestowed. Prompts, where necessary would probe their opinions of the efficacy of the specialist subjects in preparing them for practice, and would also include inquiries regarding job satisfaction and whether they felt their decision to study nursing on the pilot scheme had been the right one. They would also be asked about subsequent development since qualification and their future plans. (See Study Description Appendix I-a and Interview Schedule I-c).

On initial contact a convenient time would be arranged to allow an extended telephone interview to be undertaken. The interview introduction would be read out and it was suggested the call was not expected to take longer than ten to fifteen minutes. Finally subjects were told that at the end of the interview they would be asked to provide details of two further contacts for subsequent interview: one a person who could comment on the subject's personal strengths and weaknesses for the purpose of validation; and the other a fellow student who could be asked to co-operate in the study.

Confirmation

It was felt that each respondent's self judgement should be balanced by the views of someone in a position to provide objective comment on his/her professional performance. To reduce desired response effects, it was decided that these views should be obtained from a member of the profession who had not trained on the pilot course but who had sufficient experience of the respondent's professional performance to enable judgement to be made. The choice of identity and grade of this 'validator' would be left to the interviewee. The respondent was asked not to discuss the forthcoming interview with the chosen person. (A study description for the validator is included in Appendix J-b)

Venue and Timing

The venue of the telephone call was at the convenience of the respondent. It was envisaged that interviews would usually take place during the afternoons and early evenings in the month of October. Calls after lunch and in the evening are at a reduced rate and, where the interview call was to be made to the work venue, early afternoons are usually a time when staff are able to engage in a telephone conversation. October was chosen as a period when access to staff is likely to be easier; summer leave has usually been completed.

Instruments

A response schedule was devised that included space for recording views on strengths, weaknesses, future plans and additional comments. (see Appendix J-d)

A difficulty in recording responses by hand is that often the subject speaks too quickly to allow more than selective note taking. This is compounded in telephone conversation when the respondent cannot observe and adjust pace to the speed of the writer. Yet to rely solely on electronic recording risks loss of recorded contributions because of equipment failure as the author's past experience has proved. Equally there is a risk that instinctive spontaneous interpretations are lost on replay. To avoid such constraints it was decided to combine hand recorded notes with tape recordings (with the subjects' permission) using a miniature microphone attached to the receiver and connected to a voice operated recording machine.

Results of Telephone Interviews:

In order to acquaint the reader with views of the respondents while avoiding tedious repetition, verbatim reporting has been reserved for only one interview. This interview account was chosen as it stood out as a particularly clear and comprehensive representation of the general views expressed.

Respondent 'W', was a staff nurse of over three years experience. She was aged 19 years on course entry. Her acceptance was based were on 'O' level qualification. She had not been employed since leaving school.

She possessed an outgoing and direct personality, always appearing enthusiastic and motivated. She was highly instrumental in actively exploiting opportunities for new learning experiences and further development. Her scores on the LPI, see Table 6.1 suggest that while initially demonstrating highly student structured learning preferences, she had shifted to more balanced preferences by completion.

Table 6.1. Record of Scores on LPI at Entry and on Completion, Respondent 'W'

	Con.	Abs.	TStr.	S Str.	Ind.	Inter.
On entry	59	49	29	57	62	59
On completion.	54	38	56	59	49	59

Prior to commencing, the study description was read to her. Recording was by voice activated recording, supplemented by note taking.

Respondent 'W': *'I recently discussed the level of effectiveness of our training with a group of former pilot colleagues and we agreed that we were in fact very well prepared for practice and overall the standards were excellent'.*

Interviewer: *'Can you enlarge on your own reasons for believing that?'*

Respondent 'W': *'Well I must say this is only on reflection after time and I cannot separate the effect of learning that has occurred since, but I can recall feeling very weak on anatomy and physiology in my initial stages of practice as a staff nurse. There had been a big emphasis throughout the course on psycho- social aspects and this had provided a lot of competence in social skills, but it was at the expense of anatomy and physiology knowledge. The deficit was particularly evident in relation to patient*

education. Though I was well able to recognise the important psycho-social aspects of the patients' conditions, I lacked the knowledge base to explain their physical condition to them. It is necessary to know the normal, in order to relate to the abnormal'.

Interviewer: *'The teachers and course planners would argue that the course programme was designed to provide you with the key principles, and you were expected to build on these through in- depth self directed study'.*

Respondent 'W': *'This was not my interpretation. It was certainly never made clear to me. Overall there were three ways of learning available in respect of anatomy and physiology and none matched my learning style:*

a. *Lectures were based at the level of the least knowledgeable in the group and were too slow for me.*
b. *Tutorials failed to make up for this due to poor presentation.*
c. *The final option was to learn alone in the library but I found this largely ineffective. I can recall spending hours trying to fathom out how the heart functions in order to understand how heart failure occurs.*

Study in human biology at 'A' level would have been more effective for my needs. The minimal pharmacology input also added to this lack of knowledge, basically with regard to drugs - I had to pick up as I went along. I believe knowledge of anatomy, physiology, and pharmacology is essential to understanding the meaning of observations of people's conditions. Without it you don't know what effect drugs will have on the patient.'

Interviewer: *'How did you cope with this lack of knowledge?'*

Respondent 'W': *'In due course I absorbed a lot from my own area of speciality, but I needed to do considerable personal study to learn sufficient for practice in wider areas'.*

Interviewer: *'Have you any comments on other topics?'*

Respondent 'W': *'The research input was poorly taught, it didn't match our level of experience. Lecturers failed to emphasise its importance or relevance. This was true of other professional studies where teachers often displayed a lack of enthusiasm or depth of knowledge for the topic. In general, teaching reflected teacher enthusiasm: where this was high the content was valuable, but there appeared to be large areas where they seemed ill*

prepared for the course programme and showed sketchy knowledge of what they were presenting. Teaching of nursing care was excellent, whether credit is to college or (clinical) *staff, - but teaching of nursing models was inadequate. While the emphasis is on teaching specific nursing models, in practice most use adaptations of models; what people say they are adhering to differs from what they do in reality'.*

Interviewer: *'Finally can you, in hindsight, say what your feelings are about having been a student on this particular course'?*

Respondent 'W': *'I am glad I chose to study on the pilot course. If I had studied on the previous RGN course I would have felt more vulnerable. Now, as it is, I feel equal to Project 2000 students in relation to academia, but resent the failure to award us with a Diploma'.*

Interviewer: *'May I ask you about your plans for the future?'*

Respondent 'W': *'I feel it essential to get a degree if I am to progress to a senior position. Meanwhile I am registered for a course in my own speciality and will then take a diploma course.'*

Edited Comments From Other Telephone Interviewees

For the purpose of brevity the other respondents are not reported verbatim except in instances where comments were not reflections of the values and opinions expressed by Respondent 'W' or where conflicting or individual issues were raised. There was notable agreement on the quality and breadth of the teaching of theory and practice of general nursing care. The value of the psycho-social aspects described by Respondent 'W' were referred to by all the respondents, as was their concern regarding the need for a more structured teaching approach in the areas of anatomy and physiology in relation to disorder and pharmacology. The reference to enhanced research awareness appeared to reflect Respondent 'W's view that it was a particularly valued strength, though there was no further evidence of criticism of the tuition.

A mature female graduate referred to the clear contrast in her research awareness compared to nurses trained on other courses, identifying her principal strength as: *'my research awareness and ability to criticise and apply research findings'*.

Another, a mature male graduate, added the: *'greater awareness to wider issues and the encouragement of self directed learning'.*

In addition this student commented: *'I valued the eclectic skills and the orientation toward a holistic approach, though I accept that this could partly be due to my pre-entry beliefs and values, or to aspects of my personality. This is in contrast with my other peers who have criticised this element of the course and failed to find it of value in practice'.*

An 18 year old female with 'O' level entry qualifications also found it difficult to separate qualities that had resulted from the course with those she possessed on entry. Nevertheless she described its contribution to her present strengths by stating: *'the course has encouraged my existing assertiveness skills. I am able to assert myself in relation to advocacy. The management skills I have acquired have particularly enabled me to manage people effectively. I am particularly good at identifying the right person for the job'.*

As noted, the concerns regarding the anatomy and physiology, expressed so graphically by Respondent 'W', were also widely endorsed by comments from others, but there were differing views on the structure of the modular programme.

Another 18 year old female entering with '0' level qualifications said: *'I liked the block building system in which the provision of a broad base in the foundation was expanded throughout the course'.*

Concern regarding the timing of the modular system in relation to management preparation was a particular problem for another mature female graduate who declared: *'the first months as a staff nurse were difficult due to inadequacy of management experience. This occurred because of the modular programme's change of direction early in the second year, which shifted the focus of allocation experiences away from basic nursing to specialist areas. The opportunity to achieve management skills was delayed until the final phase of training, coinciding with an emotionally loaded and demanding time and, in effect, too late to take on new skills'.*

This person reinforced Respondent 'W's negative views regarding the standards of teaching, by saying: *'At times the teaching standards were poor with examples of unprofessional attitudes; for example lecturers frequently failing to turn up. Content*

could often have been condensed to cover half the allocated time and the extra time used more effectively'.

In addition the concerns regarding lack of recognition of the academic level of the programme of study raised by Respondent 'W' were reiterated by 8 of the 10 other interviewees and was summed up by the above respondent who said: *'I regret that the course did not merit the award of diploma, as I am concerned that, in future, competition for jobs will be fierce for those with only a basic RGN qualification, which will be perceived as of less value than a diploma. This will result in a repetition of the present Enrolled Nurses' position today and ultimately will shift demand to applicants holding a degree'.*

This feeling of having been unjustly denied a diploma was a recurring resentment at final evaluation and with this sample of staff nurses.

Another respondent drew attention to the difficulty of making comparisons since he regarded himself as atypical: *'I'm male, older than average, and a graduate on commencement.'*

While expressing *'no regrets'* at undertaking the pilot course he described his disappointment stating that he was: *'particularly disappointed that my hopes of good career prospects have failed to materialise, despite over three years as a staff nurse'.*

This respondent, in expressing his views on the course, referred to its failure to address issues he considered of importance in relation to his initial expectations regarding empowerment on entering saying: *'The course needed to provide a greater input into the way the larger organisation functions to maintain the status quo. Perhaps I started with a certain naiveté about the opportunities to change or challenge existing situations. I had expected to be able to act as a change agent and have felt frustrated by the system which acted to impose role constraints. Perhaps others are not so prepared to confront need for change.'*

While there had been reference to some frustration at a lack of progress in their careers, this had been a particular concern of the four graduates who had all apparently expected to 'fast track' as a result of their initial degree. However the above respondent was the only

interviewee who expressed an intention of leaving nursing. He stated regrets about the decision, but considered it was forced by lack of opportunity. His intention was to move to management since, he said, he would rather be *'the firer rather than the fired'*.

Continued Learning

The respondents had demonstrated an enthusiasm for continuation of learning, having undertaken further studies since course completion, and several had been accepted for future courses. There was a common fear however that such opportunities would become increasingly reduced in the future due to increased fiscal constraints. The career plans expressed by the students were largely to undertake further continuing nurse education courses. These included courses provided by the College Continuing Education Department but others were planning to take a degree or the City & Guild Adult Teaching Course. One who was presently studying this course planned to develop an additional adult educational role by teaching people how to maintain health and make positive health decisions by increasing their understanding of health issues. She proposed to combine this with a nursing career.

Interviews With Elected Clinical Staff

The clinical staff were given no information about the respondents' comments during the interview. Nevertheless reports from the validators largely endorsed the sample's views, particularly with regard to possession of refined communication skills. The respondents' self appraisal of enhanced ability to relate across the social barriers was frequently referred to, thus supporting their claims of greater application of psycho-social understanding. An interesting note of criticism concerned a male nurse's tendency to manipulate the female staff by using his minority gender position to allow him to avoid the more mundane tasks and concentrate on the more specialised or interactive skills that he preferred, and in which it was acknowledged he was undoubtedly skilled.

This criticism was perhaps a reflection of a general tendency toward a perceived, less practical, orientation in pilot students. One sister attributed this to the loss of the clinical teacher input which previously had acted to increase the clinical staffs' understanding of curricular changes and intents. The clinical teacher's presence in the clinical area had

previously enabled the demands engendered by varying educational programmes to be accommodated. These varied demands included issues of status, documentation and individual learning requirements.

An alternative explanation for conflicting value placed on practical skills could be that it arose from differing beliefs and attitudes; traditional training placed more emphasis on practical care, efficiency, and time management, but paid little attention to the psycho-social aspects that were an innovation in the pilot course.

In general there appeared to be a reluctance in 'validators' to make critical comment on the individual. This could euphemistically be taken as an indication of the superior qualities displayed by the former pilots; that they were all excellent nurses with few identifiable weaknesses. An alternative explanation however, might be that, having been singled out by the respondent as someone who would make valid judgements on their performance, the validators felt an obligation to avoid negative appraisal. This overall lack of criticism tended to create doubts about the validity of approaching staff to appraise colleagues for a project of this kind.

Summary

Eleven interviews of former students were carried out. Their mean age at time of interview was 25.9 with a median of 25.5 and their experience as staff nurses ranged from 5 months to three years with a mean of 1.9 and a median of 1.5 months. Their qualifications at entry ranged from 'O' level to degree. There were three males and eight females and none had been promoted above senior staff nurse grade.

Concluding Comment

Although Respondent 'W' had initially described her preparation as excellent, she had gone on to make a substantial amount of critical comment on her nurse education, and this pattern was repeated by the other staff nurses who, having expressed overall appreciation of their course, countered this with reference to considerable areas of discontent. This could be attributed to forced response resulting from a request for weaknesses as well as strengths,

but it appeared, from the level of negative comment, that the anonymity of the telephone interaction was enabling them to voice their opinions without reservation.

Nevertheless after the analysis of the first 11 participant and 8 validating telephone interviews it was concluded, that though the interviews had been interesting and successful in achieving minimal intrusion, they had not proved to be cost effective.

Conclusion

The interviews with the clinical staff were on the whole disappointing producing very little useful information and, in general, they had failed to justify the time taken in locating and arranging mutually convenient calls.

Another area of possible criticism was the failure of the snowball sampling method to produce contact with former students now working in other health authorities. Only one such potential contact was suggested and, despite considerable effort, this person could not be traced from the contact number given.

There were also concerns regarding desirability responses and distance effects.

In view of these concerns it was decided to supplement the follow-up information by conducting a series of group and individual interviews. A change of mode would also create another dimension, address some of the concerns, and add to the triangulation of sources on which conclusions would be drawn. Crabtree (1993) points out the benefits of utilising more than one type of interview. The next section describes group and individual interviews conducted with a sample of staff nurses. This would afford the above noted advantages of utilising group dynamics in multiple interviews. In addition there would be considerable time savings in interviewing several people at the same time.

It was therefore proposed to abandon the telephone interview approach and seek more in-depth investigation through group interviews. Further interpretation of the interviews was postponed until they could be viewed in a broader perspective. The next section describes an endeavour to achieve this.

Section Three

The Group Interviews

Since factors necessitating a data collection method that minimised disruption still prevailed, it was decided to overcome the difficulties by interviewing appropriate groups attending the College for post basic courses.

Access

Management consent was negotiated to allow interviews to be carried out on staff nurses enrolling on post basic staff nurse development courses. Staff nurses employed by the Health Authority undertake the courses after a minimum of six months in post. The courses comprise eight days in College over a six month period.

Sample

On average 100 qualified staff nurses enrol annually on staff nurse development courses. The courses are usually timed to be undertaken between six and nine months after qualification, and completion coincides with commencing mentorship duties. The groups include nurses from the study programme, staff appointed from other authorities, and those who studied on pre-registration courses from colleges which had recently merged with the study college. The subsequent three groups of staff nurse entrants (n= 53) were invited to co-operate.

The Questionnaire

A questionnaire was designed to explore the perceptions of the former Pilot students following a year's experience in practice (see Appendix [illegible] It was piloted on the previous Staff Development course (n=31) and was found to be effective in producing the information required. The piloting staff nurses had raised no objections to the questions or format and the three post basic nurse teachers, who taught on the course, considered it satisfactory and agreed its use. It was issued to the nurses on the final day of their staff nurse development course. The study description was read out and the questionnaire explained as a means of obtaining an agenda on aspects they considered salient to a discussion on their educational preparation and subsequent experiences as staff nurses. The reasoning behind questions 2.1, 2.2, and 3 was explained as an exploration of self

perception. The total findings of the study participants' responses to the first 4 questions are presented in Table 6.2.

Table 6.2. Group Responses to Questionnaire items 1.1

Question 1.1 : Identified Skills

	Grp1 (n=17	Grp2 (n=13)	Grp3 (n=13)	Total (n=43)
Professional competency: planning & managing care	82% (14	92%(12)	100 %(13	65%(43)
Communication with patients and their families	12% (2)	8% (1)	15% (2)	12% (5)
Wide knowledge base: ability to teach patient/student	12% (2)	8% (1)	31% (4)	16% (7)
Planning and delegating: ability to work in team	18% (3)	38%(5)	15 %(2)	23% (10)
Administering drugs	6% (1)	8% (1)	8% (1)	7% (3)

Question 1.2 :Identified Weaknesses

	Grp1 (n=17	Grp2 (n=13)	Grp3 (n=13)	Total (n=43)
Accepting responsibility and accountability: self/unqual staff	23%(4)	92%(2)	61% (8)	32%(14)
Managing ward team: Prioritising care	41%(7)	23%(3)	100%(13)	53%(23)
Unsupervised drug admin: recognition of effects	70%(12	76%(10)	84%(11)	77%(33)
Decision making without supervision	12%(2)	8%(1)	23%(3)	14%(6)
Coping with medical emergencies: new procedures	18% (3)	8%(1)	31%(4)	19%(8)
Counselling patients or relatives re. prognosis.	6%(1)	8%(1)	23%(3)	12%(5)
Inadequacy of knowledge to meet patient/student learning needs	12%(2)	0	23%(3)	12%(5)
Liasing with Doctors and Consultants	23%(4)	8%(1)	23%(3)	19%(8)
Assessment and mentoring students	6% (1)	8%(1)	6%(1)	7%(3)

Questions 2.1 and 2.2 Personal Change and Self perceptions.

In addition to stimulating debate, the questionnaire was designed to explore personal changes the respondents perceived as attributable to their nursing education and experience. Their responses are recorded in Table 6.3. They were also asked to identify key qualities that their *ideal* nurse would possess and these responses are illustrated in Table 6.4.

Table 6.3 Group Responses to Questionnaire Items 2.1 Personal Changes Attributed to Educational Experience

	Grp1 (n=17	Grp2 (n=13)	Grp3 (n=13)	Total (n=43)
Increased: confidence personal discipline, assertiveness	64%(11)	69%(9)	100%(13)	77%(23)
Critical awareness; objectivity, less idealism	18%(3)	0	38%(5)	19%(8)
Adaptability: ability to prioritise, organise	6%(1)	8%(1)	0	5%(20)
Ability to communicate, empathise, be socially aware	12%(2)	23%(3)	31%(4)	21%(9)
Broadened knowledge and greater awareness	12%(2)	23%(3)	46%(6)	25%(11)
Commitment to continued learning	0	15%(2)	8%(1)	7%(3)

Table 6.4 Responses to Question 2.2 Ideal Qualities in a Nurse

	Grp1 (n=17	Grp2 (n=13)	Grp3 (n=13)	Total (n=43)
Professional skill: knowledgeable manageme oriented	47% (8)	46%(6)	31%(4)	42%18)
Dynamic, forward thinking and confident.	12% (2)	0	54%(7)	21%((9)
Approachable and supportive good role model	12%(2)	7%(1)	23%(3)	14%(6)
Skilled communicator: empathic, and compassionate	59% (10)	38% (5)	85%(11	60%(26)
Holistic in approach to patient care: acts as patient advocate	29% (5)	8%(1)	23%(3)	21%(9)
Adaptability: willing to accept limitations/criticism	6% (1)	0	23%(3)	9%(4)
Committed to continued learning and development	6% (1)	8% (1)	0	5% (2)

Question 3. Respondents View of *Self* Compared with their *Ideal* Nurse.

In relation to his/her ideal nurse qualities identified in 2.2 respondents were asked to rank themselves on a scale where 7 is highest. Table 6.5 illustrates the frequency of rankings of each group in the categories identified. It is worth noting that, though co-operative in responding to the earlier questions, five were unwilling or unable to rank themselves in this way.

Table 6.5 Frequency of Staff Nurses' Group Responses to Question 3.

Rank	Grp 1(n=17)	Grp2(n=13)	Grp3(n=13)	Total
1	2	0	0	**2**
2	1	1	0	**2**
3	1	1	3	**5**
4	2	2	1	**5**
5	10	6	4	**20**
6	1	0	0	**1**
7	0	2	1	**3**

Account of Interviews

As with earlier accounts a transcript of the first interview is presented and followed by excerpts from other interviewees. Editing was restricted to summarisation while avoiding distortion of content.

The First Group Interview (n=19)

The group comprised 16 females and one male from the pilot population. Two additional female respondents were from another course. The mean age of the group was 23.7 years. The views of these two nurses who studied other courses are not represented in Tables 6.2 to 6.4 but they were present at the debates. Their contributions are identified in the following accounts of the interviews thus providing additional perspectives. A summary of responses opened the discussion.

The questionnaire findings (see table 6.2) identified the key strengths as, confidence in basic nursing care, patient management, and interpersonal and teaching skills. Anxieties appeared to focus on responsibility and accountability for practice, and ward or team management. Other worries included prognosis counselling and involvement in acute medical emergencies.

The group were invited to enlarge on the issues, to share opinions, aid recall and to provide a general opinion on individually identified views. The discussion also provided an opportunity to make recommendations for training programmes. Though the questionnaire

findings focused the initial discussion, the participants were free to digress to other aspects as they wished.

The Course Content

The group expressed overall appreciation of the educational programme, which they believed had provided a broad theoretical knowledge base and high standard of skill. On completion they stated that they had felt confident in performing basic nursing care activities. The value of the psycho-social studies in enabling them to recognise patient needs and offer empathy and understanding was reaffirmed. They agreed they that had felt particularly competent in planning and organisation of individualised patient care.

Variation in Experience

Nevertheless, it was emphasised that the quality of the learning experience could not be guaranteed to be of a uniform standard: neither could it be measured in terms of set course objectives. Quality and range of experience depended on numerous factors outside student or college control. In describing the variables, the group placed 'luck', and 'being in the right place at the right time' high on the list.. Other factors highlighted included the varying nature of allocations. It was acknowledged that, owing to student numbers, the specialities or generalities of disorders catered for by individual wards or units cannot be made available to every student. It was also noted that there was considerable experiential variation in the specific conditions, procedures, and treatments observed by individuals. Allocation to an area where patients with a particular disorder are commonly treated did not guarantee that a student would necessarily encounter that disorder. Patient admissions, are not based on learning needs, and similarly opportunities for observing commonplace procedures might be lost because of shift patterns and off duty rotas. References to other unpredictable factors that influence individual learning experiences included: interactions with and the personalities and skills of those who mentor or teach the students; the staffing levels and the milieu of the clinical area.

Interpersonal Communication

The group valued their *'advanced'* interpersonal skills maintaining that they facilitated communication with a wide range of people and across social stratas. They included in the

range patients, members of the multi-disciplinary team, peers, and student nurses. They believed that their skills in informal patient and student education allowed them to share their knowledge and understanding.

Concerns Created by the Staff Nurse Role

The group expanded on the anxieties encountered since commencing as staff nurses and recalled their reactions to responsibility and accountability for practice. They agreed an initial response was of being overwhelmed by the speed of transition. They described the change as a quantum leap from the security of being an unaccountable student, *'not expected to know'* to being a responsible, accountable staff nurse. Anxiety provoking aspects of the alteration in status included responsibility for ward/unit management, prioritising care, assessing and being accountable for the competency of others. Terms used to illustrate levels of anxiety included:

- *'being thrown in at the deep end'*
- *'a student one day and a staff nurse the next'*
- *' being expected to know more than I did'*

Decision Making

The staff nurse role also carried the onus of responsibility for making *'ultimate'* unsupervised decisions, and this appeared to have caused the group a marked culture shock. They reflected that, before there had always been someone more senior to whom they could consult or confer, but suddenly they were required to reach important decisions without supervision. All accepted that opportunity always existed for seeking support from senior management and agreed that there were occasions when they had no other choice. However it remained a major worry because they were reluctant to admit how often they needed to seek help from others.

It was suggested that there was covert pressure to be seen as *'doing well'*. This was attributed to the present competitive climate in which it was advantageous to be exceptional if one wanted one's short term contract renewed. The most common strategies they claimed to employ in resolving dilemmas of uncertainty, lack of experience, or knowledge gaps,

was through friendship networks. Help was sought from peers, friends, and even student nurses, if they had the relevant experience.

Practical Skills

Undertaking drug rounds unaccompanied, initially caused considerable anxiety; it was agreed this stemmed from insufficient knowledge of drugs and their effects. Managing a ward was another onerous responsibility, as was anxiety that staff would assume a level of knowledge that the nurse did not possess. Most admitted experiencing apprehension about the possibility of dealing with 222 (cardiac or respiratory) arrests. While all in the group claimed a more than adequate theoretical knowledge, some had never been present at a cardiac resuscitation and yet were expected, as staff nurses, to have the practical skills needed to participate as a member of the *'crash'* team. The requirement to perform other less dramatic, relatively uncommon procedures in which they lacked practical experience also caused unease. The effect of this fear of inadequate practically based competency in complex or less commonly practised skills was described as:

'being seen as a staff nurse but feeling like a student'.

Communication

Despite their alleged pride in their communication skills, talking to anxious patients, relatives, or bereaved persons, was particularly difficult. It was emphasised that this was not a criticism of their educational preparation since they felt no amount of theoretical preparation could equip them for sad conversations. The demands of this distressing task had not had grown easier over time, nor did they expect it ever would. It was agreed that the primary skill bestowed by the educational programme was the ability to recognise, empathise, and respond to individual needs, allowing them to treat each situation appropriately.

Empathic Awareness

The development of an empathic, intuitive perception of individual patient/client needs, was highly valued by the group who described it as fundamental to being a nurse. They described how the process of acquiring this skill took place over a considerable period of time, observation, variation in experience, and subsequent reflection and practice. It was a

pragmatic skill that could only be gained in the clinical environment: *'No amount of talk in a classroom can prepare you fully for life on a ward'.*

This concern led to the groups' agreed opinion that minimising clinical experience in the early stages of the Project 2000 course would result in students having insufficient subsequent time to hone these cardinal skills. A member referred to the strains student supernumerary status imposed on the ward team as they struggled to fulfil the needs of twice as many students as before. In describing the effects of lack of empathy, she cited an occasion when staffing problems had created extreme difficulties in meeting patient needs, but a supernumerary student had put personal learning needs first by spurning pleas for help with the response:

'no! I have already learned how to do that'.

Group members agreed that this was a common response from supernumerary students.

Mentorship

The Group discussed the future extension of their role into mentorship of students. They welcomed the opportunity to share their newly acquired knowledge, while they were still not too removed from their own learning experiences. However they believed the role of mentorship was thrust on new staff nurses at a time when s/he was still struggling to be regarded as competent and accountable. The responsibility involved in reverting to a role model, so soon, weighed heavily. They were concerned that the demands of assessing students, and counselling those who were failing to meet objectives, would be particularly daunting and they equated it with talking to anxious patients or their relatives. Some had already gained experience of mentoring in a shared capacity without prior preparation. One asked: *'Most of the time I was learning in a totally new and alien environment and new speciality. How could I mentor anyone?'*

The group put forward a recommendation that staff nurses should not act as mentors until they had had a year's experience as a staff nurse. In conclusion it was agreed that, with hindsight, they could recognise that they had developed personally as a result of the course and that this process of development was continuing.

The Future

All maintained an intention to remain in nursing and to continue toward higher professional and academic qualifications.

