Effectiveness and Cost-Effectiveness of Pre-registration Nursing and Physiotherapy Education in an Education Consortium in England

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APPENDICES

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Author (Year) Country	Category	Aim	Methodology	Sample	Results
Hogstel 1977 USA	Ratings by directors of nursing on newly qualified nurses and / or nurses themselves	Determine differences between associate degree and baccalaureate graduates in response to employer non differentiation	80 item postal questionnaires. Five categories of basic nursing functions: 1) physical care and technical skills; 2) interpersonal relationships; 3) leadership; 4) decision-making and 5) community health	a1) 109 associate & a2) 203 baccalaureate nurses b) 100 directors of nursing	No significant differences in functions 1-3 between groups a1, a2 & b. Group a2) reported higher performance than a1) in respect of 5) because part of their curriculum.
Howell 1978 USA	Ditto	Evaluate employers' perceptions of the diploma (d), associate degree (ad) and baccalaureate degree (bd) nurses of the better programme of nurse preparation in hospitals with greater and fewer than 100 beds	17 item postal questionnaire of technical and process skills	All directors of nursing of 86 hospitals in the state of Oregon	On a 58% return rate of (ad) nurses were rated inferior to both the (d) and (bd) nurses in all technical skills regardless of hospital size. In respect of process skills all hospitals rated the performance of the (ad) nurse as inferior to the (d) & (bd) nurses

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Zarett (1980) USA	Ratings by directors of nursing on newly qualified nurses and / or nurses themselves	To assess the ANA assumptions that "modern nursing practice required knowledge and skill of a 'high order that can only be obtained through a rigorous course of study in colleges and universities', and that hospital schools of nursing are 'inadequate'" in Pennsylvania	Postal questionnaire 1) information on hospital size and type of nurses employed. 2) 14 categories of skills and attributes associated with nursing performance across three types of programmes. 5 point likert scale	322 nursing directors of acute services.	68% return rate but only 48% useable. Diploma nurses were rated by directors of nursing as significantly higher than the BSN in 11 categories with 8 sig at .0.05%. The BSN were rated higher than the diploma in 3
Welches et al., (1974) USA	Ratings by head nurses	Identify factors that influence staff nurse performance	Phase 1 identification of influencing factors (10) by staff, head nurses, administrators and educators. Collation into six clusters 42 item postal questionnaire. Phase 2 completion by diploma, degree and baccalaureate nurses Allocation to nursing profiles (12 types) Head nurse assessment 19 item scale nurses known to them	Phase 1 (n=188) Phase 2 (n=650)	Educational background of the staff nurse did not correlate with ratings of head nurses on job performance or on clinical speciality

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
O'Brien (1984) UK	Ratings by head nurses	Evaluate BN course effectiveness	Postal questionnaires 1) past students4 item 2) 3 items	1) All past undergraduates 2) 30 ward sisters	1) 77 returned questionnaires 93.5% said they could relate nursing theory to practice 2) 65.2% considered former undergraduates either good or very good with 30.04% fair and 4.3% poor
Bircumshaw (1989) UK	Ratings by head nurses	Differentiation of degree and traditional RGN nurses	5 item postal questionnaire	28 senior nurses (11 HA & 17 DoN)	18 responses 64%. 52.5% indicated that they should be employed in different roles; 47.5% indicated that both groups should be employed in the same roles but should perform differently. 66.6% said they do function differently reason 1) graduates academically orientated 2) greater knowledge and skill base
Nelson (1978) USA	Ratings by head nurses and nurses themselves	Identification of competency in technical, communicative and administrative skills among diploma, baccalaureate & associate degree nurses	Perceptions 1) Self 2) Supervisors Nurse Competency Instrument 35 items. Postal questionnaire.5 point likert scale	Return rate 77% (n =329)	Diploma (d) rated their overall competence higher on all three categories than did associate degree. (ad). Baccalaureate (b) rated themselves p=0.05 than ad nurses. D nurses likewise for technical & admin skills. B for p=0.5 than ad or d in communication

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Nelson (1978) USA					Supervisors. All three groups difference sig p=0.05 overall competence. B higher than ad and d Self perceptions and supervisors perceptions differed
Schwirian et al (1979) USA	Ratings by head nurses and nurses themselves	To establish employer and self rating of nurse performance between three categories of nurses	52 item 6 subscale postal questionnaire 3 levels of achievement. 1) Self assessment newly qualified 2) Head nurses assessment of newly qualified	151 schools of nursing n=914. (332 d, 342 ad & 240 bd)	Response rate 30.4% 1) Ad nurses rated themselves lowest on all 6 subscales and bd highest on teaching/collaboration and planning/evaluation 2) Head nurses Bd higher than d and ad on teaching/collaboration and planning/evaluation
McCloskey (1983) USA	Ratings by head nurses and nurses themselves	To establish whether staff nurses with different backgrounds differed in job effectiveness	Schirian's 6 subscale 1) self assessment newly qualified 2) head nurse rating ideal, best and worse.	301 staff nurses 12 randomly selected hospitals Chicago.	Response rate 75% 1) bn nurse rated themselves highest on good leadership, teaching/collaboration and planning/evaluation 2) head nurses ratings ad, bd, d, and practical nurses

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Benner and Benner (1979) USA	Ratings by nurses, nurse educators and nurses themselves	Systematic evaluation of competencies, job finding and work entry experiences of newly qualified nurses in California	New Nurse Survey Questionnaire containing Competency Appraisal Scale 112 nursing skills and activities & 5 levels of performance. Compare both ideal & reality	1) 286 new graduates, 2) 585 nursing practitioners & 3) 42 nurse educators	Both ideal and real nurse performance established. Wide gap reported between ideal and reality as perceived by 3 groups. Newly qualified perceived themselves to be more competent than nurse practitioners and educators perceive them to be. Practitioners considered newly qualified to have extremely low actual competency levels
Troskie (1993, 1993a) SA	Ratings by senior nurses on newly qualified nurses	To report changing pattern of health care delivery in South Africa in the move away from curative to a comprehensive health service and the resultant creation of a new nursing course	Postal questionnaire compare supervisors and newly qualified nurses self evaluation. 4 level competence scale. Factor analysis	1) Two consecutive national cohorts n = 1433	1) 63% return rate newly qualified. 2) 59% return rate supervisors. Factors identified communication (5), management & clinical skills (10) scope of practice 16. Supervisors evaluated the newly qualified lower on communication than the newly qualified evaluated themselves. Management & clinical skills and scope of - mixed picture

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
O'Connor (1999) UK	Ratings by senior nurses on newly qualified nurses	To gain an understanding of the newly qualified nurse performance in the delivery of patient care. Identification of Trust expectations of performance of newly qualified nurses	1) Identification of Trust expectations of performance of newly qualified nurses 2) Development of assessment of performance tool based on ENB 10 key characteristics	139 senior nurses identified expected level of performance at 8 & 52 weeks after qualification using 5 point likert scale	Incremental improvement of measured nurse performance by 32 newly qualified nurses at weeks 8, 26 & 52.
Dunn (1986) UK	Ratings by senior nurses on students	To devise an instrument for the assessment and recording of the development of clinical competence	4 stage process 1) defining nursing 2) good & bad nursing behaviour identification, 3) ranking of behaviours 4) assessment	Stage 1) 104 qualified nurses identified 36 characteristics. Factor analysis 4 groups of components of nursing care identified.	First year students competency level increased between the first and fourth ward placements. Second year students performed less well than final year students. Third year student clearly recognised as nurses by assessors. A good nurse in one situation was generally a good nurse in all situation and visa versa.

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Aggleton et al (1987) UK	Ratings by senior nurses on students	Development of continuous assessment of scheme for newly qualified nurses	Generic and specialised nursing skills identified. Four levels of attainment established along with 6 core sets of professional skills Assessment of nurses competencies in accordance with pre determined timetable expected achievement. Assessment start, middle and end of each 9 week block	Not given	None specified
Shearer (1989) UK	Ratings by senior nurses on students	Continuous assessment practice	Document general, assessment, planning, implementation and evaluation of care containing 7 themes and grouped according to student experience. Students identified with 1 of 4 statements that best described them	Pilot study and main study	None specified

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
King's Nurse Performance Scale (1997) UK **Fitzpatrick et al., (1997)**	Ratings by senior nurses on students	To develop a scale to measure clinical nurse performance of senior nurses	Critical review of Slater's Nursing Competencies Rating Scale. Seven domains of nursing performance identified spanning 53 items. Observation of student's performance in the workplace. Factor Analysis	99 students spanning traditional, P2000 & degree.	8 dimensions identified
Barton (1998) Yorkshire Competency Outcomes for Nursing UK	Ratings by newly qualified (self assessment); clinical preceptors, sisters/ charge nurse and directors of nursing	To develop a generic questionnaire to measure the effectiveness (fit for purpose) of newly qualified adult branch nurses in clinical settings	Development of 15 outcome 56 competencies identified based on literature review and confirmation with diagonal slice of clinical & managerial nursing staff across 11 Trusts in west Yorkshire. Factor Analysis /Principal Components	1997 & 1998 combined. NQ 288 dispatched 145 returned (50%); Clinical preceptors 272 returned 160 (59%); Sisters 283 returned 205 (72%); Directors 34 returned 25 (74%).	Based on mean % of fitness only directors of nursing assessed newly qualified as not yet fit on some dimensions of fitness. Other three categories fit on all dimensions of fitness. Based on overall weighted mean % of fitness for purpose re all four categories above a threshold of 50%. 50 areas of clinical specialty

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Slater's Nursing Competencies Rating Scale Wandelt, and Stewart (1975) USA	Studies to identify nursing competencies	To identify a range of actions performed by nurses as they care for patients at a quality of performance expected of a first level staff nurse	84 items performed by nurses as they care for patients 6 subsections. 7 item rating scale	Not specified	Not specified
National Competency Standards for Registered Nurse (2000) Australia 3rd edition	Studies to identify nursing competencies but not involving assessment	To identify a set of core nursing standards expected of registered nurses for use in academic assessment, workplace performance review and measuring continuing fitness to practice	Literature review. Observational study of newly qualified nurses by expert nurses to validate competencies. Document analysis of existing assessment instruments.	3rd edition	Based on occupational standards approach to competency. 4 domains identified: professional & ethical practice; critical thinking and analysis; management of care; enabling, 14 competency units & 51 elements spanning 4 domains

Appendix 1 Previous studies: identification of nursing competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Aston-McCrimmon and Hammel (1993) Canada	Ratings by chiefs of service and private practitioner physiotherapists and/ or physiotherapists	The diverse needs of the Canadian physiotherapy 'job market', linked to physiotherapy curriculum evaluation and the production of a comprehensive list of competencies of readiness for employment	1) Identification of 236 competencies required for practice. 2) Item reduction by experts to 224 spanning 11 categories. 3) questionnaire completion by a) graduates from 3 universities in Quebec province 1996-98. b) chief physical therapists c) private practitioners. 8 item likert scale.	Survey population 349. Return rate of 50.4% (n=176) all groups. Chiefs of service 56% private practitioners 45%	Based on combination of means from all three groups a rank order of 11 categories was established. Planning of treatment services was 1st and research skills and creative thinking 11th
North West Regional Health Authority (1994) UK	Ratings by chiefs of service and private practitioner physiotherapists and/ or physiotherapists	Identification of education purchasing standards for first post competencies relating to fitness for purpose of newly qualified physiotherapists	13 standards identified. 6 principal functions and 13 important components, which equated with the 13 standards, comprised a postal questionnaire. Yes or no response	28 managers who employed NWRHA physiotherapists surveyed 61% return (n=17)	The majority of replies stated that the newly qualified were competent for their first post. 5 areas of concern identified.

Appendix 1 Previous studies: identification of physiotherapy competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Webb & Collier (1996) Hong Kong	Ratings by senior physiotherapists and / or physiotherapists	Identification of perception of clinical competencies in newly qualified physiotherapists	Postal questionnaire of newly qualified, their managers and working clinical colleagues. 4 point likert scale.	Total survey population 420. Response rate 69.8% (n=321).	The newly qualified perceive themselves to be and are perceived by other categories of staff have achieved clinical competence with some reservations
Loomis 1985; 1995a) Canada	Ratings by senior physiotherapists and / or physiotherapists	Identification of the extent to which physiotherapy student can perform clinical competencies required for entry to the profession at the University of Alberta	Production of the Evaluation of Clinical Competence (Instrument) Literature review, item reduction by experts, 40 competency statements 9 domains of clinical competence. 4 point likert scale of performance. Direct observation	Only specified for tool development and not direct observation	None specified
Cox et al (1999) Canada	Ratings by senior physiotherapists and / or physiotherapists	Acquisition of physiotherapy competencies by students at the University of Western Ontario	Evaluation of Clinical Competence (Instrument).	40 randomly selected graduates from cohorts 1994-1997 whilst students. Administered 6 times	2nd students performed marginally better than they did in their 1st year. Most improvement 2nd & 3RD placements remaining improvement minimal

Appendix 1 Previous studies: identification of physiotherapy competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Barton (1998) Yorkshire Competency Outcomes for Physiotherapists (YCOP) UK	Ratings by newly qualified (self assessment); clinical supervisors, physiotherapy services managers and heads of trust wide physiotherapy services	To develop a generic questionnaire to measure the effectiveness (fit for purpose) of newly qualified physiotherapists in clinical settings	Development of 8 outcome 43 competencies identified based on Curriculum Framework Document (CSP 1996)	1997 & 1998 combined NQ 176 (returned 109 62%); Supervisors 176 (returned 139 79%); Managers 160 (returned 107 67%); Heads 101 (returned 88 87%). 10 clinical areas were covered: paediatrics; elderly people; people with neurological conditions; musculo-skeletal (gym, in & out patients); CVR medical, surgical & women's health	Based on mean % of fitness all four categories were assessed as fit for purpose on all dimensions Based on a weighted mean % of fitness for purpose (outcome x preference) all four categories were assessed as fit for purpose above a threshold of 50%.
Hunt et al., (1998) Australia	Ratings by newly qualified	Adequacy of undergraduate education at the University of Sydney had equipped them with the necessary skills to perform tasks specified by employers	3 sectioned questionnaire, six sections spanning 52 items reflecting skills and knowledge. Item reduction, panel of experts. 7 point likert scale. Factor analysis	Survey sample 760. Response rate (30.9% n = 235)	11 dimensions identified. Authors argue that physiotherapists need technical and generic skill competencies e.g. inter-personal skills

Appendix 1 Previous studies: identification of physiotherapy competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Cross (1983) UK	Studies to identify physiotherapy competencies but not involving assessment by physiotherapists of other physiotherapists	Identification of competencies for student assessment	3 areas and 13 competencies identified. Positive and negative descriptors of each competency. Student performance assessed against 13 competencies in each of the areas recorded. A range of likert scales were identified	NA	NA
Moncur (1985) USA	Studies to identify physiotherapy competencies but not involving assessment	Identify the necessary competencies required in rheumatology for entry level physical therapists	80 competencies spanning 7 domains. 7 point likert scale. Content validity conformed by expert panel. Results banded essential – not applicable	NA	Recommended that all 80 competencies should be included in the rheumatology curriculum
Ford (1985) New Zealand	Studies to identify physiotherapy competencies but not involving assessment	To determine the relevance and importance of items used to assess clinical competence	Develop the Clinical Performance of Physiotherapy Students Questionnaire. 56 items spanning 8 categories. 4 point likert scale of importance	Survey population randomly selected 300 physiotherapists 42% return (n=127)	All 8 categories confirmed as appropriate. Of the 56 3, crucial; 33 very important; 19 moderately important

Appendix 1 Previous studies: identification of physiotherapy competencies and measurement of performance.

Author (Year) Country	Category	Aim	Methodology	Sample	Results
Australian Council of Physiotherapy Regulating Authorities (1994) Australia	Ditto	To develop a set of competencies relevant to physiotherapy practice; to establish standards against which a physiotherapists level of competence could be matched and to develop methods of assessing those standards.	Literature review, analysis of practice, 8 units, 28 elements and associated performance criteria identified. 6 desirable attributes that run through the competencies	NA	NA
Cross (1999) UK	Ditto	To identify 'good' and 'bad' attributes of undergraduate students on clinical placement	Literature review, item reduction by academics and clinicians 24 good and 24 bad attributes were identified		A hierarchy of 12 good attributes or competencies and 14 bad were identified
Hayes et al (1999) USA	Assessment of physical therapy students by clinical instructors	To identify student behaviours that negatively affect clinical performance	Literature review, questionnaires and semi-structured interviews	33 clinical instructors. 40 students	Behaviours in 3 categories emerged as red flags for CI's 1) inadequate knowledge and psychomotor skill; 2) unprofessional behaviour and 3) poor communication

Appendix 1 Previous studies: identification of physiotherapy competencies and measurement of performance.

Competence (Alphabetically)	Nursing	Physiotherapy
Administrative skills:		Aston- McCrimmon and Hamel 1983; Loomis 1985; Ford 1985; NWRHA 1995; Hunt et al., 1998.
Assessment		Ford 1985; ACPRA 1994;
Communication:	Hogstel 1977; Nelson 1978; Howell, 1978; Schirian 1979; McCloskey 1983; Dunn 1986; Aggleton 1987; Shearer 1989; Troskie 1993, 1993a; Fitzpatrick 1997.	Aston-McCrimmon and Hamel 1983; Loomis 1985.
Health promotion	Hogstel 1977; Shearer 1989; O'Connor 1999; Fitzpatrick 1997,	
Clinical skills	Benner and Benner 1977, Troskie 1993, 1993a	
Evaluation	Schirian 1979; McCloskey 1983;	Aston-McCrimmon and Hamel 1983; Loomis 1985; Loomis 1985; Hunt et al., 1998; ACPRA 1994.
Inter-personal relationships	Hogstel 1977; Schirian 1979; McCloskey 1983.	Aston-McCrimmon and Hamel 1983; Ford 1985, NWRHA 1995.
Knowledge		Aston-McCrimmon and Hamel 1983; Cross 1983; Moncur 1985; NWRHA 1995.
Leadership	Welsches 1974; Hogstel 1977; Howell 1978; Schirian 1979; McCloskey 1983.	
Management skills	Dunn, 1986; Aggleton 1987; Troskie 1993, 1993a; Fitzpatrick 1997; O'Connor 1999.	Loomis 1985; ACPRA 1994; NWRHA 1995; Hunt et al., 1998, Wiles et al 1999.
Physical care	Hogstel 1977; Fitzpatrick 1997.	
Planning	Schirian 1979; McCloskey 1983;	Aston-McCrimmon and Hamel 1983; Loomis 1985; Moncur 1985; ACPRA 1994.

Appendix 2 Common and shared competencies in nursing and physiotherapy.

Competence (Alphabetically)	Nursing	Physiotherapy
Professional development (N) Professional growth (P)	Welsches 1974; Hogstel 1977; Schirian 1979; McCloskey 1983.	Aston- McCrimmon and Hamel 1983; Loomis 1985.
Professional ethics / behaviour		Aston- McCrimmon and Hamel 1983; Ford 1985; Loomis 1985; ACPRA 1994.
Research	Shearer 1989; O'Connor 1999.	Aston- McCrimmon and Hamel 1983; Aston- McCrimmon and Hamel 1984; Moncur 1985.
Teaching	Hogstel 1977; Schirian 1979; Mc Closkey 1983; Shearer 1989; Fitzpatrick 1997; O'Connor 1999;	
Team working	Dunn, 1986; Aggleton 1987; O'Connor 1999.	Wiles et al 1999.
Technical skills	Hogstel 1977; Nelson 1978; Howell 1978.	
Treatment		Aston- McCrimmon and Hamel 1983; Cross 1983; Aston-McCrimmon and Hamel 1984; Loomis 1985; ACPRA 1994; Hunt et al.,1998.

Appendix 2 Common and shared competencies in nursing and physiotherapy.

Authors	Definitions
Galley and Foster 1978	intellectual competence - problem solving ability abilities in clinical settings; technical competence – quality of the students performance when treating patients and interpersonal competence, as characterised by positive interaction with patients and their relatives and the ability to communicate with members of the medical teams.
Council for Professions Supplementary to Medicine 1979.	"possession of the knowledge, skills and attitudes enabling an individual to perform fully in basic professional role. It includes performance of tasks and relationships with patients and co-workers, which meet specific objectives of safety, effectiveness, efficiency and social acceptance in the environments normally encountered. As far as possible, it should be defined at the level of the newly qualified and, allowing for the appropriate time, at the established practitioner level. It covers performance in the professional role so as to give satisfaction in terms not only of individual operations and cases, but also as a sustained performance over time with sufficient potential for at least an adaptive and hopefully progressive career." (CPSM 1979 p.46)
Caney 1983.	the importance of knowledge, skills and attitudes but placed great emphasis on the necessity to demonstrate knowledge, exhibit appropriate attitudes and perform skills. The rate or speed of performance was postulated, as another parameter of competence so that to the list of three could be added 'acceptable working speed'. Conceptualising knowledge, skills and attitudes as three rings the degree of overlap is what Caney called 'true' competence. The greater the degree of overlap the more competent the individual. Differences in the levels of 'true competence' are acknowledged in respect to the clinical areas and students interest, aptitude and/or clinical opportunity. (Caney 1983 pp 303-303)

Appendix 3 Definitions and related key attributes of professional competence in physiotherapy.

Authors	Definitions
Ashton-McCrimmon and Hamel 1983.	"quality of being functionally adequate to perform tasks and assume the role of a specified position with its associated requisite knowledge, abilities, capabilities, adaptability, skills and judgements, attitudes and values... (and) involves "the ability of an individual with a given level of expertise or educational background to carry out and assume responsibility for a total performance." (Ashton-McCrimmon and Hamel 1983 p 77).
Ford 1985.	"ability to demonstrate the analytical and technical skills required to perform effectively as a physiotherapist and to possess attitudes and values judged by practicing physiotherapists to be essential....including important skills and behaviours" (Ford 1985 p. 4.)
Australian Council of Physiotherapy Regulating Authorities 1994	The competent physiotherapist, from the Australian perspective, possesses a range of relevant integrated attributes including "knowledge, understanding, interpretation and problem-solving skills, technical skills and psychomotor abilities, communication skills, professional behaviour, attitudes and ethics". Australian Council of Physiotherapy Regulating Authorities 1994 p.10

Appendix 3 Definitions and related key attributes of professional competency in physiotherapy.

Knowledge / Cognitive Competence

"the possession of appropriate work-related knowledge and the ability to put this to effective use" (Cheetham & Chivers 1996 p. 24).

Technical Theoretical Specialist

formal knowledge base theories, including their application, transfer, synthesis, extrapolation, etc (Cheetham & Chivers 1996).

"technical knowledge is understood by reference to the sciences, biology and physics and is capable of being assembled into a published form" Oakeshott 1962 cited in Williams 1998.

Tacit-Practical Knowledge

"is knowledge linked to, and embedded within, specific functional or personal competencies–i.e. what Schon refers to as 'knowing-in-action' "(Cheetham & Chivers 1996).

Procedural Knowledge

"the how what, when, of basic routine tasks within professional activity" (Cheetham & Chivers, 1996). " 'How' is about practical knowledge expressed in practice and learned only through experience with practice" (Eraut 1985).

Contextual Knowledge:

"This is general background knowledge which is specific to an organisation, industry, sector etc" (Cheetham & Chivers 1996).

Knowledge Application

"This includes synthesis, transfer and conceptual skills" (Cheetham & Chivers, 1998).

Appendix 4 Revised model of professional competence: diagram 1 components of knowledge and cognitive competence.