Summary

The group gave an impression of general satisfaction with the quality of their educational experience in terms of knowledge, competencies, and interpersonal skills. Although it had failed to provide all the practical experiences they required for professional practice, they acknowledged the impossibility of programming every practical experience in a clinical milieu where students' learning needs were secondary to patient care. The image they projected of themselves after twelve months clinical practice was of confident, competent, articulate professionals prepared to recognise their strengths and limitations, able to view issues objectively, and able to show tolerance and understanding.

The Second Group Interview (N=17)

The second group were all female. The mean age was 24 years. Thirteen respondents were former students of the pilot programme under study; three were from another of the six Pilot schemes; and one had trained abroad.

Agreed Values Of The Course of Study

The previous group's values were largely reaffirmed, the benefits of communication and organisational competencies acclaimed, and particular skills in the application of the principles of care appreciated. Participating as members of the multi-disciplinary team was welcomed but it was asserted the principle of equality did not stretch to doctors who regard themselves as of superior status.

Anxieties Encountered in Practice

They shared the earlier group's anxieties regarding being in charge, particularly the possibility of unexpected demands; such as : *' things I might I not be able to cope with?'*

All sympathised with a member's reference to the overwhelming feeling of relief she experienced at completing a shift where nothing disastrous had happened. They claimed this feeling, was now abating, but still re-emerged when new situations were encountered. Decision making remained a burden, as did drug administration, and the group reiterated

their lack of insufficient preparation and experience of the effect and rationale of drug regimes, or of practice in drug rounds. They considered such learning opportunities should have been a recurring theme throughout the course, rather than being postponed until the third year when there was insufficient time to become proficient. When the interviewer pointed out that there was opportunity to ask for practical experience and guidance on such topics on all allocations, it was asserted that clinical staff invariably gave teaching priority to third year students.

Confidence Levels

The group endorsed the fact that they left the College on a high note of confidence but this dipped enormously following the: *'phenomenal leap into professionalism'*. Suddenly they could no longer hide behind the student uniform claiming: *'I don't know, I am only a student'*.

Like the earlier group they worried about the possible occurrence of a cardiac arrest. One respondent described how on confiding this fear to the nurse in charge she learned that the last time this nurse had seen one was eight years ago. The group claimed their only recourse was to admit to not knowing and to seek help.

Assessment

A concern raised by a respondent from an outside course was the problem of assessment of students. This she attributed to her lack of personal experience of the system. However, all the study participants, including those familiar with a similar system, acknowledged the same concerns. The group advocated that the role of mentor should not be precipitated, but left for the individual to decide when s/he is ready for added responsibility.

Future Plans

All wished to continue in nursing and were enthusiastic about the pursuit of further nursing studies. However plans were thwarted by present job insecurity. At the end of six month contracts they were finding themselves offered only similar terms for a further six months. Applications for further study or long term plans were, therefore regarded as futile.

Summary

This group showed pride in their skills: they admitted to anxieties about coping with the unusual but were prepared to seek help and were keen to progress.

The Third Group Interviews (n=17)

Of the third group 13 were former students of the Pilot programme and 4 from another of the six programmes. All the group were female with a mean age of 25.7 years.

Teaching Support in the Clinical Areas

Views on the strengths acquired reflected those agreed by the previous groups. The members of this group however, were vociferous in their criticisms regarding the level of support and teaching received during the clinical allocations. Situations were cited where link teachers were never encountered throughout long periods of training. The effect had been unnecessary vulnerability on commencement of practice, adding considerably to stress levels. The anxiety about drug administration and ward management was, they alleged, a direct result of this failing in the educational programme. It was suggested to the group that they might consider recommending that this omission be alleviated by providing more teaching support through a lecture practitioner system. This solution was summarily dismissed as equally ineffective by the four members who had studied on the other pilot scheme where such a system operated. They too claimed a teacher had rarely been seen on the wards and units and they had felt equally insecure as new staff nurses.

None of the group regretted undertaking the pilot course, though all claimed to have experienced times when they could have given up in disillusionment. They linked attrition to stress levels but maintained that it was particularly likely to occur when friends in other careers appeared to enjoy better working conditions, less pressure, larger salaries, and more structured and secure career prospects.

The Future

While all the Pilot students claimed to perceive their long term future in nursing, several expressed bitter resentment that the failure to award a Diploma for their course meant that, however skilled and competent they might be, they must go on to study for a higher academic qualification if they were to compete with more qualified oncoming nurses in a restricted job market.

Conclusion

The findings of the telephone interviews, questionnaire and focused group discussion, all combined to indicate that the educational outcomes can be regarded as successful. Following a period of practice, the respondents had demonstrated a high level of achievement, of professional pride, and confidence in their nursing skills. The accomplishment of the study's aim of ensuring that course graduates were confident and critically aware practitioners, with positive self esteem and with continuing enthusiasm for learning and personal growth, was established. However, the group discussions revealed that this positive attitude is only achieved after months of considerable anxiety and uncertainty experienced as they undertake a traumatic rite of passage into the role of staff nurse. The findings of an initial fall in self confidence occurring immediately after becoming a staff nurse and a subsequent delay in recovering confidence in their competency was less clearly demonstrated in the more superficial telephone interviews. It is a matter of conjecture whether this loss of confidence might have been a feature of these particular samples, but consultation with continuing educationalists, with a total of 17 years of post basic teaching between them, corroborate the findings from their teaching experience. In addition the findings reflect the doubts and fears expressed in the final course evaluations in Chapter Four Section seven.. It is disturbing to discover that, despite an intensive three years preparation, the content of which was generally evaluated as providing highly valued theoretical knowledge and skill, this sample of staff nurses indicate that, not only when embarking on their new role, but after months of practice, they experienced uncertainty and stress. While this raises concern about the appropriateness of their preparation for practice, a possible alternative explanation might be that this anxiety is a response to the process of major change taking place in their working and professional milieu. The next section seeks to review opinions expressed by a Staff Nurse from one of the first pilot courses.

Section Four

An Earlier Perspective.

To discover if the levels of concern expressed in the previous section were of recent origin, the transcript of an earlier interview, conducted with a staff nurse after she had practised for six months is presented for comparison. The interviewee had studied on one of the first pilot courses and the informal interview took place early in 1990 before many of the major economic and political changes were envisaged. It should be noted that when this respondent refers to junior nurses, she is in fact referring to the cohorts from whom the sample of staff nurse interviewees for the group interviews were drawn. The in depth interview was carried out by the writer and took place in the College six months after the respondent had been appointed as a staff nurse in the Hospital adjacent to the College. The respondent had been selected after the writer had heard her respond to a junior student representative's plea for a reduction in assignments, with the classic retort: *'We did it, so why shouldn't they?'*

Respondent 'Y' was 22 years old on entry and her acceptance was on the basis of two 'A' levels. She had a vibrant personality and exhibited a tendency to be controversial; this she conveyed with her mode of dress and language style, and she appeared to relish her reputation for being outspoken. Her scores on the LPI, listed below, were consistent with her individualised approach to life, and demonstrated little change over the course of her studies.

Table 6.6 Record of Scores on LPI at Entry and on Completion, Respondent 'Y'

	Con.	Abs.	TStr.	S Str.	Ind.	Inter.
On entry	59	34	76	36	57	44
On completion.	69	54	70	23	62	37

The interview was tape recorded and subsequently transcribed. Editing was confined to removing deviations and asides. No-one else was present and assurance of complete confidentiality was given. The transcription of the interview is presented below.

Respondent 'Y' was invited to discuss her views on the effectiveness of her preparation now that she had experienced practice as a staff nurse. She was told that the reason for her

being of specific interest to the study was that, having been an acknowledged strident, student activist, she now appeared, judging by the above remark, to be changing to an opposing stance.

Respondent 'Y': ' *Yes, there is a certain cynicism that exists for students and it is transferred when you become a staff nurse. As a student you are cynical about teacher credibility. You say OK, anyone can teach from a textbook, but anyone doesn't necessarily know about reality. On becoming a staff nurse you transfer some of that cynicism to your view of the student. In my case I feel I want to teach, but they are unwilling to learn.*

They say. 'Oh! I have already practised that, so I don't need to do it again.'

Of course, some procedures need very little demonstration, but I would never have said that at their stage. The juniors seem different from how we were - less co-operative - more assertive. They ask for everything 'on a plate'. When I made that remark I meant: 'Not that you must go through it because we did - but that it is achievable. We achieved it; so can you.'

Interviewer '*You identify differences between you when you were a junior and those enrolling now. Is there also a gap between you and traditionally trained staff?'*

Respondent 'Y': *No. We all strive toward the same end. It doesn't matter what you have learned; you struggle desperately to manage the ward and get the work done by lunch time. I am always rushing; there is still this incomprehensible convention that all nursing duties must be completed in the morning, and that nurses must never talk to patients during this time, or they will be labelled as lazy. Talking is strictly for afternoons. Anyway at six months into the staff nurse role you don't attempt to apply the research awareness or psycho-social knowledge; everything you learned goes out the window. It's very sad, but impossible to change, because becoming competent in management takes first priority'.*

Interviewer: *'Would you have preferred that the course placed a higher priority on management, allocating time to it at the expense of psycho-social care or other topics?'*

Respondent 'Y': *'No. However much you learn in school, learning to manage a ward must be ward based because every ward differs. I would like to give psycho-social care aspects priority but when you attempt to sit with a patient to enquire about his ability to cope with his illness, adjustment to a changed body image, or effects on the family, someone else in the ward will demand a vomit bowl or something. There isn't time, and in the end you get to a point where you stop trying. You notice this with the first year students; they arrive keen to treat the patient holistically but enthusiasm soon disappears. Nurses must look busy; the 'busy' persona is put on with the uniform. It's part of nurses' need to be important; sitting talking for two hours does not fit the image. Clinical staff say to the students: 'Ignore what the school says. It's a lot of rot. There isn't time.'*

Interviewer: *'Could it be that those who trained earlier lack insight into your extra knowledge and expertise?'*

Respondent 'Y': *'Yes, there is a lack of understanding but much that we learned was irrelevant and too repetitive. For example sociology needed to be applied to nursing,; patients may not want you to delve into their social background. Though I accept that psychology skills can help you to recognise if and when they do want to talk'.*

Interviewer: *'Returning to the original issue, do you think changing your role has caused you to become autocratic in your approach?'*

Respondent 'Y': *'No. I believe I am democratic; I try to avoid intimidating the juniors. It's the uniform; I can remember my fear of staff nurses when I was a junior'.*

Interviewer: *'Do you have any comment to make on assessment?'*

Respondent 'Y': *'I feel that continuous practical assessment is failing to work effectively because it is too easily influenced by the person who conducts it, your relationship with them, and their feelings on that day. There is a reluctance to mark you too highly and no-one gets to cover all the objectives; it's impossible. No-one likes giving a bad report, to say: 'You are dangerous; have you thought of another job?' I accept that for registration purposes there is a need for criteria for judgement of safeness for practice, but I don't think objectives should be so specific'.*

Interviewer *'Can you identify the strengths possessed by you or your group compared to traditionally trained staff nurses?'*

Respondent 'Y': *'As a group we appeared to develop confidence and assertiveness. I don't consider I have any specific strengths except that I am safe to practise and, most importantly, I'm prepared to accept failure or admit I don't know. I assert my right to be ignorant. Wearing a white dress* (a staff nurses uniform) *does not confer knowledge from heaven. I believe traditionally trained staff are more inclined to bluff it out. I never do: perhaps that's assertiveness training'.*

Interviewer: *'Did this additional confidence mean that, on qualifying, you were ready, for responsibility?'*

Respondent 'Y': *'No. I think this area of the course is badly flawed; you spend so long in the specialities that there is too little time to prepare for responsibilities when you return to general nursing at the end of the course. This is a view widely held by members of my group and those following. But you can't meet the needs of everyone, however you organise the course and however well balanced the content. I accept that I have been more critical than I was while on the course: I conformed then but now I have passed and am free to say what I think.*

I feel at this stage I am playing at being a staff nurse; possibly it's my nature, or perhaps it's because I haven't had responsibility yet. I am on a specialised unit where you don't have responsibilities until you have been in post for six months.

I lack confidence, and the more scared I am the more confident I appear. There is such a lot I don't know and can't do.

I think I am an incompetent practitioner, but I am safe'.

Summary

The interview with Respondent 'Y' provided considerably more depth than the other interviews. In the ambience of a confidential, informal, one to one interview there was opportunity for the respondent to reveal her true feelings. In addition she could control the pace of the interview in a way that the telephone or group interviewees were not able to do. There was also a one to one interaction between interviewer and interviewee. Her views

reflect more graphically the high level of anxiety and self doubt that the later respondents described and appear to refute the argument that later interviewees are simply reacting to the uncertainties of the present working environment. A further possible criticism concerns the fact that the interviews were all highly subjective.The next section describes an attempt to adopt a more objective approach.

Section Five

The Twin Interviews

A possible criticism of the interviews concerns the subjectivity involved in asking the respondents to form their judgements on the efficacy of the course. Choice of criteria was left to the individual respondents and would therefore, vary widely. The guidelines of comparison with a traditionally trained peer would not address the multiplicity of confounding variables that impose on such judgements.

This factor was considered at the study design stage and it was acknowledged that a scientific approach would be the ideal. A student could be pre-tested, subjected to the training experience and then post tested on pre-selected aspects. Conclusions could be based on differences between the pre and post test results. However, such an approach was unfeasible because of the difficulty of ensuring that the differences identified were the effects of the training experience and not the myriad of other variables, including time, maturation, learning style, changing temperament, and others that intervene in human situations. In a three year period of training, control of such variables would be insurmountable. Regrettably it is not feasible to use a pre and post test approach which would require an individual to study on Course Y, and after post testing repeat her studies on Course X followed by a further post test which would have allowed comparisons on differences of effect of each course. Similar constraints are commonly encountered in studies in humanity based disciplines where attempts to discover effects of experience are confronted by the intervention of uncontrollable variables. The solution would be a facility to keep constant all but the variables under study. But this would require two parts of one person: one half exposed to one condition, and the other half to a second condition.

Twin Studies

A near compromise used in psychological studies is to study monozygotic twins who, at least in genetic terms, commence life as two separate halves of one. It is assumed that, providing they have shared the same nurturing, social, and experiential background, there will be a high degree of consistency in intervening variables, and a common practice in twin studies is to expose one to one condition and the other to a second condition. In this

way it is possible to assume that any subsequent differences result from differences in conditions. While it could be argued that there are still likely to be wide variations even in monozygotic twins - for example in individual interpretation of experiences, motivations, self concepts and personality - the fact that there were two sets of twins associated with the study afforded a propitious opportunity to compare responses to two forms of nurse education in identical twins.

The Respondents

Twin 'A' from the first pair (A and B) was enrolled at the College under study and the other Twin 'B' coincidentally at College 'M' one of the control colleges used in the self concept and learning style comparisons. A second set of twins (C and D) were both students at the study College. All agreed to co-operate in the study.

Interviews were arranged to take place following a period of experience as staff nurses. Twin 'B ' had been in post for only six weeks and was therefore, able to describe with immediacy the experiences of the first weeks in a new staff nurse post. The other three had been in staff nurse practice for over six months and could only report retrospectively on their initial responses. Twins 'C' and 'D' were now studying for midwifery qualifications at different colleges. All the twins agreed to complete a short questionnaire aimed at discovering if there were similarities beyond the physical characteristics and shared upbringing.(see Appendix L-a). All respondents were asked to read the study description (see appendix L-b), but, in the case of Twins 'A' and 'B', they were also asked to make comparisons in the light of what they each knew of their sister's course. The informal interviews took place separately, and recording was by voice activated tape recorder, supplemented by note taking. Editing merely occluded minor deviation considered unnecessary to the debate, and the content was then transcribed. Both sets of interviews took place in the family homes and each took approximately 30 minutes. While one was interviewed, the other respondent completed the questionnaire and learning preference inventory.

Twins 'A' and 'B'

Twins 'A' and 'B' enrolled at 19 years, Twin 'A' at the College under study and Twin 'B' at College 'M'. While Twin 'A' had studied on the pilot course at a time when it was well established, Twin 'B' had become one of the first students undertaking the Project 2000 course of training at her College. Prior to that they had attended the same schools and undertaken the same 'O' level courses. They had undertaken different 'A' level subjects. Twin 'A' had achieved 'A' levels in geography and home economics, and Twin 'B' had one 'A' level in sports science. They appeared alike, bright, alert, outgoing and open in approach. They were closely bonded and came from a large close knit supportive family. There was a striking similarity in their tastes and early memories (see Table 6.6). Though entering as school leavers they came from a family with a well established medical background, so it can be assumed they began with an awareness of the demands of their future career. The decision to train at different colleges had been an attempt to establish separate lives. Having always shared interests and hobbies, school classes, social activities, and friendship groups, they were now embarking on the same career and felt it would be an opportunity to develop separate identities. This had been partly regretted by Twin 'B' who as a supernumerary student with conventional weekends off was so lonely that she travelled a round trip of over 120 miles home on all but one weekend. She had also frequently visited her sister and her friends. This close contact and familiarity with Twin 'A's wider and more varied practical experience had led her to envy them their 'hands on' experience to patient care. It may have contributed to her reported frustration and anxiety about lack of patient contact and clinical experience during her first 18 months of college based study. These factors, recounted informally after the recorded interview, together with her short experience as a staff nurse, should be taken into account when reading the following description of the interviews.

Twin 'B' had recently begun work as a staff nurse in a surgical unit adjacent to the operating theatre where her sister worked.

Twin 'A' had been in her present post for six months having been appointed soon after qualification. She was confident in her role as a staff nurse and was enjoying the work.

The Transcripts

Twin 'A': '*I can remember our grumbling about learning what, at the time, often seemed to be irrelevant topics, but now looking back I realise it was a great course because it linked theory and practice so well. The balance was right between the theoretical and 'hands on' experience.*

After learning the theory in College, we went straight to the wards and units, and could actually see it in action. This practical experience was so important because we saw for ourselves how theory and practice fitted together.

I feel the biggest benefit to me has been my good communication skills. I realise the importance of talking to the patients to help them to understand their condition, their treatment, and how it will affect their way of life, job, family, and background. I believe my sister studied the theories in greater depth but has had fewer opportunities to practise them outside the classroom. There was so much to learn when she reached the wards, whereas I had time to put things into practice as I went along. My skills in this area are very important to my present post in theatre where ability to counsel patients pre. and post - operatively helps me understand their fears. This gives me the chance to allay anxieties and I ensure that they are not feeling helpless in the hands of others.

My present colleagues respect my broad theoretical knowledge base and often consult me, assuming I will know more, which is rewarding. The course has made me very aware of the need for research based practice and I feel I am way ahead of my colleagues in this.'

Interviewer: '*Were there any negative aspects?'*

Twin 'A': *'I don't think I lacked any nursing skills when I began my staff nurse job. I was confident and ready for practice; eager to get on with it. I felt prepared for management and I now particularly enjoy sharing my knowledge and skills with students. I see this as a great contrast to my sister, who rather than being ready to teach others, feels she still has to learn basic skills. She lacks confidence in her ability to perform clinical procedures and in her understanding about drugs and their administration.*

She does have greater knowledge and understanding of the disease process, treatment effects, and anatomy and physiology in relation to disorder, and I would have liked more concentration on anatomy and physiology in my training, as I am now having to go out and find this knowledge for myself.

In the future I hope to be able to remain in the clinical field but develop the clinical teaching role'.

Naturally talkative and helpful, Twin 'A' had contributed to the interview in a relaxed and confident way. She smiled readily and was clearly happy in her new role.

Twin 'B' arrived late from her shift at the hospital having worked beyond the end of her shift to *'catch up'*. Before the interview she found it necessary to unwind relating to her sister and the writer the pressures of her day. She described the difficulties of coping with the demands of her responsibilities, referring to how unprepared she felt for her staff nurse role. Although she acknowledged there were always senior staff to whom she could turn for help, and had no hesitation in doing this when necessary, she nevertheless felt insecure when, as on this day, her shifts did not coincide with her sister's.

Transcript of Interview with Twin 'B' (Project 2000 student)

Twin 'B'' *'Compared to my sister's training mine has been less adequate in preparing me for my present work as a staff nurse. I feel out of my depth, and under tremendous stress due to lack of experience of basic procedures in which everyone assumes I am competent. I am frequently asked to do things I have never done before and sometimes have never even seen performed. If my sister is on duty I run down to the operating theatre to ask her what I should do. Of course I sometimes ask my superiors but I feel embarrassed at revealing just how much help I need, but I know I must ask as I am unsafe at present. There is pressure to perform and I am looked on as an elite Project 2000 graduate with a Diploma. This is made worse because the Authority is only just introducing Project 2000 education and no-one has any understanding of my course or what to expect of me.*

My management training was virtually non-existent and yet today I was left in charge of a ward with only two student nurses. I know the pressure will increase but I will learn very

fast in this situation. This makes me confident that when I emerge from this first six month intensive period, I will have extra strengths compared to the traditionally trained nurse. I will then be able to use my increased depth of theoretical knowledge to provide a good professional standard of care. At the moment however, as I struggle to catch up with my sister and colleagues in terms of practical skills, I can only regret doing the Project 2000 course and wish my training had covered more practical experience and management skills'.

Interviewer: *'And the strengths?'*

Twin 'B': *'I did learn a lot and had plenty of time to reflect and synthesise what I had been taught. I appreciated the extra time for theoretical study. The work was not hard; it was nice to be a 'real' student. I was able to explore and gain understanding of issues of health and disorders from a wider perspective than my sister. Unfortunately I was protected for 18 months from the reality of the real world that my sister had experienced, and I envied the chances she had had to develop nursing skills and her opportunity to put theory into practice. I didn't have time in the final 18 months to catch up with her and am struggling to do that now. As for the future I can't see too far ahead. I only know that I first want to consolidate these practical skills. Perhaps after that I might move to a different area, maybe in the community.'*

Summary

Twin 'B' was keen to co-operate but in her state of anxiety was unable to relax and enjoy the interview as her sister had done. She sat hunched in her chair and apparently found it difficult to concentrate. Though they were clearly alike physically with similar tone of voice, mannerisms and language code, Twin 'B's strained features and posture made it easy to differentiate between them on this occasion.

It was noticeable that while Twin ' A' had difficulty in identifying any weaknesses in her training or current function as a staff nurse and responded only after prompting, Twin 'B' focused on the negative aspects and only then turned to considering strengths after a prompt. She could then only project forward by identifying strengths that she foresaw might eventually become relevant.

Table 6.7-Responses to Questionnaire Twins 'A' and 'B'

	Twin 'A'	**Twin 'B'**
First Memory	Starting school without Twin	Starting school after Twin
Favourite Holiday	Tenerife with Twin	Tenerife with Twin
Best friend	Twin 'B'	Twin 'A'
Favourite Food	Chinese	Chinese
Favourite Sport	Netball	Netball
Favourite Perfume	Beautiful	Tresor
Favourite Colour	Green	Green
Favourite Singer	Chris de Burgh	no response
Achievement	Qualifying as RGN	Qualifying as RGN
'O' levels	7	7
'A' Levels	2	1

Twin 'A' identified good communication and being hard working as the qualities she admires most in a nurse.

	Communication Rank	**Hard working Rank**
Sister	6	6
Self as I am	5	6
Self as I'd like to be	7	7

Twin 'B' identified approachability and competency the qualities she admires most in a nurse

	Approachability Rank	**Competency Rank**
Sister	7	6
Self as I am	5	2
Self as I'd like to be	7	6

The Second Twins

Twins 'C' and 'D' had also enrolled as 19 year old school leavers. They were from a small supportive family. They did not have a medical or nursing background but had previously engaged in voluntary care work. They were closely bonded, and their appearances and personalities were so similar that they were confused by all but their closest friends and relatives. Their mode of dress and their style of hair was identical, as was their posture. They had shared all aspects of their lives - education, interests, and hobbies. Their questionnaire responses were less similar than Twins 'A' and 'B', perhaps reflecting the fact that they were in the process of distancing themselves from each other at the time of the interview. During training they were constant companions. They did, however, mix well with their colleagues and were popular members of their cohort. After remaining together during training they separated after qualification, voicing similar reasons to those that Twins 'A' and 'B' had used in rationalising their decision to part before training. On qualifying they had soon obtained work and, after some experience as staff nurses, had both, within months of each other, enrolled for midwifery education at colleges some 60 miles apart. It seemed that the timing of their parting had been more effective and they appeared quite adjusted to working apart. They were given the study description and Twin 'C' was interviewed first.

Transcript of Interview With Twin 'C'

Twin 'C': *'I am glad we decided to do nurse training; in my case I chose to because I felt there would always be a job to go to. Training on the pilot scheme seemed a good idea because it was still new and it would be a chance to be up to date. I liked the fact that it was based on continuous practical assessment. The College's high reputation was another point and it was within easy access of home. I felt the course provided us with good practical experience, and we learned valuable basic nursing care which was a basis on which to begin our practice as nurses. The value of the theory was a bit mixed. The foundation course was fairly good on basics but definitely needed more anatomy and physiology. I have found, when working with others from different training schools, that I have a lot more psychological awareness of patients' needs. I enjoyed College but*

I think we were a bit 'spoon-fed'; we were not really encouraged to be self directed. I think our course could have been better timetabled to allow more time for private study and could have concentrated more on preparing us for the role of the staff nurse. I appreciated the support of the teachers and the course leader and liked the variation in methods.

We were made conscious of the importance of research awareness, for example in wound dressing techniques, but, since the trained staff were less aware of research issues, it was difficult to use this knowledge in the clinical area.

I feel I developed a lot in my third year, gaining particularly from my final six months management module.

As a new staff nurse I was glad I had done a practically based course rather than the Project 2000, because I feel I have more practical skills than those from that course. I have mixed feelings about the lack of job opportunities on completion and feel this is partly due to the specialised nature of the hospital where we trained which should offer a broader base of care'.

Interviewer 'And your future plans?'

Twin 'C': *'My ambition for the future is to travel abroad'.*

Twin 'C' appeared calm and co-operative. She was comfortably relaxed and kept to the point, clearly attempting to give a fair judgement of the course. Her response had been spontaneous and she had required only a single prompt regarding her future plans.

She valued her educational experience and personal development, and appreciated the practical experiences and continuous assessment though she expressed a few reservations about the theoretical content. She had enjoyed her transformation to qualified practitioner and shown enthusiasm in progressing quickly to further studies.

Transcript of Interview With Twin 'D'

Twin 'D': *'I haven't always wanted to be a nurse, but following voluntary work it seemed an opportunity to get a qualification. I wasn't encouraged by my family and friends who said: 'Don't do it, you will be poorly paid and overworked'.*

The course was well planned with a lot of basic theory in the foundation block, especially the psychology and nursing theory. It set you up well and you learned a lot. The first two extended allocations in general wards allowed you to get a good grounding in basic nursing cae. The anatomy and physiology was useful. We were 'spoon-fed', but how much you take in depends on how self directed you are. Sociology and Psychology input helped me to understand the problems and needs of others. It was good to be prepared in advance of the allocations but I learned most in the wards and I would have preferred regular study times on the wards for discussion. I found I learned best from the mentors. They helped me to gain confidence in basic skills and in coping with difficult situations. I also learned from other students; but that can lead to bad habits.

The management module was a valuable preparation, but in spite of learning a lot, it is still a shock when you become a staff nurse, you cope by being self directed. I particularly appreciated the variation in the assignments and projects as these prepare you for continuing education.

'I intend to practice as a Midwife for the foreseeable future'.

Twin 'D' was also equally forthcoming and relaxed in the interview which took place immediately after her sister. She was concise and required no prompts, focusing more on the learning experience. She appeared to have particularly valued the practical aspects and the input from the clinical staff. Like her sister she appreciated the student centred approaches and felt learner self direction and support had been an important preparation for her continued education.

Summary

The opportunity to interview Twins 'C' and 'D' was taken in order to use them as controls. The purpose of this was to establish whether any perceived differences in Twins 'A' and 'B' were due to differences in their course, rather than differences in themselves as individuals despite being uniovular twins. The fact that Twins 'C' and 'D' had shared their three years of training experiences was very apparent in the interviews. The impressions they gave, the language they used, and the views they expressed did not indicate any areas in which they did not hold similar views, beliefs, values, and attitudes. This similarity of focus and

shared views appeared to support the initial assumption that the differences identified in Twins 'A' and 'B' were indeed due to differences in their training and experiences.