Functional Competence

Functional competence "the ability to perform a range of work-based tasks effectively to produce specific outcomes. This includes and indeed requires the possession of discrete skills but the emphasis is on putting these skills to use to achieve specific outcomes" (Cheetham & Chivers 1996).

Occupation – specific: range of numerous profession-specific functions/tasks
Process / organisational / management tasks of a generic nature e.g. planning, monitoring, implementing, delegating, evaluating self / time management
Mental skills e.g. numeracy, literacy, IT skills, diagnosis and similar kinds of professional reasoning
Physical skills: manual dexterity, hand eye co-ordination, key board etc. (Cheetham & Chivers 1998)

Personal / Behavioural Competence

Personal or behavioural competence is: "the ability to adopt appropriate, observable behaviours in work related situations" (Cheetham & Chivers 1996).

Social / vocational: self confidence, task- centredness, stamina, self confidence, persistence, thinking on feet, control of emotions and stress, listening skills, interpersonal skills, empathy etc.

Intraprofessional: collegiality, adherence / conformity to norms of professional behaviour professional norms, etc (Cheetham & Chivers 1998).

Values / Ethical Competence

Possession of appropriate personal and professional values and the ability to make sound judgements based upon work-related situations (Cheetham & Chivers 1996).

Personal adherence to law, adherence to moral or religious codes, sensibility to needs and values of others

Professional adopting appropriate attitudes, adherence to professional codes of conduct, self regulation, environmental sensitivity, client centredness, ethical judgement, acknowledging boundaries of own competence, duty to keep up to date, duty to develop newcomers to the profession, judgements re 'whistle blowing' on colleagues (Cheetham & Chivers 1998)

Appendix 4 Revised model of professional competence: diagram 2 Components of functional, personal / behavioural and values / ethical competence categories (Cheetham & Chivers 1998).

Professional Competence Outcomes

Macro-outcomes are broad, overall indicators of professional performance (and) are likely to be achieved over-time through a combination of all core components and are the ultimate indicators of professional competence" (Cheetham & Chivers 1996).

Micro-outcomes, are less ambitious, very specific activities and may only indicate proficiency in a single competence under the functional category or small range of personal competencies" (Cheetham & Chivers 1996).

Partial outcomes "the result of a partially completed activity" (Cheetham & Chivers 1996).

Observed / Perceived By Self or Observed By Others

"observed (or otherwise perceived) and attest to professional competence on the part of an individual; they are, so to speak, "the proof of the pudding" (Cheetham & Chivers 1996).

Reflection (super meta)

"reflection-in action" which Eraut (1995) calls 'hot action' and "reflection-about-action" (Cheetham & Chivers 1998). For Schon "reflection" is the pivotal competence for all professionals being important for initial development, day-to-day practice and continuous improvement.

"the process of internally examining and exploring issues of concern, triggered by an experience, which creates and clarifies meaning in terms of self, and which results in a changed conceptual perspective" (Boyd & Fales 1983).

"reflective knowledge allows the competence to be understood, explains the "knack" that highly competent people seem to have? It's not a special bundle of competencies but a critical, adaptable perspective on, and ability to manipulate, one's own competencies" (Fleming 1992).

reflection as a meta-competence enables professionals to go "beyond their other competencies, to analyse, modify and develop them". (Cheetham & Chivers 1998).

reflection can be likened to a "gate keeper" to development of various kinds hence "super-meta" competence (Cheetham & Chivers 1998).

Appendix 4 Revised model of professional competence: diagram 3 relationship of professional competence to characteristics of reflection.

Author(s)	Concern
	Less well developed practical skills and limited opportunities for practice
National Foundation for Education Research (1992).	Upon qualification Project 2000 nurses' practical skills would be less well developed than those of the traditional nurse leading to doubts about whether they would be able to contribute to the ward team. The importance of this statement was enhanced because it is reported that the views expressed by these nurse managers, in respect of practical skills, were echoed by the nursing students themselves who had expressed apprehension about what they perceived to be their comparatively low level of skill development. These low levels were attributed to limited opportunities to practice and a lack of relevant theoretical insights on which to reflect (ENB, 1993).
Robinson 1993; Elkan et al., 1993; Jowett et al., 1994; Macleod et al., 1996; Luker et al., 1996; Bradshaw 1998.	Whether Project 2000 courses, which seem to have brought uncertainty and fragmentation about what makes for nursing competency, are producing nurses who are professionally competent and safe to practice. The results indicate that many nursing students during training and when qualified are concerned about the standard of their practical nursing skills. This is brought into sharp relief due to the absence of clearly defined competencies and prescribed assessment standards (Bradshaw 1998). In Robinson's et al., study the disadvantages of Project 2000 courses were sought from practitioners. Many of them believed that it was "insufficient clinical practice experience to develop satisfactory fundamental basic skills" that was the main problem (Robinson et al, 1993, p.38).
	Erosion in the value of practical skills
Dyson, 1992	Similarly nurse practitioners when critiquing their practice were most concerned about the erosion in the value placed on skills in pre and post registration courses
Bjork 1995; Macleod Clark et al., 1997; Runciman, et al 1998; Knight 2000; Lawler 1991.	Part of the problem concerning the place and value of practical skills in nursing is the change in the perceptions of nurses who, according to Bjork have come to regard the "psychosocial support of patients through interpersonal relationships as the most important nursing behaviour" (Bjork, 1995). This point was confirmed by Macleod Clark et al., (1997 p.246). By comparison patients have "maintained a stable perception of the importance of practical, technical, or manual aspects of physical care" (Runciman, et al 1998, p.15). " 'Basic' nursing usually involves the care of the body, for example meeting personal cleansing and toileting needs; as a consequence the care is often 'hidden' and taken for granted (Lawler 1991 cited in Knight 2000). The authors believe that it is this hidden care which patients value above all else" (Knight, 2000, p.117)

Appendix 5 Key areas of concern with Project 2000 courses and students.

Author(s)	Concern
	Lack of confidence and a lack of practical skill
Eraut, et al., 1995.	The major threat to student confidence according to the students "was not being able to do 'tasks' such as take temperatures, blood pressures and catheter care (Eraut, et al., 1995, p.80). Bradshaw considering the implication of Eraut's findings noted that in the ward setting emphasis is still placed on the tasks that a nurse performs. Practical knowledge underpinning clinical nursing tasks associated with patient care are still considered to be crucial in everyday nursing practice as exemplified by Eraut et al., 1995.
Luker, et al., 1996; While et al., 1995.	The trend of concern over nursing skills continues to be reported to the present day. A link between lack of confidence related to a lack of practical skill has been attributed to short clinical placements (Luker, et al., 1996; 5et al., 1996, p.51). This problem has been illustrated by a student comment that "it was only on this placement during the past two or three months that I have actually gained experience practically....I think if I had another month or two I would be more confident (While et al., 1995, p.51). Part of that lack can be reasonably explained from other student's comments. One commented, "they (practitioners) are really trying to get away from practical assessments on the ward, aseptic techniques and drug rounds. But I think it would have helped if they had been a bit more specific about the practical" (While, 1995, p.51).
	Poor client handling
Eraut, et al., 1995	In undertaking ward based observations it was noted that client handling by students was poor. Student awkwardness in moving and turning clients when sheets are change was noticed, as was lack of positioning of the bottom sheet to aid client comfort and care. It was acknowledged that these aspects of care are not dependent on extensive theory but was still ignored by students. Further, students were reported by Eraut as being "more dexterous in specific task activities such as checking blood glucose, emptying and changing drainage bags, but two breached the principles of cross infection" (Eraut et al., 1995, p.80)
	Unsure about procedures
Williams & Waterman 1996.	Concern over task assessment of aseptic techniques and wound dressings Williams & Waterman (1996) found that registered nurses were unsure about these procedures.

Appendix 5 Key areas of concern with Project 2000 courses and students.

Author(s)	Concern
	Errors in administration
Wilkinson 1996	Errors were also part of the focus of Wilkinson (1996 p.127) study of nurses' concerns about IV therapy and devices. Responsibility for their operation was confirmed to be with the healthcare professional yet inadequate education of both registered nurses and students were reported. Staff should be appropriately educated and trained in the use of devices and which includes fundamental technical issues and associated risks involved.
	Practical skill acquisition
Luker et al., 1996.	Addressing the issue of practical skill acquisition Luker et al (1996) reported managers' expectations of diploma students e.g. in drug administration and management of aggression, were not met. Her concern was such that she labeled the unsatisfactory state of not possessing these essential skills necessary for registration as "practical skills illiteracy".
UKCC 1999.	The NHS Confederation supported Luker's findings in that newly-qualified nurses entering trusts were perceived to be not ready to practice. These nurses did not posses some of the basic practical skills like taking blood pressures, giving injections or carrying out dressings (UKCC 1999).
Macloed Clark et al., 1997.	In a study of project 2000 student nurses undertaken by Macloed Clark et al., (1997), at the end of the common foundation programme (CFP) 60% (n=107) indicated that they lacked practical skills experience in response to a question asking for their perceived advantages and disadvantages of undertaking a Project 2000 course. By the end of the course 31% (n=40) gave the same response. Reasons for the level of performance in respect of practical skills were that: students did not feel part of the team; there was a lack of continuity of care and they were given limited responsibility for practice. Practical skills were one of three subjects that students perceived to be of greatest help to them in practice settings at the end of the CFP yet by the end of the course the need to acquire practical skills and procedural knowledge was less.
Macloed Clark et al., 1997.	In response to a question about the subjects of greatest help in practice areas students indicated that they would have liked to have studied practical skills in more depth but this aspiration fell as the course proceeded on into the first six months of qualification. At 9 months 48% (n =108); 18 months 65% (n=128); 27 months 25% (n=65); 36 months (end of course) 28% (n = 38) and 6 months post qualification 26% (n =20). (Macloed Clark et al., 1997, p.250). Practical skills identified as lacking included care of intravenous infusions, stomas, nasogastric tubes and catheters.

Appendix 5 Key areas of concern with Project 2000 courses and students.

	Concern
	Practical skill acquisition
Macloed Clark et al., 1997.	The cumulative effect of the course was inhibited practical skill acquisition. The interpretation that Macleod Clark et al., 1977 put on the data was that "practical skills deficits were perceived as initial skills deficits only". Yet, based on her own data just over 28% of the students at the end of the course were still claiming that this area was still problematic. Even acknowledging the improvement, i.e. fewer students feeling that they lacked practical skills experience it is difficult to agree with the apparent positive slant placed on the results (Macloed Clark et al., 1997, p246).
	Weakness in current pre-registration programmes: skill deficiency and employment
UKCC 1999.	A concern over basic skill levels in newly qualified nurses continues to date. Nurses "do not possess the practice skills expected of them by employers, and that public perceptions about levels of preparedness for practice are sometimes negative" (UKCC, 1999, p.4). In the same survey, which was conducted as part of the 1999 UKCC review of nursing, midwifery and health visiting, seventy two percent of organisations and individuals surveyed reported weaknesses in current pre registration education programmes and specified in particular both the lack of practical experience for students and the lack of basic skills.
DoH 1999.	It was also observed, on the same theme, that newly qualified nurses were entering wards without the full range of skills needed for effective practice. (DoH, 1999, p.24) "Evidence suggests that in recent years students completing training have not been equipped at the point of registration with the full range of clinical skills they need. Although this can be remedied relatively quickly, it undermines their confidence and can fail to meet a modern and demanding service. A stronger practical orientation to pre-registration education and training is needed" (DoH, 1999, p.14).
UKCC 1999.	In the UKCC report it was noted that the structure of the current pre-registration education is failing to facilitate the development of practice knowledge and skills. In this same report a theatre sister comments were quoted by way of illustrating the point "More clinical experience is required in pre-registration than is currently being provided. A good nurse should be able to use her hands as we'll as her brain" (UKCC, 1999, p.39). Greater emphasis was called for by those surveyed on the need to develop practice skills within pre-registration education.

Appendix 5 Key areas of concern with Project 2000 courses and students.

Author(s)	Concern
	Weakness in current pre-registration programmes: curricula
Rafferty 1992; Elzubeir & Sherman 1995.	Students felt ill prepared for practice placements
Dale 1994; NHS E 1998.	Accompanying the lack of practical skills when some students move into practice is a lack of managerial and problem solving capabilities (Dale 1994; NHS E 1998 p.25) The reason for this might be due, in part, to theoretical knowledge being developed separately from experiential knowledge and clinical expertise. This criticism was also made of traditional learners.
Neary 1994.	students were unhappy with their preparation programmes
Elkan & Robinson 1995	In respect of practical skills during their CFP ward placements students felt "unconfident and incompetent" because of their low level of skill development in comparison with pre Project 2000 traditional nurses.
Eraut, et al., 1995; Courtney 1991; While 1995; Bradshaw 1997.	Eraut et al., (1995) reflecting on observations concluded according to Bradshaw (1997) that students acted in clinical situations the way they did because the Project 2000 curricula that they had been following were too health focused. The students were not used to studying, in a systematic way, the knowledge-base relevant to patients on a case-by-case basis. Eraut recommended "students need to have developed a repertoire of simple practical skills as early as possible so that they can enter placements with credibility and feel able to participate (Eraut et al., 1995, p.107). Further, they need enough basic and relevant biological knowledge (Courtney, 1991) not to be perceived as totally ignorant on early placement. (Eraut et al., 1995 p.107). This idea was supported by a student comment from another study talking about study days "more time could have been spent on anatomy and physiology" (While, 1995, p.51). Eraut et al., (1995) also recommended task and duty allocations should be related to student's level of competence and how to learn from their experience. Further, they also needed to know about programme planning including underpinning conceptual frameworks and the integration of relevant scientific knowledge with education and practice.
Knight et al., 2000.	"course evaluations have consistently reported students' fears and apprehensions which result from their perceived lack of practical ability" "students are known to feel at a loss without a set of fundamental practical skills at their finger tips" (Knight et al., 2000, p.116).

Appendix 5 Key areas of concern with Project 2000 courses and students.

Appendix 6

Post registration NMET

The range of courses on offer, but not necessarily, by all universities, are Master of Science (MSc), Post Graduate Certificates (PGC's), Post Graduate Diplomas (PGD's), Batchelor of Science (BSc), ENB return to practice courses, and other ENB courses. Each course has a total academic credit value. For example ENB A77 Pain and Pain Management at one of the university providers has a 60-credit value at level 2/3. A BSc 120 credits level 3. By comparison, a PGC is 60 credits level M, PGD 120 credits level M and an MSC 180 credits level M. Each course also has notional learning and formal contact hours. Virtually all post registration courses are modularised. The number of modules comprising a course differs depending on module credit and total credit required for successful completion of the course. Modules at levels 1 & 2 are 10 or 20 credits. Level 3 offers 10, 20, 30 and 40 credit modules. Level M credit modules are 10, 20, and 60.

From a funding perspective each of the universities in study consortium has a block contract with that consortium. The block contract specifies the academic credit 'band' for that university. The band consists of upper and lower limits. All academic credit, regardless of academic level, is of equal financial value. The portfolio of courses contains details of courses, levels, credit and professional audiences covered etc. HEIs are responsible for the content of the portfolio based on service needs in consultation with the study consortium that have both a local overview and a remit to deliver on national initiatives. The band is re-negotiated periodically, every 3 or 4 years. Both parties may request a review outside the review period if circumstances change e.g. specialists teaching expertise lost, new national initiatives. Each university must deliver at least the minimum number of credits i.e. the lower band limit. The number of modules, whose credit ratings were detailed above, when multiplied by the number of students registered to undertake the modules, yields the total of credit delivered in any year.

It is in both universities' and the study consortiums, (representing public i.e. NHS Trusts, other publicly funded bodies, and the private sector) interests to ensure the amount of credit delivered is closer to the upper limit of the band than the lower limit. For the consortium, if the lower limit of credit is delivered by a university that suggests funded education has not been taken up by sufficient numbers of staff from eligible professions. It is in the interest of HEIs to deliver closer to maximum band credit for at least two reasons. First, achieving the lower band, and especially if this is sustained over a number of years, might suggest either an inappropriate menu of courses, or poor quality assurance, or both, in one or more areas. Further, HEIs who deliver academic credit above the upper limit of its band may be is eligible for additional payments which could be profitable if fixed costs remain static and variable cost are low. Over delivery of credit, above the upper limit of the band, if not funded, represents good value for money for the commissioners and NHS customers, but at a cost to universities. This cost may have to be met by virements between pre-and post-registration education.

Contract Cost Variation Across Providers	Contract Flexibility	Factors Affecting Volume, Standard and Method of Delivery of Training
a 36% difference between the least and most expensive contract was identified	good practice suggests that contract values should be sensitive to the activity purchased…clearly contract values should be linked to student numbers and there should be a clear mechanism within each contract for identifying how movements in student numbers affect contract values" (Coopers and Lybrand, 1995, p.9).	**Cost per Student** region each must take an overview of total provision within its region and manage student number decreases or increases within their overall contract framework. allowing increases in student numbers at one institution to a level just below where there was an automatic increase in either or both of the student or accommodation elements so that the cost per student reduces significantly as the numbers increase at another institution this might mean reducing the student numbers to a level whereby a reduction in student and accommodation elements occur so that the costs per student rises.
there is a relationship between size of student population and tuition cost per student. The relationship is not that of the highest student population and lowest cost but lowest student population and lowest cost.	The cost per student and the overall value for money are strongly influenced by the flexibility with which contract values are sensitive to variations in activity in student numbers (Coopers and Lybrand, 1995, p.9).	geographical location of the HE provider' availability of clinical placements' quality of the educational experience, fitness for academic award, fitness for practice and fitness for purpose criteria applicable to the newly qualified practitioner, formulae governing the effect of student numbers on contract price as this allows for forward planning in the use of education and training resources.

Source Coopers and Lybrand 1995

Appendix 7 Contract cost variation across providers and factors affecting volume, standard and method of delivery of training.

Contract Cost Variation Across Providers	Contract Flexibility	Factors Affecting Volume, Standard and Method of Delivery of Training
contract price appears ....more to do with local negotiations between regional offices and HE providers than by contract duration, number of sites where the course is delivered, whether the contract was awarded following competitive tendering	At the University of Hertfordshire contract operated on a banding basis with 'steps' in fixed and variable costs. Student numbers either falling or rising only affect the student element once the fifteenth student has been lost or gained and is based on the staff to student ratio of 1: 15. The accommodation element is linked to a banding of 20% so it is only when this percentage of students either leaves or is added is the accommodation element enacted.	**Student wastage cost per student and contract price** regional offices were encouraged to demonstrate a harder approach to student wastage as part of a broader concentration on performance spanning student wastage, level of qualifiers and recruitment success (Coopers and Lybrand, 1995, p.17) .
	At the Buckingham College only the accommodation element is adjusted when student numbers fall and not the student element. The reason given for this is that this college in 1995/96 had 330 students and a reduction in the student element might threaten the viability of the college if student numbers fell.	**Performance Based Review** Regional offices were encouraged to agree targets with HE providers in respect of student wastage, level of qualifiers and recruitment success. A system of rewards for good performance when targets are reached or even exceeded and penalties when they not were proposed quality issues, the need for "information concerning the source of the institutions overall funding relating to health based courses; overall student retention performance for the previous three years; submission by HE providers of tenders addressing the effects on costs on increasing and decreasing student commissions and the right to evaluate and review the costing methodology adopted by the HE institution (Coopers and Lybrand, 1995, p.18).

Appendix 7 Contract cost variation across providers and factors affecting volume, standard and method of delivery of training.

Appendix 8

Attrition (discontinuation) in pre-registration nursing and physiotherapy education

The range of reasons for attrition/ discontinuation, 1930's-1980's.

1930's Hierarchical structures, restrictions on behaviour and lack of communication from trained staff, low academic entry requirements, (Lancet Commission 1932, 1932a, 1932b).

1950's Homesickness (Burns 1958), awkward hours of duty with inadequate teaching (Bennett 1957), and poor pay (GNC 1996).

1960's Personal and psychological suitability for nursing (Maxwell 1967), institutional effect on students (MacGuire 1969).

1970's Institutional effect on students (Birch 1975, Moores 1971, Redfern 1978), academic qualifications and failure to complete training (Briggs 1972).

1980's. Failure of nursing courses to provide the right content, overall satisfaction levels were lower for student nurses than in other occupations, lack of support and hierarchical structures (West and Rushton 1986), student and pupil nurse stress and lack of support (Lindop 1987), low pay (Price Water-House 1988), and increased ease of transfer to other courses, demographic and recruitment factors (Hutt 1989).

To give overall context percentages of student attrition for the period 1930's – 1990's are reported below in table 1 (below). What these figures show is that student attrition has always been an issue in nurse education. The reasons for attrition are not unique to each decade. There appear to be themes that appear in adjacent or alternate decades. These themes are; hierarchical NHS management structures and institutional effect on students, high and low academic entry requirements/qualifications, academic difficulties and failure, lack of student

support (or perceptions of lack of support of what can be provided) student stress, low pay and poor job satisfaction.

Table 2 (below) gives a detailed breakdown of numbers and percentages for all four branches of nursing for the period 1993-1999. All the figures are of particular interest because they equate to the major contract review period, which is the focus of this research. Fourteen percent was the discontinuation rate as a percentage of the 1999/00 entries at diploma level (ENB 2000 p.53). This percentage is identical to the increase in student intakes in 1996 (Newton 1996 p.16). It would appear, therefore, that there was no net gain. Table 3 (below) contains the predicted national percentage range of discontinuations from physiotherapy training 2000-2002.

Decade	Percentage of Nursing Attrition / Discontinuation	Reference
1930's	33%	Lancet Commission 1932, 1932a, 1932b
1940's	59% 82% (Mental Health Nurses)	Cross & Hall 1954 Bennett 1957
1950's	23% 34%	Bendall 1965 National Board for Prices & Income
1970's	20%	RCN 1985
1980's	15% 15% 5% - 5.7% RGNs (1986 - 1992)	UKCC 1985 ENB 1986 NAO 1992
1990's	5% - 5.7% RGN's (1986 - 1992) 37% (Project 2000 implementation site) 2-7% (5TH project 2000 intake) 22% Ist Intake 14% 2nd Intake 49% 14% Mean 1993-1999 (range 6.58%-30.87%) 49% 14% 14% 1999-2000 5%-30% 20% 12%-15% (Adult Branch) 9% (Child Branch) 20% 26%	NAO 1992 NAO 1992 NAO 1992 Jowett et al 1994 Jowett et al 1994 Dinsdale 1998 ENB 1999 & ENB 2000a ENB 2000 Peach Report 1999 RCN 2001 WYE&TC 2001 NAO 2001 University of Hertfordshire

Appendix 8 Table 1 Percentages of nursing attrition / discontinuation 1930's-1990's.

General Adult	1993 /94	1994 /95	1995 /96	1996 /97	1997 /98	1998 /99	1993-1999 Mean
Entries	15,370	14,750	14,904	15,540	15,847	13,707	15,012
Discontinuations	1,726	2,496	2,276	1,751	2,020	2,098	2,061
% of Mean Discontinuations of Mean Entries 1993/99	11.22%	16.92%	15.27%	11.26%	12.74%	15.30%	13.72%
Mental Health							
Entries	2,990	2,533	2,984	3,194	3,463	3,010	3,029
Discontinuations	440	595	498	427	520	502	497
% of Mean	14.7%	23.48%	16.68%	13.36%	15.01%	16.67%	16.4%
Learning Disability							
Entries	767	719	674	748	823	807	756
Discontinuations	148	222	161	144	153	133	160
% of Mean	19.29%	30.87%	23.88%	19.25%	18.59%	16.48%	21.16%
Children's							
Entries	1,929	2,312	2,524	2,682	2,530	2,187	2361
Discontinuations	127	242	288	261	307	347	262
% of Mean	6.58%	10.46%	11.41%	9.73%	12.13%	15.86%	10.09%
All 4 Branches							
Entries							21,158
Discontinuations							2,980
Mean % of discontinuations							**14.08%**

(Sources ENB Student Statistics 1993/94 – 1997/98 (ENB 1999) & 1994/95 & 19989/9 (ENB 2000a)

Appendix 8 Table 2 Mean percentage of student attrition pre-registration nurse education 1993-1999.