Table 6.8 Responses to Questionnaire Twins 'C' and 'D'

	Twin 'C'	**Twin 'D'**
First Memory	Following Twin at 2 yrs.	Together as a family
Favourite Holiday	Isle of Wight	Newquay
Best friend	Twin 'D'	Twin 'C'
Favourite Food	Italian	Steak
Favourite Sport	Aerobics	Aerobics
Favourite Perfume	Ystasis	Chanel
Favourite Colour	Red	Pink
Favourite Singer	George Michael	Whitney Houston
Achievement	Qualifying as RGN	Qualifying as RGN
'O' levels	9	9
'A' Levels	0	0

Twins 'C' and 'D' 's Responses to Question 4

Twin 'C' identified confidence and leadership as the qualities she admires most in a nurse

	Confidence Rank	**Leadership Rank**
Sister	5	6
Self as I am	5	6
Self as I'd like to be	6	6

Twin 'D' identified experience and friendliness as the qualities she admires most in a nurse.

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	Experience Rank	**Friendliness Rank**
Sister	6	6
Self as I am	5	6
Self as I'd like to be	6	6

Learning Styles

The Rezler LPI had been undertaken by all three pilot students in the first week of college entry. This is recorded in Table 6.8 and these scores are compared with their scores on the day of the interview. No previous score is available for Twin 'B' because her college

did not measure learning styles on entry at that time. It is important to recognise that these scores were taken some time after the end of their courses and for all the respondents this period has been one of major change in their professional and social lives. In particular Twins 'C' and 'D' were embarked on a midwifery courses where androgogical approaches to education are popular. (Ho 1991). One cannot assume that these follow-up learning preferences have not undergone further change in the interim. Nevertheless the scores appear to provide further evidence of similarity in Twins 'C' and 'D', where, not only were their original scores very similar, but the direction and degree of change follows the same trend.

Twins 'A' and 'B's final scores are also similar but one can only speculate on the possibility that they were similar on entry to their respective courses. Twins 'C' and 'D's' high individual scores appear consistent with the value they placed on self direction in learning in their respective interviews, although both showed a move toward an enhanced interpersonal score at this time. In contrast the more gregarious Twin 'A' had shifted in the opposite direction, the change being reflected in her tendency to become more teacher structured with a score very similar to her sister's preference. Overall it can be reasonably concluded that the scores provide further evidence of consistency between the twin pairs.

Table 6.9 Comparison of Twins'Scores on Learning Preference Inventory.

Twin	Con.	Abst	T.Str	St.Str	Ind.	Inter.
'A' Entry	58	43	60	28	41	85
Interview	60	44	78	30	39	64
'B' Entry	N/A	N/A	N/A	N/A	N/A	N/A
Interview	60	59	74	27	36	59

Twin	Con	Abst	TStr.	St Str.	Ind.	Inter.
'C' Entry	63	38	71	39	71	33
Interview	52	36	67	47	55	58
'D' Entry	67	52	68	36	62	30
Interview	67	39	68	42	53	46

Conclusion to Chapter Six

The interviews with the various groups and individuals have revealed certain trends in the educational programme and these add support to the efficacy of the initiative in achieving its broad aims. It has also shown consistent areas of concern, and the final section draws conclusions on the findings of the post-registration explorations as a whole.

Chapter Seven

Conclusions and Recommendations

Initially it was claimed that the research study would be unique in providing the first longitudinal evaluation of a nurse educational curriculum in which the progress of a number of Cohorts would be monitored from entrance to course completion. The increase in the time scale, of the study allowed the observation of the effect of change to be even more far reaching by its extension over eight years of draconian change in nursing education and practice.

It now remains in this final chapter, to link all the elements of the multi-dimensional study into a composite whole. Before doing this we need to reconsider and reflect on the discoveries that resulted from the triangulated investigations, and to form decisions on how the findings of one aspect of the inter-related study affect or validate the interpretations of the findings in the other dimensions examined. To facilitate this, it is proposed to review the aims and general conclusion of each section of the study

The reader is reminded of the initial aims of the study which were provided in the study introduction.

The Initial Study Aims:

1) To evaluate the effectiveness of a programme of nurse education selected to act as a pilot scheme for future educational innovation.

2) To investigate the effect of the educational process and educational milieu on the learners' personal worth.

Summary

Chapter One: The Background. This sets the research in context, describing how the project grew out of the profession's anxiety regarding predictions of imminent changes, in what was already an occupation in a state of flux. In reality, the subsequent changes in health care, and nurse education were far greater than even the most pessimistic futurist could have envisaged.

The study coincided with a period of widespread re-organisational, social, and political changes that were to have a major impact on nursing, its practice, and the occupational preparation of student nurses.

The educational programme unfolded against a backcloth of increasing competitiveness, and reduction in job opportunities across all the professions. There were fundamental fiscal restraints; changes in perceived needs, and values; and cut backs in manpower and facilities in the National Health Service. When the study commenced, the entering cohorts embarked on their nursing education with a reasonable expectation after qualifying they would be offered employment by the Regional Health Authority. They would also have looked forward to a wide vista of career and development opportunities in the United Kingdom and abroad. By the end of the 80's such opportunities were becoming limited. The later cohorts were forced to accept short term contracts, and were often forced to accept any job offered in an occupation where prospects of a 'a job ticket for life' are probably gone for ever.

Chapter Two: The Literature Review. This chapter is summarised in its various sections. The underlying questions running through all the review chapter concerned how appropriate the approaches, reviewed were to nursing education.

Section One: The Major Evaluation Methods. This described a wide range of evaluation methods in general education, and included several writers' views, criticisms, and opinions of the merits of the main approaches.

Section Two: Evaluation Related to Nurse Education. The research articles, concerning nurse educational evaluation, were reviewed in this section. It was revealed that in 1986 there were no comprehensive models of evaluation that were designed specifically for nurse education. The chapter included descriptions of nursing models that have been devised more recently.

Conclusion. Overall the evaluation literature demonstrated the wide range of options for choice of method, and it was recognised that selection must be made in the context of the college milieu; it must take account of the needs of the prospective audiences and reflect the nature of the study question.

Section Three: The 'Self'. The literature on the concept of 'self' was reviewed; the volume of writings on the topic led to the necessity to be selective. But it was clearly demonstrated that student self esteem had implications for the efficacy of learning achieved, and to the quality of care offered to the patients. The review noted some nurse researchers' concerns regarding an apparent tendency toward lack of self confidence in student and practising nurses.

Conclusion. The theories of self efficacy, and external locus of control were identified as having major import to the formation of successful nurse/patient relationships, and for continued personal development in nurses. This in turn, led to the question of how their mode of training and learning affected the well being of the learners. An examination of the literature was undertaken, concerning how the theoretical knowledge, and practical skills necessary for the student nurses' future professional role were generally instilled.

Section Four: Socialisation into Nursing. The writings on this topic exposed the speed of nursing recruits' integration into the role of nurse/worker in the clinical regimes where 'apprenticeship' training is conducted. It showed that, in such milieux, students' learning needs are very much a secondary consideration and they are often treated simply as 'pairs of hands' during their allocations in the clinical field.

The importance of the contribution that the mentors and clinical staff can make to student learning and well being in the clinical area was well recognised and attention was drawn to the need for good role models and consistent support systems if students are to acquire the confidence for competent, qualified practice.

Conclusion. Overall the literature referring to the role preparation for nursing was found to have particular relevance to both study questions supporting the assumptions that the process of role initiation and the value the individual places on the role might have lasting effect on the student's concept of both self and the profession of nursing.

Section Five: Adult Education. The tenets of the adult educational approach were reviewed in relation to the teaching of the theoretical component of nurse education. Humanistic, student centred learning strategies had been adopted in the college with the advent of the pilot educational programme and the amount of literature concerning this

mode of teaching demonstrated that there was a high level of interest in the approach among nurse educationalists.

The philosophical principle upon which the course was based was one of equity of relationship between the teacher and learner and this aspect of the androgogical approach appeared to be popular with nurse writers. It appears it was viewed as a means of accelerating the shift, in nurse education, away from the didactic medical model where the main focus is on the disease and its ramifications, to a nursing model of teaching and learning strategies that centre attention on the individual patient's response to disorder. The nursing model was designed to equip the learners with a conceptual framework of responsive and individualised care that is continually developed through experience.

Conclusion. The review led to the conclusion that the move toward greater freedom in nurse education was a positive one, which had the potential to create an educational ethos that would enhance the development of student self esteem, by means of growth in independence. This would enable the learner to develop the skills needed for a lifetime of self directed learning and personal development.

Chapter Three: The Research Design

Relevant aspects of the theoretical perspective in the literature were reviewed with the aim of identifying the method that would achieve the best match in relation to the nature of the research questions; the theoretical and philosophical perspectives governing the organisational ethos; the individual researcher's values and beliefs; and finally the discipline in which the study was focused.

Conclusion. A common theme in the writings reviewed had been that the choice of research design, and the evaluation method to be used, must be made in the context of the educational milieu. It must take account of the study question; consider the needs of the potential 'consumers' of the study report; and match the ethos and politics of the organisation.

Section Two. The overall review had led to the conclusion that the most effective focus of the evaluation would be an enquiry into the effectiveness of the educational programme in promoting professional and personal development in its learners.

Determination of success would be based on the degree to which the course graduates appeared to have acquired the self directed learning skills they would need in coping with future change.

Conclusion. The final decision was to adopt a triangulated design that incorporated a flexible and responsive approach, designed to allow the research measure to adapt and respond to change as the project and the educational milieu evolved over time.

The literature review confirmed the relevance of the research questions. But it had highlighted a number of sub-questions that would also require to be answered. A brief account of the results of an investigation into the seven sub-questions are included in the summary of next two chapters, the first and second of which concerned the evaluation of the pilot programme.

Chapter Four: The Course in Action

Sub Questions One and Two: Evaluation of the Educational Programme

The eclectic, evaluation strategy adopted was designed to produce an objective and broadened representation of student perceptions, interpretations, and recommendations. The aim was to provide an illumination of the process of change that took place, as the novice learner became transformed into a registered practitioner, during the three year course of study of the pilot course. The group opinions and individual evaluations, together with a focus on the views held by members of sub groups within the student population, provided a wide ranging view of student opinion.

The presentation of evaluation statistics, accounts of reports, and individual and group comments, produced evidence of the programme's apparent success in achieving these aims. In addition the collective findings demonstrated the value of the pro-actively developed 'Delphi' evaluation approach of encouraging constructive student criticism, and the facilitation of a shared involvement between teachers and students in curriculum planning and modification.

Conclusion Overall the formative evaluation responses were overwhelmingly positive. This was demonstrated by the examination of randomly selected groups and individual responses to the open and closed questionnaire responses and the resulting evaluation

discussion accounts. Confirmation of the validity of the generally positive nature of evaluation reports provided was further gained by a random selection of 30 module evaluation reports drawn from the Cohorts Two to Eighteen. These showed a 77% positive response to the total list of items included in the module evaluation questionnaire A. An increasingly positive trend was apparent as the course progressed.

A possible criticism that could be levelled at the study, concerns the fact that the evaluation procedure described in the research study centred largely on the theoretical aspects of the course, while evaluation of the clinical milieu was carried out by others. This major flaw resulted from a decision made prior to the writer's appointment, and was therefore beyond her control. But it is recommended that in a future study there should be a closer relationship between the evaluation of learning and teaching in the two distinct areas of learning and training.

Sub Question Three: The Learning Venues. Inquiry into the students views regarding the contribution and experiences offered in the two learning venues were an ongoing part of the module evaluation. In the later versions of the final questionnaire this information was augmented when we incorporated questions which made possible a comparison of the merits of the separate venues.

Conclusion. The overall finding was that, though the students appreciated the depth of the theoretical knowledge provided in the College, they placed particular value on the practical, interactive, and management skills that they gained by direct experience in the clinical area. There was evidence of a shared concern regarding their depth of knowledge of Anatomy and Physiology and the related topic of Pharmacology and drug administration. This perceived knowledge deficit would, it was frequently claimed, impair their understanding of some of their patients' symptoms and treatment regimes.

Sub Question Four: Levels of Confidence and Hopes for the Future. The students' confidence in their ability to practice with competency, on the completion of their studies, was explored by means of an amendment to the final evaluation questionnaire and was further explored by enquiries into their plans for the future.

Conclusion.

Levels of confidence and self esteem were established as key factors in the successful transference from student to competent practice as a staff nurse. The findings of the final evaluation explorations showed that, in general, the qualifying students had a high degree of confidence in their knowledge and skills and, with relatively few reservations, considered themselves well equipped to accept the new challenges of their future role. There was evidence that the majority intended to remain in nursing, and to continue their learning and personal development.

Sub-Question Five: Efficacy of the Programme in Meeting the Needs of Minority Sub-Groups

The effectiveness of the programme, in addressing the needs of the students who had been accepted on the course as a result of the broadened entry 'gate', was another area of focus. The opinions of student representatives of five specific sub groups were examined. Their evaluation responses, written views, and recommendations were compared with two samples of students drawn from the more 'conventional student' population. There was evidence to suggest that despite the profession's commitment to increase diversity of age, gender, educational and occupational backgrounds in the student nurse population, little had been done to adapt the programme to accommodate the special needs of such minorities. It appeared from the students' accounts that in the study college the male, the mature woman, the educationally less qualified, and the graduate were all expected to merge undemandingly into the total population. It seems that there was an underlying institutional assumption that their varied needs could be uniformly met by the learning regimes, and approaches that had been designed for the conventional 18 year old female with the pre requisite five 'O' levels.

Conclusion The overall findings appeared to show that the special needs of the minority student were not sufficiently taken into account in the course programme. Accounts of males being denied clinical experiences on the grounds of gender, and of students with family commitments feeling that such added responsibilities were overlooked, were repeated over time. The less educationally qualified showed clear concern at lack of extra provision, in the form of introductory sessions, to remedy their lack of basic knowledge

foundations particularly in anatomy, physiology, maths, and social studies. There was also a recurring tendency for mature students to protest that their special expertise, for example in child care or previous occupational skills, was not acknowledged. In addition some of the graduates in the specialised topics expressed disappointment that they were not invited to contribute to the relevant areas of the teaching programme.

Yet from impressions gained from the literature and from the writer's experience in the course of the project, one is led to assume that these minority sub-groups of students had a wealth of experience to offer in the form of their widened perspectives and existing skills that, if exploited, that this would have added to the educational experiences of their peers and teachers.

Chapter Five The individual: A Person Of Worth

Sub-Question Six: Perceptions of Self and Professional Worth. The explorations reported in this chapter grew out of the recognition that it would not be feasible to base judgements on the course without gaining understanding of the values and motivations of those choosing to study it. The relevant demographic details; occupational history and voluntary activities of the entrants were explored, and a student profile was drawn up for each cohort.

Role Expectations. In addition, enquiry into the expectations of nurse recruits showed that they lacked insight into the tasks demanded of students and nurses in practice.

Self and Professional Perceptions. A Semantic Differential Instrument was designed to explore the students' perceptions of themselves and their chosen profession. Comparisons were drawn with students from the traditional nurse education establishment College C which provided a nurse preparation based on the medical model, and a control College M, that in common with the study college, offered a progressive curriculum based on the nursing model of individualised care, and practised a student centred teaching approach. The pre and post, cross sectional design, enabled sets of measurements to be taken at three particular time zones in training, on entry, at mid point, and on course conclusion.

A criticism of this component of the study rests in the lack of knowledge regarding the two outside Colleges' curricula. Though the writer had had a short interview with each of the

Course Managers at the Colleges, the information sought had, for ethical reasons, been confined to simply ascertaining the nature of the overall teaching ethos, and confirming that it matched the study needs.

Findings. The computed analysis of the findings revealed significant differences in the sample groups from the three colleges. This allowed the acceptance of the study hypothesis that there would be differences, in self perceptions and professional concepts, in students studying the pilot programme when compared with nurses at an establishment offering traditional training.

Conclusion. It was accepted that though the findings could not be generalised, and that correlation studies, while identifying relationships, do not identify causes. It was nevertheless felt that the explorations endorsed the study programme's efficacy in addressing its aims of avoiding impairment of self esteem in the student nurses during their studies. It also illustrated the considerable diversity in the entrants' perceptions, qualifications, and backgrounds. However it also raised doubts about the quality of advice and guidance they had received when formulating their career decisions.

Before attempting to judge the overall efficacy of the pilot programme's innovations another dimension was added to illustrate the educational experience. This considered the quality of practice after qualification, and was the subject of the final chapter.

Chapter Six

Sub question Seven: Post-Qualification Evaluation This described an examination of recurring themes, and repetition of opinions elicited by the triangulation of interview modes. All interviewees were practising staff nurses. Vignettes were produced that revealed the views of individuals, and these were followed up by telephone and group interviews. A small twin study added to the insights gained on the value staff nurses placed on their particular occupational preparation after a period of qualified practice. The relationships revealed provide justification for assuming that the information gained was valid and reliable. Because of the important issues raised it is reappraised in some detail. Small group, and individual interviewees included both participants randomly selected, and others chosen by snowball sampling, or on the grounds of their specific relevance to the enquiry.

They included two sets of twins, three of whom had been students at the study college. The fourth had studied at the control college used in the cross sectional self perception study. This Twin had studied on the new national Project 2000 curriculum that had been introduced at College M after the semantic differential investigations had been undertaken. The interviewees showed considerable similarity of views, and values. A possible explanation might be that it resulted from their shared professional culturisation process, experienced first as students, and then as new staff nurses.

Course Merits. There was consistency in the former pilot respondents' views on the merits of the course. They considered it had provided high standards of skill and confidence in performing basic practical nursing care. The positive views expressed were in marked contrast to Twin 'B's account, where she outlined her belief that, though she had acquired a sophisticated level of knowledge and insight in anatomy and physiology, and patho-physiology as a result of a prolonged period of study over the first half of her course, this had been gained at the cost of 'hands on' practice and experience in the clinical area. This 'loss of time and opportunity' had not been redressed in the subsequent eighteen months so that, on qualifying, she had been left feeling extremely anxious, lacking in confidence, and potentially unsafe in practice. It is perhaps ironic to reflect that the extensive depth of study that she referred to, was probably at the level of intensity that the pilot students had, consistently but vainly demanded, during their course. It was the absence of this level of learning which, they apparently remained convinced, had left a significant deficit in their knowledge base.

The study Cohorts widely agreed that the eclectic programme had equipped them with enhanced interpersonal communication, skills. Another common belief was that it had led to development of an empathic understanding of the need to view the patient from the wider perspective of his social and cultural needs and values. This it was claimed was manifested in a commitment to individualised care.

Evidence for their exploitation of these skills was revealed in a 'validators' perception of the pilot students' as having *'less practically orientated'*. In a reference to a general impression that the pilots were preoccupied with talking to patients, at the expense of

carrying out practical tasks, one respondent acknowledged a male nurse's superior interpersonal skills, but complained that he used them to manipulate staff so that he could avoid less congenial tasks. It was interesting to see that she suggested this manipulative behaviour was gender related and that she believed it placed him at a distinct advantage, within a predominantly female staff. This may be linked to the writer's suspicions of gender sensitivity being the underlying motive behind the male student group's activities in engaging her in the extra evaluation discussions that allowed their views to be heard in isolation.

Perceived Knowledge Deficits. The concerns regarding insufficient understanding of anatomy and physiology, in relation to health and disorder, were reflected across the various interview accounts. Stress was again placed on the importance of a comprehensive knowledge of anatomy, physiology and pharmacology, in enabling deeper understanding of the meaning of observations made on patients' conditions. In addition the worries concerning inadequate knowledge in these areas was repeatedly linked to lack of security in relation to the administration of medication to patients. This concern that they were not *'taught enough'* was emphasised by those who criticised the general teaching approaches. The earlier sub-group complaints, concerning learning for themselves, remained a 'bone of contention'. Despite the course commitment to self directed learning, it is interesting to note that this aspect was referred to favourably by only three participants, a telephone interviewee, and Twins 'C' and 'D'. It is perhaps significant that Twins 'C' and 'D' showed a consistent preference for student directed and independent learning preferences and had demonstrated this by progressing quickly to midwifery training.

The Transition into Responsible Practitioner. There was considerable evidence to show that anxieties about responsibility, and accountability were experienced in the initial stages following qualification. This was supported by the strength of feeling exhibited by the groups when referring to such worries. The chief concerns centred on being in charge of a ward or unit, while not feeling sufficiently experienced to meet all the potential or real demands placed on them.

While it is alarming to discover the high levels of stress that Respondent 'B', and former pilot students reported experiencing when first left *'in charge'*, it was pointed out that such fears need to be seen in context. Despite the dramatic images created the term being *'in charge'* is a misnomer. Non-nurse readers will be reassured to learn that patients are never placed at risk by being solely dependent on insecure and inexperienced staff nurses. Staff never work in isolation because wards and units are part of large institutions, and care is taken to ensure all staff are supported by a network of peers, and senior nursing management, to whom they can turn at any time of the day or night.

It is important to recognise that these anxieties, though real to the staff nurses, are just another nursing caveat: *'nurses must always be seen to be coping'* and is similar to the *' nurses must be seen to be busy'* convention referred to by one of the respondents. The first Interview Group mistakenly linked the corresponding need to be seen to be *'doing well'*, to the present overriding fear of cessation of short term contracts. However this custom is well recognised as a long-standing legacy of the hierarchical traditions born of nursing's early military connections. All the nurses who referred to these anxieties admitted that they always had recourse to senior staff, and indeed they acknowledged that they regularly turned to others for help in unfamiliar situations. This is expected, and readily reciprocated, without censure. What custom demands is that such activities are, whenever possible, covert. To quote a member of Interview Group One *'you can't keep turning to others all the time'*. This sentiment was reiterated by Twin 'B'. By 'others' they meant those outside their immediate personal, support network. Resort to senior staff is traditionally kept to a minimum to maintain the image of efficiency, and competency.

The writer recalls similar experiences, when, as a new theatre staff nurse, she repeatedly visited the adjoining theatre to seek a more experienced friend's *'blow by blow'* account of any newly encountered surgical procedure, before *'scrubbing up'*. In the eventual absence of an enlightened friend, guidance was sought from a senior surgical registrar, in preference to admitting a perfectly justified lack of knowledge to the senior nursing hierarchy .

Medical Emergencies. Similarly the fears regarding cardiac or respiratory arrests, though understandable, must be viewed in realistic terms. Such events are extremely rare in general wards, as was illustrated by the member of Interview Group Two when she cited the member of staff who had not witnessed an 'arrest' for eight years.

In areas where such emergencies are common, for example in specialised units such as accident and emergency, or coronary care units, there is always a team of experienced staff on duty and as Respondent 'Y' noted, junior staff nurses are not given responsibility in specialised units, until they have completed a period of six months supervised practice in the Unit. In the unlikely event of a cardiac or respiratory arrest in a general ward the experienced *'crash'* team are only a '222 ' emergency call away and all that would be expected of the staff nurse *'in charge'* would the sounding of the initial alert, and the commencement of basic techniques to protect the patient, in the seconds before their arrival on the scene.

It is interesting to link the emphasis placed by an early respondent ' on the nursing work ethic in her comment - that nurses are judged lazy if they do not appear busy - with her account of the junior students' frequent refusals to help with a procedure if it failed to offer new learning experiences. This concern that junior students are not committed to work unless it will teach them something new, was repeated four years later by members of the Third Interview Group who belonged to the generation of junior students she had been referring to. But now it was attributed to the nature of the Project 2000 educational innovations. Perhaps it should be taken as a new addition to nursing mythology. An individual interviewee also referred to another recurring element, when she described the newer students as more assertive, an adjective used by an earlier respondent, in describing how the pilot students differed from traditionally trained nurses. One is led to question how many of the observations made by qualified staff, on the current generation, are stereotypical conventions that can be equated with the more general references made by each succeeding generation when criticising the 'youth of today'.

A possible criticism of the study might be that when asking the staff nurses to describe their early experiences of adopting their new role after qualifying no specified time limit

was made. This omission created a difficulty in separating the short lived anxieties from those that were still prevailing after the varying lengths of practical experience. In a further study it is recommended that the time scale should be clearly defined.

Variability in the Quality of Clinical Learning Experiences

The difficulties raised in the second group interview, regarding the variability of experience, highlights the fundamental problem that arises when students are expected to learn in an area where the main priority is not their education, but that of patient care. The medical profession have a tradition of conducting teaching rounds, and clinical demonstrations, during which groups of students are taught effectively, in the theatre, or by the patient's bedside. This practice is not feasible in nursing, where the intimate nature of tasks calls for sensitivity and privacy. Furthermore the large intakes of modern colleges of nursing make it impossible to ensure that every student will witness a specified list of disease manifestations, or treatment procedures during their training. Indeed the writer, a former clinical nurse specialist in an extremely rare genetic disorder, can certify that it is not uncommon for very experienced nurses to practise in a speciality for decades, yet fail to encounter a single case of some of that speciality's more rare conditions, and care regimes.

At their early stage of qualified practice, it appeared the group respondents were unable to appreciate that the course had been specifically designed to address the impossibility, of providing a finite body of knowledge by teaching broad principles that could be applied to new situations. Neither were they, in general, ready to accept that the self directed learning skills that they had been taught, gave them the right to admit to lack of knowledge, while equipping them with ability to know how to find out for themselves.

Confidence in Management

There was evidence of a reduction in confidence, occurring when the new staff nurse was confronted with accountability, not only for his/her own practice but for those in junior positions to him/herself. In traditional nurse training schemes, acceptance of responsibility was incremental; it began as soon as a subsequent nurse intake entered the hospital. Responsibility was gradually placed on him/her, for example being first left *'in charge'*

initially for only a few minutes, and progressively extending to being left alone on a ward on nights. While initially this was just as anxiety provoking, it was spread over the training period, and crucially, there was no loss of face, as a student, in claiming ignorance, or in asking for help. It eliminated the leap into responsibility on qualifying.

No-one would wish to see a return to the days when nurses were burdened with responsibility too soon in their education. However the interview accounts indicated that postponing management training until the end of the course, is leaving it too late for learners to habituate the skills to the degree that they are ready, on qualifying, to address the new responsibilities with confidence. The oft repeated recommendation that this training be spread throughout the course seems an appropriate means of combining the benefits of the traditional system, with the more structured management training of the newer regime.

Conclusion. Analysis of the data provided in this chapter gave a comprehensive and illuminative picture of staff nurse practice following preparation on the study programme. The findings justified many of the anticipatory views expressed by the cohorts both during the course, and on course completion, but in addition it highlighted new perspectives regarding areas of confidence, and pride, together with worries, and anxieties that have implication for future nursing courses. These issues will be discussed further in the next section which draws conclusions on the study as a whole.

Section Two

Conclusions and Further Recommendations

It is acknowledged that in the climate of competing values that currently operates in both the fields of health and of education, there is an increasing need to demonstrate efficacy in education and training programmes. This makes this report on a longitudinal evaluative approach to a nurse education programme particularly timely.

The research process demands that the study conclusions provide a value free account of the overall project. But it can be argued that in any educational programme of three year duration the variables are likely to be so diverse and fluid, that, when coupled with the likelihood of idiosyncratic response from large participant populations, they render the difficulties of achieving objective measurement insurmountable.

It was accepted that subjective values and beliefs are fundamental to programme evaluation, and that it was impossible to divorce the two. Measures were therefore taken to combat this by the use of a quantitative and qualitative triangulated design that would serve to validate the findings. The overall intention was to produce a series of snapshot images, that would, when placed together, provide an illuminating holistic picture of the stages undergone in the transformation from neophyte to registered nurse during study of the pilot programme. The picture frame was deliberately kept ill defined, to allow room to expand or revise the angle, and range to accommodate new areas of exploration, and to meet the diverse and changing needs of the varied audiences to whom the study report is addressed.

In this final section we take the fragmentary parts of these investigations and merge them into the total picture, at which it is hoped, each of the members of the audience can gaze and select not only his/her own specific view but also see that perspective in the context of the whole.