Intake Year	Intake Number	Output Year	Output Number Projected	% of Discon tinuations
1997	1681	2000	1580	6.1%
1998	1775	2001	1690	4.8%
1999	1795	2002	1710	4.8%

Source Personal Communication CSP 1999 & 1999a

Appendix 8 Table 3 Predicted national percentage range of discontinuations from physiotherapy training 2000-2002.

Clinical Speciality	1 Airedale NHS Trust			2 Bradford Community NHS Trust			3 Bradford Hospitals NHS Trust			4 Calderdale Healthcare NHS Trust			5 Dewsbury Healthcare NHS Trust			6 Hudders field NHS Trust			7 Pinder' fields and Pontefract NHS Trust			8 St James's and Seacroft NHS Trust			9 United Leeds Teaching Hopsitals NHS Trust			10 Wakefield and Pontefract NHS Trust		
	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S
Accident & Emergency	1						1									1			1		1	1								
Acute Admissions Unit													2						1											
Adminis' tration, Management & Audit		1	1					3						1	1		1	1		1			1	1		1				1
Cardio Thoracic Surgery																									1					
Community Nursing				1						1	1		2				1											9	1	
Continence Care																				1								1		
Coronary Care													1	1		1														
Day Hospital																				1										
Day Surgery		1																												

C Clinical Grades, M Middle Managers, S Senior Managers

Appendix 9 Clinical specialities by NHS Trust pre pilot sites: nursing.

Clinical Speciality	1 Airedale NHS Trust			2 Bradford Community NHS Trust			3 Bradford Hospitals NHS Trust			4 Calderdale Healthcare NHS Trust			5 Dewsbury Healthcare NHS Trust			6 Hudders field NHS Trust			7 Pinder' fields and Pontefract NHS Trust			8 St James's and Seacroft NHS Trust			9 United Leeds Teaching Hopsitals NHS Trust			10 Wakefield and Pontefract NHS Trust		
	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S
Diabetic Services										1																				
Elderly Care	1						1			2									1			2								
Haema' tology																							1							
Health Visiting		1																												
General Medical	1						1												2			1								
General Surgery	3										1		2																	
Genito Urinary Surgery										1												1								
Genito Urinary Medicine																			1						1					
Gynae cology				1																		1			1					
Intensive Care										1																				

C Clinical Grades, M Middle Managers, S Senior Managers

Appendix 9 Clinical specialities by NHS Trust pre pilot sites: nursing.

Clinical Speciality	1 Airedale NHS Trust			2 Bradford Community NHS Trust			3 Bradford Hospitals NHS Trust			4 Calderdale Healthcare NHS Trust			5 Dewsbury Healthcare NHS Trust			6 Hudders field NHS Trust			7 Pinder' fields and Pontefract NHS Trust			8 St James's and Seacroft NHS Trust			9 U' Leeds Teaching Hopsitals NHS Trust			10 Wakefield and Pontefract NHS Trust		
	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S	C	M	S
Orthopaedics & Rheumatology	1									1									1	1										
Outpatients Adults																1														
Paediatrics																												1		
Palliative Care / Oncology				1												2			1			1			1					
Practice Develop' ment							1																							
Renal Medicine																									1					
Renal Surgery																						1								
School Nursing	1									2																		1		
Stroke Management							1																							
Theatres	2						1			1									1											
	10	3	1	3	0	0	6	3	0	10	2	0	7	2	1	5	2	1	9	4	1	8	2	1	5	1	0	12	1	1

Clinical Grades, M Middle Managers, S Senior Managers

Appendix 9 Clinical specialities by NHS Trust pre pilot sites: nursing.

Appendix 10

Fitness for purpose questionnaire: introduction and biographical data collection sections: Nursing clinical preceptor variation.

Fitness for purpose is a relative measure of performance (Taylor & Pearson 1994) "Performance is actual situated behaviour, that is, what is actually done in the real-life context" (Messick 1984). Performance is an observable element of total competence and its measurement is an indicator of total competence. "Nurse role performance should be concerned with the delivery of high quality patient care" (Fitzpatrick et al 1992). "'Fitness for purpose' is ultimately measured in terms of the competences and capabilities which the employee demonstrates in the workplace" (HEQC, NHS E, NYRHA, HCH 1995).

Total competence is:

The successful integration of the necessary skills, knowledge, attitudes, values, understanding and experience with the processes of critical, creative and reflective thinking, decision making and problem solving. These are required by the practitioner in order to perform professional and occupational roles, over an agreed range of contexts and situations, confidently, competently and with sensitivity to a satisfactory standard in the workplace.

Capability has been described as:

"The potential to perform: It comprises the knowledge, skills and qualities which enable performance. Capability is necessary for current performance. Further capability provides a basis for developing future performance" (Eraut and Cole 1993).

Structure of questionnaire

This survey comprises 15 sections. Each section represents one of the perceived learning **outcomes** of higher education diploma courses (Project 2000), which lead to registration as an adult branch nurse (Part 12 UKCC Register). The outcomes contain a number of **statements, which** serve to describe each outcome. Thus statement 1.1 relates to outcome 1. Examples of **descriptors** that illustrate each statement are given.

Instructions for assessing a newly qualified adult branch staff nurse

Please read the complete questionnaire before undertaking any of the specific tasks outlined below. In this way you will gain an appreciation of the overall structure, content, purpose, and direction of the questionnaire before completing it. Having gained that appreciation complete the questionnaire with the newly qualified adult branch nurse in mind for whom you are the designated clinical preceptor (See glossary on page 27).

Please complete the questionnaire yourself. Do not pass this questionnaire on to a third party for completion unless that person has regularly acted as a clinical preceptor and knows the newly qualified adult branch nurse as well as you do. If neither you nor your nominee can complete this questionnaire please state the reason(s) for non-completion in the space provided on page 26.

Task 1. Please begin by completing both the organisational and personal biographical data sections.

Task 2. Read each outcome title, statement and descriptors. With the newly qualified adult branch nurse in mind, please rate the performance of this nurse against the statement and descriptors and express your opinion as to her 'fitness for purpose'. Do this by circling **one** of 11 categories. For example, if you think that the newly qualified adult branch nurse compares favourably with the descriptors then you would circle a number indicating a high score e.g. 8 or 9 and if unfavourably, a low score e.g. 2 or 3. Please respond to all questions. A completed example, unconnected to this research, is provided.

Instructions for estimating the relative importance of perceived 'fitness for purpose' performance outcomes of newly qualified adult branch staff nurses

Task 3. Having identified the 'fitness for purpose' level of the newly qualified adult branch nurse in respect of the 15 outcomes, please now estimate the relative importance of each of the 15 outcomes for ALL newly qualified adult branch nurses. Allocate the points in any way you feel appropriate e.g. allocate 120 points to the first outcome, 30 points to the second outcome and none to the rest, or, 20 points to the first seven outcomes and 10 points to outcome ten and none to the rest. Please use only whole numbers.

'Fitness for purpose' observations and comments

It may be that you wish to make observations and comments either about the newly qualified adult branch staff nurse about whom this questionnaire relates or the course of study that she/he undertook designed to produce 'fit for purpose' adult branch nurses. If you would like to please use the space provided on page 26.

Thank you in anticipation for your co-operation in completing this questionnaire.

Organisational Profile

Trust Name.....

Hospital Name .....

Type of Trust: Please circle.

Teaching* or Non Teaching

*Associated with a university medical school e.g. United .....Teaching Hospitals NHS Trust

Acute Trust or Community Trust
Combined Trust Other, please specify.....

Biographical Data - Clinical Preceptor

1. Please circle the code against the specific areas of practice in which you are primarily engaged. Please read all of the categories carefully before making your choice. If your area of practice is not listed please circle 'Other' and specify. **Work with:**

Accident and Emergency	1	Intensive Care (Excluding neonates)	25
Acute Admissions Unit	2	Management /Administration	26
Aids & HIV	3	Neurology	27
Anaesthetics	4	Neurosurgery	28
Audit	5	Occupational Health/Health Adviser	29
Burns and Plastic Surgery	6	Oncology	30
Cardiothoracic Surgery	7	Ophthalmology	31
Community Hospital	8	Orthopaedics	32
Community Nursing	9	Out Patients Adults	33
Continuing Care	10	Out Patients Paediatrics	34
Coronary Care	11	Out Reach Nurses	35
Day Hospital	12	Paediatrics	36
Day Surgery	13	Palliative Care	37
Dermatology	14	Practice Development	38
Diabetic Services	15	Professional Development / Education	39
Ear, Nose & Throat	16	Renal Medicine	40
Elderly Care	17	Renal Surgery	41
Family Planning	18	Research	42
General Medical	19	Respiratory Medicine	43
General Surgical	20	Special and Intensive Care Baby Unit	44
Genito-urinary Medicine	21	Stoma Care	45
Genito-urinary Surgery	22	Theatres	46
Gynaecology	23	Vascular Surgery	47
Haematology	24	Other, please specify.....	

2 With which professional nursing qualification did you first qualify. Please circle.

Certificate (Traditional RGN/SRN)	Certificate (Traditional RMN)
Certificate (Traditional RNMH)	Diploma (Project 2000) Adult Branch
Degree (Direct Entry)	Other, please specify.....

3. In what capacity are you employed? Please circle.

Staff Nurse	Ward Manager	Sister/Charge Nurse
Unit Manager	Health Visitor	District Nurse
Clinical Nurse Specialist	School Nurse	Practice Development
Researcher	Audit	Health Advisor

Other, please specify.....

4. At what grade is your current post? Please circle.

Grade C Grade D Grade E

Grade F Grade G Other, please specify.....

5. How long have you been a registered nurse? Please circle.

Less than 1 year 1-4 years 5-7 years 8+ years

6. How long have you worked in your current post? Please circle.

Less than 1 year 1-4 years 5-7 years 8+ years

7. Since registration have you successfully **completed** any formalised continuing professional development?

e.g. ENB or equivalent courses, etc. Please circle. Yes No.

If YES, were the courses:

ENB Long Courses ENB Short Courses Other, please specify.....

Please give title and if appropriate the ENB code number of the most recent course(s) completed. Please state the most recent first.

1.....Year obtained.....
2..... Year obtained.....
3..... Year obtained.....

8. Do you possess, in **addition** to your nursing qualification, any higher education academic qualifications? Please circle.

Certificate.....Diploma.....Degree.....Higher Degree

Year obtained?. Please specify in boxes (.....) provided below.

Certificate ( ) Diploma ( ) Degree ( ) Higher Degree ( ).

9. Please circle your gender. Are you; Male Female

10. What is your age? Please circle the appropriate category.

21-25 26-35 36-45 46-55 56-65

11. Are you an NVQ assessor? Please circle Yes No

12. To which ethnic group do you belong? Please circle.

White	Black Caribbean	Black African
Black other*	Indian	Pakistani
Bangladeshi	Chinese	Any other ethnic group+

* Please describe.....

+ Please describe.....

Organisational Data University

What is the name of the university that the newly qualified adult branch nurse attended and who is the focus of your responses in this completed questionnaire? e.g. University of..... Please specify.....
.....

Example of how to complete the questionnaire

Statement. Does the newly qualified adult branch staff nurse, of whom you are the clinical preceptor, have a systematic approach to entering the Saturday national lottery? This means, for example, that she:

a) Keeps a cumulative record of all previous entered numbers
b) Incorporates, on an ongoing basis, all previous winning numbers into their lottery winning formula
c) Takes no notice of 'Mystic Megs' insights when selecting numbers

Circle One
Very
Very
Low Fitness
High Fitness

0	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***

Reference Number.....

Perceived 'Fitness for Purpose' Observations and Comments or Reasons Why You Cannot Complete the Questionnaire

It may be that you wish to make observations either about the newly qualified adult branch staff nurse about whom this questionnaire relates or the course of study that she/he undertook designed to produce a 'fit for purpose' adult branch nurse. Alternatively, you may wish to give your reason(s) for not being able to complete the questionnaire. In either case please use the space below.

Appendix 11

Fitness for purpose questionnaire: Introduction and biographical data collection sections; Physiotherapy.

'Fitness for purpose' is a relative measure of performance (Taylor & Pearson 1994). *"Performance is actual situated behaviour, that is, what is actually done in the real-life context"* (Messick 1984). Performance is an observable element of **total competence** and its measurement is an indicator of total competence. Physiotherapist role performance should be concerned with the delivery of high quality patient care. *'Fitness for purpose' is ultimately measured in terms of the competences and capabilities which the employee demonstrates in the workplace"* (HEQC, NHS E, NYRHA, HCH 1995).

Total competence is:

The successful integration of the necessary skills, knowledge, attitudes, values, understanding and experience with the processes of critical, creative and reflective thinking, decision making and problem solving. These are required by the practitioner in order to perform professional and occupational roles, over an agreed range of contexts and situations, confidently, competently and with sensitivity to a satisfactory standard in the workplace.

Capability has been described as:

"The potential to perform: it comprises the knowledge, skills and qualities which enable performance. Capability is necessary for current performance. Further capability provides a basis for developing future performance" (Eraut and Cole 1993).

Structure of questionnaire

This survey form comprises 8 sections. The titles of each are the **outcomes** specified within The Curriculum Framework (CSP 1996). The outcomes reflect the competence and ability required of a chartered physiotherapist on initial qualification (CSP 1996). Each of the 8 outcome sections contains a number of **statements, which** serve to describe each outcome. Thus statement A.1 relates to outcome A. Examples of **descriptors** that illustrate the statement are given. Both the statements and descriptors have been taken from The Curriculum Framework.

Some of the descriptors appear in more than one statement. It is important to realise that although the wording of the descriptor is the same the context set by the statement in which a descriptor appears is different. This can have has the effect of changing the meaning of the repeated descriptor. Occasionally a fuller description of a term or concept is required. These are signified by * in the text. A short glossary of these terms is presented at the end of the questionnaire.

Instructions for assessing yourself as a 'fit for purpose' physiotherapist

Please read the complete questionnaire before undertaking any of the specific tasks outlined below. In this way you will gain an appreciation of the overall structure, content, purpose and direction of the questionnaire before completing it. Having gained that overall appreciation complete the questionnaire about yourself.

Task 1. Please begin by completing the organisational and biographical data sections.

Task 2. Read each outcome title, statement and descriptors. With yourself in mind, please rate your performance against each statement and associated descriptors and express your opinion as to your perceived 'fitness for purpose' as a newly qualified physiotherapist. Do this by circling **one** of 11 categories. For example, if you think that you compare favourably with the descriptors then you would circle a number indicating a high score e.g. 8 or 9 and, if unfavourably, a low score e.g. 2 or 3. Please respond to all questions. A completed example, unconnected to this research, is provided.

Instructions for estimating the relative importance of the perceived 'fitness for purpose' outcomes of newly qualified physiotherapists

Task 3. Having identified your perceived 'fitness for purpose' in respect of respect of each of the 8 outcomes, please now estimate the relative importance of each of the 8 outcomes for **ALL** newly qualified physiotherapists. Do this by allocating a total of 80 points to the outcome sections in the box on page 24 of this questionnaire. Allocate the points **in any way you feel appropriate** e.g. allocate 60 points to the first outcome, 20 points to the second outcome and none to the rest, or, 12 points to the first four outcomes and 13 points to the next two outcomes and 3 points to the last two. Please use only whole numbers.

'Fitness for purpose' observations & comments

It may be that you wish to make observations either about your experience of being a newly qualified physiotherapist or the course of study you undertook designed to produce' fit for purpose' physiotherapists. If you would like to please use the space provided on page *24*.

Thank you in anticipation for your co-operation in completing this questionnaire.

Please return this survey form in the S.A.E by

Organisational Profile

Trust Name.....

Hospital Name.....

Type of Trust: Please circle.

Teaching* or Non Teaching

*Associated with a university medical school e.g. United .....Teaching Hospitals NHS Trust

Acute Trust or Community Trust

Combined Trust Other, please specify.....

Biographical Data

1. Please circle the code against the specific area(s) of practice in which you are primarily engaged. Please read all of the categories carefully before making your choice. If your area of practice is not listed please circle 'Other' and specify.
   Work with:

Children	1
Elderly People	2
People with neurological conditions and physical disabilities (In patients)	3
People with neurological conditions and physical disabilities (Out patients)	4
People with learning disabilities	5
People with mental illness	6
People with musculo skeletal conditions (OP Dept	7
People with musculo skeletal conditions (OP Gym)	8
People with musculo skeletal conditions (In patients)	9
People with cardio vascular respiratory conditions (CVR Medical)	10
People with cardio vascular respiratory conditions (CVR Surgical/Intensive Care)	11
Women with women's health problems	12
Other, please specify	13

2. How many months have you been a qualified physiotherapist? Please circle.

   1 2 3 4 5 6 Other, please specify.....

3. What university did you attend to train as a physiotherapist? E.g. .....University.
   Please specify.....

4. Since registration have you successfully **completed** any continuing professional development?

Please circle. Yes No

If yes please specify.....
.....
.....

5. Since registration have you **commenced** any continuing professional development?

Please circle. Yes No

If yes please specify.....
.....
.....

6. Do you possess, in **addition** to your physiotherapy degree, any other higher education academic qualifications? Please circle.

Certificate **Diploma** **Higher Degree**

Year obtained. Please specify in boxes ( ) provided below.

Certificate ( ) Diploma ( ) Degree ( ) Higher Degree ( )

7. Please circle your gender. Are you? Male Female

8. What is your age? Please circle the appropriate category.

21-25 26-35 36-45 46-55

9. To which ethnic group do you belong? Please circle.

White	Black Caribbean	Black African
Black other*	Indian	Pakistani
Bangladeshi	Chinese	Any other ethnic group+

* Please describe.....

+ Please describe.....

10. Whilst training was one of your clinical placements on the exact ward, unit or department where you are currently employed as a physiotherapist?

Please circle. Yes No

11. If your answer to question 10 is **no** was one of your clinical placements on the same type of ward, unit or department that you are currently employed as a physiotherapist?

Please circle. Yes No

Example of completing the questionnaire

Statement. Do you have a systematic approach to entering the Saturday national lottery? This means, for example, that you

a) keep a cumulative record of all previous entered numbers
b) incorporate, on an ongoing basis, all previous winning numbers into your lottery winning formula
c) take no notice of 'Mystic Megs' insights when selecting numbers

Circle One

Very Low Fitness ... ***Very High Fitness***

0	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***

Glossary of Terms

Age groups, e.g. care of the elderly,

Conditions, e.g. learning disabilities;

Communicate: written, verbal, non-verbal and presentational skills and possess interpersonal skill

Cultural and social factors: social class, occupation, sex, age and culturally-related beliefs and behaviours

Effective communication skills: written, verbal, non verbal presentational skills, interpersonal skills,

Evaluation encompasses: clinical reasoning, the selection, justification and review of appropriate treatment interventions and the ability to determine needs based on assessment findings

Holistic assessment: taking into account the physical, social, psychological and cultural needs of the individual

Operational skills: communication, assessment, treatment planning, research and evaluation, management, and use of information technology

Physical sciences: physics, hydrodynamics, mechanics, biomechanics and ergonomics,

Physiotherapy practice: CSPs Rules of Professional Conduct, professional disciplinary procedures, medical and health and safety legislation that relate to health care provision.

Settings: patients' homes, GP surgeries, health centres, private practice, hospices, industry and schools, as well as acute hospitals

Sciences: biological, clinical, physical and behavioural sciences

Systems, e.g. neurology

Reference Number .....

Acknowledgement
Production of selective elements of The Curriculum Framework (1996) document given by kind permission of the Chartered Society of Physiotherapy.

Appendix 12

Factor analysis (principal components): dimension labels and associated percentage of variance by category of nurse.

Factor Analysis
Principal Components
Newly Qualified Adult Branch Nurses
Self Assessment

1997 & 1998 Combined

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of NEWLY QUALIFIED ADULT BRANCH NURSES (October 1997 & April 1998 qualifiers combined) who self assessed

Summary Sheet

Factor 1 **11.67 % of Variance** **Adapting Nursing Practice**	**Factor 2** **8.38 % of variance** **Ensure An Appropriate Standard of Care Through Continuing Professional Development**
Factor 3 **7.03 % of variance** **Enable Patients To Meet Their Physical, Physiological and Spiritual Needs**	**Factor 4** **6.63 % of variance** **Optimise Health and Social Well Being**
Factor 5 **6.35 % of variance** **Contribute to the Physical & Psychological Well Being of Patients**	**Factor 6** **5.68 % of variance** **Professional Working Relationships With Patients**
Factor 7 **5.20 % of variance** **Planning and Evaluating Nursing Care**	**Factor 8** **5.09 % of variance** **Effective Communication**
Factor 9 **4.85 % of variance** **Enabling Appropriate Care Through Multi-disciplinary teams**	**Factor 10** **3.96 % of variance** **Supporting Patients During Interventions**

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of NEWLY QUALIFIED ADULT BRANCH NURSES (October 1997 & April 1998 qualifiers combined) who self assessed

Factor 1 11.67 % of Variance	Factor 2 8.38 % of variance
Adapting Nursing Practice	**Ensure An Appropriate Standard of Care Through Continuing Professional Development**
9.2 Recognise the importance of providing cost effective nursing care .733 10.1 Transfer skills and knowledge to a variety of settings .720 8.5 Evaluate standards that contribute to continuous improvements and dissemination of evidenced based care .706 8.4 Contribute to the development of nursing standards .693 14.1 Use resources efficiently .595 14.5 Promote the organisations approach to quality .579 10.2 Adapt nursing practice to meet unpredictable circumstances .578 14.6 Support the development and implementation of quality audit systems .575 9.1 Understand research and evaluate nursing practice .556 8.8 Supervision of staff .544 10.3 Enable patients and significant others to adjust, explore and manage change .534 6.2 Enable provision of advocacy for patients .514	15.1 Practice within the recognised scope and limitations current nursing practice .772 15.2 Demonstrate responsibility for your personal professional and development within available resources .744 11.1 Maintain health, safety and security in the workplace .566 11.2 Control the risks of infection during care delivery .545 13.4 Contribute to the development of the knowledge and practice of others within an effective team .523 6.9 Support and care for patients and others through the process of death and dying .510 11.3 Maintain patient and staff safety through the correct use of powered medical devices whilst in hospital .465
No of Items 12 **Reliability Coefficient Alpha .91**	**No of Items 7** **Reliability Coefficient Alpha .87**

Factor 3 7.03 % of variance	Factor 4 6.63 % of variance
Enable Patients To Meet Their Physical, Physiological and Spiritual Needs 6.7 Enable patients to achieve continence and to access and use toilet facilities .823 6.3 Enable patients to maintain and improve their mobility .741 12.1 Assess the religious, spiritual and cultural needs of patients .613 8.1 Context of care .522 6.6 Enable patients to consume sufficient and appropriate food and drink .528 8.6 Enable patients to maintain tissues in a healthy condition .458	**Optimise Health and Social Well Being** 1.3 Teach and advise patients, carers and others in order to optimise their health and social well being .797 1.2 Promote good health and the use of preventative approaches by using interventions that are within the scope of professional practice .792 1.1 Assess patients' health needs and raise awareness of health issues thereby enabling patients and their families to optimise their health and social wee being .664 7.1 Enable patients to move from a supportive to an independent living environment .508
No of Items 6 **Reliability Coefficient Alpha .86**	**Number of Items 4** **Reliability Coefficient Alpha .79**

Factor 5 6.35 % of variance	Factor 6 5.68 % of variance
Contribute to the Physical & Psychological Well Being of Patients 5.4 Optimise the health and well being through the administration of medication .756 5.5 Support patients when they are distressed .638 6.5 Enable patients to maintain their personal hygiene and appearance .580 6.4 Enable moving and handling of patients to maximise their physical comfort .572 5.3 Treat each patient with dignity and sensitivity .433	**Professional Working Relationships With Patients** 3.2 Support patients and significant others .715 3.1 Develop professional working relationships with patients .678 4.1 Listen to patients, carers and their families .647 2.3 Deliver care consistent with legislation relevant to nursing practice .469
No of Items 5 **Reliability Coefficient Alpha .83**	**No of Items 4** **Reliability Coefficient Alpha .78**

Factor 7 5.20 % of variance **Planning and Evaluating Nursing Care**	Factor 8 5.09 % of variance **Effective Communication**
5.1 Plan, organise and evaluate nursing care .721 2.1 Practice within the effects of resource limitation .653 5.2 Determine ways in which the service can support patients .525 8.3 Plan, document and evaluate care .490	4.4 Effectively communicate with those who do not use a recognised language or may need to communicate through physical contact .806 4.3 Effectively communicate with others through the use of interpreting services .796 6.1 Contribute to the protection of patients from aggressive and abusive behaviour .455
No of Items 4 **Reliability Coefficient Alpha .74**	**Number of Items 3** **Reliability Coefficient Alpha .74**

Factor 9 4.85 % of variance **Enabling Appropriate Care Through Multi disciplinary Teams**	Factor 10 3.96 % of variance **Supporting Patients During Interventions**
13.2 Enable multi disciplinary working .634 14.2 Welcome and facilitate access of visitors to services and facilities. .561 13.3 Enable inter-disciplinary teams to deliver individualised programmes of care to patients .546 4.2 Effectively communicate with patients where there are communication difficulties and or differences .488 14.3 Manage information for activity .468	8.7 Administer basic life support .682 14.4 Use information technology in clinical settings .607 13.1 Contribute to the support of patients during a range of treatment and therapeutic activities .561
No of Items 5 **Reliability Coefficient Alpha .82**	**No of Items 3** **Reliability Coefficient Alpha .67**

Factor Analysis
Principal Components
Newly Qualified Adult Branch Nurses
Assessment of Individual Nurses by Their Designated Clinical Preceptor

1997 & 1998 Combined

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of newly qualified adult branch nurses (October 1997 & April 1998 qualifiers) based upon an assessment by CLINICAL PRECEPTORS

Summary Sheet

Factor 1 **22.08 % of Variance** **Practice Within the Recognised Scope and Current Limitations of Nursing Practice**	**Factor 2** **17.80 % of variance** **Enable Patients To Meet Their Physiological and Physical Needs**
Factor 3 **16.75 % of variance** **Evidence Based Nursing Care**	**Factor 4** **13.68 % of variance** **Effective Communication in Optimising Health and Social Well Being**

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of newly qualified adult branch nurses (October 1997 & April 1998 qualifiers) based upon an assessment by CLINICAL PRECEPTORS

Factor 1 22.08 % of Variance	Factor 2 17.80 % of variance
Practice Within the Recognised Scope and Current Limitations of Nursing Practice 15.1 Practice within the recognised scope and current limitations of nursing practice .761 5.3 Treat each patient with dignity and sensitivity .713 11.2 Control the risks of infection during care delivery .689 15.2 Demonstrate responsibility for your personal professional and development within available resources .684 5.4 Optimise the health and well being through the administration of medication .648 2.2 Demonstrate and apply knowledge and understanding of ethical, health and social policies and the professional framework of nursing practice .630 5.1 Plan, organise and evaluate nursing care .624 11.3 Maintain patient and staff safety through the correct use of powered medical devices whilst in hospital .609 6.8 Enable patients to achieve physical comfort .602 10.2 Adapt nursing practice to meet various unpredictable circumstances .583 14.3 Manage information for activity .579 4.1 Listen to patients, carers and their families .574 8.6 Enable patients to maintain tissues in a healthy condition .571 3.2 Support patients and significant others .556 5.2 Determine ways in which the service can support patients .537 5.5 Support patients when they are distressed .534 14.2 Welcome and facilitate access of visitors to services and facilities .525 8.7 Administer basic life support .491	**Enable Patients To Meet Their Physiological and Physical Needs** 6.6 Enable patients to consume sufficient and appropriate food and drink .826 6.7 Enable patients to achieve continence and to access and use toilet facilities .808 6.3 Enable patients to maintain and improve their mobility .763 6.5 Enable patients to maintain their personal hygiene and appearance .733 7.1 Enable patients to move from a supportive to an independent living environment .689 6.9 Support and care for patients and others through the process of death and dying .660 8.8 Supervision of staff .568 6.4 Enable moving and handling of patients to maximise their physical comfort .557 13.2 Enable multi-discilplinary working .481 2.1 Practice within the effects of resource limitation .476
No of Items 18 **Reliability Coefficient Alpha .97**	**No of Items 10** **Reliability Coefficient Alpha .94**

Factor 3 16.75 % of variance Evidence Based Nursing Care	Factor 4 13.68 % of variance Effective Communication in Optimising Health and Social Well Being
14.6 Support the development and implementation of quality audit systems .741 14.4 Use information technology in clinical settings .718 14.5 Promote the organisations approach to quality .704 9.2 Recognise the importance of providing cost effective nursing care .679 8.5 Evaluate standards that contribute to continuous improvements and dissemination of evidenced based care .648 9.1 Understand research and evaluate nursing practice .623 8.4 Contribute to the development of nursing standards .608 10.1 Transfer skills and knowledge to a variety of settings .593 14.1 Use resources efficiently .541 10.3 Enable patients and significant others to adjust, explore and manage change .533 13.4 Contribute to the development of the knowledge and practice of others within an effective team .511	4.3 Effectively communicate with others through the use of interpreting services .714 4.4 Effectively communicate with those who do not use a recognised language or may need to communicate through physical contact .712 1.2 Promote good health and the use of preventative approaches by using interventions that are within the scope of professional practice .671 4.2 Effectively communicate with patients where there are communication difficulties and or differences .646 1.1 Assess patients' health needs and raise awareness of health issues thereby enabling patients and their families to optimise their health and social well being .550 2.3 Deliver care consistent with legislation relevant to nursing practice .533 1.3 Teach and advise patients, carers and others in order to optimise their health and social well being .515 8.1 Context of care .508 12.1 Assess the religious, spiritual and cultural needs of patients .460 6.1 Contribute to the protection of patients from aggressive and abusive behaviour .438
No of Items 11 **Reliability Coefficient Alpha .95**	**Number of Items 10** **Reliability Coefficient Alpha .94**

Factor Analysis
Principal Components
Newly Qualified Adult Branch Nurses
Assessment of Newly Qualified, According to University of Origin, by Sisters/Charge Nurses

1997 & 1998 Combined

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of newly qualified adult branch nurses (October 1997 & April 1998 qualifiers) based upon assessments by SISTERS/CHARGE NURSES

Summary Sheet

Factor 1 **25.40 % of Variance** **Delivery of Cost Effective Nursing Care**	**Factor 2** **20.41% of variance** **Enable Patients To Meet Their Physical, Physiological and Psychological Needs**
Factor 3 **16.87 % of variance** **Ensure the Delivery of Care Through Effective Communication & Professional Frameworks**	**Factor 4** **10.27 % of variance** **Enable Effective Communication to Enhance Patient Safety & Well Being**

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of newly qualified adult branch nurses (October 1997 & April 1998 qualifiers) based upon assessments by SISTERS/CHARGE NURSES

Factor 1 25.40% of Variance Delivery of Cost Effective Nursing Care	Factor 2 20.41% of variance Enable Patients To Meet Their Physical, Physiological and Psychological Needs
9.2 Recognise the importance of providing cost effective nursing care .737 10.3 Enable patients and significant others to adjust, explore and manage change .726 14.1 Use resources efficiently .700 14.4 Use information technology in clinical settings .698 14.6 Support the development and implementation of quality audit systems .692 11.3 Maintain patient and staff safety through the correct use of powered medical devices whilst in hospital .673. 11.1 Maintain health, safety and security in the workplace .670 8.4 Contribute to the development of nursing standards .663 14.3 Manage information for activity .657 8.5 Evaluate standards that contribute to continuous improvements and dissemination of evidenced based care .646 13.2 Enable multi disciplinary working .625 9.1 Understand research and evaluate nursing practice .608 8.8 Supervision of staff .598 8.7 Administer basic life support .594 2.1 Practice within the effects of resource limitation .591 13.4 Contribute to the development of the knowledge and practice of others within an effective team .583 8.1 Context of care .572 10.2 Adapt nursing practice to meet various unpredictable circumstances .569 5.2 Determine ways in which the service can support patients .559 13.1 Contribute to the support of patients during a range of treatment and therapeutic activities .528 12.1 Assess the religious, spiritual and cultural needs of patients .499	6.7 Enable patients to achieve continence and to access and use toilet facilities .722 6.6 Enable patients to consume sufficient and appropriate food and drink .719 6.8 Enable patients to achieve physical comfort .689 6.5 Enable patients to maintain their personal hygiene and appearance .670 8.6 Enable patients to maintain tissues in a healthy condition .669 6.3 Enable patients to maintain and improve their mobility .668 5.4 Optimise the health and well being through the administration of medication .649 11.2 Control the risks of infection during care delivery .577 5.1 Plan, organise and evaluate nursing care .562 7.1 Enable patients to move from a supportive to an independent living environment .556 8.3 Plan, document and evaluate care .566 2.3 Deliver care consistent with legislation relevant to nursing practice .529 6.9 Support and care for patients and others through the process of death and dying .494 2.2 Demonstrate and apply knowledge and understanding of ethical, health and social policies and the professional framework of nursing practice .475
No of Items 21 **Reliability Coefficient Alpha .97**	**No of Items 14** **Reliability Coefficient Alpha .97**

Factor 3 16.87 % of variance **Ensure the Delivery of Care Through Effective Communication & Professional Frameworks** 4.1 Listen to patients, carers and their families .765 4.2 Effectively communicate with patients where there are communication difficulties and or differences .675 3.1 Develop professional working relationships with patients .656 15.2 Demonstrate responsibility for your personal professional and development within available resources .651 5.3 Treat each patient with dignity and sensitivity .609 15.1 Practice within the recognised scope and limitations current nursing practice .609 14.2 Welcome and facilitate access of visitors to services and facilities .573 1.2 Promote good health and the use of preventative approaches by using interventions that are within the scope of professional practice .545 5.5 Support patients when they are distressed .532 1.3 Teach and advise patients, carers and others in order to optimise their health and social well being .498 1.1 Assess patients' health needs and raise awareness of health issues thereby enabling patients and their families to optimise their health and social well being .468	Factor 4 10.27 % of variance **Enable Effective Communication to Enhance Patient Safety & Well Being** 4.4 Effectively communicate with those who do not use a recognised language or may need to communicate through physical contact .615 4.3 Effectively communicate with others through the use of interpreting services .611 6.1 Contribute to the protection of patients from aggressive and abusive behaviour .583 6.2 Enable provision of advocacy for patients .553
No of Items 11 **Reliability Coefficient Alpha .95**	**Number of Items 4** **Reliability Coefficient Alpha 88**

Factor Analysis
Principal Components
Newly Qualified Adult Branch Nurses
Assessment of Newly Qualified, According to University of Origin, by Directors of Nursing A* & C*

1997 & 1998

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of newly qualified adult branch nurses as seen by DIRECTORS OF NURSING (A & C) who employed newly qualified adult branch staff nurses, October 1997 and April 1998 qualifiers, from two or more universities in the study consortium.

Summary Sheet

Factor 1 **17.45 % of Variance** **Enable Patients to Meet Their Physical and Physiological Needs Within a Programme of Nursing Care**	**Factor 2** **14.42 % of variance** **Health and Safety in the Workplace**
Factor 3 **12.65 % of variance** **Patient Protection**	**Factor 4** **11.59 % of variance** **Continuing Professional Development and Multi disciplinary Working**
Factor 5 **7.80 % of variance** **Focused Care to Meet Specific Needs**	**Factor 6** **7.38 % of variance** **Contribute to Well Being of Patients**
Factor 7 **6.36 % of variance** **Optimise Health and Social Well Being**	**Factor 8** **5.47 % of variance** **Evidence Based Nursing Care**
Factor 9 **5.01 % of variance** **Research & Use of Information Technology to Support Practice**	

11 Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of newly qualified adult branch nurses as seen by DIRECTORS OF NURSING (A & C) who employed newly qualified adult branch staff nurses, October 1997 and April 1998 qualifiers, from two or more universities in the study consortium.

Factor 1 17.45 % of Variance	Factor 2 14.42 % of variance
Enable Patients to Meet Their Physical and Physiological Needs Within a Programme of Nursing Care 6.5 Enable patients to maintain their personal hygiene and appearance .949 6.3 Enable patients to maintain and improve their mobility .867 10.1 Transfer skills and knowledge to a variety of settings .808 6.6 Enable patients to consume sufficient and appropriate food and drink .803 6.7 Enable patients to achieve continence and to access and use toilet facilities .731 8.6 Enable patients to maintain tissues in a healthy condition .685 5.4 Optimise the health and well being through the administration of medication .679 8.3 Plan, document and evaluate care .667 5.3 Treat each patient with dignity and sensitivity .605 5.1 Plan, organise and evaluate nursing care .590 8.2 Assess and define patients needs and circumstances .564 7.1 Enable patients to move from a supportive to an independent living environment .527	**Health and Safety in the Workplace** 11.2 Control the risks of infection during care delivery .743 13.4 Contribute to the development of the knowledge and practice of others within an effective team .734 6.4 Enable moving and handling of patients to maximise their physical comfort .634 6.9 Support and care for patients and others through the process of death and dying .629 9.2 Recognise the importance of providing cost effective nursing care .569 14.1 Use resources efficiently .532 2.3 Deliver care consistent with legislation relevant to nursing practice .486 11.1 Maintain health, safety and security in the workplace .452 4.4 Effectively communicate with those who do not use a recognised language or may need to communicate through physical contact .402
No of Items 12 **Reliability Coefficient Alpha .95**	**No of Items 9** **Reliability Coefficient Alpha .93**

Factor 3 12.65 % of variance **Delivery & Adaptation of Safe Care Within Resource** 6.1 Contribute to the protection of patients from aggressive and abusive behaviour .912 10.3 Enable patients and significant others to adjust, explore and manage change .804 11.3 Maintain patient and staff safety through the correct use of powered medical devices whilst in hospital .737 14.5 Promote the organisations approach to quality .716 2.1 Practice within the effects of resource limitation .616 14.3 Manage information for activity .606 8.4 Contribute to the development of nursing practice standards .561 8.7 Administer basic life support .559 3.1 Develop professional working relationships with patients .485	Factor 4 11.59 % of variance **Continuing Professional Development Within Multi disciplinary Environment** 15.2 Demonstrate responsibility for personal and professional learning and development within available resources .896 15.1 Practice within the recognised scope and limitations current nursing practice .808 13.2 Enable multi disciplinary working .805 13.3 Enable inter-disciplinary teams to deliver individualised programmes of care to patients .706 14.6 Support the development and implementation of quality audit systems .664 12.1 Assess the religious, spiritual and cultural needs of patients .574 13.1Contribute to the support of patients during a range of treatment and therapeutic activities .498
No of Items 9 **Reliability Coefficient Alpha .89**	**Number of Items 7** **Reliability Coefficient Alpha .86**

Factor 5 7.80 % of variance **Focused Care to Meet Specific Needs** 6.2 Enable patients to maintain and improve their mobility .901 8.1 Context of care .797 14.2 Welcome and facilitate access of visitors to services and facilities .752 4.2 Effectively communicate with patients where there are communication difficulties and or differences .627	Factor 6 7.38 % of variance **Contribute to Well Being of Patients** 4.1 Listen to patients, carers and their families .878 3.2 Support patients and significant others .603
No of Items 4 **Reliability Coefficient Alpha .85**	**No of Items 2** **Reliability Coefficient Alpha .74**

Factor 7 6.36 % of variance **Optimise Health and Social Well Being**	Factor 8 5.42 % of variance **Evidence Based Nursing Care**
1.2 Promote good health and the use of preventative approaches by using interventions that are within the scope of professional practice .921 1.1Assess patients' health needs and raise awareness of health issues thereby enabling patients and their families to optimise their health and social wee being .802 1.3 Teach and advise patients, carers and others in order to optimise their health and social well being .458 5.5 Support patients when they are distressed .449	2.2 Demonstrate and apply knowledge and understanding of ethical, health and social policies and the professional framework of nursing practice .595 8.5 Evaluate standards that contribute to continuous improvements and dissemination of evidence based care .528
No of Items 4 **Reliability Coefficient Alpha .82**	**Number of Items 2** **Reliability Coefficient Alpha .81**

Factor 9 5.07 % of variance **Research & Use of Information Technology to Support Practice**	
9.1 Understand research and evaluate nursing practice .846 5.2 Determine ways in which the service can support patients .675 14.4 Use information technology in clinical settings .439	
No of Items 3 **Reliability Coefficient Alpha .68**	

Appendix 13

Factor analysis (principal components): dimension labels and associated percentage of variance by category of physiotherapists.

Factor Analysis
Principal Components
Newly Qualified Physiotherapists
Self Assessment

1997 & 1998 Combined

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of NEWLY QUALIFIED PHYSIOTHERAPISTS (1997 & 1998 Combined) who self assessed

Factor 1 **14.31 % of variance** **Clinically Effective Physiotherapy**	**Factor 2** **10.62 % of variance** **Frameworks, Legislation and Policies Related to Physiotherapy Practice**
Factor 3 **8.56 % variance** **Application of Physiotherapy Practice**	**Factor 4** **7.99 % of variance** **Continuing Professional Development**
Factor 5 **7.34 % of variance** **Enabling Individuals and Groups to Optimise Their Health and Social Well Being**	**Factor 6** **6.20 % of variance** **Clinical Decision Making**
Factor 7 **5.84 % of variance** **Service Equity & Patients Rights**	

Factor / dimension labels generated to describe conceptualised collections of underlying variables/attributes in respect of NEWLY QUALIFIED PHYSIOTHERAPISTS (1997 & 1998 Combined) who self assessed

Factor 1 14.31 % of variance Clinically Effective Physiotherapy	Factor 2 10.62 % of variance Frameworks, Legislation and Policies Related to Physiotherapy Practice
H2) Recognise and manage personal emotions and stress .661 C5) Implement the physiotherapy programme safely, efficiently and effectively .658 H3) Promote a safe and healthy work environment .654 C6) Evaluate the effectiveness of your physiotherapy programme and revise goals if necessary .624 H7) Present yourself and the physiotherapy profession positively to other people .616 C3) Recognise the range of physiotherapeutic and or medical interventions .612 H5) Show sensitivity to the needs of other people .598 H6) Secure the commitment of other people .587 H4) Evaluate your work against set objectives .584 C2) Assess the individual to identify need .536 H9) In the interests and with the consent of individuals communicate and co-operate with professional staff and carers .530 C4) Plan an appropriate physiotherapy programme .451	D5) Demonstrate and apply knowledge and understanding of legislation that is relevant to physiotherapy practice .733 D1) Recognise the scope and limitations of current physiotherapy practice .690 D4) Demonstrate and apply knowledge and understanding of health and social policies .664 D3) Demonstrate and apply knowledge and understanding of the ethical and professional framework of physiotherapy practice .591 E2) Evaluate the outcomes of physiotherapy interventions .527 B2) Recognise the need to adapt physiotherapy practice to meet varying unpredictable circumstances .523 B3) Ensure that response to change does not compromise your duty of care to individuals .518 E4) Recognise the importance of providing cost effective physiotherapy programmes .511 E3) Critically appraise research evidence and apply findings where appropriate .460
Number of Items 12 **Reliability Coefficient Alpha .93**	**Number of Items 9** **Reliability Coefficient Alpha .89**

Factor 3 8.56 % variance **Application of Physiotherapy Practice** C3c) Electrophysical .700 C3a) Therapeutic exercise .604 C3b) Manual therapy .567 B1) Demonstrate the ability to transfer skills and knowledge to a variety of settings .535 D2) Recognise the effect of resource limitation on physiotherapy interventions .521	Factor 4 7.99 % of variance **Continuing Professional Development** F3) Enhance, update and develop appropriate knowledge and skills balancing own needs with available resources .748 F2) Take responsibility for personal and professional learning development .742 F4) Share and disseminate knowledge and skills gained to colleagues, individuals and carers .734 F1) Recognise the importance of undertaking CPD .639 E1) Demonstrate skills in research and critical evaluation to optimise clinical effectiveness and reflective practice .450
Number of Items 5 **Reliability Coefficient Alpha .84**	**Number of Items 5** **Reliability Coefficient Alpha .84**

Factor 5 7.33 % of variance **Enabling Individuals and Groups to Optimise Their Health and Social Well Being** A3a) Advise individuals, groups and health care professions on the scope of physiotherapy practice .750 A1) Promote good health and the use of preventative approaches using interventions that are within the scope of professional practice.725 A2) Teach and advise individuals, carers and others in order to optimise health and social well being .664 C1) Negotiate with individuals or carers to establish co-operation with a physiotherapy programme.538	Factor 6 6.20 % of variance **Clinical Decision Making** C7) Record all aspects of the physiotherapy programme in accordance with medico-legal and patient management requirements .795 C8) Refer the individual to other members of the health care team or other care agencies if appropriate .654 C9) Determine and agree the most appropriate time to terminate the physiotherapy programme .563 H1) Manage your time .546
Number of Items 4 **Reliability Coefficient Alpha .77**	**Number of Items 4** **Reliability Coefficient Alpha .79**
Factor 7 **5.80 % of variance** **Service Equity & Patient Rights** G1) Implement non-discriminatory practice .790 G4) Respect the individuals' personal beliefs and identity .780 G5) Effectively communicate .506	
Number of Items 3 **Reliability Coefficient Alpha .71**	

Factor Analysis
Principal Components
Newly Qualified Physiotherapists
Assessment of Individuals by Clinical Supervisors

1997 & 1998 Combined

Factor / dimension labels generated to describe conceptualisations of underlying variables/attributes in respect of combined 1997 and 1998 Graduate Newly Qualified Physiotherapists as Perceived by Combined 1997 & 1998 PHYSIOTHERAPY CLINICAL SUPERVISORS

Factor 1 **14.77 % of variance** **Planning, Implementing and Evaluating Physiotherapy**	**Factor 2** **14.22 % of variance** **Evidence Based Physiotherapy**
Factor 3 **13.04 % variance** **Managing Oneself and Working With Others**	**Factor 4** **10.16 % of variance** **Adapting Physiotherapy Practice**
Factor 5 **9.76 % of variance** **Continuing Professional Development**	**Factor 6** **8.44 % of variance** **Service Equality & Patient Rights**

Factor / dimension labels generated to describe conceptualisations of underlying variables/attributes in respect of combined 1997 and 1998 Graduate Newly Qualified Physiotherapists as Perceived by Combined 1997 & 1998 PHYSIOTHERAPY CLINICAL SUPERVISORS