A number of measures were devised to reduce the risk of bias and these included:

1) The provision of equal, and regular opportunity for every course participant to voice opinion, criticism, and suggestion on any aspect of their learning experience;

2) Avoidance of identification, or censure by the strict adherence to an agreed set of comprehensive ground rules.

3) Avoidance of researcher/evaluator influence by restricting the discussion agendas to issues raised in confidence, by the course participants, through a modified Delphi approach.

4) Ensuring accuracy of evaluation reports, by means of confirmation through iterated feedback techniques.

5) Reduction of barriers, and pejorative aspects of evaluation by the fostering of a climate of equity between students, teachers and evaluator so that evaluation became a shared activity in pursuit of the quality of excellence in nurse education.

Equality Evaluation Model

It is suggested that the 'Equality' model of evaluation, that was devised as a result of these measures, is particularly appropriate to the needs of nursing education, and meets the secondary study aim, of producing an evaluation formula that is applicable to pre and post basic course of short or lengthy duration.

The Findings

It was demonstrated that a large proportion of students concurred with the belief that the course had effectively achieved its aims, and that it had facilitated their achieving their own personal goals. Despite this, the reader may have formed an impression that in the preceding pages there was a lot of criticism . A partial explanation for this lies in the writer's acknowledged belief that, in order to counter criticisms of bias, negative comment must be faithfully recorded.

It is important to recognise that the negative criticism can be regarded as a sign of success, since one of the objectives of the pilot scheme was to shed the old traditional, militaristic, stereotype of subservient nurses, who obeyed orders without question, and who would never have dared to question their 'betters'. The fact that these participants felt free to voice their negative judgements, and to offer constructive suggestions for addressing them provides evidence of a move toward the greater professionalism, and personal accountability that the literature demonstrated to be essential to future nursing development. Another

reason for regarding such criticism favourably, is that it eliminates the fear, that asking people their opinion risks obtaining flawed data due to 'desired response' effects. The third reason is that the 'equality' evaluation model that evolved out of the research experience deliberately set out to encourage criticism - with the proviso that there must be strict observation of the ground rule, that a problem solving strategy must be used, so that whenever possible, criticism was supported by suggestions for improving the situation.

The Eclectic Curriculum

The value of pursuing a broader educational programme, that included an introduction to academic subjects, was demonstrated by the students. This was evident from their appraisals of their relevant performance skills, both during final evaluations, and the staff nurse discussions. There was evidence of considerable pride in basic skill acquisition. But there were also indications of a need for a better balance between eclectic study and greater physiological and pharmacological understanding. In general, the participants clearly considered themselves skilled in the performance of patient education, and offering empathy and understanding to their patients. The general view expressed was of an appreciation of the additional knowledge and skills acquired as a result of their disciplinary studies, which many claimed placed them at an advantage compared to their conventionally prepared nursing peers. This view was partially endorsed by the clinical staff 'validator' interviewees, but both parties also endorsed the pilots' anxieties about reduction in medically oriented, practical, and theoretical input, during the course of training. Evidence for the participants' continued enthusiasm for nursing was revealed in the recording of their plans for future study.

Recommendation One: An inter-disciplinary Curriculum

In view of the findings it is recommended that nurse educational programmes include a widened curriculum that embraces basic study of relevant academic topics from academic disciplines, related to nursing, including Psychology, Sociology, and Research Awareness.

The Teachers

The reader might also wish to point out the relative lack of reference to the teachers opinions and it must be acknowledged that this omission was made purely on the grounds of selectivity of focus, for the purposes of brevity.

The teachers were extremely supportive of the whole research enterprise, and the study and development of the evaluation strategy were entirely dependent upon their co-operation. It is to their credit that, despite conflicting pressures on their time due to staff shortages, curriculum changes, and institutional cutbacks, there was never an incidence of teacher non-compliance in the evaluation procedure from any member of the 60 + teaching staff during the whole study. In fact regular tributes were forthcoming, regarding the positive effects of the process, in terms of facilitating the building of relationships with the students, and in planning, or modifying their mode of teaching, or formulating lesson plans.

Recommendation Two: Across Course Evaluation

The findings suggest that, while it is not feasible for every nursing educational programme to employ a full time evaluator, there is a benefit to be gained from appointing an unbiased participant who can act as facilitator in evaluation. It is recommended that this need be met by a reciprocal 'across course' arrangement between teams so that each course could have a designated member of staff, who, though not a teacher or assessor on the course, could act as an informed evaluator, and form a link between teacher and students.

Teaching Philosophy

One important area of concern highlighted by the study was the imposition of a defined institutional teaching philosophy. Some of the teachers, confided in the writer, that they were not comfortable with the College philosophy or andrologogical charter. Resentment was expressed regarding the requirement to teach in a uniform style, particularly where it was incongruent with their usual custom. It appeared that the imposition of such demands was regarded, by these individual teachers, as a threat to their professional integrity. It was claimed that this had the effect of reducing their feelings of self worth. This would seem to be an anachronism in an educational establishment that sought to respect the diversity of every individual by providing democratic freedom of choice. The recognition that there

were high levels of discontent, among some the staff concerning the policy. begs the question of whether the researcher's attempts to measure the effect of an androgogical approach were invalid. This suspicion was supported by some of the responses, elicited in the evaluation questionnaire analysis, discussions and interviews. There was clear evidence that when the classroom door was closed, teachers exercised their professional right to teach in their own tried and tested style.

Learning Styles and Preferences

The findings emphasise that it must be recognised that teaching styles, like learning styles, are highly individualised, and according to the theories of self and education reviewed in the literature, forcing a teacher or student into a rigid approach risks impairing the performances of both parties. In addition the comparative study of the learning preferences demonstrated that, among the students studied, across the three colleges, there was a great diversity of learning preference. This suggests that to adhere rigidly to only one style of teaching, ignores not only those with different learning styles, and preferences, but denies the students the opportunity to become acquainted with a range of teaching styles from which they may develop new and possibly more effective learning approaches.

Recommendation Three: Diversity in Teaching and Learning Strategies

It is therefore a recommendation of this study that nursing education avoid the imposition of a narrow, overall teaching and learning strategy and offer a wider diversity, and a greater degree of choice, in learning approaches in the skill, and knowledge based studies.

Androgogy as a Teaching Approach in Nurse Education

As a committed individualist the writer welcomed the advent of an androgogical approach to nurse education, assuming it would be the death knell of the old hierarchical system, that threatened the dignity of the individual, simply on the grounds that a 'junior' nurse lacked the knowledge and worth of his/her 'seniors'. An androgogical approach would, it was believed, allow the student's uniquely specialised areas of knowledge and expertise to be valued and shared. However it was observed, that those students who were identified as markedly independent, remained isolated from the group, appearing not only to learn alone, but also to maintain a distance from their peers, often failing to co-operate in group

undertakings. It is with regret that, with the benefit of hindsight, the author must state the subjective opinion that a truly androgogical approach is too extreme for educating a nurse for practice as a member of a nursing team.

Recommendation Four: Emphasis on Participative Learning Approaches

It is therefore proposed that androgogy, and individualism in nurse education, must be tempered with active encouragement of participative learning approaches to prepare the nurse for the reality of his/her role as a team worker, who is dependent, for the most part on joint decision making, and participative ventures, rather than on independent action.

The 'Silent' Student

The evolved 'equality' evaluation procedure, sought to encourage the students to participate in constructive debate, and for the majority the evidence of a growing response to evaluation has led to the claim that it was successful. However a small minority of students retained their unwillingness to participate, in the evaluative debate. The strategy might be criticised for failing to give these students equal voice, but the imposition of the ground rules and attempts to create a climate of equity in evaluation, were aimed at encouraging such members' participation. The apparent increase in participation, beyond the voluble and articulate few, was taken as evidence that involvement of more participants had led to the growth in positive acclaim during course progress. For those who still remained 'silent', it is argued that they were given opportunity to make confidential comment, but if their views failed to be supported by the majority, because they failed to put forward their 'case', then in the democratic ethos of the 'Delphi' evaluation process it was their choice that left their views unreported and it is suggested such intentions to remain 'silent' must be respected.

Minority Groups Within the Student Population

An important issue, raised by the evaluation study, concerns some of the minority groups' apparent feelings of marginalisation within the educational milieu. Clearly if nursing is committed to recruiting members of the wider society then it must help such members of the student population overcome feelings of being different. Specific needs were revealed in the college under study regarding these minorities. An example of this is the need to address those issues that caused mature and experienced women to feel compromised by

their possession of such qualities, to the point that it affected their confidence in themselves. Many of the students had occupational histories of responsibility and decision making and their responses and learning preferences implied that the more conventional assessment approaches were not suited to their developed level of independence.

Recommendation Five: Flexibility in Assessment and Study Facilities

This leads to the recommendation that students be given more choice in demonstrating that they have accomplished the required learning objectives. Recognition of the extraneous demands on students is necessary to ensure equal opportunity for students with family responsibilities by providing special provision in the form of part-time study, or 'flexi-time'; and, where possible consideration is also needed to reduce unnecessary travel demands to 'off campus' allocations and study visits.

Specific Needs

In addition to the concerns of the mature and occupationally experienced student the interview and evaluation findings suggested that there was need to ensure that neither age or gender discrimination was impairing learning opportunities if the minority members were to become safe practitioners. The particular vulnerability of males in a female dominated profession had apparently led some of the men to resort to ego defence mechanisms. These manifested as attempts to demonstrate their 'superiority' by attention seeking and power manipulation. This was apparently caused by a perceived need to compensate for feelings of rejection. It appeared they felt they were 'token' males only tolerated in the profession in the interests of political correctness. Again their learning needs appeared to diverge from the majority and calls for more attention to the specificity of their needs.

Recommendation Six: Sexual and Age Anti-Discrimination Policies

It is further recommended that specific policies be introduced in nursing colleges that address the need to avoid potential reverse sexual, and age discrimination. It is important to respect, acknowledge, and utilise the existing knowledge and experience of all students. The learning needs of the less academically qualified must also be considered in terms of

increased diversity in learning and teaching styles, in levels of pastoral support, as well as in assessment processes.

The 'O' and 'A' Level Students

The 'O' and 'A' level students demonstrated their commitment to the process of evaluation.. They showed a keenness to co-operate in the course improvement and judgement measures and apparently placed great value on respect for equality of worth. There was a worrying trend for these sub -groups to demand too much of themselves, in terms of increased social pursuits, and extra work activities. Not surprisingly this appeared to affect their capacity for study. This impression was supported by a small comparative study carried out by the author on assignment grades achieved by samples of students entering at five different entry levels from DC to Graduate level. The finding were that though there was little difference between some of the high scoring DC. entrants and the highest scoring graduate entrants the 'O' and 'A' level produced relatively mediocre results. Hartley (1993).

While this could be grounds for asserting that DC entrants are motivated to succeed, a counter argument might be that these less confident students are more instrumental, and are giving 'desired response' answers gained from mere 'surface learning'. The achievement of good results might result from focusing on the answers that they consider their teachers are seeking. If this were so, it would explain the more mature women and DC sub-groups pre-occupation with the need for clearer assessment guidelines, multiple choice questions, and avoidance of individual learning demands. It also calls into question the validity of marking procedures, which was an issue frequently raised in evaluation and which is an issue that calls for further study.

Self Perception And Professional Concepts

The cross sectional study, and the measurements of confidence in the finalists, revealed encouraging evidence that the students completed the study programme with a strong sense of 'self', and there was evidence of a high level of self confidence. This conflicted with the findings referred to in the literature. The implication is that the curriculum was effective in achieving its aims. However the interviews with the staff nurses present a markedly different picture, in their descriptions of what occurs when the student makes the quantum

leap from unaccountable, 'unknowing' student into an accountable and responsible registered nurse who, is seemingly, expected to know, and be adept in all aspects of nursing care. As one subject stated: *'Once qualified no-one knows whether you have been qualified for years or for a day, if a Doctor asks you to do something, he expects you to know how to do it'*

Addressing Inadequacies of Knowledge Remaining on Completion

The alarming tales of the fears, and anxieties, experienced in the transition from student to staff nurse, demand to be addressed, as a matter of some urgency. One must bear in mind that all but nine of the interviewees had first entered the clinical learning milieu only three months after entry, and that this compares with an eighteen month delay in current Project 2000 programmes. It would seem axiomatic that if the pilot students felt inadequately prepared for the rigours of clinical performance, after their lengthy familiarisation process, then those on the Project 2000 will be even more likely to do so. These fears were expressed by the staff nurse group interviewees and were supported by the views expressed by Twin B, and the other eight staff nurses who had pursued lengthy introductions before engaging in ward practice.

The findings point to a clear need for an interim period for qualifying staff nurses- a period of adjustment - when they can allay their feelings of inadequate knowledge.

While it is accepted that the nursing registration criteria are strictly adhered to, and are set at an extremely high standard, there is a need for the staff nurse to feel confident in his/her own judgement of ability. The literature on the 'self' cited evidence that even creditation from the most revered authority cannot make the person with negative feelings feel positive. It has been argued, that nurses rarely practice alone, and fears regarding complex and rare procedures are exaggerated, but the literature established that effective patient care, and good patient/nurse relationships, are dependent on the nurse possessing high self esteem and it is this factor that appears to have been impaired by their fears regarding these broader skills.

It should be noted that since the interviews were conducted the UKCC has issued a directive that requires a period of preceptorship for all qualifying staff (UKCC 1995).

Final Recommendation: Supernumerary Post Qualification Practice.

As a result of the findings of this study, it is recommended, that this concept of preceptorship be extended to include the closer master/apprentice relationship that, it was argued earlier, is denied to the nurse learner who never enjoys the consistency of support from a single mentor for more than a few weeks at a time. The proposed period of preceptor/master - pupil apprenticeship would be marked by the new staff nurse experiencing an interim period of supernumerary status prior, to acceptance of the responsibilities of the new role. This would allow learning needs to be a first priority, and during this time s/he would wear some distinguishing feature of uniform. The preceptor/master nurse would work with the apprentice, and each would observe the other's practice, broader skills and competencies.

This would offer them the opportunity to jointly devise a learning plan tailored to individual need; for example, if the apprentice felt a lack of knowledge concerning 222 procedures the master would negotiate an opportunity when s/he could work in an area where, in due course a situation of this sort would be encountered and there would be opportunity to participate. This period of apprenticeship would continue until the master and apprentice both felt the additional learning needs had been fulfilled. Only then would the staff nurse be rostered and required to accept responsibility and accountability for his/her actions

Final Conclusions

So finally we must clarify the answers to the study questions:

1) Did the educational innovations enable the programme to meet the demands of the profession for a new creative accountable and autonomous practitioner capable of independent learning and continued professional growth in a climate of perpetual social and professional change?

It is the writer's view that the answer to the first research question posed must be an unequivocal - yes. Evidence has been provided to demonstrate satisfaction with the innovative programme introduced in the pilot scheme. While it might have been suggested, that since Project 2000 has now been implemented, such a question has become rhetorical.

in fact the findings highlighted a considerable number of factors equally relevant to nursing today.

2) Did the teaching approach and ethos of the college promote the development of self confidence and positive self concept in its students and graduates?

The second question is less easily answered but, while it cannot be claimed that definite proof has been established, comparison with a sample of traditionally trained students showed that there was evidence of significant differences between them and the Pilot students in the areas of specific focus.

Final Conclusion

The initial claims for the research study were that it would be unique in presenting the first longitudinal evaluation of a nurse educational programme and would allow the progress of a number of cohorts to be monitored from entrance to course completion. As a result of the subsequent extension to the time scale allotted, it became possible to considerably enhance the illuminative value of the study by monitoring the effect of draconian change over eight tumultuous years of social and professional change. It was during these years that nursing education and practice experienced the most fundamental changes in it's history and the study as a first hand record has the potential for becoming a source document for nursing historians in the future.

It is hoped that this in depth scrutiny of the unfolding of educational events, at one college of nursing during these years, has provided the reader with an insight into the learning experiences of the RGN students at this specific college during this unprecedented period of professional transformation.

Freedom in learning

The study has a clear message not only for nurse educators but also for all those involved in compulsory, further, and higher education. It has highlighted for these varying audiences a common need to ensure that, despite the current market economy - with its pressure to increase output by larger student numbers and more cost effective programmes of learning - there must still be opportunity to consider the needs of the individual student.

The findings have emphasised the necessity of recognising diversity in aptitude, motivation, creativity and learning styles of the individual members of each cohort.

It has also underlined the unique contribution that each person can make to the learning of both their teachers and their fellow students, as a result not only of the effects of their past history, but also from the differing responses, values, interpretations and reflections that each learner brings to a learning situation.

While it might be argued that such considerations are not cost effective, in the present climate of stringent economical accountability, the study has clearly demonstrated that to ignore student individuality wastes a priceless resource. In addition it has the effect of

reducing motivation, it risks harming corporate and professional loyalties and values, and impairs the achievement of growth of self confidence and self esteem in the learners.

The findings have revealed that imposed curricula, and standardised teaching approaches are aimed at the traditional majority and thus fail to meet the learning needs of those who by their diversity from the 'norm' often have much to offer the more conventional student.

The study has also shown that when students are empowered and provided with an opportunity to share, in course planning and decision making, the educational milieu becomes enriched as a place of shared involvement in which there is a communality of goals. Learners and teachers become partners in striving for quality of learning and the contributions made by those at the immediate interface of learning can enhance the content of course programmes not only for themselves but for those who follow them.

Finally while the introduction of student status, the transfer to higher education and increased professionalism are welcomed as laudable goals that have long been sought in nursing education and practice, it remains important to ensure the retention of the educational principles that imbibed the professional dignity, commitment, skills and practicality that have been widely acclaimed as the 'hallmark' of British nurses taught under former traditional regimes.

Education has for its object the formation of character.

Herbert Spencer 1820-1903

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APPENDICES

APPENDIX A
College Philosophy

1. The Nature of Society

The ever changing nature of society presents new demands and problems. Nurses are part of society and need to be able to respond to the changes and new demands not only in their personal lives, but in meeting the needs of their patients.

Significant areas include:-

Unemployment, use of leisure, secondary poverty.

Heath abuse, health education, stress related illness.

Demographic trends, population growth/control.

The multicultural nature of society.

Increasing awareness of public rights and expectations.

Community provision and self care.

Technological advances and the nature of hospital care.

The implications of each will be considered and reflected in nurse education programmes, using the World Health Organisation definition of health throughout:- "A state of complete physical, mental and social well-being and not merely the absence of disease and infirmity".

2. The Nature of Nursing

Virginia Henderson's definition of "nursing" is used as a basis for all courses offered by this School of Nursing:-

(a) Carrying out the therapeutic programme, including personal services concerned with hygiene and comfort as they cover the range of basic human needs;

(b) Creating and maintaining a physical and psychological environment conducive to health improvement; convalescence, recovery or the achievement of a dignified death;

(c) enlisting the interest of the patient and his family in seeking the conditions necessary to attain recovery, rehabilitation and optimal self-maintenance;

(d) Counselling people, sick and well, in measures promoting physical, mental and social well-being;

(e) instituting measures of and encouraging the pursuit of disease prevention;

(f) developing goals for nursing activities and co-ordinating them with those of all other members of the health team in order to achieve the broadest health care benefits for those involved;

(g) participating in the teaching of nursing and other health personnel;

(h) assisting in the administration of the delivery of health care in institutional or community settings.

Nurses are qualified practitioners working as members of multi-disciplinary teams who are accountable for their own actions, striving for professional status and acting as the patients advocate when necessary.

Caring is at the heart of nursing and emphasis when delivering care will be placed upon the total needs - physical, psychological, social and spiritual - of the individual member of society. By assessing the needs and problems of the individual a suitable plan of care may be devised with their involvement and that of the family. Only those actions which, when evaluated, are seen to be effective will continue and all care will be subject to on-going scrutiny. In this way nurses will accept responsibility for their actions and make reasoned decisions based upon objective and accurate assessment.

3. The Nature of Nurse Education

We see learner nurses as individuals with their own specific needs and problems, so that the problem centred approach which is applied to patient care is also an integral part of nurse/teacher relationships and nurse education. Learners are seen as equal partners; responsible mature students who are highly motivated towards learning to care for others. This they will do effectively if they,

themselves, are cared for, therefore, the learner/teacher relationship must recognise the worth of the individual and be based upon mutual trust and knowledge for an autocratic approach is no longer consistent with learners needs. As the art and science of nursing is learned, confidence ought to increase, not decrease and gradual independence from the nurse teacher will mark the beginning of positive attitudes towards on-going education and self-development. As a result of the process of nurse education it is anticipated that nurses will become caring, safe practitioners who adopt a research based problem centred approach to all aspects of their professional role able to not only keep abreast of change but also to initiate it.

The purpose of nurse education is not solely to achieve registered nurses, although the value of thinking, emphathetic practitioners whose practice is grounded in theory, is not disputed. We recognise and value the contribution which the "whole person" can make to society generally and would hope that nurses off as well as on duty activities would influence the well-being of others. To achieve this aim it is seen to be essential that the learner nurse is herself given the opportunity to develop as a responsible member of society with attitudes and values which reflect both broad based nursing education and maturity.

APPENDIX B

Course Evaluation Basic Model

Course Rationale
Philosophy And Aims

Teachers/students Backgrounds
Experiences, Expectations

	Practical Curriculum	Theoretical Curriculum	Hidden Curriculum
	intentions expectations standards	intentions expectations standards	intentions expectations standards
FORMATIVE EVALUATION Learner/teacher/ clinical staff	Outcomes Observations Experiences	Outcomes Observations Experiences	Outcomes Values Attitudes Opinions

Judgements/Decision re Curriculum

SUMMATIVE EVALUATION
(Learner/Teacher
clinical staff)

Adaptation of Stake R. from
'The Countenance of Evaluation'
In Worthen, B of Sanders J. (Eds).
Education Evaluation: Theory and Practice.
Worthington, Ohio: J. Jones (1973 page 113.

APPENDIX C

A Charter for Androgogy

Androgogy is defined as an organised and sustained effort to assist adults to learn in a way that enhances their capacity to function as self directed learners. To do this it must:

1) Progressively decrease the learner's dependency on the educator;

2) Help the learner understand how to use learning resources - especially experience of others; including the educator, and how to engage others in reciprocal relationships;

3) Assist the learner to define his/her learning needs - both in the terms of immediate awareness and of understanding the cultural and psychological assumptions influencing his/her perception of needs;

4) Assist the learners to assume increasing responsibility for defining their learning objectives, planning their own learning programme and evaluating their progress;

5) Organise what is to be learned in relationship to his/her current personal problems, concerns and levels of understanding;

6) Foster learner decision making - select learner relevant experiences which require choosing, expand the learner's range of options;

7) Encourage the use of criteria for judging which are self reflexive and integrative of experience;

8) Foster a self-corrective reflexive approach to learning - to habits of learning and learning relationships;

9) Facilitate problem posing and problem solving;

10) Reinforce the self-concept of the learner as a learner and doer by providing for progressive mastery; a supportive climate with feedback to encourage provisional efforts to change and to take risks; avoidance of competitive judgement of performance; appropriate use of support groups;

11) Emphasise experiential, participate and projective instructional methods; appropriate use of modelling and learning contracts;

12 Make the moral distinct to between helping the learner understand his/her full range of choices and how to improve the quality of choosing, versus encouraging the learner to make a specific choice.

From: Mezirow, J. (1983) 'A critical theory of adult education'. *In Adult Learning and Education,* Ed M Tight Open University Press Milton Keynes. (page 136).

APPENDIX D
Learning Preference Index

Instructions for answering Part 1:
please record your answers in the boxes beside each question. Read all words listed in all columns Part 1
Rank all six words in each column according to your learning preferences: write 6 in the box beside the word that promotes learning ***most for you*** and 1 in the box beside the word that promotes learning ***least for you.***
Continue to assign numbers 2:3:4:5: to the remaining boxes to indicate your level of preference.

IMPORTANT
Do not make ties assign a different rank to each of the six words in each column and be sure to rank each word, do not omit any.

LEARNING PREFERENCE INVENTORY CODE

6=promotes learning *most for you*
5=promotes learning second best
4=promotes learning third best
3=promotes learning fourth best
2=promotes learning fifth best
1=promotes learning *least for you.*

Part 1)

Column A		**Column B**		**Column C**	
1 Factual	☐	7 Self instructional	☐	13 Sharing	☐
2 Teacher directed	☐	8 Myself	☐	14 Doing	☐
3 teamwork	☐	9 Hypothetical	☐	15 Guided	☐
4 Reading	☐	10 Interpersonal	☐	16 Self initiated	☐
5 Self evaluating	☐	11 Teacher-defined	☐	17 Thinking	☐
6 Theoretical	☐	12 Practical	☐	18 Solitary	☐

Column D		**Column E**		**Column F**	
19 Teach structured	☐	25 Scientific	☐	31 Individual	☐
20 Concrete	☐	26 Assigned	☐	32 Applied	☐
21 Writing	☐	27 Skill oriented	☐	33 Supervised	☐
22 Group	☐	28 Personal	☐	34 Autonomous	☐
23 Conceptual	☐	29 Self designed	☐	35 Abstract	☐
24 Self directed	☐	30 Team oriented	☐	36 Interactive	☐

1) Rank the following six statements in terms of how well they describe the teachers in whose class you enjoyed learning.

37) The teacher gave me practical concrete examples. ☐
38) The teacher let me set my own goals. ☐
39) The teacher encouraged me to work by myself ☐
40) The teacher was friendly and outgoing ☐
41) The teacher made the relationship between different schools of thought clear ☐
42) The teacher made clear and definite assignments and I knew what was expected ☐
49) I can set my own goals and proceed accordingly ☐
50) I can address myself to a concrete, practical task ☐
51) I have an opportunity to discuss or work on something with other students ☐
52) I can examine different schools of thought ☐
53) I understand what is expected, when work is due and how it will be evaluated. ☐
54) I can accomplish most tasks myself ☐

1V) The evaluation of student performance is a part of all courses . Rank the following in terms of how you feel about such evaluation.

55) It should be assembled from questions provided by students ☐
56) It should focus on individual performance ☐
57) It should consist of a written examination dealing mainly with basic concepts ☐
58) It should consist of a practical examination dealing with skills ☐
59) It should be consistent with clearly specified requirements ☐
60) It should not interfere with good relationships between teacher and student ☐

V. Rank the following in terms of their general value to you as you learn

61) Study a text book ☐
62) Repeatedly practise a skill ☐
63) prepare a class project with other students ☐
64) Search for reasons to explain occurrences ☐
65) Follow a prepared outline by the teacher ☐
66) prepare your own outline ☐

V1) Rank the following in terms of how much they would attract you to an optional class.

67) Good personal relationships between teacher and students ☐
68) Clearly spelled out standards and requirements ☐
69) Emphasis on practising skills ☐
70) Emphasis on independent study ☐
71) Opportunity to determine own activities ☐
72) Emphasis on theoretical concepts ☐

V11 Consider the following in terms of their general effect how well you do in a class

73) I can study on my own ☐
74) I can work with something tangible ☐
75) I can focus on ideas and concepts ☐
76) I can organise things in my own way` ☐
77) I can work with others ☐
78) I can work on clear-cut assignments ☐

V111) Rank the following in the order in which you think a teacher should posses these characteristics or skills.

79) Getting students to set their own goals ☐
80) Getting students to demonstrate concrete skills ☐
81) Involving students in generating hypothesises ☐
82) Preparing self-instructional materials ☐
83) Relating well to students ☐
84) Planning all aspects of courses and learning activities ☐

1X) Rank the following in terms of how much they generally help you learn and remember

85) Studying alone instead of studying with fellow students ☐
86) Performing a specific task ☐
87) Having a knowledgeable teacher discuss theory upon which practice is built ☐
88) Determining your approach and proceeding accordingly ☐
89) Joining a student group to study together and share ideas ☐
90) Getting an outline of the course from the teacher and a clear understanding of what will occur in the course ☐

APENDIX D-fig a

LPI Scale Definitions and Scoring Key

Interpersonal preference for learning or working with others; emphasis on harmonious relations between students and teacher and among students.

3+10+13+22+30+36+40+51+60+63+67+77+83+89

Individual preference for learning or working alone emphasis on self - reliance and tasks that are solitary, such as reading and writing.

48+18+21+28+31+39+45+54+56+61+70+73+82+85

Abstract preference for learning theories, generating principles and concepts, and for generating hypothesis.

69+17+23+25+35+41+46+52+57+64+72+75+81+87

Concrete preference for learning tangible , specific, practical tasks and skills.

1+12+14+20+27+32+37+44+50+58+62+69+74+80+86

Teacher structured preference for well organised and teacher directed classes and assignments, with clear explanations and goals defined by teacher.

2+11+15+19+26+33+42+48+53+59+65+68+78+84+90

Student structured preference for learner generated tasks, autonomy and self direction.

57+16+24+29+34+38+47+49+55+66+71+76+79+88

Questionnaire A

APPENDIX E-a
Module Evaluation

Your views on the preparation and consolidation blocks in this module are essential to us. especially when reviewing this course and planning for the future. Please attempt to be objective and fair.

KEY

S.a=Strongly agree A=Agree D=Disagree Sd=Strongly Disagree
Mn=Mean

	SA	A	D	Sd	%Pos	Mn
Please tick appropriate box						
1 The content of the preparation was applicable to my clinical experience.	☐	☐	☐	☐		
2 The aims for integrating theory and practice were clearly identified.	☐	☐	☐	☐		
3 The aims for integrating theory and practice were achieved.	☐	☐	☐	☐		
4 There was sufficient opportunity to discuss practical experiences.	☐	☐	☐	☐		
5 Visits to Wards and Departments during the allocation were useful.	☐	☐	☐	☐		
6 The clinical visits enabled me to complete my module objectives.	☐	☐	☐	☐		
7 The content of the preparation block was logical.	☐	☐	☐	☐		
8 The content of the consolidation block was logical.	☐	☐	☐	☐		
9 Sufficient time was allocated for private study.	☐	☐	☐	☐		

Please tick appropriate box	Sa	A	D	Sd	%Pos	Mn
23 Student participation was encouraged.	☐	☐	☐	☐		
24 I was encouraged to use my initiative.	☐	☐	☐	☐		
10 The College environment stimulated me to learn.	☐	☐	☐	☐		
11 The variation in teaching methods contributed to my learning experience.	☐	☐	☐	☐		
12 Teachers used an approach in which problems were identified and solutions discussed.	☐	☐	☐	☐		
13 My learning needs were recognised.	☐	☐	☐	☐		
14 I felt able to ask for help when I needed it.	☐	☐	☐	☐		
15 The nursing process was consistently applied to the principles of nursing care.	☐	☐	☐	☐		
16 Theoretical assessment methods were appropriate	☐	☐	☐	☐		
17 Theoretical assessment methods were fair	☐	☐	☐	☐		
18 I had the opportunity to discuss my assignment work with my tutor.	☐	☐	☐	☐		
19 There was opportunity to discuss my assignment work with my peers.	☐	☐	☐	☐		
20 Reference to research was applied to the teaching of nursing care	☐	☐	☐	☐		
21 I was encouraged to identify my personal learning needs.	☐	☐	☐	☐		

Please tick appropriate box	Sa	A	D	Sd	%Pos Mn
22 I was able to achieve my learning goals.	☐	☐	☐	☐	
25 Student independence was facilitated.	☐	☐	☐	☐	
26 I was treated as an adult by teachers.	☐	☐	☐	☐	
27 There was opportunity to discuss important issues constructively.	☐	☐	☐	☐	
28 Teacher's feedback on my progress was helpful.	☐	☐	☐	☐	
29 Student's opinions and criticisms were sought.	☐	☐	☐	☐	
30 I was encouraged to share my clinical experiences with others.	☐	☐	☐	☐	
31 I felt valued as a person of equal worth by the teaching staff	☐	☐	☐	☐	
32 The module enabled me to consolidate my experiences.	☐	☐	☐	☐	

Additional comments:

APPENDIX E-b
Evalution Foundation Questionnaire B

RGN FOUNDATION COURSE

EVALUATION OF SPECIALIST GROUPS

TEACHING/CONTENT

Please indicate with a ✓ the point on the scale which best describes your reactions to the sessions noted below.

University Lectures

SOCIOLOGY Lectures were:

1	Relevant	_____	:_____	:_____	:_____	Irrelevant
2	Of Interest	_____	:_____	:_____	:_____	Boring
3	Thought Provoking	_____	:_____	:_____	:_____	Uninspiring
4	Easily Understood	_____	:_____	:_____	:_____	Confusing

The best aspect of the University lectures was _____

_____

_____

The worst aspect of the University lectures was _____

_____

_____

Nurse Tutor Lectures

APPLIED SOCIOLOGY Sessions were:

5	Relevant	_____	:_____	:_____	:_____	Irrelevant
6	Of Interest	_____	:_____	:_____	:_____	Boring
7	Thought Provoking	_____	:_____	:_____	:_____	Uninspiring
8	Easily Understood	_____	:_____	:_____	:_____	Confusing

The best aspect of the applied sessions was _____

_____

_____

The worst aspect of the applied sessions was _____

_____

_____

PHYSIOLOGY_

Sessions were:

33 Relevant	___:___:___:___:	Irrelevant
34 Of Interest	___:___:___:___:	Boring
35 Thought Provoking	___:___:___:___:	Uninspiring
36 Easily Understood	___:___:___:___:	Confusing

The best aspect of the physiology sessions was_____

_____

_____

The worst aspect of the physiology sessions was_____

_____

_____

NURSING THEORY & PRACTICE

Sessions were:

37 Relevant	___:___:___:___:	Irrelevant
38 Of Interest	___:___:___:___:	Boring
35 Thought Provoking	___:___:___:___:	Uninspiring
39 Easily Understood	___:___:___:___:	Confusing

The best aspect of the nursing theory/practice sessions was

_____

_____

The worst aspect of the nursing theory/practice sessions was

_____

_____

PTO

University Lectures

HEALTH STUDIES Lectures were:

17 Relevant _____ :_____ :_____ :_____ Irrelevant

18 Of Interest _____ :_____ :_____ :_____ Boring

19 Thought Provoking _____ :_____ :_____ :_____ Uninspiring

20 Easily Understood _____ :_____ :_____ :_____ Confusing

The best aspect of the University lectures was _____

_____

_____

The worst aspect of the University lectures was _____

_____

_____

Nurse Tutor Lectures

APPLIED HEALTH STUDIES Sessions were:

21 Relevant _____ :_____ :_____ :_____ Irrelevant

22 Of Interest _____ :_____ :_____ :_____ Boring

23 Thought Provoking _____ :_____ :_____ :_____ Uninspiring

24 Easily Understood _____ :_____ :_____ :_____ Confusing

The best aspect of the applied sessions was _____

_____

_____

The worst aspect of the applied sessions was _____

_____

_____

University Lectures

PSYCHOLOGY Lectures were:

25 Relevant _____ :_____ :_____ :_____ Irrelevant

26 Of Interest _____ :_____ :_____ :_____ Boring

27 Thought Provoking _____ :_____ :_____ :_____ Uninspiring

28 Easily Understood _____ :_____ :_____ :_____ Confusing

The best aspect of the University lectures was _____

_____

_____

The worst aspect of the University lectures was _____

_____

_____

Nurse Tutor Lectures

APPLIED PSYCHOLOGY Sessions were:

29 Relevant _____ :_____ :_____ :_____ Irrelevant

30 Of Interest _____ :_____ :_____ :_____ Boring

31 Thought Provoking _____ :_____ :_____ :_____ Uninspiring

32 Easily Understood _____ :_____ :_____ :_____ Confusing

The best aspect of the applied sessions was _____

_____

_____

The worst aspect of the applied sessions was _____

_____

_____

University Lectures

PROFESSIONAL STUDIES Lectures were:

9	Relevant	_____	_____	_____	_____	Irrelevant
10	Of Interest	_____	_____	_____	_____	Boring
11	Thought Provoking	_____	_____	_____	_____	Uninspiring
12	Easily Understood	_____	_____	_____	_____	Confusing

The best aspect of the University lectures was _____

_____

_____

The worst aspect of the University lectures was _____

_____

_____

Nurse Tutor Lectures

APPLIED PROFESSIONAL STUDIES Sessions were:

13	Relevant	_____	_____	_____	_____	Irrelevant
14	Of Interest	_____	_____	_____	_____	Boring
15	Thought Provoking	_____	_____	_____	_____	Uninspiring
16	Easily Understood	_____	_____	_____	_____	Confusing

The best aspect of the applied sessions was _____

_____

_____

The worst aspect of the applied sessions was _____

_____

_____

APPENDIX E-c

Final Evaluation Of Training

The purpose of this questionnaire is for evaluation and for future planning of pre-registration nurse education and role foundation courses. We welcome your views.

Theoretical Instruction

	Definite Yes	Generally Yes	Generally No	Definite No	% pos
The course adequately covered the theory as listed in the syllabus					
The management content gave a sound basis for starting work as a staff nurse					
The input on teaching gave a sound basis for starting work as a staff nurse					

More theoretical time might be allowed for:

Less theoretical time might be allowed for:

Further comment or suggestions for improving theoretical instruction:

Clinical Instruction

	Definite Yes	Generally Yes	Generally No	Definite No	% pos
The course provided the range of practical skills listed in the syllabus.					
The skills were made relevant to the theoretical programme					
Practice was gained with mentor supervision					

I would have liked more practice/experience in the following:

Please add further comment or suggestions for improving the clinical component of the course:

Assessment Procedures
Clinical Instruction

	Definite Yes	Generally Yes	Generally No	Definite No	% pos
The assessment process enabled me to develop professionally.					
Continuous practical Assessments seemed fair and appropriate.					

Additional Comment:

Personal Support

	Definite Yes	Generally Yes	Generally No	Definite No	% pos
The personal tutor system enabled me to gain personal support when I needed it.					
The Module tutors discussed my progress and gave support when I needed it.					

Additional comment:

General Evaluation

	Definite Yes	Generally Yes	Generally No	Definite No	% pos
On completion I feel competent to practice as a trained Nurse					
The course fulfilled my expectations.					

Comments or Reservations:

APPENDIX E-d
Modifications to Questionnaire C

Listed below are some of the duties demanded of a Staff Nurse. We would like to know how confident you feel about undertaking these duties in your future role as a Staff Nurse.

INSTRUCTIONS

Please insert in the box beside the duties the rank that best describes your general level of confidence on a scale of **1 - 4** where:

4 = Very confident
3 = Reasonably confident
2 = Has some concern about ability to carry out the duties entailed
1 = Is completely lacking in confidence in ability to carry out the duties

EXAMPLE

Patient Care

1. Assess patient needs [**2**]
2. Plan patient care [**4**]

In the examples the respondent has indicated that s/he has some concern regarding his/her ability to assess patients' needs, but is very confident about planning patient care.

Patient Care

1. Assess patient needs [ ]
2. Plan patient care [ ]
3. Evaluate/review patient care plans [ ]
4. Apply nursing theory to practice [ ]

Learner Support

5. Assess learner needs [ ]
6. Teach/supervise learners [ ]
7. Evaluate/reassess learning [ ]

Communication

9.	Communicate with patient.	[ ]
10.	Communicate with relatives	[ ]
11.	Communicate with multi-disciplinary team	[ ]
12.	Act as patient educator	[ ]

Management

13.	Assist in Ward/Unit management	[ ]
14.	Accept responsibility for actions of junior staff	[ ]
15	Accept responsibility for health and safety of junior staff	[ ]
16.	Be prepared to confer with senior staff when necessary	[ ]

Professionalism

17.	Apply research findings to practice	[ ]
18.	Accept accountability for own actions	[ ]
19.	Implement Hospital and Professional Policies	[ ]
20.	Continue independent learning and self development	[ ]

Again taking the same duties, indicate how you rate the input of the Theoretical and Clinical components of the course. Rate on a scale of 1 - 4 where the ranks now equal:

4 = very effective **2 = only moderately effective**
3 = effective **1 = of little or no effect**

		CLINICAL	THEORETICAL
Patient Care			
1.	Assess patient needs	[ ]	[ ]
2.	Plan patient care	[ ]	[ ]
3.	Evaluate/review patient care plans	[ ]	[ ]
4.	Apply nursing theory to practice	[ ]	[ ]
Learner Support			
5.	Assess learner needs	[ ]	[ ]
6.	Teach/supervise learners	[ ]	[ ]
7.	Evaluate/reassess learning	[ ]	[ ]
8.	Act as student mentor/role model	[ ]	[ ]
Communication			
9.	Communicate with patient.	[ ]	[ ]
10.	Communicate with relatives	[ ]	[ ]
11.	Communicate with multi-disciplinary team	[ ]	[ ]
12.	Act as patient educator	[ ]	[ ]
Management			
13.	Assist in Ward/Unit management	[ ]	[ ]
14.	Accept responsibility for actions of junior staff	[ ]	[ ]
15.	Accept responsibility for health & safety of junior staff	[ ]	[ ]
16.	Be prepared to confer with senior staff when necessary	[ ]	[ ]
Professionalism			
17.	Apply research findings to practice	[ ]	[ ]
18.	Accept accountability for own actions	[ ]	[ ]
19.	Implement Hospital and Professional Policies	[ ]	[ ]
20.	Continue independent learning & self development	[ ]	[ ]

(Please check that you have placed a number in each box unless you are unable to answer a question)

THE FUTURE

How do you imagine it will be to get a job at the moment in the following areas?
(Please tick appropriate boxes)

		Fairly Easy	**Difficult**	**Extremely Difficult**
1.	Areas you have worked in as a learner.	[ ]	[ ]	[ ]
2.	In NHS nursing outside the region.	[ ]	[ ]	[ ]
3.	In non NHS nursing jobs.	[ ]	[ ]	[ ]
4.	A job unrelated to nursing.	[ ]	[ ]	[ ]

In two years time what do you expect to be doing?

1.	Working as a Staff Nurse.	[ ]	5.	A non-nursing job	[ ]
2.	A higher grade NHS job.	[ ]	6.	Having a career break.	[ ]
3.	Undertaking further NHS training.	[ ]	7.	Left work permanently.	[ ]
4.	A nursing job outside NHS	[ ]	8.	Other (please specify)	

What grade in nursing do you hope to reach eventually?.
(Please tick box).

1.	Staff Nurse	[ ]	2.	Senior Staff Nurse	[ ]
3.	Staff Midwife	[ ]	4.	Senior Midwife	[ ]
5.	RSCN - Staff Nurse	[ ]	6.	RSCN - Senior Nurse	[ ]
7.	Health Visitor	[ ]	8.	District Nursing Sister	[ ]
9.	Sister/Charge Nurse	[ ]	10.	Clin.Nurse Specialist	[ ]
11.	Tutor/Teacher	[ ]	12.	Unit Manager	[ ]
13.	Chief Nurse	[ ]	14.	Other (please specify)	

Signed..... Thank you for your co-operation.

MEH/PT - Amended January 1994

APPENDIX G
Article from Nurse Education Today

The development of module evaluation: a Delphi approach

Mavis E Hartley

This paper outlines an innovatory approach to curriculum evaluation in one of the six colleges of nursing that developed an English National Board (ENB) pilot scheme in nurse education (ENB 1987a). The method of evaluation is promoted as a means of facilitating a working partnership between student and teacher in which they can share in the dynamic process of systematic monitoring and reviewing of learning programmes to ensure changing needs are met. It is envisaged the strategy would interest planners or implementers of health care courses who seek a deeper insight into the perceptions and values their learners hold.

INTRODUCTION

In 1984 the English National Board (ENB) responded to the acknowledged need for re-examination of nursing pre-registration programmes by inviting Schools of Nursing to submit proposals for innovative schemes to be implemented as pilots for future educational programmes (ENB 1987a). The proposal submitted from this centre was one of those accepted and a longitudinal study was designed to evaluate the progress of the course. The paper describes the system of evaluation operating in one of the six ENB pilot schemes. The strategy was designed to provide a greater awareness of student response to curriculum content by encouraging open communication between teacher and learner. The fundamental role that continuous formative evaluation plays in the implementation of courses of several years duration, is emphasised.

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The use of a modified Delphi approach is promoted as a way of creating a partnership between teacher and student in which productive discussion of learning needs and the sharing of perceived beliefs and values can take place. Emphasis is placed on the growth in student participation that can be observed when there is clear recognition of the value of suggestions from those currently equipped to provide judgements and make planning suggestions, i.e. the consumer experts, who have recently undergone first hand experience of the learning module.

THE LITERATURE

Acknowledgement of the need for fundamental changes in nurse education grew from the nursing profession's acceptance that the process of rapid and continuous transformation in health care demands that have occurred over the last decade are likely to presage greater change in the foreseeable future (UKCC 1985). These views reflect those voiced by Knowles (1989, p 131) who, citing the predictions of futurists Naisbitt (1982) and Toffler (1980), warned of a radical increase in the pace of change in the next century. Such views are based on the assumption of a perpetual generation of new enlightenment accompanied by a corresponding obsolescence of existing knowledge. Knowles predicts this will render traditional, 'transmission of knowledge', concepts of education impractical. He promotes a new system of learning centred on the acquisition of competencies suggesting that the most important competence will be self-direction in learning, a skill for lifelong use. The literature emphasises the importance of systematic evaluation as a means of monitoring course effectiveness to provide evidence of worth of educational programmes. Kratz (1983) stressed the importance of developing a systematic evaluation strategy, adding the warning that references to custom and practice and expressions of goodwill would not satisfy governmental demands for 'evidence of usefulness'. She emphasised that the requirement to provide evidence of quality and value for money is just as important at the level of education as at the point of care delivery. This view was reiterated by Morle (1984) who describes evaluation as one of the 'prime areas of responsibility' for nurse educationalists.

Programme evaluation is commonly distinguished in terms of being either formative or summative, a differentiation introduced by Scrivens (1967). The two forms differ in terms of aims, timing and in relation to whom it offers the greatest benefits.

It is acknowledged that evaluation is an integral part of the teaching role, and teachers undertake their own ongoing informal evaluation of their teaching sessions, and continually modify their approach accordingly.

The systematic formative modular evaluation used at the College seeks to augment this personalised subjective view by providing broader objective information that extends beyond the single learning event thus enabling the response to the current modular learning experience to be seen in the context of its juxtaposition in the course. This enables all the participants whether student, teacher or curriculum planner to see how well the component parts interrelate in the total learning experience.

Regular modular evaluations have been completed on conclusion of each learning module by all the Pilot students (total enrolled 823). This has created an environment of open exchange between student and teacher which has proved a valuable adjunct to the monitoring of the effectiveness of the theoretical content and the effects of responsive change. The emphasis placed on hearing and acting on student opinion has been regarded as a key element in demonstrating the measure of worth placed on each individual participant and is shown to be valued by the student population.

The methodology

The information is gained from a process of triangulation incorporating questionnaire, open comment, discussion and reflective feedback.

The questionnaire

The evaluation questionnaire (Fig. 1) was devised to provide both quantitative and qualitative information on how the students perceive and value the learning experience of each module; an end of course questionnaire provides a final summative evaluation. The method uses a modified Likert style questionnaire in which the 4 point range is from 'Strongly Agree' to 'Strongly Disagree', a mid-point was omitted after initial piloting of the instrument showed a marked tendency for students to deliver a neutral, i.e. central response. The mean scores for each item are collated by converting the responses to numerals, a score of 4 being allocated to 'Strongly Agree' down to 1 for 'Strongly Disagree'. A final section provides opportunity for comment or clarification and students are encouraged to identify issues requiring further exploration through debate. Suggestions for resolving identified problems and recommendations for future programmes are actively encouraged. The points of focus include the exploration of the effectiveness of the module in meeting the students current needs, including the preparation and subsequent consolidation of the allocation experiences. Views are elicited on the achievement of the aims for integrating theory and practice. Respondents are asked to indicate their views regarding effectiveness of the content in enabling both personal and modular aims to be achieved. In addition the students' perceptions of the educational milieu and their response to the overall teaching and interactional approach are elicited.

While the instruments have undergone superficial adaptations in response to changing need, modification has been kept at a minimum to allow comparison over time and cohorts. The approach to evaluation has, however, always remained flexible and the present method has evolved over time.

Statistical measurement of consistency

Internal consistency of the instrument was statistically measured by means of Cronbach's Alpha Coefficient (Cronbach 1951).

Samples were drawn from different groups and from each module. The findings were that all the coefficients were high, indicating a good internal consistency amongst items.

Interpretation of findings

The collated findings of the questionnaire and a summary of additional comments are used to conduct a modified form of the Delphi technique described as an evaluative discussion.

The evaluative discussion

The summary of the quantitative findings of the questionnaire and the additional anonymous qualitative comments of individuals is used as an agenda for debate, thus enabling the formulation of a collective view. The evaluative discussion is conducted in the presence of the teaching team leader and may include other members of the team.

The Group are asked to clarify comments, identify needs and apply a problem solving approach to any criticisms raised. For the purpose of ensuring that the views expressed are affirmed by the group as a whole, a reasonable degree of consensus of opinion is sought. The group decides when issues are too marginal to be reported.

When the group endorse a negative view, the constructive suggestions for addressing the issue are debated.

The teachers are then asked to consider the feasibility of recommendations and where necessary suggest attainable modifications. A set of ground rules are observed to reduce the risk of bias (Box 1).

Module evaluation

Your views on the preparation and consolidation blocks in this module are essential to us, especially when reviewing this course and planning for the future. Please attempt to be objective and fair.

Date of Evaluation: _____ Group Number: _____ Module Number: _____

Please tick appropriate box	Strongly Agree	Agree	Disagree	Strongly Disagree	Leave blank % Pos	Leave blank Mean
1 The content of the preparation was applicable to my clinical experience	☐	☐	☐	☐		
2 The aims for integrating theory and practice were clearly identified	☐	☐	☐	☐		
3 The aims for integrating theory and practice were achieved	☐	☐	☐	☐		
4 There was sufficient opportunity to discuss practical experiences	☐	☐	☐	☐		
5 Visits to Wards and Departments during the allocation were useful	☐	☐	☐	☐		
6 The clinical visits enabled me to complete my module objectives	☐	☐	☐	☐		
7 The content of the preparation block was logical	☐	☐	☐	☐		
8 The content of the consolidation block was logical	☐	☐	☐	☐		
9 Sufficient time was allocated for private study	☐	☐	☐	☐		
10 The College environment stimulated me to learn	☐	☐	☐	☐		
11 The variation in teaching methods contributed to my learning experience	☐	☐	☐	☐		
12 Teachers used an approach in which problems were identified	☐	☐	☐	☐		
13 My learning needs were recognised	☐	☐	☐	☐		
14 I felt able to ask for help when I needed it	☐	☐	☐	☐		
15 The nursing process was consistently applied to the principles of nursing care	☐	☐	☐	☐		
16 Theoretical assessment methods were appropriate	☐	☐	☐	☐		
17 Theoretical assessment methods were fair	☐	☐	☐	☐		
18 I had the opportunity to discuss my assignment work with my tutor	☐	☐	☐	☐		
19 There was opportunity to discuss my assignment work with my peers	☐	☐	☐	☐		
20 Reference to research was applied to the teaching of nursing care	☐	☐	☐	☐		
21 I was encouraged to identify my personal learning needs	☐	☐	☐	☐		
22 I was able to achieve my learning goals	☐	☐	☐	☐		
23 Student participation was encouraged	☐	☐	☐	☐		
24 I was encouraged to use my initiative	☐	☐	☐	☐		
25 Student independence was facilitated	☐	☐	☐	☐		
26 I was treated as an adult by teachers	☐	☐	☐	☐		
27 There was opportunity to discuss important issues constructively	☐	☐	☐	☐		
28 Teacher's feedback on my progress was helpful	☐	☐	☐	☐		
29 Student's opinions and criticisms were sought	☐	☐	☐	☐		
30 I was encouraged to share my clinical experiences with others	☐	☐	☐	☐		
31 I felt valued as a person of equal worth by the teaching staff	☐	☐	☐	☐		
32 The module enabled me to consolidate my experiences	☐	☐	☐	☐		

Additional comments:

Fig. 1 The evaluation questionnaire.

Box 1 The ground rules

1. Confidentiality is assured and there is no requirement for any member to accept responsibility for an individual comment.
2. The opinion of every member of the discussion group is equally valued and respected.
3. Evaluation must focus on professional issues rather than personal attributes of individual teachers, students or staff.
4. Evaluation is not to be regarded as a forum for grievance; praise should be given where it is due and negative comment should be constructive rather than destructive.
5. In the additional comments and subsequent evaluative discussion, a problem solving approach is adopted which required critical comment to be supported, whenever possible, by examples and suggestions.
6. The adoption of defensive attitudes and over rationalisation is to be avoided.
7. Marginalised views, while welcome and valued, cannot be included in the report which is a record of a consensus of group opinion.

Further strategies to control bias

It is recognised as inevitable that there will be the risk of problems of interpretation and selectivity. Misinterpretation may occur due to incongruities arising between the message intended by the speaker and the message received by the recorder.

Such risks are magnified in a situation where the recorder is also fulfilling the roles of inpartial mediator and discussion leader with groups of between 20 and 50 participants. To minimise the occurrence of misunderstanding and to ensure the validity of the subsequent report a practice of reflective feedback is carried out in which, prior to recording, all statements that reach a consensus are summarised by the evaluator and students and teachers are asked to confirm that the account is accurate.

Finally the teacher/module leader evaluates the module summarising their perception of the value of its content, experiences and resources and also provides observations on the learners' responses to the proffered learning experience.

It is regarded as equally unavoidable that some of the specific modular information gained is retrospective for the currently participating cohort of respondents. However, students soon show they recognise that they have benefited from the evaluation of their predecessors. They then appear to welcome the opportunity to contribute to the modular content of those who will follow them.

DISCUSSION

In general, the modular evaluations grow increasingly positive as the students progress (Hartley 1989). A possible explanation is that as they move from general to speciality modules, the relevance of content is more obvious and the relationship between theory and practice more closely aligned. Another is that students learn to appreciate the benefits of evaluation. Experience has shown that in the early stages most students see evaluation simply as an opportunity to air grievances rather than to voice approval or suggestion (Hartley 1988).

Problem-solving approaches and the art of making critical observations are skills that have to be learned. Student recognition of the value and empowerment that constructive evaluation can provide can only be fully realised over time.

This stage of development can be seen to have been reached when students demonstrate their ability to:

- Recognise that their views are heard and when possible acted upon.
- Become aware that they can make a positive contribution to their own and subsequent students benefit.
- Learn to trust the evaluator to maintain impartiality.

These changes can usually be observed to be taking place after the second or third modular experience. The students indicate they particularly value guidance and support from module and personal teachers in College and in the clinical areas.

The areas in which students most frequently ask for more teacher support include:

- Provision of clear assignment guidelines with defined criteria for achievement.
- Consistency in monitoring practical performance.
- Feedback on individual progress.

The findings reflect those of Pratt & Magill (1983) and Pratt (1988) who suggest that in conditions where learners lack the self-direction to make informed choices, they seek increased direction from the teacher.

Generally the students appear to welcome opportunities for sharing their experiences and opinions through discussion and debate.

The practice of using an impartial but professionally aware mediator is fundamental to the College philosophy of affirming respect for the worth of each individual by valuing equally the opinion of every number of the organisation. Great emphasis is placed on considering the feasibility of student suggestions for enhancing the educational experience and the learning milieu. It allows every student the opportunity to identify his needs and values, without fear of censure, and it provides him with a measure of control over his learning and the circumstances in which this takes place.

The College philosophy is built on the androgogical principle of respecting the range

and potential of knowledge and diversity of experience possessed by every adult learner and brought to each learning encounter (Knowles 1970). The concept of evaluation is closely aligned to this philosophy; the importance of the link between the philosophy of an institution and its evaluation methodology has been emphasised by Bevis (1982).

Implications for teachers

Teachers refer to the increased opportunity for ensuring the quality and accuracy of evaluative findings resulting from clarification and deeper exploration of issues. Fresh insights and ideas for new teaching initiatives can develop through discussion of initially negative criticism. Finally the emphasis on shared values removes the punitive element from evaluation and allows the teachers to not only demonstrate willingness to listen but also establishes their equal right to be heard.