Factor 1 14.77 % of variance Planning, Implementing and Evaluating Physiotherapy	Factor 2 14.22 % of variance Evidence Based Physiotherapy
C3) Recognise the range of physiotherapeutic and or medical interventions .743 C3b) Manual therapy .742 C3c) Electrophysical .728 C3a) Therapeutic exercise .650 C5) Implement the physiotherapy programme safely, efficiently and effectively .644 C4) Plan an appropriate physiotherapy programme .640 A 3b) Application of physiotherapy skills in practice .555 H4) Evaluate their work against set objectives .540 H3) Promote a safe and healthy work environment .509 A3a) Physiotherapy Skills. Practical aspect of physiotherapy its process and dynamics .487 A2) Teach and advise individuals, carers and others in order to optimise health and social well being .473 C8) Refer the individual to other members of the health care team or other care agencies if appropriate .424	E4) Recognise the importance of providing cost effective physiotherapy programmes .731 D4) Demonstrate and apply knowledge and understanding of health and social policies .728 D2) Recognise the effect of resource limitation on physiotherapy interventions .709 D5) Demonstrate and apply knowledge and understanding of legislation that is relevant to physiotherapy practice .707 E3) Critically appraise research evidence and apply findings where appropriate .694 E2) Evaluate the outcomes of physiotherapy interventions .652 C9) Determine and agree the most appropriate time to terminate the physiotherapy programme .583 D3) Demonstrate and apply knowledge and understanding of the ethical and professional framework of physiotherapy practice .578 C7) Record all aspects of the physiotherapy programme in accordance with medico-legal and patient management requirements .550
Number of Items 12 **Reliability Coefficient Alpha .93**	**Number of Items 9** **Reliability Coefficient Alpha .92**

Factor 3 13.04 % variance **Managing Oneself and Working With Others**	Factor 4 10.16 % of variance **Adapting Physiotherapy Practice**
H2) Recognise and manage personal emotions and stress .747 H9) In the interests and with the consent of individuals communicate and co-operate with professional staff and carers .743 G5) Effectively communicate .707 H7) Present themselves and the physiotherapy profession positively to other people .649 H6) Secure the commitment of other people .638 H1) Manage their time .637 H5) Show sensitivity to the needs of other people .619 H8) Recognise the goals and priorities of other members of the health care team .548	A3c) Context of Physiotherapy Practice. Variety of contextual areas which underpin, inform and impact on physiotherapy practice .716 B2) Recognise the need to adapt physiotherapy practice to meet varying unpredictable circumstances .661 C1) Negotiate with individuals or carers to establish co-operation with a physiotherapy programme .629 C6) Evaluate the effectiveness of the physiotherapy programme and revise goals if necessary .610 A1) Promote good health and the use of preventative approaches using interventions that are within the scope of professional practice .565 B1) Demonstrate the ability to transfer skills and knowledge to a variety of settings .565 C2) Assess the individual to identify need .507 B3) Ensure that response to change does not compromise the duty of care to individuals .490
Number of Items 8 **Reliability Coefficient Alpha .91**	**Number of Items 8** **Reliability Coefficient Alpha .90**

Factor 5 9.76 % of variance **Continuing Professional Development**	Factor 6 8.44 % of variance **Service Equality & Patient Rights**
F3) Enhance, update and develop appropriate knowledge and skills balancing own needs with available resources .788 F1) Recognise the importance of undertaking CPD .760 F4) Share and disseminate knowledge and skills gained to colleagues, individuals and carers .575 E1) Demonstrate skills in research and critical evaluation to optimise clinical effectiveness and reflective practice .511 D1) Recognise the scope and limitations of current physiotherapy practice .483	G4) Respect the individuals' personal beliefs and identity .701 G2) Ensure the confidentiality and security of information acquired in a professional capacity .696 G3) Promote and support individuals' rights and choices within service delivery .685 G1) Implement non-discriminatory practice .581
Number of Items 5 **Reliability Coefficient Alpha .91**	**Number of Items 4** **Reliability Coefficient Alpha .82**

Factor Analysis
Principal Components
Newly Qualified Physiotherapists
Assessment of Newly Qualified by Physiotherapy Supervisory Managers According to University of Origin

1997 & 1998 Combined

Factor / dimension labels generated to describe conceptualisations of underlying variables/attributes in respect of combined 1997 and 1998 Graduate Newly Qualified Physiotherapists as Perceived by Combined 1997 & 1998 PHYSIOTHERAPY SUPERVISORY MANAGERS

Factor 1 **20.04 % of variance** **Clinically Effective Physiotherapy**	**Factor 2** **19.78 % of variance** **Issues that Affect Physiotherapy Practice**
Factor 3 **19.34 % variance** **Patient Rights & Service Equity**	**Factor 4** **18.21 % of variance** **Application of Physiotherapy Practice**

Factor / dimension labels generated to describe conceptualisations of underlying variables/attributes in respect of combined 1997 and 1998 Graduate Newly Qualified Physiotherapists as Perceived by Combined 1997 & 1998 PHYSIOTHERAPY SUPERVISORY MANAGERS

Factor 1 20.04 % of variance **Clinically Effective Physiotherapy**	Factor 2 19.78 % of variance **Issues that Affect Physiotherapy Practice**
H1) Manage their time .725 A2) Teach and advise individuals, carers and others in order to optimise health and social well being .700 C8) Refer the individual to other members of the health care team or other care agencies if appropriate .658 B1) Ability to transfer skills and knowledge to a variety of settings .649 A3c) Context of Physiotherapy Practice. Variety of contextual areas which underpin, inform and impact on physiotherapy practice .629 H8) Recognise the goals and priorities of other members of the health care team .609 C2) Assess the individual to identify need .605 A 3b) Application of physiotherapy skills in practice .595 H6) Secure the commitment of other people .575 G5) Effectively communicate .553 H2) Recognise and manage personal emotions and stress .549 C9) Determine and agree the most appropriate time to terminate the physiotherapy programme .546 H9) In the interests and with the consent of individuals communicate and co-operate with professional staff and carers .544	D2) Recognise the effect of resource limitation on physiotherapy interventions .829 D4) Demonstrate and apply knowledge and understanding of health and social policies .818 D5) Demonstrate and apply knowledge and understanding of legislation that is relevant to physiotherapy practice .727 F4) Share and disseminate knowledge and skills gained to colleagues, individuals and carers .710 D1) Recognise the scope and limitations of current physiotherapy practice .677 F1) Recognise the importance of undertaking CPD .672 B3) Recognise the effect of resource limitation on physiotherapy interventions .593. C7) Record all aspects of the physiotherapy programme in accordance with medico-legal and patient management requirements .567 E2) Evaluate the outcomes of physiotherapy interventions .538
Number of Items 13 **Reliability Coefficient Alpha .96**	**Number of Items 9** **Reliability Coefficient Alpha .96**

Factor 3 19.34 % variance **Patient Rights & Service Equity**	Factor 4 18.21% of variance **Application of Physiotherapy Practice**
G2) Ensure the confidentiality and security of information acquired in a professional capacity .796 G1) Implement non-discriminatory practice .753 H3) Promote a safe and healthy work environment .724 F3) Enhance, update and develop appropriate knowledge and skills balancing own needs with available resources .720 H5) Show sensitivity to the needs of other people .701 F2) Take responsibility for personal and professional learning development .669 G3) Promote and support individuals' rights and choices within service delivery .613 H7) Present themselves and the physiotherapy profession positively to other people .593	C3) Recognise the range of physiotherapeutic and or medical interventions .792 C3b) Manual therapy .842 A1) Promote good health and the use of preventative approaches using interventions that are within the scope of professional practice .601 C3c) Electrophysical .693 A3a) Physiotherapy Skills. Practical aspect of physiotherapy its process and dynamics .616 C1) Negotiate with individuals or carers to establish co-operation with a physiotherapy programme .586
Number of Items 8 **Reliability Coefficient Alpha .94**	**Number of Items 6** **Reliability Coefficient Alpha .96**

Factor Analysis
Principal Components
Newly Qualified Physiotherapists
Assessment of Newly Qualified by Heads of Trust
Wide Physiotherapy According to University of Origin

1997 & 1998 Combined

12 Factor / dimension labels generated to describe conceptualisations of underlying variables/attributes in respect of combined 1997 and 1998 Graduate Newly Qualified Physiotherapists as Perceived by Combined 1997 & 1998 According to HEADS OF TRUST WIDE PHYSIOTHERAPY SERVICES

Factor 1 **21.52 % of variance** **Patient Equity in the Context of Practice**	**Factor 2** **14.51 % of variance** **Clinically Effective Physiotherapy**
Factor 3 **13.72 % variance** **Duty of Care to Patients**	**Factor 4** **11.48 % of variance** **Evidence Based Physiotherapy**
Factor 5 **10.36 % of variance** **Range of Physiotherapeutic and or Medical Interventions**	**Factor 6** **7.87 % of variance** **Continuing Professional Development**

Factor / dimension labels generated to describe conceptualisations of underlying variables/attributes in respect of combined 1997 and 1998 Graduate Newly Qualified Physiotherapists as Perceived by Combined 1997 & 1998 According to HEADS OF TRUST WIDE PHYSIOTHERAPY SERVICES

Factor 1 **21.52 % of variance** **Patient Equity in the Context of Practice**	**Factor 2** **14.51 % of variance** **Clinically Effective Physiotherapy**
G4) Respect the individuals' personal beliefs and identity .847 G5) Effectively communicate .844 H3) Promote a safe and healthy work environment .774 H9) In the interests and with the consent of individuals communicate and co-operate with professional staff and carers .760 G2) Ensure the confidentiality and security of information acquired in a professional capacity .750 H8) Recognise the goals and priorities of other members of the health care team .728 H6) Secure the commitment of other people .726 H2) Recognise and manage personal emotions and stress .702 H4) Evaluate their work against set objectives .670 G3) Promote and support individuals' rights and choices within service delivery .659 G1) Implement non-discriminatory practice.572	D2) Recognise the effect of resource limitation on physiotherapy interventions .631 H1) Manage their time .622 D1) Recognise the scope and limitations of current physiotherapy practice .537 C9) Determine and agree the most appropriate time to terminate the physiotherapy programme .502 B2) Recognise the need to adapt physiotherapy practice to meet varying unpredictable circumstances .485 E4) Recognise the importance of providing cost effective physiotherapy programmes .481 B1) Demonstrate the ability to transfer skills and knowledge to a variety of settings 479 A3c) Context of Physiotherapy Practice. Variety of contextual areas which underpin, inform and impact on physiotherapy practice .641
Number of Items 11 **Reliability Coefficient Alpha .96**	**Number of Items 8** **Reliability Coefficient Alpha .96**

Factor 3 13.72 % variance **Duty of Care to Patients**	Factor 4 11.48 % of variance **Evidence Based Physiotherapy**
C1) Negotiate with individuals or carers to establish co-operation with a physiotherapy programme .757 B3) Ensure that response to change does not compromise the duty of care to individuals .693 D4) Demonstrate and apply knowledge and understanding of health and social policies .660 A2) Teach and advise individuals, carers and others in order to optimise health and social well being .656 A3a) Physiotherapy Skills. Practical aspect of physiotherapy its process and dynamics .596 A1) Promote good health and the use of preventative approaches using interventions that are within the scope of professional practice .591 C2) Assess the individual to identify need .570 C7) Record all aspects of the physiotherapy programme in accordance with medico-legal and patient management requirements .487	E1) Demonstrate skills in research and critical evaluation to optimise clinical effectiveness and reflective practice .837 E3) Critically appraise research evidence and apply findings where appropriate .787 D5) Demonstrate and apply knowledge and understanding of legislation that is relevant to physiotherapy practice .520
Number of Items 8 **Reliability Coefficient Alpha .92**	**Number of Items 3** **Reliability Coefficient Alpha .91**

Factor 5 10.36 % of variance **Range of Physiotherapeutic and or Medical Interventions**	Factor 6 7.87 % of variance **Continuing Professional Development**
C3) Recognise the range of physiotherapeutic and or medical interventions .855 C5) Implement the physiotherapy programme safely, efficiently and effectively .801 C3a) Therapeutic exercise .503	F3) Enhance, update and develop appropriate knowledge and skills balancing own needs with available resources .842 F2) Take responsibility for personal and professional and learning development .684 F1) Recognise the importance of undertaking CPD .600 C6) Evaluate the effectiveness of the physiotherapy programme and revise goals if necessary .532
Number of Items 3 **Reliability Coefficient Alpha .92**	**Number of Items 4** **Reliability Coefficient Alpha .88**

Appendix 14

Factor analysis (principal components) syntax.

The purpose of this section is to explain the rationale underpinning the calculation used to identify the mean percentage of fitness for purpose for each of the four groups of nurses and physiotherapists by university of origin. It will be recalled that the fitness for purpose psychometric scale where 0 = very low fitness and 10 very high fitness was used by respondents in the survey populations. The data was entered via the data entry window. In order to convert the raw scores into mean percentages for each of the three universities educating adult branch nurses and the three universities educating newly qualified physiotherapists SPSS Syntax had to be used. Using the syntax window a formula was entered. An example from physiotherapy is given:

Physiotherapy Newly Qualified Physiotherapists 1997

```
COMPUTE avrph1 =
MEAN(outa3b,outb1,outc1,outc2,outc3,outc3a,outc3b,outc3c,outc4,outc5,outc6,outc9
,oute1,oute2,oute4,outh2,outh3,
outh6,outh7) .
EXECUTE .
COMPUTE factor1 =
Sum(outa3b,outb1,outc1,outc2,outc3,outc3a,outc3b,outc3c,outc4,outc5,outc6,outc9,o
ute1,oute2,oute4,outh2,outh3,
outh6,outh7).
EXECUTE .
Count tally1 =
outa3b,outb1,outc1,outc2,outc3,outc3a,outc3b,outc3c,outc4,outc5,outc6,outc9,oute1,o
ute2,oute4,outh2,outh3,
outh6,outh7 (SYSMIS).
EXECUTE .
do if (tally1 lt 10).
COMPUTE fact1rev = factor1 + tally1 * avrph1.
end if.
COMPUTE Perf1 = (fact1rev / 190) * 100.
```

Appendix 15

Calculation of full time equivalent student numbers.

Each post registration education FTE provision per university had to be calculated on an appropriate and same basis. A direct head count was rejected because of part time working and personal circumstance. As a consequence the amount of academic credit undertaken by post registration students and funded by the study consortium was used as the basis for the calculation of the number of FTE's. The amount of credit was confirmed by each of the universities in respect of an honours degree at 120 academic credit points had to be awarded at each level 1, level 2 and level 3. Consequently, 360 academic credit points are required by a full time equivalent student to be awarded a degree. Most of the post registration students being part time take a variable number of different credit rated modules a year. The number and type of modules depending on the course being undertaken, personal circumstances and university regulations.

In order to identify, at each university, and for each of the three years of the major contract review the total number of FTE students, the total amount of academic credit needed to be identified for each of the three NHS financial years and for each of the universities. This was achieved on a staged process. First six levels of academic credit were confirmed: 10; 20; 30; 40; 60 & other. Second, the number of individuals undertaking each level of academic module was identified. Each module value was then multiplied by the number of people who had undertaken that level of credit in that financial year. The separate figures were then added to give a total amount of academic credit undertaken in that financial year. This process was identical for both types of funded course i.e. post registration education block contract and direct contract funding. This information was provided by the study consortium based on returns made by participating universities.

Methodology for converting academic credit to monthly FTE for all universities

It may be recalled that the maximum amount of academic credit that can be awarded in any year is 120. Based on an example using one of the participating universities 1996/97 figures the total amount of academic credit awarded in that financial year was 21,834 credit points. The monthly average credit point was arrived at by dividing this number by twelve to yield a figure of 1819.5. The amount of academic credit per month was identified at 10 (based on yearly award of 120 divided by 12). By dividing the monthly average of 1819 by 10 yielded a rounded FTE of 182.

Appendix 16

Major Contract Review: Finance Proforma

1 Study Consortium Financial Management Responsibilities

1.1 Consortium responsibilities in relation to finance are to:

- manage the devolved budget for education and training within the framework determined by the NHS Executive
- negotiate and agree education and training contracts with education providers which reflect quality, value for money and workforce demand within the agreed purchasing plans of the consortium
- develop and maintain sound financial processes and to monitor expenditure on behalf of the consortium (Study Constitution, Structure & Strategy 1998/2003).

2 Expenditure to be Reported as Part of the Return

According to consortium records, for each of the three years of the financial review, we have purchased from your university on behalf of the service, from pre registration block sum monies:

- pre-registration nursing
- pre-registration midwifery
- pre-registration physiotherapy
- pre-registration diagnostic radiography

From post registration block sum monies:

- CPD (post registration nursing and midwifery / continuing education)

- A separate contract was also awarded for EN Conversion

Further monies were also paid in respect of;

- premises
- integration set up costs

According to the study consortium financial records, the total sums of money paid to the University X, covering all the above but excluding bursaries and any staff replacement costs etc was:
Year 1 1996/97 = £ 5,584,500
Year 2 1997/98 = £ 5,650,916
Year 3 1998/99 = £ 5,762,070

A small number of key points about each expenditure summary are:

Divisional Expenditure.

In addition to pre registration nursing and pre registration midwifery and CPD expenditure this same information is also required in respect of physiotherapy and diagnostic radiography for the three financial years 1996-97, 97-98 and 98-99. Expenditure allocation at divisional level should be based on direct attribution.

School and Institutional Level Expenditure

School and institutional costs are to be apportioned between:

- pre-registration nursing, pre registration midwifery, pre registration physiotherapy and pre registration diagnostic radiography which are funded from the pre registration block sum

- CPD which is funded from the post registration block sum and the EN conversion monies

The basis of the apportionment is FTE student numbers. No fee paying students are included in the FTE numbers. The FTE student numbers are provided for each of the three financial years that are be reported. This information was extracted from your monthly consortia monitoring returns.

The 'In Training' Full Time Equivalent Students (FTEs) and their equivalent percentage of the total 'In Training' FTE student population of the School of Health is featured at the top of the appropriate pages of each summary expenditure. Naturally, both the FTEs & their percentage equivalent and the total FTE student population of the School will change from year to year reflecting commissioning, qualification levels and student wastage.

It may be that apportioning costs at the level below sub total at School and Institutional may not always be possible. If that is the case then reporting the sub total (grey boxes on the forms) is acceptable. Sub total and totals at divisional, school and institutional levels are essential and not negotiable.

3 Costing Pre and Post-registration Contracted Courses – activity, resource and support.

3.1 Given the size, complexity, individuality and internal autonomy of HEIs each is a unique organisation with which the consortium contracts. Although there is consistency from the point of view of the broad headings of areas of expenditure HEIs report on in respect to finance, the consortium, in the light of its collective responsibilities outlined above, require a more detailed approach.

3.2 The approach is activity led. The activities relate to staff, resources consumed by those staff in the execution of their duties and support costs.

3.3 The views and opinions of HEIs are extremely important to the consortium in order to improve the financial review process, results obtained and interpretation of results.

4 Activity Areas

4.1 To reflect the culture of higher education and to minimise the demand on HEIs the minimum number of activity areas requiring response have been identified. These are a) teaching, b) research, c) other service activities, d) departmental and school activities and e) institutional support.

5 Assigning Resources Costs to Activities

5.1 There are three methods of assigning resources to activities: direct attribution (DA), estimation (E), or general apportionment (GA). A discriminatory use of all three may be preferable thereby enabling information already held to be used.

5.2 Consistency in the use of direct attribution (DA), estimation (E), or general apportionment (GA) per expenditure item is important. If, for example, general apportionment is the method of preference in respect of expenditure on staff then it should be used continuously through out the return where staff are concerned and not mixed with either direct attribution and / or estimation of staff activity.

5.3 Every attempt has been made to strike a balance between the information requested and the amount of time and effort required to produce that information it self a cost to the supplying institution.

6 Post Integration Organisational Staff Structures

6.1 The move from colleges of health to higher education may have resulted in two staff structures running in parallel. The former tapering as staff transfer to the latter. As a consequence, and only if appropriate, information sought about staff will need to be drawn from both structures. This demand will, of course, decline over time.

7 Principles for Allocating Staff

7.1 It is recognised that staff based in an academic department might may make a contribution to another course offered by the same department. In addition that same staff member may make a contribution to a course in another department. Staff time should be attributed according to the course or courses to which they make a contribution.

7.2 Staff who occupy split posts e.g. 50/50 split should be attributed according to that percentage split between either a) courses or b) levels e.g. department and school.

7.3 Two completed examples relating to staff and staff activity at the departmental and school levels are provided for your information.

8 Principles for Devolving Costs

8.1 Because of the uniqueness of each HEI and potentially differing levels to which each devolves costs between an academic department, to which a return relates, and the school in which that department is based, a consistent approach to cost allocation is required as a basis for return. For example, if student travel expenses or postage are costs devolved to departmental level then they should be consistently returned at that level. If, on the other hand, student travel expenses or postage are not costs devolved to departments but are attributed at the school level covering all departments that comprise the school, then both costs will be consistently returned at the school level.

8.2 What the appropriate level of return i.e. department or school for each direct cost pool is for each HEI to decide. Once decided is should be consistently adhered to in the return. A list of non-staff costs cost pools of operating expenses is attached.

8.3 This principle of consistency, although illustrated at the departmental / school level interface (9.1) is nonetheless, a principle which should be extended throughout all levels of interface.

9 Double Counting

Adherence to the principles outlined in 8.1 – 8.3 should avoid double counting.

10 Financial Accounting

10.1 The consortium, as a NHS organisation, adheres to this organisations financial accounting period, which is April – March. The financial information provided must be consistent with the NHS financial year.

10.2 Three separate financial years are covered:

Year 1, April 1996 – March 1997
Year 2, April 1997 - March 1998
Year 3, April 1998 – March 1999

11 Number of Returns Per Financial Year

11.1 Course / departmental level

11.1.1 A return is required for **each** pre – registration course and for **all** post registration courses collectively

11.1.2 A return is required for **each** of the **three** financial years identified in 10.1 above pertaining to the course.

11.1.3 In the case of pre-registration nursing the course title is coterminous with the department in which that course is delivered. A return that complies with

11.1.1 and 11.1.2 above therefore covers the course and department. E.g. Diploma in Higher Education (course) in Nursing (Department).

11.1.4 The course/departmental return for each year should exclude any information relating to the school or institution.

11.2 School Level

11.2.1 A return is required at the school level.

11.2.2 Regardless of the number of pre registration courses and / or departments that can be attributed to a school a total of **three** school returns is required, one for **each** of the **three** financial years identified in 10.1 above.

11.2.3 The school return for each financial year should exclude any information relating to a) departments that report to it as they will be reported at the departmental level or b) the institution.

11.3 Institution Level

11.3.1 A return is required at the institution level.

11.3.2 A total of **three** returns are required at the institutional level one for **each** of the **three** financial years identified in 10.1 above.

11.3.3 The institutional return for each year should exclude any information relating to a) the school or b) departments that report to the school as both will have already been reported upon.

12 Proforma

12.1 In order to facilitate consistency of returns a proforma has been produced on which financial information can be captured. Returns should be colour coded; courses / departments on white paper school on yellow paper and institutional on green paper.

13 Glossary of terms and definitions

13.1 Definitions of terms that appear in the proformas are provided in the short glossary. These definitions are provided to aid those completing the proformas from the perspective of clarity and continuity of response.

Glossary – Terms and Definitions

Principal academic activities

Teaching

1) teaching of diploma, undergraduate, and post graduate students including any preparation, marking, academic and clinical supervision and administration specific to courses.

Research

2a) undertaking sponsored research which is all activity relating to specific departmental research and sponsored research projects, and includes items such as proposal writing, supervision, and performing research and / or,

2b) undertaking general research for which a specific research outcome is expected, but which does not fall under sponsored research, and includes the supervision and any other activity specific to a research project.

Other Service Activities (OSA)

3) undertaking other service activities including short courses, consultancy, testing (along with any specific preparation), supervision and administration.

Department Activities (DA)

4) Covers a) all clerical and technical staff in a department, b) all department administrative committees and operating activities and c) professional activities including attending conferences, refereeing papers, external examining or moderating, and public service.

School Activities (SA)

5) Covers a) all clerical and technical staff in the school, b) all school administrative committees and operating activities and c) professional activities including attending conferences, refereeing papers, external examining or moderating, and public service.

Institutional and Faculty Activities

6) includes activities for the administration, operation and maintenance of the faculty and institution. This covers: building use, equipment use, premises, general administration, research administration, student administration and services, learning resources and faculty administration.

Resource Cost Activities

7) Building use; rents and costs with the use of capital assets.

8) Equipment use; the costs associated with the use of capitalised equipment.

9) Premises: rates, utilities and costs of servicing estates.

10) General administration: including the executive administration, finance and personnel services.

11) Research administration; central support provided specifically for research grants and contracts.

12) Student administration and services; including administrative activities specific to students or teaching activities.

13) Learning Resources; including library service, the audio-visual unit and computer centre.

14) Cost means the amount of expenditure incurred on, or attributable to, a specified item or activity.

15) Cost objective means a function e.g. teaching, organisational subdivision, contracts or other work unit for which cost data are desired and for which provision is made to accumulate and measure the cost of processes, products, jobs, capitalised projects and so on.

16) Cost pool is a group of costs that behave in a broadly similar fashion e.g. postage, printing and telephone.

17) Direct costs are expenses that are readily identifiable with a particular activity or unit, and can be directly and easily attributed to the activity with a high degree of accuracy.

18) Indirect costs are expenses which benefit common or joint objectives but cannot be easily identified with a particular activity or unit. They can also be considered to be overheads.

19) Attribution is the process of relating costs to cost objectives using cost allocation or cost apportionment.

20) Direct attribution seeks to capture accurately the volume and cost of resources used by particular activities.

21) Estimation is to estimate the volume and cost of resources used by particular activities based on, for example, managers' estimates of the percentage of time (or effort) spent by employees on each of their activities.

22) General apportionment. For example, the costs of academic staff may be apportioned to activities using a departmental/school/institution standard for the hours required to perform certain activities

The terms and definitions were taken from the Management Information for Decision Making: Costing Guidelines for Higher Education Institutions (HEFCE et al., 1997).

University O
School of Health

EXAMPLE Summary of Expenditure Departmental Level for the Year April 199 - March 199

	Pre Registration Education				**CPD**
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs- Course(s) Directly Attributed	£,000	£,000	£,000	£,000	**£,000**
Pay					
Academic Staff					
Administrative, Professional, Clerical & Technical					
Sub Total	**n1**	**m1**	**ph1**	dr1	**cpd1**
Non Pay / Cost Pools					
1 Student Related Costs					
2 Staff Related Costs					
3 Library Services					
4 Information Technology					
5 Administrative Services					
6 Other Costs					
Sub Total	**n2**	**m2**	**ph2**	**dr2**	**cpd2**
Premises / Estates Running Costs					
Equipment if not included in cost pools 1-6					
Sub Total	**n3**	**m3**	**ph3**	**dr3**	**cpd3**
Total	**n4 = n1+n2=n3**	**m4 = m1+m2+m3**	**ph4 = ph1 + ph2 + ph3**	**dr4 = dr1 + dr2 + dr3**	**Cpd4 = cpd1 + cpd2 + cpd3**

University O
School of Health

EXAMPLE Summary of Expenditure Departmental Level for the Year April 199 - March 199

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
School Level FTE Apportionment	200 .Pre Reg FTE Nos 45.45 % of Total FTEs	30 Pre Reg FTE Nos 6.81 % of Total FTEs	70 Pre Reg FTE Nos 15.90 % of Total FTEs	40 Pre Reg FTE Nos 9.00 % of Total FTEs	100 Post Reg FTE Nos 440 Total FTE Nos =100% 22.72 % of Total FTEs %
Pay					
Academic Staff					
Administrative, professional, clerical and technical staff					
Sub Total	n4	m4	ph4	**dr4**	**cpd4**
Non Pay / Cost Pools					
1 Student Related Costs					
2 Staff Related Costs					
3 Library Services					
4 Information Technology					
5 Administrative S					
6 Other Costs					
Sub Total	**n5**	**m5**	**ph5**	**dr5**	**cpd5**
Premises / Estates Running Costs					
Equipment if not included in cost pools 1-6					
Sub Total	**n6**	**m6**	**ph6**	**dr6**	**cpd6**
Total	**n7 = n4+n5 +n6**	**m7 = m4 + m5 + m6**	**ph7 = ph4 + ph5 + ph6**	**dtr7 = dtr4 + dtr 5 +dtr6**	**Cpd 7 = cpd4 + cpd 5 +cpd6**

University O
School of Health

EXAMPLE Summary of Expenditure School Level for the Year April 199 - March 199 - (FTEs figures are fictitious)

	Pre Registration Education				**CPD**
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
Institutional Level FTE Apportionment	200 .Pre Reg FTE Nos 45.45 % of Total FTEs	30 Pre Reg FTE Nos 6.81 % of Total FTEs	70 Pre Reg FTE Nos 15.90 % of Total FTEs	40 Pre Reg FTE Nos 9.00 % of Total FTEs	100 Post Reg FTE Nos 440 Total FTE Nos =100% 22.72 % of Total FTEs %
Pay					
Non Pay					
Sub Total	**n8**	**m8**	**ph8**	**dr8**	**cpd8**
1 Building Use					
2 Equipment Use					
3 Premises					
4 General Admin					
5 Research Admin					
6 Student Admin & Services					
7 Learning Resources					
8 Faculty Admin					
9 Departmental Admin					
10 Other					
Sub Total	**n9**	**m9**	**ph9**	**dr9**	**cpd9**
Total	**n10 = n8 + n9**	**m10 = m8 + m9**	**ph10 = ph8 + ph9**	**dr = dr8 + dr9**	**cpd =cpd8+cpd9**

University O
School of Health

EXAMPLE Summary of Expenditure Institutional Level for the Year April 199 - March 199 - (FTEs figures are fictitious)

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
School Level FTE Apportionment	469 57.20%	27 3.29%	95 11.59%	47 5.73%	182 22.20% 812 =100%
Pay					
Academic Staff					
Administrative, professional, clerical and technical staff					
Sub Total					
Non Pay / Cost Pools					
1 Student Related Costs					
2 Staff Related Costs					
3 Library Services					
4 Information Technology					
5 Administrative Services					
6 Other Costs					
Sub Total					
Premises - Running Costs £ 182,630					
Equipment if not included in cost pools 1-6 75,770					
Sub Total					
Total					

University O
School of Health

Summary of Expenditure School Level for the Year April 1996 - March 1997

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
Institutional Level FTE Apportionment	469 57.20%	27 3.29%	95 11.59%	47 5.73%	182 22.20% 812 =100%
Pay					
Non Pay					
Sub Total					
1 Building Use					
2 Equipment Use					
3 Premises					
4 General Admin					
5 Research Admin					
6 Student Admin & Services					
7 Learning Resources					
8 Faculty Admin					
9 Departmental Admin					
10 Other					
Sub Total					
Total					

University O

School of Health

Summary of Expenditure Institutional Level for the Year April 1996 - March 1997

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs- Course(s) Directly Attributed	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
Pay					
Academic Staff					
Administrative, Professional, Clerical & Technical					
Sub Total					
Non Pay / Cost Pools					
1 Student Related Costs					
2 Staff Related Costs					
3 Library Services					
4 Information Technology					
5 Administrative Services					
6 Other Costs					
Sub Total					
Premises / Estates Running Costs					
Equipment if not included in cost pools 1-6					
Sub Total					
Total					

University O
School of Health

Summary of Expenditure Departmental Level for the Year April 1997 - March 1998

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
School Level FTE Apportionment	495 50.51%	26 2.65 %	101 10.31%	42 4.29 %	316 32.24 % 980 = 100%
Pay					
Academic Staff					
Administrative, professional, clerical and technical staff					
Sub Total					
Non Pay / Cost Pools					
1 Student Related Costs					
2 Staff Related Costs					
3 Library Services					
4 Information Technology					
5 Administrative Services					
6 Other Costs					
Sub Total					
Premises / Estates Running Costs					
Equipment if not included in cost pools 1-6					
Sub Total					
Total					

University O
School of Health Studies

Summary of Expenditure School Level for the Year April 1997 - March 1998

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
Institutional Level FTE Apportionment	495 50.51%	26 2.65 %	101 10.31%	42 4.29 %	316 32.24 % 980 = 100%
Pay					
Non Pay					
Sub Total					
1 Building Use					
2 Equipment Use					
3 Premises					
4 General Admin					
5 Research Admin					
6 Student Admin & Services					
7 Learning Resources					
8 Faculty Admin					
9 Departmental Admin					
10 Other					
Sub Total					
Total					

University O
School of Health

Summary of Expenditure Institutional Level for the Year April 1997 - March 1998

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs- Course(s) Directly Attributed	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
Pay					
Academic Staff					
Administrative, Professional, Clerical & Technical					
Sub Total					
Non Pay / Cost Pools					
1 Student Related Costs					
2 Staff Related Costs					
3 Library Services					
4 Information Technology					
5 Administrative Services					
6 Other Costs					
Sub Total					
Premises / Estates Running Costs					
Equipment if not included in cost pools 1-6					
Sub Total					
Total					

University O
School of Health

Summary of Expenditure Departmental Level for the Year April 1998 - March 1999

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs -	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
School Level FTE Apportionment	527 51.9%	29 2.86 %	111 10.95 %	50 4.93 %	297 29.29 % 1014 = 100 %
Pay					
Academic Staff					
Administrative, professional, clerical and technical staff					
Sub Total £					
Non Pay / Cost Pools					
1 Student Related Costs					
2 Staff Related Costs					
3 Library Services					
4 Information Technology					
5 Administrative Services					
6 Other Costs					
Sub Total					
Premises / Estates Running Costs					
Equipment if not included in cost pools 1-6					
Sub Total					
Total					

University O

School of Health

Summary of Expenditure School Level for the Year April 1998 - March 1999

	Pre Registration Education				CPD
	Nursing	**Midwifery**	**Physiotherapy**	**Diagnostic Radiography**	**Continuing Education Healthcare**
Costs -	**£,000**	**£,000**	**£,000**	**£,000**	**£,000**
Institutional Level **FTE Apportionment**	527 51.9%	29 2.86 %	111 10.95 %	50 4.93 %	297 29.29 % 1014 = 100 %
Pay					
Non Pay					
Sub Total					
1 Building Use					
2 Equipment Use					
3 Premises					
4 General Admin					
5 Research Admin					
6 Student Admin & Services					
7 Learning Resources					
8 Faculty Admin					
9 Departmental Admin					
10 Other					
Sub Total					
Total					

University O
School of Health
Summary of Expenditure Institutional Level for the Year April 1998 - March 1999
EXAMPLE Staff and Staff Activity - Academic Department

Staff Member Number	Job Title	Grade	Spinal Column Point	WTE	Teaching	Research	OSA	DA*	Total	DA E GA
a	b	c	d	e	f	g	h	i	j	k
					%	%	%	%	100%	
1	L	A	4	1	70	15	0	15	100	
2	L	B	12	1	70	15	0	15	100	
3	SL	SL	20	1					100	
4	CoH	W	X	1					100	
5	R	1B	4	1					100	
6	R	1A	4	.5					100	
7	R	2	11	1					100	
8	R	3	17	1					100	
9	OA	Y	Z	1					100	
10	S	5	2	1					100	
11	T	E	24	.5					100	

Job Title and Grade See attached Job titles and associated grades of staff based in academic departments.

Teaching Preparation, marking, academic and clinical supervision and administration specific to courses.

Research Proposal writing, performing and supervising research and any other activity specific to a research project.

OSA Undertaking other service activities including short courses, consultancy, testing (along with any specific preparation), supervision and administration.

DA* Covers a) all clerical and technical staff in a department, b) all department administrative committees and operating activities and c) professional activities including attending conferences, refereeing papers, external examining or moderating, and public service.

DA Direct Attribution. **E** Estimate. **GA** General Apportionment

CoH Former college of health academic staff on academic health grades if not transferred to university academic grades at integration.
W. Closest university grade to academic health grade. **X** Closest university spinal point to academic health grade. **Y** Appropriate grade. **Z** Appropriate spinal point

Staff and Staff Activity

University of……..……Faculty of……...…..……..……...School of……

Academic Department……Course Title……..…Financial period covered - April……..March…….Year

Staff Member Number	Job Title*	Grade*	Spinal Column Point	WTE	Teaching	Research	OSA	DA	Total	DA E GA
a	b	c	d	e	f	g	h	i	j	k
					%	%	%	%	%	100%
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
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22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
n										
Total										

* See attached table Job titles and associated grades based in academic department.

Please state the % of "on costs" for all academic staff lecturer, senior lecturer, health lecturers etc and researchers.....%

Please state the % of "on costs" for: secretarial, clerical and related officer.....%

Comments:

Job Titles and Associated Grades of Staff Based in Academic Departments

Job Title	Grade
Academic Staff	
Lecturer	A
Lecturer	B
Senior Lecturer	SL
College of Health	
Former college of health academic staff on academic health grades if not transferred to university academic grades at integration.	W Closest university grade e.g. L, SL etc, and spinal point to academic health grade
Research Staff	1B
Research Staff	1A
Research Staff	2
Research Staff	3
Other Academic	Y Appropriate grade
Secretarial, Clerical & Related Officers	
Secretarial, Clerical & Related Officers	1
Secretarial, Clerical & Related Officers	2
Secretarial, Clerical & Related Officers	3
Secretarial, Clerical & Related Officers	4
Secretarial, Clerical & Related Officers	5
Secretarial, Clerical & Related Officers	6
Technical Staff	
Technician	A
Technician	B
Technician	C
Technician	D
Technician	E
Technician	F
Technician	G
Technician	H
Technician	I

Cost Pools - Operating Expenses / Non Staff Costs

Cost Pool 1 Student Related Costs

1.1 Registration / Index Fees
1.2 Travel and Subsistence
1.3 Uniforms
1.4 External Examiners
1.5 Teaching Materials
1.6 Other

Cost Pool 2 Staff Related Costs

2.1 Staff Development
2.2 Travel and Subsistence
2.3 External Lecturers
2.4 Other

Cost Pool 3 Library Services

3.1 Library Services

Cost Pool 4 Information Technology

4.1 Hardware
4.2 Software
4.3 Maintenance
4.4 Other

Cost Pool 5 Administrative Services

5.1 Office supplies
5.2 Photocopying
5.3 Postage
5.4 Printing
5.5 Telephone
5.6 Payroll
5.7 Insurance
5.8 Other

Cost Pool 6 Other Costs

EXAMPLE Staff and Staff Activity - School

Staff Member Number	Job Title*	Grade*	Spinal Column Point	WTE	Teaching	Research	OSA	SA	Total	DA E GA
a	b	c	d	e	f	g	h	i	j	k
					%	%	%	%	100%	
1	L	A	4	1	70	15	0	15	100	
2	L	B	12	1	70	15	0	15	100	
3	SL	SL	20	1					100	
4	CoH	W	X	1					100	
5	R	1B	4	1					100	
6	R	1A	4	.5					100	
7	R	2	11	1					100	
8	R	3	17	1					100	
9	OA	Y	Z	1					100	
10	SCR	5	2	1					100	
11	T	E	24	.5						
12	A/L/C	1								

Job Title and Grade See attached Job titles and associated grades of staff based in the school.

Teaching Preparation, marking, academic and clinical supervision and administration specific to courses.

Research Proposal writing, performing and supervising research and any other activity specific to a research project.

OSA Undertaking other service activities including short courses, consultancy, testing (along with any specific preparation), supervision and administration.

SA Covers a) all clerical and technical staff in a department, b) all department administrative committees and operating activities and c) professional activities including attending conferences, refereeing papers, external examining or moderating, and public service.

DA Direct Attribution. **E** Estimate. **GA** General Apportionment

CoH Former college of health academic staff on academic health grades if not transferred to university academic grades at integration.

W. Closest university grade to academic health grade. **X** Closest university spinal point to academic health grade. **Y** Appropriate grade. **Z** Appropriate spinal point

Staff and Staff Activity

University of……..……..……Faculty of……...…..……..……..School of……..……

Financial period covered by return April……..…March……

Staff Member Number	Job Title*	Grade*	Spinal Column Point	WTE	Teaching	Research	OSA	SA	Total	DA E GA
a	b	c	d	e	f	g	h	i	j	k
					%	%	%	%	%	100%
1										
2										
3										
4										
5										
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28										
29										
30										
31										
32										
33										
34										
35										
n										
Total										

* See attached table Job titles and associated grades of academic staff based in the school.

Please state the % of "on costs" for all academic staff: lecturer, senior lecturer, health lecturer etc, and research .....%

Please state the % of "on costs" for: secretarial, clerical and related officers.....%

Please state the % of "on costs" for: administrative, library and computing staff.....%

Job Titles and Associated Grades of Staff Based in the School

Job Title	Grade
Academic Staff	
Lecturer	A
Lecturer	B
Senior Lecturer	SL
College of Health	
Former college of health academic staff on academic health grades if not transferred to university academic grades at integration.	W Closest university grade e.g. L, SL etc, and spinal point to academic health grade
Research Staff	1B
Research Staff	1A
Research Staff	2
Research Staff	3
Other Academic	Y Appropriate grade
Secretarial, Clerical & Related Officers	
Secretarial, Clerical & Related Officers	1
Secretarial, Clerical & Related Officers	2
Secretarial, Clerical & Related Officers	3
Secretarial, Clerical & Related Officers	4
Secretarial, Clerical & Related Officers	5
Secretarial, Clerical & Related Officers	6
Technical Staff	
Technician	A
Technician	B
Technician	C
Technician	D
Technician	E
Technician	F
Technician	G
Technician	H
Technician	I
Administration/Library/Computing	
Administration/Library/Computing	1
Administration/Library/Computing	2
Administration/Library/Computing	3
Administration/Library/Computing	4
Administration/Library/Computing	5

Cost Pools - Operating Expenses / Non Staff Costs

Cost Pool 1 Student Related Costs

1.1 Registration / Index Fees
1.2 Travel and Subsistence
1.3 Uniforms
1.4 External Examiners
1.5 Teaching Materials
1.6 Other

Cost Pool 2 Staff Related Costs

2.1 Staff Development
2.2 Travel and Subsistence
2.3 External Lecturers
2.4 Other

Cost Pool 3 Library Services

3.1 Library Services

Cost Pool 4 Information Technology

4.1 Hardware
4.2 Software
4.3 Maintenance
4.4 Other

Cost Pool 5 Administrative Services

5.1 Office supplies
5.2 Photocopying
5.3 Postage
5.4 Printing
5.5 Telephone
5.6 Payroll
5.7 Insurance
5.8 Other

Cost Pool 6 Other Costs

Institutional Level

Please note that costs that are required to be returned in this part of the procedure are at the institutional level. They relate exclusively to central university staff and the central university functions undertaken by these staff which the School of Health Studies must bear it fair share. These central university functions and their associated costs cover:

- Academic Services: Central libraries and information services, central computer and computer networks and other academic services. All of these should be reported under 7 Learning Resources.
- Administration and Central Services: 4 General administration, 5 research administration, 6 student administration and services, 8 faculty administration & 9 departmental administration.
- Premises: rates, rents, energy, water and sewage, Routine repairs and maintenance and planned maintenance. (1 Building use and 3 premises).

University P

Physiotherapy

EXAMPLE Summary of LEVEL 1 Expenditure for Years 1996-1997, 1997-1998 & 1998-1999

	April 1996-March 1997	April 1997-March 1998	April 1998-March 1999
	Physiotherapy	Physiotherapy	Physiotherapy
	£,000	£,000	£,000
Costs- Course(s) Directly Attributed			
Pay			
Academic Staff			
Administrative, Professional, Clerical & Technical			
Sub Total	**ph1**	**ph1**	**ph1**
Non Pay / Cost Pools			
1 Student Related Costs			
2 Staff Related Costs			
3 Library Services			
4 Information Technology			
5 Administrative Services			
6 Other Costs			
Sub Total	**ph2**	**ph2**	**ph2**
Premises / Estates Running Costs			
Equipment if not included in cost pools 1-6			
Sub Total	**ph3**	**ph3**	**ph3**
Total	ph4 = ph1 + ph2 + ph3	ph4 = ph1 + ph2 + ph3	ph4 = ph1 + ph2 + ph3

University P

Physiotherapy

EXAMPLE Summary of LEVEL 2 SCHOOL/FACULTY Overheads for Years 1996-1997, 1997-1998 & 1998-1999

	April 1996-March 1997	April 1997-March 1998	April 1998-March 1999
	Physiotherapy	Physiotherapy	Physiotherapy
Costs	**£,000**	**£,000**	**£,000**
School Level			
Pay			
Academic Staff			
Administrative, professional, clerical and technical staff			
Sub Total	**ph4**	**ph4**	ph4
Non Pay / Cost Pools			
1 Student Related Costs			
2 Staff Related Costs			
3 Library Services			
4 Information Technology			
5 Administrative Services			
6 Other Costs			
Sub Total	**ph5**	**ph5**	**ph5**
Premises / Estates Running Costs			
Equipment if not included in cost pools 1-6			
Sub Total	**ph6**	**ph6**	**ph6**
Total	**ph7 = ph4 + ph5 + ph6**	**ph7 = ph4 + ph5 + ph6**	**ph7 = ph4 + ph5 + ph6**

University P

Physiotherapy

EXAMPLE Summary of LEVEL 3 INSTITUTIONAL Overheads for Years 1996-1997, 1997-1998 & 1998-1999

	April 1996-March 1997	April 1997-March 1998	April 1998-March 1999
	Physiotherapy	Physiotherapy	Physiotherapy
Costs	**£,000**	**£,000**	**£,000**
Institutional Level			
Pay			
Non Pay			
Sub Total	**ph8**	**ph8**	**ph8**
1 Building Use			
2 Equipment Use			
3 Premises			
4 General Admin			
5 Research Admin			
6 Student Admin & Services			
7 Learning Resources			
8 Faculty Admin			
9 Departmental Admin			
10 Other			
Sub Total	**ph9**	**ph9**	**ph9**
Total	**ph10 = ph8 + ph9**	**ph10 = ph8 + ph9**	**ph10 = ph8 + ph9**

University P

Physiotherapy

Summary Sheet

	April 1996-March 1997	April 1997-March 1998	April 1998-March 1999
	£,000	£,000	£,000
Physiotherapy Department	A1	A2	A3
School Overheads to Physiotherapy Department	B1	B2	B3
Institutional Overhead to Physiotherapy Department	C1	C2	C3
Total	**D1 = A1+B1+C1**	**D2 = A2+B2+C2**	**D3 = A3+B3+C3**

University P

Physiotherapy

Summary Sheet

	April 1996-March 1997	April 1997-March 1998	April 1998-March 1999
	£,000	£,000	£,000
Physiotherapy Department	**A1**	**A2**	**A3**
School Overheads to Physiotherapy Department	**B1**	**B2**	**B3**
Institutional Overhead to Physiotherapy Department	**C1**	**C2**	**C3**
Total	D1 = A1+B1+C1	D2 = A2+B2+C2	D3 = A3+B3+C3

Stages	Nursing	Physiotherapy
1 Literature review / key publications	E.g. for sources of competencies (Zarett, 1980; Aggleton 1997; Troskie 1993, 1993a; O'Connor et al., 1999; Fitzpatrick et al., 1997).	Aston-McCrimmon and Hamel (1983) referenced professional practice publications, standards in training protocols, course outlines and job descriptions; Webb et al., (1996) referenced BSc course documents; and Loomis, (1985) professional documents.
2 Panel of experts	E.g. developing appropriate items, checking the appropriateness of items that had been generated in previous studies, validation of content domain, validity and instruments. (Zarett, 1980; Nelson, 1978; O'Connor et al., 1999; Dunn, 1986; Fitzpatrick et al., 1997).	To confirm the content validity of the questionnaires. Aston-McCrimmon and Hamel (1983); Loomis (1985) and Moncur (1985)
3 Item reduction	The number of items that comprise the final version of a questionnaire is sometimes less than the number originally considered. E.g. Nurse Competency Instrument (NCI), The King's Nurse Performance Scale (Fitzpatrick et al., 1997) etc.	Aston-McCrimmon and Hamel (1983) reported a reduction from 236 to 224 and Loomis (1985) from 86, 56, 48 to 40.
4 Sections and clusters	There is variability in the number and focus of sections of the questionnaires designed to measure nursing performance. E.g. Welches, 1974 42 (items) 6 clusters; Hogstel, 1977 (80 items); Nelson, 1977 (35 items); Howell, 1978; (17 items) Schwirian; 1979 et al (52 items) etc.	Aston-McCrimmon and Hamel (1983) 11 categories; Loomis (1985) 9 domains; Hunt et al (1998) six areas: Cross (1983) identified 13 competencies; Moncur (1985) identified 7 domains; Ford (1985) identified 8 areas; ACPRA (1994) identified 8 units; North West Regional Health Authority (1995) identified 5 principal functions.