The model for evaluation was specifically designed to monitor the progress of the ENB Pilot Educational Scheme (ENB 1987a). The demand for rigorous impartial monitoring required the appointment of an uninvolved but professionally aware evaluator who could confine her course involvement solely to evaluation, thus allowing the writer to gain the trust of the students. Equally the lack of a defined teaching role facilitated the adoption of the role of an unbiased mediator between the other participants who include, the teachers, the course planners and organisers.

While such appointments are unlikely to be feasible for the majority of nurse educational courses, it is suggested that the model could be modified to other learning environments by means of a system of evaluation in which teachers from one teaching team could act as impartial evaluators for other teams.

The work reported was concerned with the pilot pre-registration programmes. This system is presently being refined to meet the needs of the students undertaking the Project 2000 course. It is proposed to adapt the format to meet the altered needs and to embrace the Project 2000 principle of developing greater autonomy. The design and planning is being undertaken as a collaborative venture between students, evaluator and course managers. In addition there is a need to develop the framework so that the model for evaluation can be applicable to all educational programmes in the College.

CONCLUSION

It is well documented that evaluation is generally regarded as negative and pejorative by both students and teachers. This paper has emphasised how focusing on shared values and partnership between teacher and student can generate a constructive attitude to evaluation. This, it is suggested can benefit all participants through early identification of changing needs and proactive response to group idiosyncrasies. It is also suggested that the resultant information can be effectively used in the curriculum planning and design of subsequent courses.

The work reported is a fundamental part of the Research and Development strategy of this College. A key objective is to implement a strategy for educational research to provide a sound base for the curricular process. The data provides a useful foundation for further work, particularly when examining the impact of nurse education on professional practice. Study in this area forms part of the ongoing evaluative project in nurse education.

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APPENDIX I
Expectations of Nursing

We would like to learn about people's views of nurse education and their expectations of nursing as a career.

Please answer the following questions, the information from which will be used solely for research purposes and will be treated with strictest confidentiality.

INTRODUCTION TO NURSING

1. **Work previous to nurse training.**
(If inapplicable please turn to Q.2)

Post(s) prior to entry into nurse education	Full/part time	Approx.time in post	Type Sat/Hol Work exp.

2. **Experience of voluntary work.**
(If inapplicable please turn to Q.3)

Voluntary work prior to entry into nurse education.	Hours per week	Approx.length of time in post

3. Decision to choose nursing as a career.

3.1 Stage in life when you initially considered nursing as a career.

Please Tick

Up to 13 yrs. [ ]

From 14 years to completion of compulsory education. [ ]

Following completion of further education/higher education. [ ]

Following employment in previous career/post. [ ]

Other. Please specify.

3.2 Influences on choice of career.

From the following list please indicate which source of information influenced you in making the decision.

Tick any as Appropriate

(a) College of Nursing open day. [ ]

(b) Careers Advisory Service/literature [ ]

(c) Careers Convention [ ]

(d) Job Club [ ]

(e) Family/friends/colleagues. [ ]

(f) Practising nurses. [ ]

(g) Former nurses. [ ]

(h) Other. Please specify.

Please indicate the most important factor governing your choice by inserting the appropriate alphabetical code in the box. [ ]

3.3 Life experiences that influenced your decision to enter nursing.

		Tick any as Appropriate
(a)	Opportunities realised through further education.	[ ]
(b)	Family caring responsibilities.	[ ]
(c)	Unemployment	[ ]
(d)	Redundancy	[ ]
(e)	Disenchantment with previous employment	[ ]
(f)	Other. Please specify.	

Please indicate the most important factor governing your choice by inserting the appropriate alphabetical code in the box. [ ]

3.4 Which of the following factors helped to confirm that nursing was the right choice for you?

		Tick any as Appropriate
(a)	TV/film documentaries.	[ ]
(b)	Popular fiction.	[ ]
(c)	Newspaper/magazine articles.	[ ]
(d)	Career journal.	[ ]
(e)	Experience as a patient.	[ ]
(f)	Personal accounts from friends/family employed in nursing.	[ ]
(g)	Work experience/voluntary occupation.	[ ]
(h)	Other. Please specify.	

Please indicate the most important factor governing your choice by inserting the appropriate alphabetical code in the box. [ ]

4. Choice of education at this College.

Please indicate your reason for accepting the offer from this College.

		Tick any as Appropriate
(a)	Academic qualifications matched entry requirements.	[ ]
(b)	Geographical location.	[ ]
(c)	Reputation of the College.	[ ]
(d)	Liked the atmosphere/interview.	[ ]
(e)	This was my first choice on application to the Clearing House.	[ ]
(f)	Personal recommendation from past students.	[ ]
(g)	Other. Please specify.	

Please indicate the most important factor governing your choice by inserting the appropriate alphabetical code in the box. [ ]

APPENDIX J

Job Information Checklist

(Registered General Nursing)

Read eacch statement and put a ring around te response, Yes or No which you think is correct. If in doubt mark ?. When you have completed the list of statements check your answers.

(NB Child's Correct Answers are Highlighted in Bold)

(1) If you have 5 'O' levels you can be considered for training as a Registered General Nurse(RGN) **Yes** No ?

(2) You must have work experience in a hospital before going into nurse training Yes **No** ?

(3) Nurses should have a specific type of personality Yes **No** ?

(4) Nursing is a vocation in life. Yes **No** ?

(5) Nursing is a job suitable for both men and women. **Yes** No ?

(6) During training most of the student nurse's time is spent studying, in the nursing school/college. Yes **No** ?

(7) When they first start training, student nurses, are mainly observing on the wards. Yes **No** ?

(8) Student nurses are assessed throughout training. **Yes** No ?

(9) Student nurses have to work on the wards and study at the same time. **Yes** No ?

(10) Student nurses do only general nursing until they are qualified. Yes **No** ?

(11) Student nurses work on night shifts. **Yes** No ?

(12) Nurses' work is organised by doctors. Yes **No** ?

(13) Student nurses spend most of their time doing technical nursing (e.g. injections, blood pressures). Yes **No** ?

(14) Many student nurses, feel squeamish about coping with blood, sick and excrement. **Yes** No ?

(15) In the ward team student nurses and staff nurses all do the same type of work. Yes **No** ?

(16) Nursing is hard, tiring and emotionally demanding. **Yes** No ?

(17) Student nurses easily fit in when they start working on the wards. Yes **No** ?

(18) From their first day on the ward student nurses are given responsibility and may have to work alone. **Yes** No ?

19) Patients are grateful and co-operative. **Yes** No ?

20 Nurse training is exciting and interesting because there is so much variety and change. **Yes** No ?

(21) Student nurses are always taught a procedure before being asked to practise it on the ward. Yes **No** ?

(22)	Student nurses soon learn to cope with death.	Yes	**No**	?
(23)	Inexperienced student nurses are seen as a nuisance by qualified staff	Yes	**No**	?
(24)	Student nurses soon learn to cope with responsibility.	Yes	**No**	?
(25)	Qualified nurses have plenty of time to spend with patients.	Yes	**No**	?
(26)	Student nurses are encouraged to use their own initiative.	Yes	**No**	?
(27)	Student nurses are allowed to answer patients' questions and relatives' question.	Yes	**No**	?
(28)	Nursing is stressful.	**Yes**	No	?
(29)	After qualification nursing becomes less stressful.	Yes	**No**	?
30)	Nursing dying people is always upsetting.	Yes	**No**	?
(31)	Nurses have little opportunity to get bored.	**Yes**	No	?
(32)	After qualifying, there are a variety of jobs a nurse can do.	**Yes**	No	?
(33)	Newly qualified staff are always given a job in the hospital where they trained	Yes	**No**	?
(34)	Nurses need to do further training in order to get promotion.	Yes	**No**	?
(35)	Most nurses work in hospitals.	**Yes**	No	?

Adapted from Child D Borill C Boyden Jagger Bygrave D (1988) *Selection for nurse training : making decisions.*

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APPENDIX K-a
Semantic Differential

Self Description And Concepts Of The Nursing Profession

Part One: Self Description.

DIRECTIONS:

This section of the questionnaire comprises opposing pairs of descriptive words that can be used to illustrate some of the feelings you have about yourself. It is based on your opinion so there are no right or wrong answers.

The words are placed at opposite sides of a scale. Choose which of the two words best matches how you see yourself and mark the 'very true' or 'fairly true' box on the corresponding side to indicate the strength of your view.

Please answer as rapidly as possible putting a cross at the appropriate point between each pair of words indicating the first response that enters your mind on reading each line. Try to describe your feelings about yourself as accurately as you can.

==========

Examples:

1) I regard myself as fairly honest so I place a cross in the second column on the honest side to illustrate that is fairly true of me.

	Very true	Fairly true	Fairly true	Very true	
Honest	☐	☐	☐	☐	**Dishonest**

2) In the next item because I perceive myself as very impatient I place my cross in the first column on the impatient side to show I think this is very true of me.

	Very true	Fairly true	Fairly true	Very true	
Impatient	☐	☐	☐	☐	**Patient**

==========

Ensure you place a cross on every line. If you feel unable to respond to a particular item, please indicate this by placing your cross on the right hand side outside the boxes.

Please turn to the next pages.

	Very true	Fairly true	Fairly true	Very true	
1Professional	☐	☐	☐	☐	Unprofessional
2Unsure	☐	☐	☐	☐	Assured
3Sympathetic	☐	☐	☐	☐	Unsympathetic
4Calm	☐	☐	☐	☐	Tense
5Unaccountable	☐	☐	☐	☐	Accountable
6Reflective	☐	☐	☐	☐	Impulsive
7Cheerful	☐	☐	☐	☐	Sad
8Bossy	☐	☐	☐	☐	Democratic
9Optimistic	☐	☐	☐	☐	Pessimistic
10. Timid	☐	☐	☐	☐	Outgoing
11. Research aware	☐	☐	☐	☐	Research unaware
12. Achieving	☐	☐	☐	☐	Unsuccessful
13. Unenthusiastic	☐	☐	☐	☐	Enthusiastic
14. Realist	☐	☐	☐	☐	Idealist
15. Disorganised	☐	☐	☐	☐	Organised
16. Obedient	☐	☐	☐	☐	Questioning
17. Confident	☐	☐	☐	☐	Unconfident
18. Unsupported	☐	☐	☐	☐	Supported
19. Distant	☐	☐	☐	☐	Friendly
20. Neat worker	☐	☐	☐	☐	Untidy worker
21. Communicative	☐	☐	☐	☐	Inarticulate
22. Undervalued	☐	☐	☐	☐	Respected
23. Empathetic	☐	☐	☐	☐	Detached
24. Selfish	☐	☐	☐	☐	Unselfish

	Very true	Fairly true	Fairly true	Very true	
25. Intelligent	☐	☐	☐	☐	Unintelligent
26. Reliable	☐	☐	☐	☐	Unreliable
27. Speedy	☐	☐	☐	☐	Slow
28. Knowledgeable	☐	☐	☐	☐	Unknowing
29. Uncritical	☐	☐	☐	☐	Critical
30. Committed	☐	☐	☐	☐	Uncommitted
31. Punctual	☐	☐	☐	☐	Unpunctual
32. Disrespectful	☐	☐	☐	☐	Respectful
33. Caring	☐	☐	☐	☐	Uncaring
34. Academic	☐	☐	☐	☐	Unacademic
35. Autonomous	☐	☐	☐	☐	Obedient
36. Leader	☐	☐	☐	☐	Follower
37. Valued	☐	☐	☐	☐	Disregarded
38. Assertive	☐	☐	☐	☐	Submissive
39. Creative	☐	☐	☐	☐	Unimaginative
40. Progressive	☐	☐	☐	☐	Traditional
41. Humourless	☐	☐	☐	☐	Humorous
42. Teamworker	☐	☐	☐	☐	Isolate
43. Dynamic	☐	☐	☐	☐	Dull
44. Impractical	☐	☐	☐	☐	Practical
45. Smart	☐	☐	☐	☐	Ungroomed
46. Placid	☐	☐	☐	☐	Argumentative

Please turn to Section Two

Part Two: Concepts of the Nursing Profession

DIRECTIONS

This section of the questionnaire is comprised of descriptive statements that reflect real or hypothetical attitudes towards nurses or the nursing profession to determine how you see nursing, again there are no right or wrong answers.

Each statement is followed by four possible response boxes, it is expected that you will agree or disagree with the statements. Please read each one carefully and decide whether you agree or disagree then indicate the strength of your opinion by placing a cross in the corresponding box in the scale from Strongly Agree to Strongly Disagree where

KEY	**SA**	=	**Strongly Agree**
	A	=	**Agree**
	D	=	**Disagree**
	SD	=	**Strongly Disagree**

==========

Example

	SA	A	D	SD
Nurses are overpaid in comparison to similar health care professionals.	☐	☐	☐	☐

As I strongly disagree with this statement I have placed a cross in the fourth column.

==========

As before please ensure you mark each line, a neutral column is not included so it is necessary to make clear decisions. if however you feel you cannot respond to a particular item please place your cross on the right hand side outside the box.

	SA	A	D	SD
1. Nursing is a profession	☐	☐	☐	☐
2. The ideal nurse always displays an assured manner	☐	☐	☐	☐
3. The last thing a patient wants from a nurse is sympathy	☐	☐	☐	☐
4. Nurses must always remain calm	☐	☐	☐	☐
5. It is unfair to make qualified nurses accountable for their practice	☐	☐	☐	☐
6. Nurses must never behave impulsively	☐	☐	☐	☐
7. A good nurse is always cheerful	☐	☐	☐	☐
8. Nurses require an air of authority to ensure patients accept nursing advice	☐	☐	☐	☐
9. It is important for nurses to appear optimistic	☐	☐	☐	☐
10. A nurse requires an outgoing personality	☐	☐	☐	☐

	SA	A	D	SD
11. Research is just another fashion in nursing	☐	☐	☐	☐
12. The chief reward in nursing lies in a sense of achievement	☐	☐	☐	☐
13. A nurse must always display enthusiasm for her work	☐	☐	☐	☐
14. There is no room for idealism in nursing	☐	☐	☐	☐
15. A good nurse is never disorganised	☐	☐	☐	☐
16. Nurses must not argue with those in authority	☐	☐	☐	☐
17. A nurse must always appear confident	☐	☐	☐	☐
18. The support of others is essential if nurses are to cope effectively	☐	☐	☐	☐
19. Nurses need to adopt a friendly manner	☐	☐	☐	☐
20. Untidy workmanship is a sign of a bad nurse	☐	☐	☐	☐
21. It is necessary for the nurse to have good communication skills	☐	☐	☐	☐
22. Nurses are undervalued by society in general	☐	☐	☐	☐
23. The role of empathy is exaggerated in nursing	☐	☐	☐	☐
24. The nurse must always put the needs of others first	☐	☐	☐	☐
25. You need not be intelligent to become a nurse	☐	☐	☐	☐
26. Reliability is a necessary quality for nursing	☐	☐	☐	☐
27. The best nurses work as quickly as possible	☐	☐	☐	☐
28. The level of knowledge required to qualify as a nurse is exaggerated	☐	☐	☐	☐
29. Nurses should not criticise the policies of their nursing establishment	☐	☐	☐	☐

	SA	A	D	SD
30. Nursing is an occupation demanding total commitment	☐	☐	☐	☐
31. Punctuality is indeed a virtue in the Nursing Profession	☐	☐	☐	☐
32. All senior members of the Health Care team are entitled to unfailing respect from junior nurses	☐	☐	☐	☐
33. Nurses should always be caring	☐	☐	☐	☐
34. Nursing is an academic discipline	☐	☐	☐	☐
35. The primary role of nurses is to obey the orders of other members of the health care team	☐	☐	☐	☐
36. To be successful a nurse must have leadership qualities	☐	☐	☐	☐
37. Nurses are highly valued by other health professionals	☐	☐	☐	☐
38. Nurses should be assertive in their professional role	☐	☐	☐	☐
39. Nursing demands creative problem solving	☐	☐	☐	☐
40. The traditional nursing procedures are still an appropriate basis for modern nursing practice	☐	☐	☐	☐
41. A sense of humour is an essential prerequisite for nursing	☐	☐	☐	☐
42. A multi-disciplinary teamwork approach is inappropriate to nursing care	☐	☐	☐	☐
43. Modern nursing demands dynamic practitioners	☐	☐	☐	☐
44. Nursing is essentially a practical profession	☐	☐	☐	☐
45. A nurse must maintain a neat appearance at all times	☐	☐	☐	☐
46. In conflict situations the nurse must never appear argumentative	☐	☐	☐	☐

Thank you for your co-operation

APPENDIX K-b
Correlation Matrix - Self Perception

1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2	21	1																					
3	00	14	1																				
4	24	18	10	1																			
5	29	14	11	04	1																		
6	06	08	05	00	03	1																	
7	20	30	07	25	06	05	1																
8	7	10	00	03	03	13	10	1															
9	27	16	00	29	02	09	30	05	1														
10	27	44	11	17	23	16	32	11	32	1													
11	19	08	24	10	12	00	01	03	16	04	1												
12	30	35	02	24	27	12	12	09	14	23	13	1											
13	32	32	01	12	19	16	37	09	26	33	15	41	1										
14	19	09	09	19	19	20	01	02	05	09	08	11	05	1									
15	30	27	02	14	24	01	15	23	17	12	10	29	25	27	1								
16	16	31	14	00	11	5	17	10	18	26	01	18	15	04	23	1							
17	28	50	03	30	18	12	36	04	31	45	14	26	31	05	29	26	1						
18	12	13	00	04	09	10	16	06	02	14	11	18	16	02	14	08	07	1					
19	25	21	08	16	09	10	53	06	16	22	10	14	27	05	18	16	33	24	1				
20	28	15	14	04	25	03	15	07	02	07	12	15	33	17	61	02	15	15	23	1			
21	36	26	09	18	22	20	39	03	30	43	21	32	48	07	25	14	42	17	37	30	1		
22	30	33	08	17	09	09	31	14	13	22	10	32	39	01	32	21	39	41	25	25	28	1	
23	19	21	20	12	16	00	21	10	07	23	23	30	33	00	11	02	20	15	31	16	47	25	1
24	10	15	18	14	13	00	13	26	03	03	09	20	24	00	26	04	03	02	14	23	18	17	27
25	27	20	07	19	9	01	02	06	11	17	15	25	16	18	15	12	22	07	12	13	23	15	13
26	17	08	18	17	20	06	13	05	07	06	01	25	11	15	13	02	02	06	12	17	13	02	10
27	19	27	04	32	10	09	28	04	06	15	09	18	28	09	22	02	31	07	28	13	26	19	15
28	06	14	00	27	16	09	06	11	13	19	24	21	14	07	01	01	21	07	16	08	10	20	22
29	02	09	11	02	00	04	00	08	04	12	03	24	10	03	06	21	17	04	06	14	15	08	02
30	35	22	23	13	32	00	22	00	12	20	19	29	32	15	29	08	25	23	22	29	33	34	25
31	13	11	03	14	02	04	20	18	12	08	06	12	13	10	35	02	18	04	15	19	09	24	00
32	26	09	25	25	13	03	13	09	00	03	08	27	11	16	11	14	07	08	15	08	13	19	17
33	08	18	30	23	16	13	18	05	11	12	13	15	19	04	08	01	22	00	21	15	27	10	21
34	35	24	02	15	21	11	13	02	19	15	26	48	28	09	24	00	31	16	20	20	31	26	22
35	01	08	06	08	06	06	02	01	12	20	11	07	04	03	02	36	06	12	02	05	09	00	12
36	28	39	09	21	18	12	34	10	31	58	05	21	41	00	14	34	52	05	31	14	34	20	27
37	38	33	00	28	5	13	26	13	25	20	08	33	31	13	40	29	36	31	26	25	44	48	15
38	23	37	04	21	10	22	33	11	27	50	02	33	41	03	19	36	46	21	30	12	41	27	32
39	20	16	06	10	17	15	14	10	19	22	20	28	18	01	10	11	20	08	25	12	29	16	23
40	25	11	00	18	21	05	19	12	20	23	14	26	29	05	14	11	28	10	27	14	24	17	23
41	13	08	06	05	03	21	29	12	13	21	00	00	10	00	01	08	17	02	34	00	19	16	15
42	25	13	02	21	17	06	23	02	27	26	02	02	16	07	07	04	17	25	30	05	45	24	13
43	23	16	07	19	14	13	26	17	20	32	09	19	29	17	16	03	24	19	30	17	34	22	34
44	21	17	08	32	21	05	28	02	19	07	17	22	30	15	34	05	30	03	41	21	15	12	14
45	20	00	13	10	18	07	09	06	03	01	09	22	21	11	24	09	09	13	27	29	02	22	07
46	03	13	11	05	12	11	22	13	06	30	03	00	18	23	03	27	10	01	03	18	02	10	04

Appendix K Table K-b Correlation Matrix -Self Perception

CODE

07 Cheerful/sad
19 Distant/friendly
43 Dynamic/dull
41 Humourless/humorous
42 Teamworker/isolate
38 Assertive/submissive
21 Communicative/uncommunicative
27 Speedy/slow
06 Reflective/impulsive
09 Optimistic/pessimistic
18 Unsupported/supported
23 Empathetic/detached
16 Obedient/questioning
36 Leader/follower
46 Placid/argumentative
32 Disrespectful/respectful
10 Timid/outgoing
35 Autonomous/obedient
02 Unsure/assured
03 Sympathetic/unsympathetic
45 Smart/ungroomed
17 Confident/unconfident
29 Uncritical/critical
15 Disorganised/organised
20 Neat worker/untidy
31 Punctual/unpunctual
24 Selfish/unselfish
30 Committed/uncommitted
44 Impractical/practical
08 Bossy/democratic
22 Undervalued/respected
26 Reliable/unreliable
37 Valued/disregarded
13 Unenthusiatic/enthusiastic
01 Professional/unprofessional
05 Unaccountable/accountable
28 Knowledgeable/unknowledgable
34 Academic/unacademic
25 intelligent/unintelligent
40 Progressive/traditional
12 Achieving/unachieving
11 Research aware/unaware
39 Creative/unimaginative
14 Realist/idealist
04 Calm/tense
33 Caring/uncaring

23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
24	1																						
25	05	1																					
26	20	12	1																				
27	14	25	15	1																			
28	04	31	00	37	1																		
29	15	08	69	62	14	1																	
30	12	14	33	18	02	06	1																
31	12	12	31	29	10	14	24	1															
32	20	11	36	29	21	00	19	31	1														
33	16	15	21	24	20	11	25	17	32	1													
34	01	41	12	32	34	12	24	24	20	16	1												
35	02	06	07	04	03	10	05	02	15	08	08	1											
36	00	26	01	33	20	18	19	02	08	18	22	22	1										
37	08	19	07	33	17	12	25	21	12	13	27	00	29	1									
38	01	28	05	31	21	20	20	01	03	17	25	13	61	38	1								
39	13	25	02	11	21	06	27	04	18	11	24	14	18	18	31	1							
40	08	13	02	29	35	21	16	00	02	20	38	06	21	39	28	35	1						
41	00	14	01	06	08	14	02	07	01	03	15	02	22	08	25	07	15	1					
42	13	14	00	32	25	11	23	13	22	08	21	05	24	19	16	14	18	17	1				
43	04	19	01	38	30	14	16	05	18	13	29	04	34	23	39	19	34	38	37	1			
44	28	08	23	34	01	02	29	33	29	29	11	03	28	30	21	19	26	08	18	26	1		
45	21	04	17	20	10	16	21	16	23	24	25	16	00	18	07	09	22	10	21	20	32	1	
46	04	06	02	01	10	15	12	03	20	00	05	15	03	00	36	03	09	08	09	10	11	17	1

APPENDIX K-c
Correlation Matrix -Professional Concepts

1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2	25	01																					
3	03	03	1																				
4	18	27	02	1																			
5	00	08	10	14	1																		
6	21	04	01	25	00	1																	
7	14	05	00	24	07	11	1																
8	21	17	00	04	09	05	15	1															
9	21	19	10	17	05	04	17	09	1														
10	05	98	05	04	01	22	27	02	33	1													
11	01	19	19	08	30	03	05	09	13	10	1												
12	00	05	11	17	02	14	22	08	12	21	10	1											
13	17	02	00	29	10	09	46	11	20	23	21	25	1										
14	09	17	02	17	03	07	04	06	14	08	01	19	31	1									
15	06	03	00	31	15	23	31	19	09	15	07	22	36	17	1								
16	08	21	02	07	13	06	05	38	00	04	06	04	17	22	19	1							
17	18	23	00	25	07	03	23	12	37	15	05	18	47	11	32	08	1						
18	05	01	04	02	04	21	02	00	01	03	03	07	08	00	05	21	23	1					
19	24	12	02	12	05	11	31	15	12	15	09	14	25	06	19	10	28	12	1				
20	08	00	13	24	16	22	32	03	09	17	05	04	38	13	32	15	17	05	24	1			
21	18	02	11	00	17	07	16	02	07	15	19	20	09	06	19	11	11	31	13	10	1		
22	13	02	14	13	19	02	08	11	06	06	22	19	03	01	15	00	05	01	01	07	09	1	
23	10	15	21	09	21	13	05	02	10	01	35	12	01	00	29	05	15	18	08	05	15	16	1
24	22	03	09	04	13	13	18	22	05	01	04	13	33	04	19	21	14	02	27	15	12	06	08
25	06	02	07	09	10	05	01	12	07	09	13	12	12	06	04	19	02	04	02	05	02	03	04
26	07	12	06	14	17	04	19	22	14	17	04	28	37	03	25	02	29	31	30	31	34	04	16
27	00	06	02	03	08	05	17	20	03	13	09	06	25	14	13	08	08	05	00	18	11	04	00
28	06	10	03	07	06	04	02	04	01	07	17	10	01	18	02	02	10	18	02	00	11	04	08
29	08	09	03	07	17	18	04	18	11	14	03	15	11	07	04	42	00	30	01	12	18	09	08
30	13	00	09	23	02	02	23	09	19	01	06	31	29	11	07	16	29	00	14	11	13	07	00
31	13	20	01	05	11	05	10	19	20	26	04	09	30	05	15	08	30	17	09	32	08	04	04
32	03	17	08	14	20	24	14	19	12	13	13	11	29	18	10	24	20	04	18	31	03	06	08
33	11	06	19	15	04	12	17	08	08	17	07	23	26	11	17	01	01	07	07	04	09	11	05
34	01	17	01	15	03	04	05	17	03	00	01	01	03	09	97	03	14	00	09	17	07	17	06
35	03	12	05	03	29	08	04	17	10	18	13	03	26	20	14	23	20	11	01	05	12	12	06
36	09	10	03	00	14	11	24	32	21	20	02	09	10	03	14	04	19	12	15	24	23	09	02
37	11	13	11	02	23	04	09	07	25	05	13	11	18	06	12	06	10	01	26	19	01	06	07
38	09	00	03	03	18	19	02	14	02	05	03	09	06	08	21	16	28	22	19	05	34	17	03
39	05	03	03	00	25	07	03	00	13	03	11	05	20	00	17	15	14	23	04	14	15	03	13
40	06	09	10	08	01	01	10	28	27	18	01	06	20	04	21	16	23	05	05	18	07	07	04
41	08	04	07	11	11	01	00	10	06	00	04	08	08	09	08	11	14	19	14	02	15	04	19
42	01	03	02	09	17	05	16	04	06	05	14	01	08	07	01	15	01	19	12	01	21	01	22
43	00	12	03	17	02	00	00	10	07	09	02	00	08	01	13	08	12	06	02	07	13	07	08
44	08	01	20	08	06	02	05	02	08	03	25	08	14	10	08	05	08	16	08	02	01	17	07
45	13	11	06	13	08	01	13	25	15	17	21	13	19	04	17	14	24	13	20	26	16	04	07
46	18	25	07	13	19	11	00	09	25	03	20	18	16	00	04	11	25	05	17	04	06	09	22

Table K-c Correlation Matrix -Professional (Continued)