Appendix 17 Key stages in development of fitness for purpose questionnaire and subsequent analysis.

Stages	Nursing	Physiotherapy
5 Return rates	Postal questionnaires. 30.4% Schwirian et al (1979); 'at least 40%' Hogstel (1997); 58% Howell (1978) and 77% Nelson (1978). Studies involving directors of nursing 68% return 48% useable Zarett (1980) to 64.3% Bircumshaw (1989). Other studies: course effectiveness nursing graduates 76.2 %, ward sisters 76.7%. O'Brien (1984) differences between educational backgrounds and job effectiveness 75% response rate by staff nurses McCloskey (1983); newly qualified staff nurses self assessment 62.8% assessment by supervisors 59.1% Troskie (1993,) and F and G grade staff nurses 100% O'Connor (1999).	Aston- McCrimmon and Hamel (1983) 50.4% (n=176) for all groups. Moncur (1985) 67% (n=100); Ford (1985) recorded a useable response rate of 42% (n=127). Loomis (1985) 60.5% (n=121); NWRHA (1995) 61%; For Webb and Collier (1996) 69.8% (n = 321) Newly qualified physiotherapists who had been qualified for less than three years recorded a response rate of 44.3% (n=139). Hunt et al., 1998 recorded a response rate for newly qualified physiotherapists of 30.9% (n=235).
6 Assessment scales	Likert Scales: were used in five of the studies. Zarett (1980) used 5 points as did O'Brien (1984) but with different label titles and Nelson (1978). Howell (1997) used a three point rating scale Dunn (1986) and O'Connor (1999) also used Likert scales but the content was not described.	Likert scales used in three of the studies. Webb and Collier (1996) used a four-point scale. Loomis (1985) a five-point scale of incremental performance and Hunt et al., (1998) used a seven point scale.
7 Factor analysis	Dunn (1986) and Fitzpatrick (1997) used principal components and Troskie (1993,) unspecified. All three used varimax rotation. Troskie (1993,) and Fitzpatrick (1997) report using an eigen value greater than 1. Troskie (1993,) also reports using a factor loading of 0.4. Fitzpatrick (1997) reports that the internal consistency of the data generated from the King's Scale were examined using Cronbach's coefficient alpha technique. Nunally's (1978) criteria of 0.80, which suggests independent components within the instrument were used.	Hunt et al., (1998). The 52 items were subjected to factor analysis via a principal components analysis followed by varimax rotation. Each factor had an eigen value greater than 1. Cronbach alpha reliability coefficients were computed for all the factors.
8 Categories of assessors:	Self-assessment by the former graduates and assessment of the graduates by representatives of employers usually directors of nursing, head nurses or other supervisors.	Self-assessment by the former graduates and assessment of the graduates by representatives of employer's usually senior physiotherapy staff, managers or other supervisors.

Appendix 17 Key stages in development of fitness for purpose questionnaire and subsequent analysis.

Appendix 18

Nurses: Mean Percentage of Fitness for Purpose by University Provider and Category of Assessor
Newly Qualified Adult Branch Nurses (1997 & 1998 Combined)
Self-Assessment.
Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for Purpose by Factor by University and Associated Standard Deviation.

Factor 1 11.67 % of Variance Adapting Nursing Practice				Factor 2 8.38 % of variance Ensure Appropriate Standard of Care Through Continuing Professional Development			
R 66.93 %	T 67.41 %	V 64.80 %	Average 66.31 %	R 78.83 %	T 80.72 %	V 79.10 %	Average 79.5 %
SD 14.84	11.49	13.05	13.21	SD 12.76	8.96	12.24	11.49

Factor 3 7.03 % of variance Enable Patients To Meet Their Physical, Physiological and Spiritual Needs				Factor 4 6.63 % of variance Optimise Health and Social Well Being			
R 79.93 %	T 75.40 %	V 76.87 %	Average 77.46 %	R 72.43 %	T 73.14 %	V 72.05 %	Average 72.51 %
SD 11.47	13.77	12.64	12.67	SD 11.49	11.49	13.32	12.10

Factor 5 6.35 % of variance Contribute to the Physiological and Psychological Well-being of Patients				Factor 6 5.68 % of variance Professional Working Relationships With Patients			
R 85.55 %	T 86.14 %	V 85.81 %	Average 85.82 %	R 83.67 %	T 82.39 %	V 81.54 %	Average 82.52 %
SD 10.06	8.37	8.68	9.02	SD 9.99	9.35	10.23	9.86 %

Factor 7 5.20 % of variance Planning and Evaluating Nursing Care				Factor 8 5.09 % of variance Effective Communication			
R 76.16 %	T 79.09 %	V 77.69 %	Average 77.60 %	R 70.24 %	T 65.04 %	V 63.04 %	Average 66.08 %
SD 12.52	9.9	9.18	10.62	SD 15.48	15.94	19.25	17.22

Factor 9 4.85 % of variance Multi-disciplinary Working				Factor 10 3.96 % of variance Supporting Patients During Interventions			
R 78.33 %	T 77.47 %	V 75.27 %	Average 76.97 %	R 70 %	T 68.94 %	V 64.49 %	Average 67.70 %
SD 12.06	11.22	10.18	11.16	SD 17	16.42	18.37	17.39

Clinical Preceptors Assessment of Newly Qualified Adult Branch Nurses (1997 & 1998 Combined).
Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for Purpose by Factor by University and Associated Standard Deviation.

Factor 1 22.08 % of Variance Practice Within the Recognised Scope and Current Limitations of Nursing Practice				Factor 2 17.80 % of variance Enable Patients To Meet Their Physiological and Physical Needs			
71.69 %	T 70.48 %	V 70.11 %	Average 70.75	R 70.78 %	T 68.18 %	V 69.51 %	Average 69.42
SD 12.88	15.72	14.95	14.55	SD 13.12	17.41	14	15.06

Factor 3 16.75 % of variance Evidence Based Nursing Care				Factor 4 13.68 % of variance Effective Communication in Optimising Health and Social Well Being			
R 62.38 %	T 59.65%	V 57.55 %	Average 59.88 %	R 66.51 %	T 63.84 %	V 63.03 %	Average 64.44 %
SD 14.98	16.60	15.48	15.39	SD 12.50	14.60	14.28	13.86

Sisters /Charge Nurses Assessment of Newly Qualified Adult Branch Nurses (1997 & 1998 Combined).
Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for Purpose by Factor by University and Associated Standard Deviation.

Factor 1 25.4 % of Variance Delivery of Cost Effective Nursing Care				Factor 2 20.41% of variance Enable Patients To Meet Their Physical, Physiological and Psychological Needs			
R 57.17 %	T 57.68 %	V 58.85 %	Average 57.83 %	R 70.07 %	T 69.46%	V 70.36%	Average 69.94 %
SD 12.73	15.19	11.92	13.41	SD 13.46	14.95	11.79	13.52

Factor 3 16.87 % of variance Ensure the Delivery of Care Through Effective Communication & Professional Frameworks				Factor 4 10.27 % of variance Enable Effective Communication to Enhance Patient Safety & Well Being			
R 66.72 %	T 67.46 %	V 69.29 %	Average 67.71 %	R 63.96 %	T 60.77%	V 62.22%	Average 62.33 %
SD 12.77	13.28	11.98	12.73	SD 12.18	14.43	11.98	13.37

Directors of Nursing A & C
Assessment of Newly Qualified Adult Branch Nurses (1997 & 1998 Combined).
Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for by Factor by University and Associated Standard Deviation.

Factor 1 17.45 % of Variance Enable Patients to Meet Their Physical and Physiological Needs Within a Programme of Nursing Care				Factor 2 14.42 % of variance Health and Safety in the Workplace			
R 51 %	T 51.71 %	V 50 %	Average 51.01 %	R 47.90 %	T 54.44%	V 52.12 %	Average 47.20 %
SD 15.61	14.72	14.17	14.35	SD 13.46	13.82	10.19	11.47

Factor 3 12.65 % of variance Patient Protection				Factor 4 11.59 % of variance Continuing Professional Development and Multi disciplinary Working			
R 45.88 %	T 50 %	V 45.18%	Average 47.20 %	R 51 %	T 60.63%	V 58.09 %	Average 56.17 %
SD 11.99	11.66	11.51	11.47	SD 15.43	13.83	8.92	13.75

Factor 5 7.80 % of variance Focused Care to Meet Specific Needs				Factor 6 7.38 % of variance Contribute to Well Being of Patients			
R 52 %	T 61.11 %	V 58.75 %	Average 56.9 %	R 63.50 %	T 62.77 %	V 57.50 %	Average 61.8 %
SD 11.29	9.27	13.11	11.39	SD 13.75	11.21	10.36	11.89

Appendix 19 Physiotherapists

Mean Percentage of Fitness for Purpose by University Provider and Category of Assessor.
Newly Qualified Physiotherapists
(1997 & 1998 Combined) Self-Assessment.

Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for Purpose by Factor by University and Associated Standard Deviation.

Factor 1 14.31 % of variance Clinically Effective Physiotherapy				Factor 2 10.62 % of variance Frameworks, Legislation and Policies Related to Physiotherapy Practice			
H 77.22 %	J 73.82%	L 73.85 %	Average 75.06%	H 67.71 %	J 64.21 %	L 63.37%	Average 65.%
SD 7.64	13.25	11.37	10.85	SD 8.41	11.83	12.57	11.07

Factor 3 8.56 % variance Application of Physiotherapy Practice				Factor 4 7.99 % of variance Practise and Promote Continuing Professional Development			
H 72.10 %	J 67.69 %	L 68.81%	Average 69.67%	H 74.25 %	J 75.81 %	L 73.18 %	Average 74.35%
SD 10.93	14.56	11.63	12.37	SD 10.71	9.81	13.62	11.50

Factor 5 7.34 % of variance Enabling Individuals and Groups to Optimise Their Health and Social Well Being				Factor 6 6.20 % of variance Clinical Decision Making			
H 74.43 %	J 72.57 %	L 71.62 %	Average 72.93 %	H 76.60 %	J 73.43 %	L 71.14 %	Average 73.79 %
SD 9.99	11.83	9.17	10.29	SD 9.45	12.27	14.03	12.12

Factor 7 5.84 % of variance Service Equity & Patient Rights			
H 82.65%	J 85.83 %	L 83.71 %	Average 84.01 %
SD 9.53	7.90	12.36	10.17

Clinical Supervisors (1997 & 1998 Combined) Assessment of Newly Qualified Physiotherapists.

Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for Purpose by Factor by University and Associated Standard Deviation.

Factor 1 14.77 % of variance Planning, Implementing and Evaluating Physiotherapy				Factor 2 14.22 % of variance Evidence Based Physiotherapy			
H 69.38 %	J 66.82 %	L 66.68 %	Average 67.71 %	H 65.11 %	J 62.44 %	L 62.01 %	Average 63.27 %
SD 10.33	10.43	12.35	11.08	SD 11.95	13.05	13.26	12.71

Factor 3 13.04 % variance Managing Oneself and Working With Others				Factor 4 10.16 % of variance Adapting Physiotherapy Practice			
H 74.77 %	J 73.93 %	L 71.59 %	Average 73.45 %	H 70.22 %	J 68.56 %	L 66.97 %	Average 67.94 %
SD 11.11	11.59	14.86	12.62	SD 8.69	10.08	12.95	11.94

Factor 5 9.76 % of variance Continuing Professional Development				Factor 6 8.44 % of variance Service Equity & Patient Rights			
H 70.03 %	J 67.03 %	L 66.45 %	Average 67.94 %	H 78.52%	J 77.56 %	L 79.14 %	Average 78.45 %
SD 10.80	11.78	13.13	11.94	SD 10.54	10.61	11.11	10.66

Physiotherapy Services Managers (1997 & 1998 Combined)
Assessment of Newly Qualified Physiotherapists.

Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for Purpose by Factor by University and Associated Standard Deviation.

Factor 1 20.04 % of variance Optimising Health & Social Well Being				Factor 2 19.78 % of variance Issues that Affect Physiotherapy Practice			
H 69.45 %	J 62.66 %	L 66.03 %	Average 66.02 %	H 63.17 %	J 58.90 %	L 63.54 %	Average 61.79 %
SD 13.06	11.53	12.80	12.65	SD 15.17	9.98	13.44	13.04

Factor 3 19.34 % variance Patient Rights & Service Equity				Factor 4 18.21 % of variance Application of Physiotherapy Practice			
H 73.33 %	J 66.23 %	L 71.50 %	Average 70.27 %	H 68.78%	J 62.02 %	L 64.81 %	Average 65.18 %
SD 13.07	12.23	13.33	13.10	SD 13.06	9.98	14.69	13.64

Heads of Trust Wide Physiotherapy Services (1997 & 1998 Combined)
Assessment of Newly Qualified Physiotherapists.

Factor Number, Percentage of Variance, Label, Mean Percentage of Fitness for Purpose by Factor by University and Associated Standard Deviation.

Factor 1 21.52 % of variance Patient Equality in the Context of Practice				Factor 2 14.51 % of variance Clinically Effective Physiotherapy			
H 62.68 %	J 60.41 %	L 60.55 %	Average 61.17 %	H 59.54 %	J 56.07 %	L 59.47 %	Average 58.23 %
SD 15.08	12.41	12.61	13.16	SD 17.10	11.75	14.40	14.24

Factor 3 13.72 % variance Duty of Care to Patients				Factor 4 11.48 % of variance Evidence Based Physiotherapy			
H 65.67 %	J 60.55 %	L 61.37 %	Average 62.41 %	H 55.46 %	J 54.09 %	L 55.37 %	Average 54.91 %
SD 16.70	13.09	12.67	11.79	SD 16.70	13.09	10.67	13.44

Factor 5 10.36 % of variance Range of Physiotherapeutic and or Medical Interventions				Factor 6 7.87 % of variance Continuing Professional Development			
H 66.85 %	J 63.80 %	L 64.50 %	Average 65 %	H 67.77 %	J 66.21 %	L 66.47 %	Average 66.78 %
SD 11.85	10.01	16.07	12.52	SD 12.62	10.76	15.71	12.76

Appendix 20
Nursing: Estimates of Relative Importance of Learning / Performance Outcomes 1977 & 1998 Combined

1997& 1998 Combined Newly Qualified Staff Nurses Self-Assessed	1997 & 1998 Newly Qualified Staff Nurses Assessed By Their Clinical Preceptor	1997 & 1998 Combined Newly Qualified Staff Nurses Assessed By Their Sister/Charge
Valid Cases 139 Missing 6 Total 145	Valid Case 153 Missing 7 Total 160	Valid Cases 196 Missing 10 Total 206

Top

8 Deliver Nursing Care in Response to Patients Needs 16.81	8 Deliver Nursing Care in Response to Patients Needs 21.89	8 Deliver Nursing Care in Response to Patients Needs 22.77

Middle

4 Enable Effective Communication with Patients 15.31	4 Enable Effective Communication with Patients 14.86	4 Enable Effective Communication with Patients 15.54
1 Enable Patients and Groups to Optimise Their Health & Social Well Being 14.33	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 11.07	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 11.53
6 Enable Patients to Attain Maximum Independence in Situations of Dependency 11.46	3 Maintain & Develop Patient Identity & Relationships 10.75	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 11.49
2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 10.10	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 10.71	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 10.34
3 Maintain & Develop Patient Identity & Relationships 9.96	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 9.97	7 Enable Patients to Maintain Personal Independence 10.13
5 Contribute to the Welfare of Patients 9.83	5 Contribute to the Welfare of Patients 9.46	3 Maintain & Develop Patient Identity & Relationships 9.86
7 Enable Patients to Maintain Personal Independence 9.61	7 Enable Patients to Maintain Personal Independence 9.34	9 Understand the Need for Nursing Practice to be Researched Based 9.66

Bottom

1997& 1998 Combined Newly Qualified Staff Nurses Self-Assessed	1997 & 1998 Newly Qualified Staff *Nurses Assessed By* Their Clinical Preceptor	1997 & 1998 Combined Newly Qualified Staff *Nurses Assessed By* Their Sister/Charge
9 Understand the Need for Nursing Practice to be Researched Based 9.47	9 Understand the Need for Nursing Practice to be Researched Based 9.33	5 Contribute to the Welfare of Patients 9.15
11 Maintain a Safe Working Environment 8.61	11 Maintain a Safe Working Environment 9.33	13 Support Patients During Specific Treatment & Therapeutic Programmes 8.69
15 Practise & Promote Continuing Professional Development 8.30	13 Support Patients During Specific Treatment & Therapeutic Programmes 8.34	11 Maintain a Safe Working Environment 8.22
13 Support Patients During Specific Treatment & Therapeutic Programmes 8.26	10 Respond Appropriately to Changing Demands 8.33	15 Practise & Promote Continuing Professional Development 7.23
10 Respond Appropriately to Changing Demands 6.76	15 Practise & Promote Continuing Professional Development 7.52	10 Respond Appropriately to Changing Demands 6.94
12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 6.44	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 5.24	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 4.84

Floor

14 Contribute to the Management of Resources, Information & Quality 4.88	14 Contribute to the Management of Resources, Information & Quality 4.46	14 Contribute to the Management of Resources, Information & Quality 3.87

Appendix 20 Table 1 (Continued) Rank Order Positions of Means From Estimates of Relative Importance of Learning / Performance Outcomes in Respect of Newly Qualified Adult Branch Nurses Who Qualified in October 1997 & April 1998 Combined as Perceived by Newly Qualified, Clinical Preceptors and Sisters/Charge Nurses.

Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD
Valid Cases 22 Missing 2 Total 24	Valid Cases 21 Missing 0 Total 21	Valid Cases 23 Missing 2 Total 25	Valid Cases 20 Missing 0 Total 20	Valid Cases 43 Missing 2 Total 45	Valid Cases 63 Missing 2 Total 65	Valid Cases 83 Missing 2 85	106 Missing 4 110
Top							
8 Deliver Nursing Care in Response to Patients Needs 24.64	8 Deliver Nursing Care in Response to Patients Needs 27.10	8 Deliver Nursing Care in Response to Patients Needs 23.48	8 Deliver Nursing Care in Response to Patients Needs 28.55	8 Deliver Nursing Care in Response to Patients Needs 25.84	8 Deliver Nursing Care in Response to Patients Needs 23.86	8 Deliver Nursing Care in Response to Patients Needs 24.99	8 Deliver Nursing Care in Response to Patients Needs 24.66 1
Middle							
5 Contribute to the Welfare of Patients 12.86	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 19.38	4 Enable Effective Communication with Patients 13.96	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 18.65	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 14.51	9 Understand the Need for Nursing Practice to be Researched Based 15.10	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 13.82	4 Enable Effective Communication with Patients 13.53 2
2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 12.59	4 Enable Effective Communication with Patients 15.43	5 Contribute to the Welfare of Patients 13.43	4 Enable Effective Communication with Patients 13.05	4 Enable Effective Communication with Patients 13.53	4 Enable Effective Communication with Patients 13.52	4 Enable Effective Communication with Patients 13.41	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 13.19

Appendix 20 Table 1 Rank Order Positions of Means From Estimates of Relative Importance of Learning / Performance Outcomes in Respect of All Newly Qualified Adult Branch Nurses (Regardless of University of Origin as Perceived by Eight Groupings of Directors of Nursing in 1997 & 1998

Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD
9 Understand the Need for Nursing Practice to be Researched Based 11.91	7 Enable Patients to Maintain Personal Independence 11.52	3 Maintain & Develop Patient Identity & Relationships 11.83	7 Enable Patients to Maintain Personal Independence 10.90	5 Contribute to the Welfare of Patients 10.58	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 12.29	9 Understand the Need for Nursing Practice to be Researched Based 13.19	9 Understand the Need for Nursing Practice to be Researched Based 12.75
4 Enable Effective Communication with Patients 11.73	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 10.57	9 Understand the Need for Nursing Practice to be Researched Based 11.13	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 9.75	3 Maintain & Develop Patient Identity & Relationships 10.00	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 11.06	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 10.75	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 9.81
3 Maintain & Develop Patient Identity & Relationships 11.59	3 Maintain & Develop Patient Identity & Relationships 8.38	2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice 10.91	11 Maintain a Safe Working Environment 8.15	9 Understand the Need for Nursing Practice to be Researched Based 9.30	15 Practise & Promote Continuing Professional Development 9.60	7 Enable Patients to Maintain Personal Independence 8.87	3 Maintain & Develop Patient Identity & Relationships 9.23
13 Support Patients During Specific Treatment & Therapeutic Programmes 11.45	5 Contribute to the Welfare of Patients 8.14	13 Support Patients During Specific Treatment & Therapeutic Programmes 10.22	3 Maintain & Develop Patient Identity & Relationships 7.90	7 Enable Patients to Maintain Personal Independence 8.09	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 9.11	15 Practise & Promote Continuing Professional Development 8.75	5 Contribute to the Welfare of Patients 9.03

Table 14 Continued

Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD
12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 9.00	11 Maintain a Safe Working Environment 7.71	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 9.91	5 Contribute to the Welfare of Patients 7.30	13 Support Patients During Specific Treatment & Therapeutic Programmes 8.09	3 Maintain & Develop Patient Identity & Relationships 8.70	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 8.52	15 Practise & Promote Continuing Professional Development 8.72
15 Practise & Promote Continuing Professional Development 8.82	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 6.90	15 Practise & Promote Continuing Professional Development 8.61	9 Understand the Need for Nursing Practice to be Researched Based 7.20	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 7.98	7 Enable Patients to Maintain Personal Independence 8.22	3 Maintain & Develop Patient Identity & Relationships 8.51	7 Enable Patients to Maintain Personal Independence 8.17
11 Maintain a Safe Working Environment 6.91	9 Understand the Need for Nursing Practice to be Researched Based 6.57	11 Maintain a Safe Working Environment 6.96	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 6.65	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 7.98	5 Contribute to the Welfare of Patients 7.97	5 Contribute to the Welfare of Patients 7.81	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 8.08
7 Enable Patients to Maintain Personal Independence 6.59	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 6.57	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 6.48	15 Practise & Promote Continuing Professional Development 6.05	11 Maintain a Safe Working Environment 7.51	13 Support Patients During Specific Treatment & Therapeutic Programmes 7.70	11 Maintain a Safe Working Environment 7.36	13 Support Patients During Specific Treatment & Therapeutic Programmes 7.86