CODE

45 Maintains neat appearance
08 Air of Authority necessary for advising.
40 Applies traditional values
36 Needs leadership qualities
31 Is punctual
34 Is engaged in academic discipline
27 Works speedily
32 Respectful to senior staff
20 Sees untidiness as bad workmanship
09 Appears optimistic
02 Displays assurance
10 Needs to be outgoing
37 Needs value of other professionals
01 Professional/unprofessional
38 Is professionally assertive
29 Should not criticise policy
18 Requires support to cope
21 Needs communication skills
35 Obeys all disciplinary team
26 Must be reliable
39 Must be a problem solver

16 Never argues with authority
42 Must use a multi-disciplinary approac
41 Requires a sense of humour
11 Role in research is just another fashio
23 Empathic role is exaggerated
22 Is undervalued in society
05 Is unfairly expected to be accountable
44 Is practical
03 Is not overly-sympathetic
46 Never argues in conflict situations
28 Feels knowledge needs exaggerated
13 Displays enthusiasm
12 Is rewarded by sense of achievement
30 Requires commitment
04 Remains calm
33 Must always be caring
07 Must always remain cheerful
24 Puts needs of others first
15 Is never disorganised
17 Appears confident
25 Need not be intelligent
06 Is never impulsive

23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
24	1																						
25	21	1																					
26	13	00	1																				
27	01	16	04	1																			
28	07	40	15	00	1																		
29	13	07	05	19	07	1																	
30	29	17	20	09	00	07	1																
31	13	00	27	11	01	00	20	1															
32	31	13	15	12	14	29	16	20	1														
33	28	04	10	06	00	11	11	05	02	1													
34	00	05	08	17	02	13	04	19	10	00	1												
35	21	05	03	24	01	42	02	05	34	12	08	1											
36	08	07	22	23	07	02	01	17	00	10	18	05	1										
37	19	20	12	01	10	10	15	15	14	30	09	11	24	1									
38	00	05	32	20	08	24	03	17	05	09	18	13	35	03	1								
39	07	02	24	10	13	14	12	25	05	09	16	12	19	03	36	1							
40	15	08	21	13	11	20	18	31	24	04	10	25	22	15	20	19	1						
41	21	02	14	01	01	18	05	15	03	10	01	02	13	12	16	13	06	1					
42	03	11	20	10	06	14	01	08	06	01	12	12	16	04	13	05	03	21	1				
43	10	17	21	04	14	11	09	01	04	19	16	05	05	02	19	09	00	19	03	1			
44	03	05	04	01	08	10	13	06	03	01	23	02	09	02	08	02	01	10	19	07	1		
45	10	00	29	15	01	13	06	33	26	07	19	10	30	16	26	01	29	05	01	01	05	1	
46	15	15	05	01	00	14	08	01	19	07	01	21	06	11	00	06	09	02	09	08	01	03	1

APPENDIX K-d

Cronbach Alpha Reliability Analysis-Scale

SELF FACTOR A Dynamism

07 Cheerful/sad	.63
19 Distant/friendly	-.62
43 Dynamic/dull	.57
41 Humourless/humorous	-.52
42 Teamworker/isolate	.50
38 Assertive/submissive	.46
21 Communicative/uncommunicative	.45
27 Speedy/slow	.38
36 Leader/follower	.46
08 Bossy/democratic	.38

Number cases =189 Number of Items=10 Alpha= 0.8082

SELF FACTOR B Submission

16 Obedient/questioning	.68
36 Leader/follower	-.51
46 Placid/argumentative	.50
32 Disrespectful/respectful	-.49
10 Timid/outgoing	.48
35 Autonomous/obedient	-.46
02 Unsure/assured	.41
03 Sympathetic/unsympathetic	.38
45 Smart/ungroomed	.35
17 Confident/unconfident	-.35

Number cases =180 Number of Items=10 Alpha=0.4311

SELF FACTOR C Unconventionalism

15 Disorganised/organised	.74
20 Neat worker/untidy	-.58
31 Punctual/unpuntual	-.52
24 Selfish/unselfish	.50
30 Committed/uncommitted	-.50
44 Impractical/practical	-.47
08 Bossy/democratic	.47
22 Undervalued/respected	.46
26 Reliable/unreliable	-.44
37 Valued/disregarded	-.43
13 Unenthusiatic/enthusiastic	.40
01 Professional/unprofessional	-.36

Number of Cases=189 Number of Items=12 Alpha=0.7812

SELF FACTOR D Academic

28 Knowledgeable/unknowledgable	.69
34 Academic/unacademic	.64
25 intelligent/unintelligent	.56
40 Progressive/traditional	.50
12 Achieving/unachieving	.47
11 Research aware/unaware	.46
39 Creative/unimaginative	.46
14 Realist/idealist	.35

Number of Cases=190 Number of Items=8 Alpha=0.6698

PROFESSIONAL CONCEPTS FACTOR A Professionalism

Variable Cut off 0.35 Significant in bold	
45 Maintains neat appearance	**.58**
08 Air of Authority necessary for advice giving	**.57**
40 Applies traditional values	**.56**
36 Needs leadership qualities	**.54**
31 Is punctual	**.49**
34 Is engaged in academic discipline	**.48**
27 Works speedily	**.43**
32 Respectful to senior staff	**.40**
29 Should not criticise policy	**.40**
17 Appears confident	**.36**

Number of Cases=181.0 Number of Items=10 Alpha=0.6594

PROFESSIONAL CONCEPTS FACTOR B Obedience

38 Is professionally assertive	**-.65**
29 Should not criticise policy	**.63**
18 Requires support to cope	**-.55**
21 Needs communication skills	**-.54**
35 Obeys all disciplinary team	**.47**
26 Must be reliable	**-.47**
39 Must be a problem solver	**-.46**
16 Never argues with authority	**.43**

Reliability Coefficients
Total Number=196 Number Items=8
Alpha=0.6589

PROFESSIONAL CONCEPTS FACTOR C Traditionalism

11 Role in research is just another fashion	**.75**
23 Empathic role is exagerated	**.64**
22 Is undervalued in society	**.44**
05 Is unfairly expected to be accountable	**.43**
44 Is practical	**.40**
03 Is not overly-sympathetic	**.35**

Number of Cases=185 Number of Items=6 Alpha=0.5350

PROFESSIONAL CONCEPTS FACTOR D Commitment

13 Displays enthusiasm	**.66**
12 Is rewarded by sense of achievement	**.55**
30 Requires committment	**.53**
04 Remains calm	**.50**
33 Must always be caring	**.49**
07 Must always remain cheerful	**.45**
24 Puts needs of others first	**.44**
15 Is never disorganised	**.44**
17 Appears confident	**.38**

Number of Cases=192.0 Number of Items=9 Alpha=0.7386

APPENDIX K-e

Results *t* Tests

Key To *t* Test Tables

N=number of cases	Mean=sum of responses divided by no. of scores
Sd =standard deviation	Diff.M =difference in mean of the scores
Corr=correlation between scores	T val= the T test results
df =the degrees of freedom	p= the level of probability

Self Perception Factors All Cases *t* test Results

Variable	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Pre Test		1.98	.36						
Self A **Dynamism**	167			-0.008	0.35	0.027	-0.33	166	0.74
Post Test		1.99	.34						
Pre Test		2.30	0.28						
Self B **Submission**	167			-0.038	0.29	0.469	-1.72	166	<0.08
Post Test		2.34	0.27						
Pre Test		3.15	0.37						
Self **Unconventionalism**	167			-0.043	0.33	0.587	-1.67	166	<0.09
Post Test		3.19	0.35						
Pre Test		2.01	0.32						
Self Academic	167			0.024	0.35	0.441	0.91	166	<0.36
Post Test		1.99	0.34						

Professional Concept Factors All Cases *t* test Results

Pre Test		2.47	0.29						
ProfA **Professsionalism**	167			0.045	0.30	0.440	1.93	166	<0.05
Post Test		2.52	0.27						
Pre Test		3.31	0.31						
Prof B **Obedience**	167			0.0003	0.33	0.399	0.01	166	<0.98
Post Test		3.16	0.29						
Pre Test		2.74	0.38						
Prof C **Traditionalism**	167			-0.063	0.40	0.374	-2.04	166	<0.03
Post Test		2.80	0.33						
Pre Test		2.12	0.37						
Prof D **Commitment**	167			-0.138	0.36	0.504	-4.98	166	<0.000
Post Test		2.26	0.35						

COLLEGE P Self Perception Pre and Post *t* test results

Variable	N	Mn	Sd.	Df.M	Sd	Corr	T val	df	2 tail p
Pre Test Self A **Dynamism** Post Test	60	1.96 2.01	0.36 0.32	-0.058	0.341	0.52	-1.22	59	<0.22
Pre Test Self B **Submission** Post Test	60	2.34 2.32	0.26 0.02	0.019	0.350	0.17	0.42	59	<0.67
Pre Test Self C **Unconventionalism** Post Test	60	3.17 3.23	0.43 0.38	-0.054	0.418	0.47	-1.01	59	<0.31
Pre Test Self D **Academic** Post Test	60	1.95 1.94	0.38 0.40	0.012	0.412	0.44	0.23	59	<0.81

COLLEGE P Self Perception Pre and Post *t* test results

Pre Test ProfA **Professsionalism** Post Test	60	2.51 2.50	0.34 0.27	0.009	0.357	0.36	0.21	59	<0.83
Pre Test Prof B **Obedience** Post Test	60	3.36 3.32	0.32 0.35	0.452	0.336	0.51	1.04	59	<0.30
Pre Test Prof C **Traditionalism** Post Test	60	2.76 2.81	0.43 0.39	-0.050	0.464	0.38	-0.84	59	<0.40
Pre Test Prof D **Commitment** Post Test	60	2.34 2.63	0.40 0.39	-0.128	0.434	0.40	-2.29	59	<0.02

COLLEGE C Self Perception Pre and Post *t* test results

Variable	N	Mn	Sd.	Df.M	Sd	Corr	T val	df	2 tail p
Pre Test Self A **Dynamism** Post Test	51	2.09 2.05	0.34 0.39	0.345	0.43 5	0.319	.057	50	<0.57
Pre Test Self B **Submission** Post Test	51	2.27 2.34	0.26 0.25	-0.680	0.26 0	0.493	1.87	50	<0.06
Pre Test Self C**Unconventionalism** Post Test	51	3.12 3.13	3.12 3.13	0.419 0.357	-.005	0.26	0.78	50	<0.89
Pre Test Self D **Academic** Post Test	51	2.14 2.05	0.28 0.33	0.081	0.35 1	0.36	1.67	50	<0.10

COLLEGE C Professional Concepts Pre and Post *t* test results

Pre Test ProfA **Professsionalism** Post Test	51	2.49 2.53	0.22 0.25	-0.041	0.23 5	0.52	-1.22	50	<0.22
Pre Test Prof B **Obedience** Post Test	51	3.31 3.32	3.31 3.32	-0.012	0.39 0	0.18	-0.22	50	<0.82
Pre Test Prof C **Traditionalism** Post Test	51	2.74 2.80	2.74 2.80	0.371 0.282	-0.06	0.35	0.43	50	<0.22
Pre Test Prof D **Commitment** Post Test	51	2.07 2.17	2.07 2.17	0.298 0.315	- .010 1	0.35	0.31	50	<0.04

COLLEGE M Self Perception Pre and Post *t* test results

Variable	N	Mn	Sd.	Df.M	Sd	Corr	T val	df	2 tail p
Pre Test Self A **Dynamism** Post Test	56	1.92 1.92	0.36 0.31	- 0.0006	0.27	0.69	-0.02	55	<0.98
Pre Test Self B **Submission** Post Test	56	2.28 2.36	0.32 0.30	-0.074	0.24	0.71	02.32	55	<0.02
Pre Test SelfC**Unconventionalism** Post Test	56	3.15 3.21	0.26 0.31	-0.065	0.28	0.51	-1.71	55	<0.09
Pre Test Self D **Academic** Post Test	56	1.97 1.99	0.26 0.26	-0.014	0.27	0.44	-0.38	55	<0.70

COLLEGE M Self Perception Pre and Post *t* test results

Pre Test ProfA **Professsionalism** Post Test	56	2.43 2.54	0.30 0.29	-0.110	0.29	0.52	-2.80	55	<.0.00
Pre Test Prof B **Obedience** Post Test	56	3.26 3.30	0.25 0.28	-0.036	0.27	0.46	0.99	55	<0.32
Pre Test Prof C **Traditionalism** Post Test	56	2.73 2.81	0.33 0.30	-.0801	0.37	0.30	-1.59	55	<0.11
Pre Test Prof D **Commitment** Post Test	56	2.04 2.231	0.37 0.31	-0.184	0.26	0.71	-5.19	55	<0.00

COLLEGE P *t* Tests Results Self Perceptions: Two Time Scales

Self Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.19	0.35						
Dynamism	19			0.21	0.41	0.33	2.24	18	0.03
Course Mid Point		1.98	0.35						

Self Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.02	0.33						
Dynamism	33			-0.071	0.41	0.39	-0.99	32	0.329
Course Conclusion		2.09	0.41						

Self Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.35	0.242						
Submission	19			0.04	0.15	0.78	1.19	18	0.24
Course Mid Point		2.31	0.22						

Self A Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.23	0.27						
Submission	33			0.039	0.29	0.44	0.76	32	0.45
Course Conclusion		2.37	0.28						

Self Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		3.23	0.28						
Unconventionalism	19			-0.020	0.28	0.55	-.032	18	0.75
Course Mid Point		2.25	0.31						

Self A Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		3.03	0.49						
Unconventionalism	33			-0.011	0.26	0.84	-0.24	32	0.81
Course Conclusion		3.04	0.37						

Self Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.10	0.31						
Academic	19			0.150	0.42	0.238	1.54	18	0.14
Course Mid Point		1.95	0.37	4					

Self Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.16	0.27						
Academic	33			0.039	0.29		0.44	32	0.45
Course Conclusion		2.12	0.28						

COLLEGE P *t* Tests Results Professional Concept: Two Time Scales

Prof Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.49	0.24						
Professionalism	19			0.004	0.22	0.57	0.08	18	0.93
Course Mid Point		2.48	0.24						

Prof Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.52	0.26						
Professionalism	33			-0.055	0.24	0.58	-1.29	32	0.20
Course Conclusion		2.58	0.27						

Prof Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		3.16	0.32						
Obedience	19			-0.151	0.36	0.35	-1.80	18	0.08
Course Mid Point		3.31	0.31						

Prof Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		3.14	0.33						
Obedience	33			0.072	0.37	0.14	1.09	32	0.28
Course Conclusion		3.34	0.22						

Prof Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.80	0.31						
Traditionalism	19			-.003	0.32	0.37	-0.05	18	0.96
Course Mid Point		2.80	0.25						

Prof A Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.74	0.45						
Traditionalism	33			-0.061	0.41	0.453	-0.85	32	0.400
Course Conclusion		2.80	0.30						

Prof Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.17	0.32						
Commitment	19			0.090	0.23	0.724	1.67	18	0.11
Course Mid Point		2.08	0.31						

Prof A Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.03	0.31						
Commitment	33			-.020	0.36	0.35	-3.29	32	0.00
Course Conclusion		2.24	0.33						

College C *t* Tests Results Self Perceptions: Two Time Scales

Self Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		1.91	0.31						
Dynamism	30			0.023	023	0.68	0.53	29	0.60
Course Mid Point		1.88	0.27						

Self Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		1.98	0.31						
Dynamism	30			-0.042	0.35	0.33	-0.65	29	0.52
Course Conclusion		2.02	0.29						

Self Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.34	0.28						
Submission	30			0.026	0.22	0.62	-0.65	29	0.52
Course Mid Point		2.36	0.21						

Self Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.34	0.23						
Submission	30			-0.034	0.29	0.34	-0.63	29	0.53
Course Conclusion		2.37	0.28						

Self Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		3.10	0.24						
Unconventionalism	30			-0.15	0.24	0.60	-3.40	29	0.002
Course Mid Point		3.26	0.30						

Self A Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		3.14	0.39						
Unconventionalism	30			-0.082	0.48	0.16	-0.93	29	0.36
Course Conclusion		3.22	0.36						

Self Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.06	0.27						
Academic	30			0.07	0.26	0.50	1.59	29	0.12
Course Mid Point		1.98	0.26						

Self Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		1.92	0.32						
Academic	30			-0.034	0.46	0.18	-0.40	29	0.69
Course Conclusion		1.95	0.40						

College C *t* Tests Results Professional Concepts: Two Time Scales Groups Course Entry to Mid Point

Prof Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.58	0.21						
Professionalism	30			0.037	0.18	0.67	1.10	29	0.28
Course Mid Point		2.54	0.24						

Prof Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.53	0.34						
Professionalism	30			0.048	0.40	0.25	0.65	29	0.52
Course Conclusion		2.49	0.31						

Prof Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		3.30	0.24						
Obedience	30			-0.0006	0.24	0.51	-0.01	29	0.99
Course Mid Point		3.30	0.26						

Prof Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		3.35	0.33						
Obedience	30			0.104	0.13	0.59	1.82	29	0.07
Course Conclusion		3.24	0.36						

Prof Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.79	0.39						
Traditionalism	30			0.04	0.34	0.52	0.64	29	0.52
Course Mid Point		2.75	0.27						

Prof Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.71	0.42						
Traditionalism	30			-0.12	0.51	0.17	-1.31	29	0.20
Course Conclusion		2.84	0.37						

Prof Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.18	0.31						
Commitment	30			-0.067	0.23	0.74	-1.59	29	0.12
Course Mid Point		2.25	0.32						

Prof A Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.26	0.36						
Commitment	30			-0.128	0.45	0.21	-1.56	29	0.13
Course Conclusion		2.39	0.35						

COLLEGE M *t* Tests Results Professional Concepts: Two Time Scales

Self Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		1.95	0.41						
Dynamism	29			-.064	0.33	0.63	-1.2	28	0.31
Course Mid Point		2.01	0.36						

Self Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		1.93	o.42						
Dynamism	26			-0.028	0.30	0.70	-0.47	25	0.64
Course Conclusion		1.96	0.35						

Self Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.33	0.29						
Submission	29			0.085	0.39	-0.025	1.17	28	0.25
Course Mid Point		2.24	0.25						

Self A Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.22	0.36						
Submission	26			-0.129	0.24	0.77	-2.65	25	0.01
Course Conclusion		2.35	0.38						

Self Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		3.24	0.42						
Unconventionalism	29			-0.010	0.33	0.67	-0.16	28	0.87
Course Mid Point		3.25	0.39						

Self A Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		3.20	0.29						
Unconventionalism	26			0.035	0.30	0.51	0.60	25	0.55
Course Conclusion		3.16	0.32						

Self Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		1.97	0.44						
Academic	29			0.06	0.35	0.65	0.95	28	0.35
Course Mid Point		1.91	0.40						

Self Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		1.87	0.22						
Academic	26			-0.120	0.25	0.48	-2.42	25	0.02
Course Conclusion		2.00	0.26						

COLLEGE M *t* Tests Results Professional Concepts: Two Time Scales

Prof Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.44	0.30						
Professionalism	29			0.040	0.29	0.37	-0.73	28	0.47
Course Mid Point		2.49	0.21						

Prof Factor A	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.25	0.29						
Professionalism	26			-0.280	0.30	0.56	-4.68	25	0.00
Course Conclusion		2,53	0.35						

Prof Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		3.36	0.32						
Obedience	29			-0.01	0.35	0.39	-0.28	28	0.78
Course Mid Point		3.38	0.33						

Prof Factor B	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		3.22	0.26						
Obedience	26			-0.077	0.30	0.43	-1.30	25	0.20
Course Conclusion		3.30	0.30						

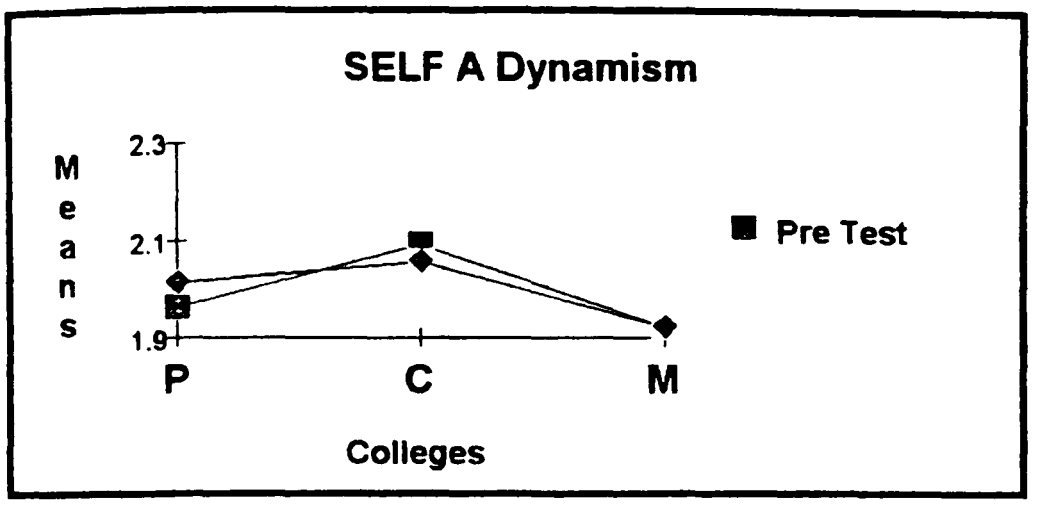
Prof Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.76	0.40						
Traditionalism	29			-0.011	0.36	0.61	-0.17	28	0.86
Course Mid Point		2.77	0.42						

Prof Factor C	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		2.65	0.23						
Traditionalism	26			-0.219	0.37	0.14	-3.00	25	0.00
Course Conclusion		2.87	0.32						

Prof Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Entry		2.17	0.41						
Commitment	29			-0.13	0.43	0.47	-1.66	28	0.10
Course Mid Point		2.30	0.42						

Prof Factor D	N	Mn	Sd.	Df.M	Sd	Corr	Tval	df	2 tail p
Course Mid Point		1.88	0.36						
Commitment	26			-.0318	0.24	0.76	-6.78	25	0.00
Course Conclusion		2.20	0.31						

APPENDIX K-f
Manova Results: Self Perception and Professional Concept Variables



Self Dynamism

Coll. P (n=60) Pre M.= 1.96 Sd .36 Coll C (n=51) Pre M.= 2.09 Sd .34
Post M.= 2.01 Sd .32 Post M = 2.05 Sd .39
Coll. M (n=56) Pre M.= 1.92 Sd..36
Post M.= 1.92 Sd .31

Between Colleges:	F=3.38 p=.036	*
Time:	F=0.06 p=8.11	ns
Interaction Colleges andTime:	F=0.88 p=.415	ns

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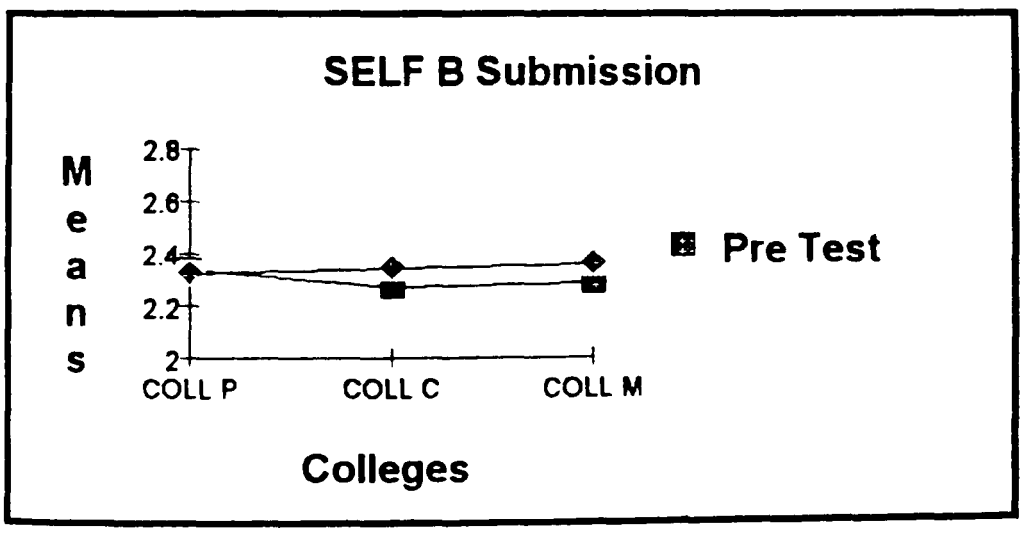
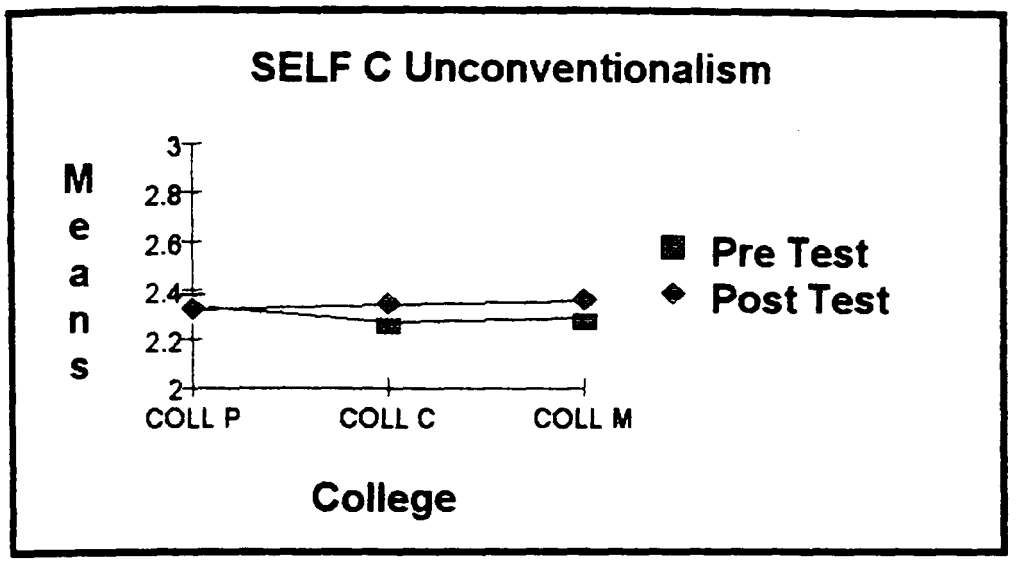


Self B Submission

Coll.P (n=60) Pre M.= 2.34 Sd .26 Coll. C (n=51) PreM.= 2.27 Sd .26
Post M.=2.32 Sd .28 Post M.= 2.34 Sd .25
Coll M(n=56) Pre M.= 2.28 Sd .32
Post M .=2.36 Sd.30

Between Colleges	F=.12 p=.889	ns
Time	F=3.35 p=0.69	ns
Interaction Colleges & Time	F=1.89 p=.155	ns



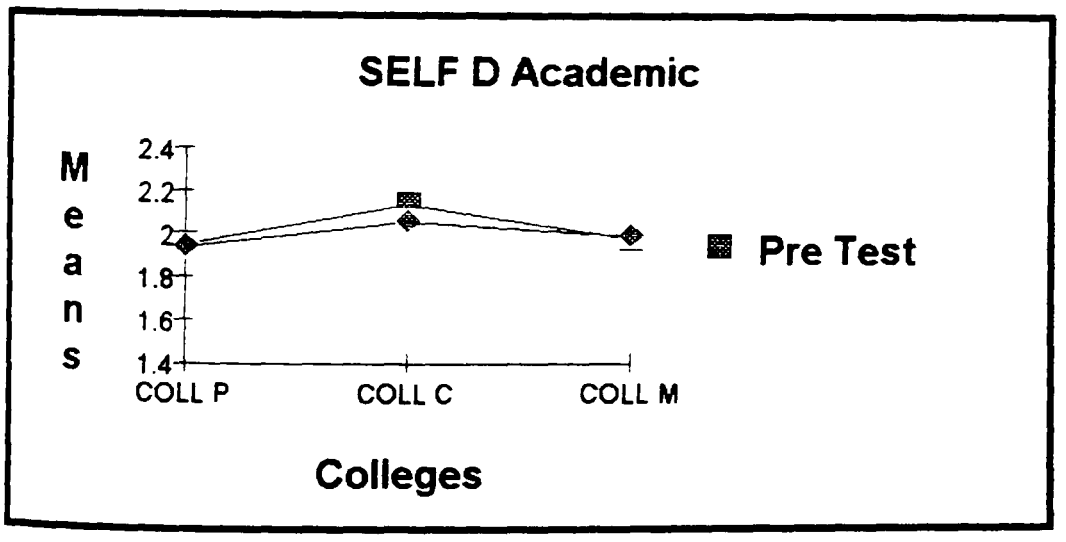
Self C Unconventionalism

Coll P (n=60) Pre M.= 3.17 Sd .43
Post M.= 3.23 Sd .38

Coll C (n=51) Pre M.= 3.12 Sd .41
Post M.= 3.13 Sd .35

Coll M (n=56)Pre M.= 3.15 Sd .26
Post M.= 3.21 Sd .31

Between Colleges	F=.74 p=.481	ns
Time	F=2.60 p=.109	ns
Interaction Colleges & Time	F=.49 p=.612	ns



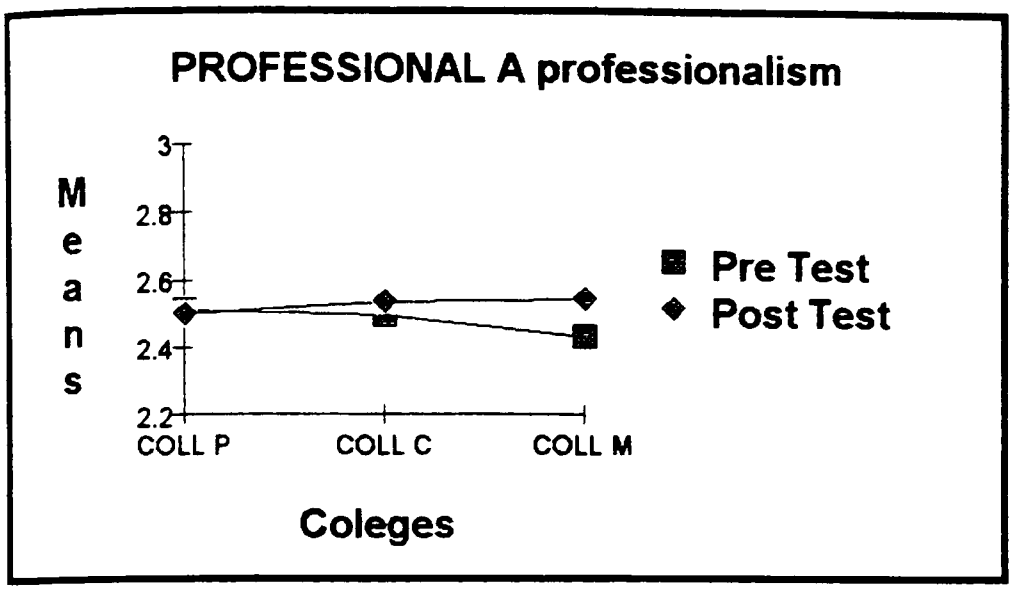
Self D Academic

Coll P (n=60) Pre M.= 1.95 Sd .38
Post M.= 1.94 Sd .40

Coll C (n=51)Pre M. = 2.14 Sd .28
Post M. = 2.06 Sd.33

Coll M (n=56) Pre M .= 1.97 Sd .26
Post M.= 1.99 Sd.26

Between Colleges	F=4.46 p=.013	*
Time	F=.96 p=.330	ns
Interaction Colleges & Time	F=1.05 p=.353	ns



Professional A Professionalism

Coll P (n=60) Pre M.= 2.51 Sd .34
Post M.= 2.50 Sd .27

Coll C(n=51) Pre M.= 2.49 Sd .22
Coll C(n=51) Pre M.= 2.49 Sd .22

Coll M(n=56) Pre M.= 2.43 Sd .30
Post M.= 2.54 Sd .29

Between Colleges	F=.20 p=.822	ns
Time	F=3.98 p=.048	*
Interaction Colleges & Time	F=2.28 p=.105	ns

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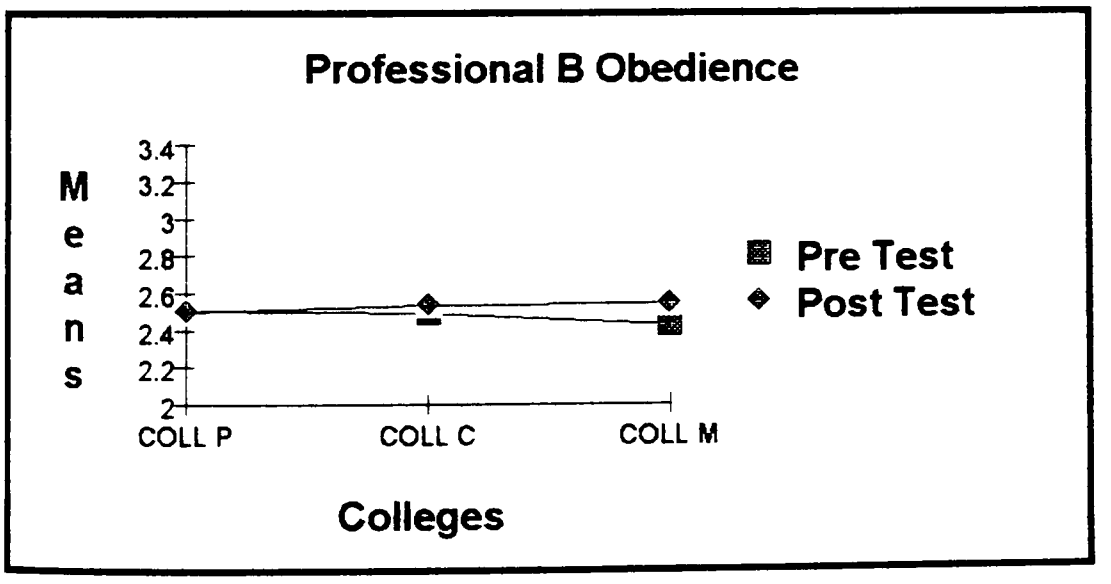


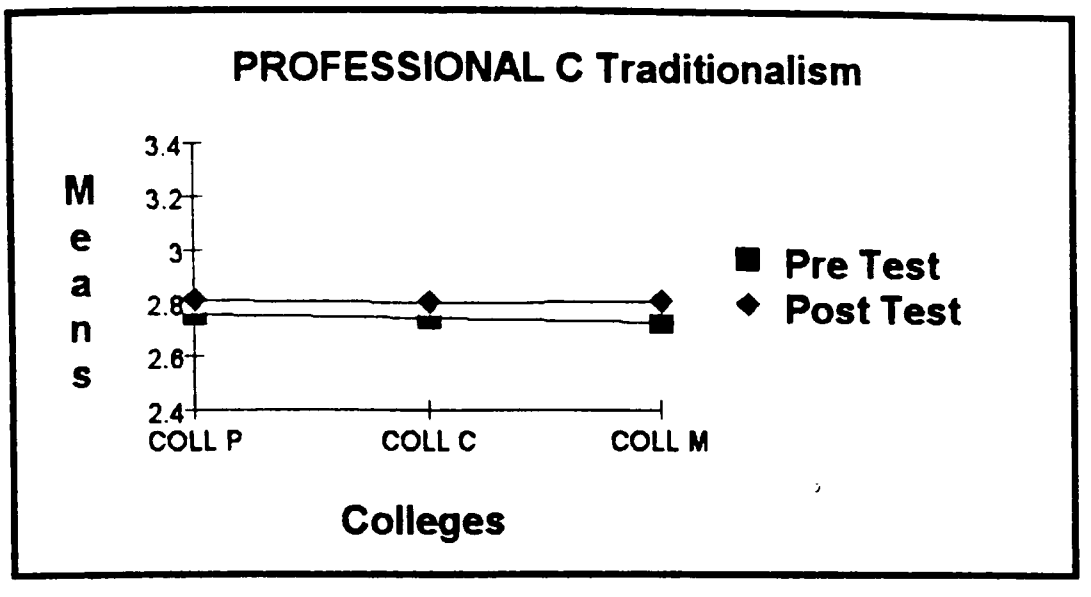
Professional B Obedience

Coll P(n=60) Pre M.= 3.36 Sd .32
Post M.= 3.32 Sd .35

Coll C(n=51) Pre M.=3.31 Sd .34
Post M.=3.32 Sd .25

Coll M(n=56) Pre M.= 3.26 Sd.25
Post M.= 3.30 Sd.28

Between Colleges	F=.74 p=.480	ns
Time	F=.00 p=.966.	ns
Interaction Colleges & Time	F=91 p=.405.	ns



Traditionalism

Coll P (n=60) Pre M.=2.76 Sd .43
Post M.=2.81 Sd .39

Coll C (n=51) Pre M.=2.74 Sd .37
Post M.=2.80 Sd .28

Coll M(n=56) Pre M.=2.73 Sd .33
Post M.=2.81 Sd .30

Between Colleges	F=.05p=.954	ns
Time	F=4.12p=.004	**
Interaction Colleges & Time	F=.08 p=.924	ns

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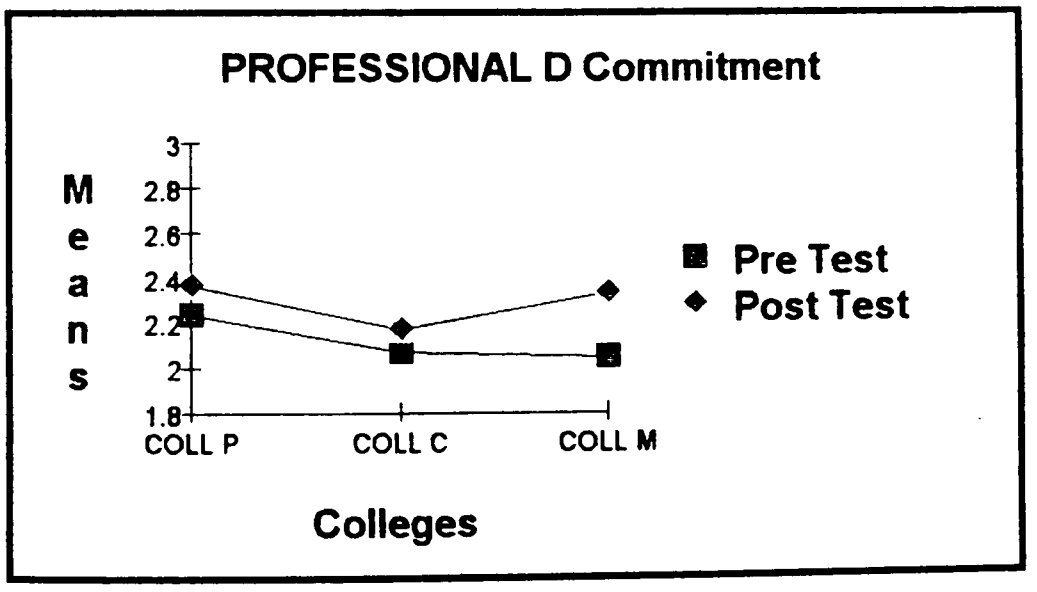

Professional Concept D Commitment

Coll P (n=60) Pre M.=2.25 Sd .40
Post M.=2.36 Sd .39

Coll C(n=51) Pre M.=2.07 Sd .29
Post M.=2.17 Sd .31

Coll M(n=56) Pre M.=2.04 Sd .37
Post M.=2.23 Sd .31

Between Colleges	F=5.85 p=.00	**
Time	F=24.32 p=.00	**
Interaction College & Time	F=.73 p=.48	ns

PAGE NUMBERING AS IN THE ORIGINAL THESIS

APPENDIX L-a
Interview Study Description

Thank you for agreeing to co-operate in this final evaluation of the pilot scheme evaluation. I would like to know your views on its effectiveness in preparing you for practice as a staff nurse. Your responses will be treated in the strictist confidence and are invited for the purposes of the research project, but any recommendations you wish to make for the benefit of future courses are equally welcomed.

Please indicate the strengths and weaknesses you believe your course gave you in comparison with others you have worked with. The comparisons should be made with nurses of similar grade and experience but who studied on other courses. Please comment on what you see as the strength and weaknesses of your course and focus on the specialist skills that made it different from the traditional courses.

In addition please describe your feelings and experiences in relation to how well it prepared you for nursing practice and management as Staff Nurses compared with your experience of working with those from traditional courses.

Finally please outline the courses you have taken since qualifying and what you plan to do in the future.

APPENDIX L-b

Study Description Given to Validaters of Telephone Interviews

Staff nurse .....has suggested that you would be kind enough to comment on his/her professional performance in the staff nurse role. I am currently carrying out the final stages of a long term evaluation of the E. N.B. pilot course of nurse education that commenced in the College in 1986. The last group are completing their final year and as part of the study into the effectiveness of the course as a preparation for practice some former students have co-operated in a series of telephone interviews in which they highlighted their strengths and weaknesses in comparison to staff nurses of similar grade and experience who did not study on the pilot course.

In order that I may judge the validity of .....'s self appraisal I would appreciate your comment on his/her performance and what you perceive to be are this person's particular strengths and weaknesses in practice.

If you also wish to add general comment on any aspect of the course or the performance of its graduates as a whole, this would be very much appreciated. Your responses will be treated in the strictist confidence and are invited for the purposes of the research project, but any recommendations you would like to make for the benefit of future courses are equally welcomed.

APPENDIX L-c

Interview Schedule

Name of Respondent... **Date**

Former Group Code:

(NB Asterisk to indicate comment was in response to prompt.)

Strengths of the course referred to:

1:..

2:..

3:..

4:..

The weaknesses referred to:

1:..

2:..

3:..

4:..

Specialist topics

Prompt if necessary - can you comment on the impact of the specialist topics?

Sociology:..

Psychology:..

Health studies:..

Professional studies:..

Physiology:..

Research awareness:..

Nursing theory and practice:..

Comparisons with non-pilot trained colleagues

:..

:..

Reference to feelings on commencing practice...

:..

:...

Recommendations

:..

Additional comment:..

Courses studied **Title of course...**
Date of entry... **Day Month Year**
□□ □□ □□

Plans for the future...

Name of validater...

Telephone number:
Name of snowball respondent.... Telephone number:

APPENDIX L-d

Questionnaire on Professional Performance After Qualification

For research purposes and to generate items for a post qualification evaluative discussion on your nurse educational programme. Please would you answer the following questions?

1.1) Strengths
Reflect back to when you first took up a post as a Staff Nurse and briefly identify areas in which felt particularly competent to practice:
.....

1.2) Weaknesses
Can you then identify areas where you felt anxiety about practice as a Staff Nurse?
.....

2.1) Personal Change
A popular definition of Education is that it involves personal change please could you identify an area of change you feel took place in you as a direct result of your RGN course?
.....

2.2) Ideal qualities
Finally please could you identify what in your view are the qualities an 'IDEAL' nurse should possess?
.....

3) Perception of Self
Assuming you would like to attain the quality (qualities) yourself please would you indicate by placing a cross on the following scale where you would place your development toward this ideal?

1 2 3 4 5 6 7

4) Please indicate where you undertook your Basic Nurse Education Course and the date on which you qualified.

Name College..... **Date:** **Day** **Month** **Year**
☐☐ ☐☐ ☐☐

Thank you for your co-operation

APPENDIX M
Twin Questionnaire.

The following questions seek to discover some of your tastes and preferences, your early memories, what qualities you admire in a nurse and how you see yourself and your sister as possessing these qualities. Please answer quickly recording the first response that come to mind.

1. What is your first memory?:.....

2. What was the most enjoyable holiday that you can recall?:.....

3. Who is your best friend?:.....

4. What is your favourite:

i) Sport?:.....

ii) Colour:.....

iii) Food:.....

iv) Singer:.....

v) Perfume:.....

4. What is your most valued achievement:.....

5. What qualities does the nurse you most admire possess?:.....

6. On a scale of 1-7 where 1 is low and 7 is high please rank the following in relation to these qualities:

i) Your Sister

|_____|_____|_____|_____|_____|_____|
1 2 3 4 5 6 7

ii) Self as I am

|_____|_____|_____|_____|_____|_____|
1 2 3 4 5 6 7

iii) Self as I would like to be:

|_____|_____|_____|_____|_____|_____|
1 2 3 4 5 6 7

APPENDIX O

Table a One way Analysis of Variance: Rezler Learning Preference Index Total College Scores

Pre.test results

	Coll P (n=65)		Coll.M (n=63)		Coll.C (=69)				
Variable	**Mn**	**Sd**	**Mn**	**Sd**	**Mn**	**Sd**	**F Ratio**	**F.Prob.**	**Signif**
Concrete	63	10.7	63	9.4	61	8.3	.5691	.5670	Ns
Abstract	43	11.9	46	10.1	45	10.0	1.3105	.2721	Ns
Teach.Structured	65	16.0	67	11.7	62	10.9	1.7872	.1702	Ns
Stud.Structured	40	11.4	39	11.4	43	10.4	3.2447	.0411	*
Individual	46	12.3	46	10.6	46	11.2	.0015	.9985	Ns
Interpersonal	56	15.0	52	14.8	54	13.5	1.1951	.3049	Ns

*Significant at <.05 level

Post- test results

	Coll P (n=69)		Coll.M (n=51)		Coll.C (=59)				
Variable	**Mn**	**Sd**	**Mn**	**Sd**	**Mn**	**Sd**	**F Ratio**	**F.Prob.**	**Signif**
Concrete	60	10.6	60	9.9	61	10.2	.0708	.9317	Ns
Abstract	48	11.8	43	9.2	46	9.7	2.8492	.0606	Ns
Teach.Structured	61	15.5	65	12.4	63	11.9	1.7027	.1852	Ns
Stud.Structured	44	12.7	42	9.5	43	10.6	.1877	.8290	Ns
Individual	47	11.7	49	12.0	46	12.1	.7784	.4607	Ns
Interpersonal	53	16.1	52	14.5	53	14.5	.0847	.9188	Ns

Anova No Two groups were found to be significant at the 0.05 level.

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Table O-b ANALYSIS OF VARIANCE Six Groups Learning Preference Index Colleges P ; M and C Pre and PostTest

CONCRETE SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	5	815.35	163.07	1.88	.09
Within Groups	183	15817.50	86.43		
TOTAL		188	16632.86		

PRE TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Entry	38	63.55	9.31	1.51	ns
Coll P Mid point	20	63.25	12.81	2.86	ns
Coll C Entry	36	60.77	9.20	1.53	ns
Coll C Mod point	27	67.33	8.49	1.63	ns
Coll M Entry	37	62.78	8.55	1.40	ns
Coll M Mid point	31	61.06	8.17	1.46	ns
TOTAL	**189**	**62.97**	**9.40**	**.68**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index CONCRETE SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	5	98.34	19.66	.18	.96
Within Groups	159	17152.64	107.87		
TOTAL	164	17250.99			

POST TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Mid point	37	62.48	8.75	1.40	
Coll P Conclusion	18	61.77	14.40	3.39	
Coll C Mid point	32	60.21	8.68	1.53	
Coll C Conclusion	19	60.94	12.02	5.75	
Coll M Mid point	33	61.39	9.30	1.61	
Coll M Conclusion	26	61.00	11.44	2.24	
TOTAL	**165**	**61.33**	**10.25**	**.79**	

ANALYSIS OF VARIANCE
Learning Preference Index ABSTRACT SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	5	1656.09	331.21	2.69	.07
Within Groups	183				
TOTAL	188				

PRE TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Entry	38	68.73	15.75	2.55	ns
Coll P Mid point	20	60.70	15.30	3.42	ns
Coll C Entry	36	65.72	12.48	2.08	ns
Coll C Mid point	27	69.11	10.70	2.06	ns
Coll M Entry	37	64.24	9.00	1.48	ns
Coll M Mid point	31	62.00	12.49	2.24	ns
TOTAL	**189**	**65.38**	**12.90**	**.93**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index ABSTRACT SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	5	11.80.62	236.12	2.16	.06
Within Groups	159	17326.95	108.97		
TOTAL	164	18507.57			

POST TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Mid point	37	49.32	11.77	1.93	ns
Coll P Conclusion	18	46.44	13.38	3.15	ns
Coll C Mid point	32	42.59	7.29	1.29	ns
Coll C Conclusion	19	45.31	11.85	2.71	ns
Coll M Mid point	33	43.90	8.89	1.54	ns
Coll M Conclusion	26	49.07	10.15	1.99	ns
TOTAL	**165**	**46.12**	**10.62**	**.82**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index TEACHER STRUCTURED SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	**5**	1656.09	331.21	2.69	.02
Within Groups	**183**	**2251.30**			
TOTAL	**188**	**24.16**			

PRE TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Entry	38	37.50	8.01	1.29	*
Coll P Mid point	20	44.85	16.06	3.59	ns
Coll C Entry	36	40.52	11.37	1.89	ns
Coll C Mod point	27	38.00	11.53	2.21	*
Coll M Entry	37	44.45	8.25	1.35	ns
Coll M Mid point	31	43.64	12.64	2.27	ns
TOTAL	**189**	**41.29**	**11.33**	**.8247**	**ns**

* Significant at p<.05

ANALYSIS OF VARIANCE
Learning Preference Index TEACHER STRUCTURED SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	**5**	**1205.37**	**241.07**	**1.28**	**.27**
Within Groups	**159**	**29915.87**	**188.15**		
TOTAL	**164**	**31121.24**			

POST TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Mid point	37	60.67	15.86	2.60	ns
Coll P Conclusion	18	58.61	17.05	4.01	ns
Coll C Mid point	32	67.21	13.46	2.38	ns
Coll C Conclusion	19	63.68	10.59	2.43	ns
Coll M Mid point	33	62.93	10.17	1.77	ns
Coll M Conclusion	26	64.80	14.07	2.75	ns
TOTAL	**165**	**63.16**	**13.77**	**1.07**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index STUDENT STRUCTURED SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.	
Between Groups	5	536.89	107.37	.8789 .		.49
Within Groups	183	22357.39	122.17			
TOTAL	188	2289.2857				

PRE TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Entry	38	45.31	11.40	1.85	ns
Coll P Mid point	20	49.15	12.99	2.90	ns
Coll C Entry	36	45	11.38	1.89	ns
Coll C Mod point	27	61	9.77	1.88	ns
Coll M Entry	37	46.62	10.76	1.76	ns
Coll M Mid point	31	43.75	10.23	1.83	ns
TOTAL	**189**	**47.96**	**11.03**	**.80**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index STUDENT STRUCTURED SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.	
Between Groups	5	535.96	107.19		.81	.54
Within Groups	159	209995.6	132.04			
TOTAL	164	21531.57				

POST TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Mid point	37	43.89	11.99	1.97	ns
Coll P Conclusion	18	46.88	17.14	4.04	ns
Coll C Mid point	32	41.15	9.15	1.61	ns
Coll C Conclusion	19	45.63	9.91	2.27	ns
Coll M Mid point	33	42.84	9.19	1.60	ns
Coll M Conclusion	26	45.15	12.23	2.39	ns
TOTAL	**165**	**43.87**	**11.45**	.89	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index INDIVIDUAL SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	5	536.89	107.37	.87	.49
Within Groups	183	22357.39			
TOTAL	188				

PRE TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Entry	38	45.31	11.40	1.85	ns
Coll P Mid point	20	49.15	12.99	2.90	ns
Coll C Entry	36	45.61	11.38	1.89	ns
Coll C Mod point	27	46.62	9.77	1.88	ns
Coll M Entry	37	43.75	10.76	1.76	ns
Coll M Mid point	31	47.96	10.23	1.83	ns
TOTAL	**189**	**46.09**	**11.03**	**.80**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index INDIVIDUAL SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
	5				
Between Groups	159	445.18	89.03	.60	.69
Within Groups	164	23255.47	146.26		
TOTAL		23700.66			

POST TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Mid point	37	46.67	11.48	1.88	ns
Coll P Conclusion	18	48.66	12.82	3.02	ns
Coll C Mid point	32	50.59	12.71	2.24	ns
Coll C Conclusion	19	47.05	10.82	2.48	ns
Coll M Mid point	33	45.84	11.05	1.92	ns
Coll M Conclusion	26	47.53	13.67	2.68	ns
TOTAL	**165**	**47.66**	**12.02**	**.93**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index INTERPERSONAL SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups	5	2011.35	402.27	1.99	.08
Within Groups	182	36612.87	201.16		
TOTAL	187	38624.23			

PRE TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Entry	38	57.94	14.56	2.36	ns
Coll P Mid point	19	53.68	15.30	3.51	ns
Coll C Entry	36	56.58	13.89	2.31	ns
Coll C Mod point	27	47.55	14.67	2.82	ns
Coll M Entry	37	55.67	14.77	2.42	ns
Coll M Mid point	31	53.38	12.02	2.15	ns
TOTAL	**188**	**54.56**	**14.37**	**1.04**	**ns**

ANALYSIS OF VARIANCE
Learning Preference Index INTERPERSONAL SCALE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
Between Groups		1649.76	329.95	1.44	.21
Within Groups		36366.77	228.72		
TOTAL		38016.54			

POST TEST

Group	Count	Mean	Std D	Std Err	P
Coll P Mid point	37	52.21	17.86	2.93	ns
Coll P Conclusion	18	52.61	14.82	3.49	ns
Coll C Mid point	32	52.78	14.28	2.52	ns
Coll C Conclusion	19	52.36	15.29	3.50	ns
Coll M Mid point	33	58.06	14.27	2.48	ns
Coll M Conclusion	26	47.53	12.77	2.50	ns
TOTAL	**165**	**52.81**	**15.22**	**1.8**	**ns**

Table O-c Total Group Learning Preferences Index Scores Pre-test to Post Test

KEY

N=number of cases	Mean=sum of responses divided by number scores
Sd =standard deviation	Diff.M =difference in mean of the scores
Corr=correlation between scores	T val= the T test results
df =the degrees of freedom	p= the level of probability
T Str=teacher structured	St Str=student structured
Individ=Individual	Interp=interpersonal

Variable	N	Mean	Sd.	Diff. M	Sd	Corr	T val	df	2 tail p
Conc Pre	18	63.11	12.84	1.33	11.38	.65	o.50	17	.062
Conc Post		61.77	14.00						

Learning Style Preference Index Pre Post Test Results

Variable	N	Mean	Sd.	Diff. M	Sd	Corr	T val	df	2 tail p
Abs. Pre	18	43.83	13.97	-2.61	8.62	0.80	-.1.28	17	0.21
Abs.Post		46.44	13.38						

Learning Style Preference Index Pre Post Test Results

Variable	N	Mean	Sd.	Diff. M	Sd	Corr	T val	df	2 tail p
T Str Pre	18	59.16	15.37	0.55	12.11	0.726	0.19	17	0.84
T Str Post		58.61	17.05						

Learning Style Preference Index Pre Post Test Results

Variable	N	Mean	Sd.	Diff. M	Sd	Corr	T val	df	2 tail p
St Str Pre	18	45.61	16.58	-1.27	14.06	0.65	-0.39	17	0.70
St Str Post		46.88	17.14						

Learning Style Preference Index Pre Post Test Results

Variable	N	Mean	Sd.	Diff. M	Sd	Corr	T val	df	2 tail p
Individ Pre	18	48.61	13.41	-0.05	15.49	0.30	-0.2	17	0.98
Individ Post		48.66	12.82						

Learning Style Preference Index Pre Post Test Results

Variable	N	Mean	Sd.	Diff. M	Sd	Corr	T val	df	2 tail p
Interp Pre	18	54.47	15.64	1.88	15.32	0.50	0.51	16	0.61
Interp Post		52.58	15.27						

Significant differences revealed with T test

COLLEGE	SCALE	Results
College P	Student structure	Dependent T Test Two tailed p=0.00<.05
College P	Interpersonal	Dependent T Test Two tailed p=0.03<.05
College M	Interpersonal	Dependent T Test Two tailed p=0.03<.05
College C	Student structure	Dependent T Test Two tailed p=0.00<.05
College C	Interpersonal	Dependent T Test Two tailed p=0.03<.05

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