Table 14 Continued

Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD
6 Enable Patients to Attain Maximum Independence in Situations of Dependency 6.55	15 Practise & Promote Continuing Professional Development 5.95	1 Enable Patients and Groups to Optimise Their Health & Social Well Being 6.43	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 5.75	15 Practise & Promote Continuing Professional Development 7.42	10 Respond Appropriately to Changing Demands 7.59	13 Support Patients During Specific Treatment & Therapeutic Programmes 7.20	11 Maintain a Safe Working Environment 7.27
1 Enable Patients and Groups to Optimise Their Health & Social Well Being 5.50	14 Contribute to the Management of Resources, Information & Quality 4.81	7 Enable Patients to Maintain Personal Independence 5.65	13 Support Patients During Specific Treatment & Therapeutic Programmes 5.65	6 Enable Patients to Attain Maximum Independence in Situations of Dependency 6.56	11 Maintain a Safe Working Environment 7.11	10 Respond Appropriately to Changing Demands 6.90	10 Respond Appropriately to Changing Demands 6.22
10 Respond Appropriately to Changing Demands 5.27	13 Support Patients During Specific Treatment & Therapeutic Programmes 4.57	14 Contribute to the Management of Resources, Information & Quality 4.30	14 Contribute to the Management of Resources, Information & Quality 4.75	14 Contribute to the Management of Resources, Information & Quality 4.51	14 Contribute to the Management of Resources, Information & Quality 5.00	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 5.10	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 6.14

14 Contribute to the Management of Resources, Information & Quality 4.68	10 Respond Appropriately to Changing Demands 3.57	10 Respond Appropriately to Changing Demands 3.74	10 Respond Appropriately to Changing Demands 4.75	10 Respond Appropriately to Changing Demands 4.21	12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs 4.89	14 Contribute to the Management of Resources, Information & Quality 4.94	14 Contribute to the Management of Resources, Information & Quality 4.94

Learning Outcomes	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD	Rank order of summed rank orders of Directors of Nursing	
									Total.....Rank Score.....Order	
8 Deliver Nursing Care in Response to Patients Needs	1	1	1	1	1	1	1	1	8	1
4 Enable Effective Communication with Patients	2	3	2	3	3	3	3	2	19	2
2 Demonstrate & Apply Knowledge and Understanding of Issues that Affect Nursing Practice	3	2	6	2	2	4	2	3	24	3
9 Understand the need for Nursing Practice to be Research Based	7	10	5	9	6	2	4	4	47	4

Appendix 20 Table 2 Rank Orders of Estimates of Relative Importance of Learning / Performance Outcomes in Respect of All Newly Qualified Adult Branch Nurses as Perceived by Eight Groupings of Directors of Nursing in 1997 & 1998

Learning Outcomes	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD	Rank order of summed rank orders of Directors of Nursing Total.....Rank Score.....Order	
1 Enable Patients and Groups to Optimise Their Health & Social Well Being	5	5	12	5	9	5	5	5	51	5
3 Maintain & Develop Patient Identity & Relationships	9	6	4	7	5	8	9	6	54	6
5 Contribute to the Welfare of Patients	8	7	3	8	4	10	10	7	57	7
7 Enable Patients to Maintain Personal Independence	6	4	13	4	7	9	6	9	58	8

Table 2 Rank Orders of Estimates of Relative Importance of Learning / Performance Outcomes in Respect of All Newly Qualified Adult Branch Nurses as Perceived by Eight Groupings of Directors of Nursing in 1997 & 1998

Learning Outcomes	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD	Rank order of summed rank orders of Directors of Nursing Total.....Rank Score.....Order	
6 Enable Patients to Attain Maximum Independence in Situations of Dependency	4	10	11	10	13	7	8	10	73	9
15 Practise & Promote Continuing Professional Development	11	12	9	11	12	6	7	8	**76**	**10**
11 Maintain a Safe Working Environment	12	8	10	6	11	13	11	12	**83**	**11**
13 Support Patients During Specific Treatment & Therapeutic Programmes	10	14	7	13	7	11	12	11	**85**	**12**

Table 2 Continued

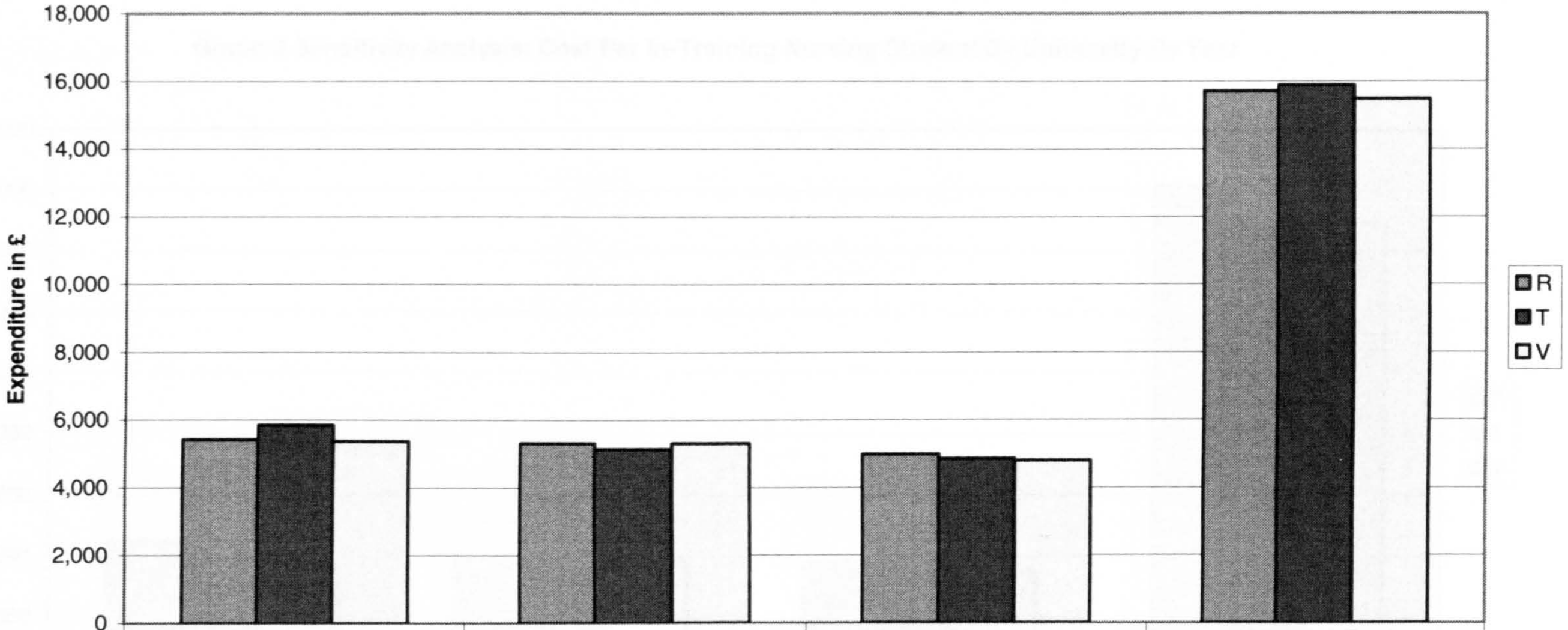
Learning Outcomes	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & B" Combined October 1997	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "C & D" Combined April 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A & C "Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "B & D" Combined 1997 & 1998	Directors of Nursing Assessment of Newly Qualified Staff Nurses University Categories "A &B* + C & D^" Combined *1997 + 1998^	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including B & D	Directors of Nursing 8 NHS Regions of England Assessment of Newly Qualified Staff Nurses* by University October 1997 & April 1998 Qualifiers Including ABCD	Rank order of summed rank orders of Directors of Nursing Total.....Rank Score.....Order	
12 Support Patients' Spirituality, Faith & Related Pastoral Care Needs	10	9	8	12	9	15	14	14	91	13
10 Respond Appropriately to Changing Demands	13	15	15	14	15	12	13	13	110	14
14 Contribute to the Management of Resources, Information & Quality	15	13	14	14	14	14	15	15	114	15

Table 2 Continued

Appendix 21
Physiotherapy: Estimates of Relative Importance of Learning / Performance Outcomes 1977 & 1998 Combined

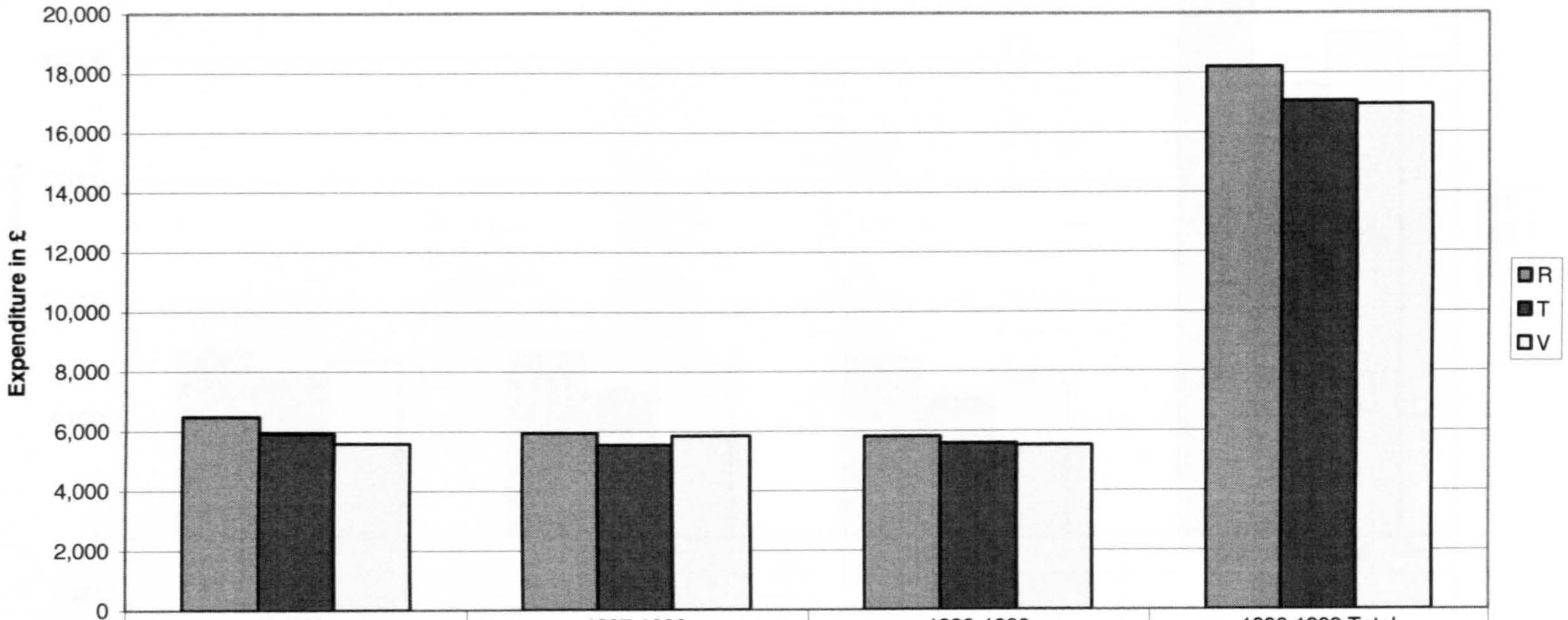
1997& 1998 Combined Newly Qualified Physiotherapists Self-Assessed	1997 & 1998 Newly Qualified Physiotherapists Assessed By Clinical Supervisors	1997 & 1998 Combined Newly Qualified Physiotherapists Assessed By Physiotherapy Managers
Valid Cases 107 Missing 4 Total 111	Valid Cases 131 Missing 8 Total 139	Valid Cases 94 Missing 13 Total 107
Top		
C Deliver physiotherapy in response to individuals' needs 15.68	C Deliver physiotherapy in response to individuals' needs 17.57	C Deliver physiotherapy in response to individuals' needs 17.66
Middle		
A Enable individuals and groups to optimise their health and social well being 12.99	H Manage oneself and work with others to optimise results 10.73	H Manage oneself and work with others to optimise results 10.43
H Manage oneself and work with others to optimise results 9.98	A Enable individuals and groups to optimise their health and social well being 9.32	A Enable individuals and groups to optimise their health and social well being 9.62
E Research & Evaluate practice 9.07	D Demonstrate and apply knowledge and understanding of issues that physiotherapy practice 9.31	D Demonstrate and apply knowledge and understanding of issues that physiotherapy practice 9.26
F Practise and promote continued professional development CPD 8.98	E Research & Evaluate practice 8.89	E Research & Evaluate practice 8.93
D Demonstrate and apply knowledge and understanding of issues that physiotherapy practice 8.48	F Practise and promote continued professional development CPD 8.80	B Respond appropriately to changing demands 8.86
G Promote equality to all individuals in physiotherapy practice 7.91	B Respond appropriately to changing demands 8.14	F Practise and promote continued professional development CPD 8.55
Bottom		
B Respond appropriately to changing demands 7.55	G Promote equality to all individuals in physiotherapy practice 7.13	G Promote equality to all individuals in physiotherapy practice 7.03

Graph 1 Sensitivity Analysis: Cost Per Indexed Nursing Student By University By Year



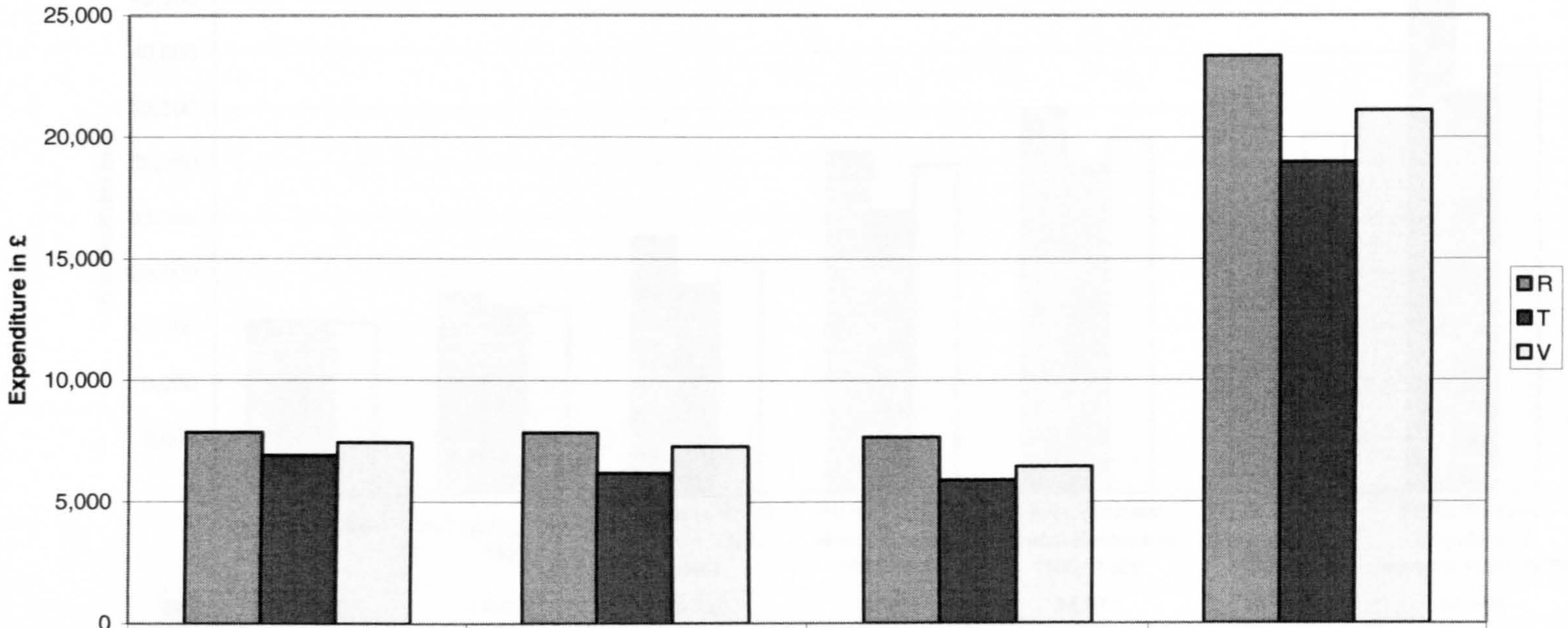
	1996-1997	1997-1998	1998-1999	1996-1999 Total
R	5,421	5,311	4,976	15,708
T	5,852	5,142	4,853	15,874
V	5,375	5,304	4,798	15,477

Graph 2 Sensitivity Analysis: Cost Per In-Training Nursing Student By University By Year



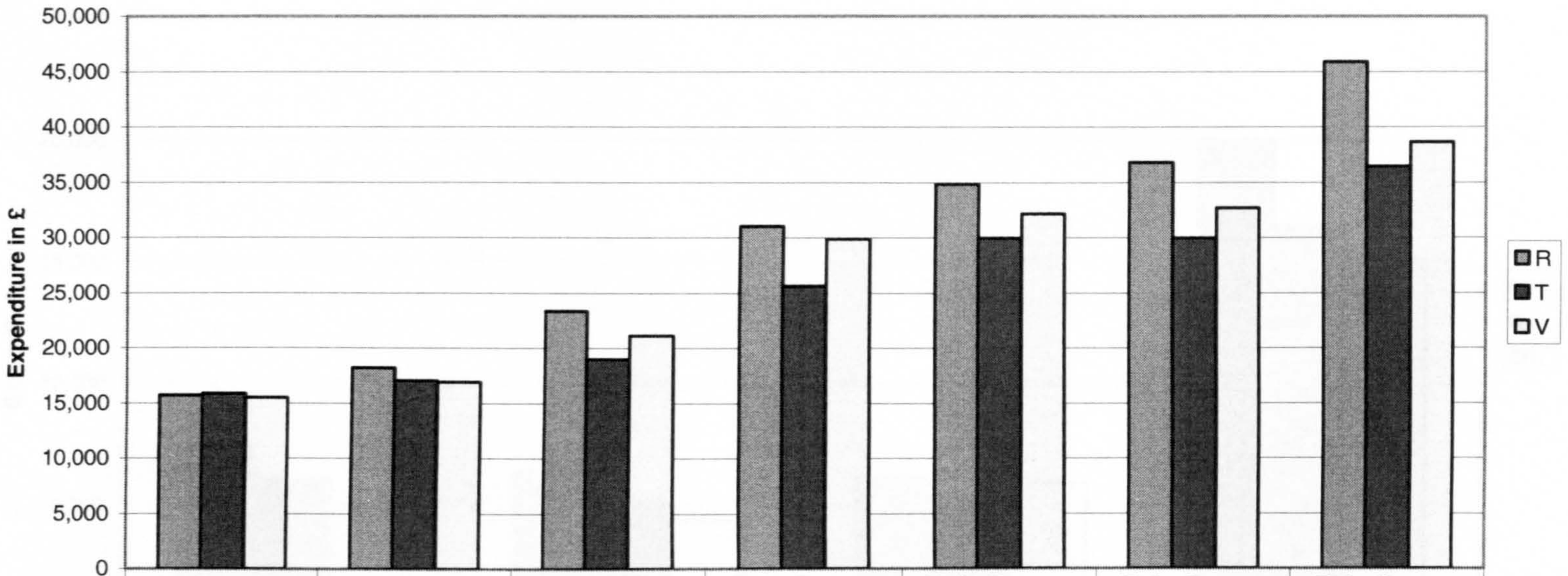
	1996-1997	1997-1998	1998-1999	1996-1999 Total
R	6,477	5,952	5,807	18,209
T	5,914	5,554	5,590	17,058
V	5,589	5,846	5,512	16,947

Graph 3 Sensitivity Analysis: Cost Per Qualified Nurse By University By Year



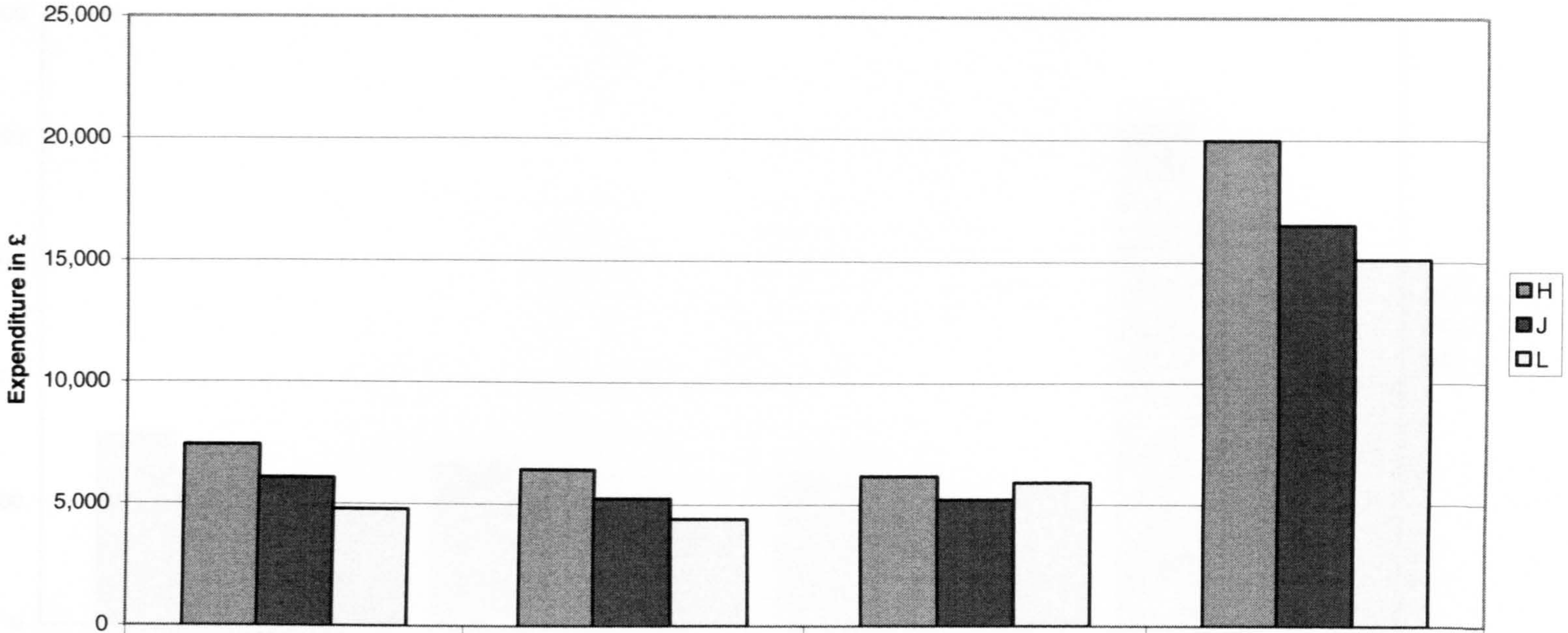
	1996-1997	1997-1998	1998-1999	1996-1999 Total
R	7,841	7,843	7,667	23,350
T	6,899	6,204	5,887	18,990
V	7,432	7,293	6,452	21,117

Graph 4 Sensitivity Analysis: Cost Per Category By University By Year



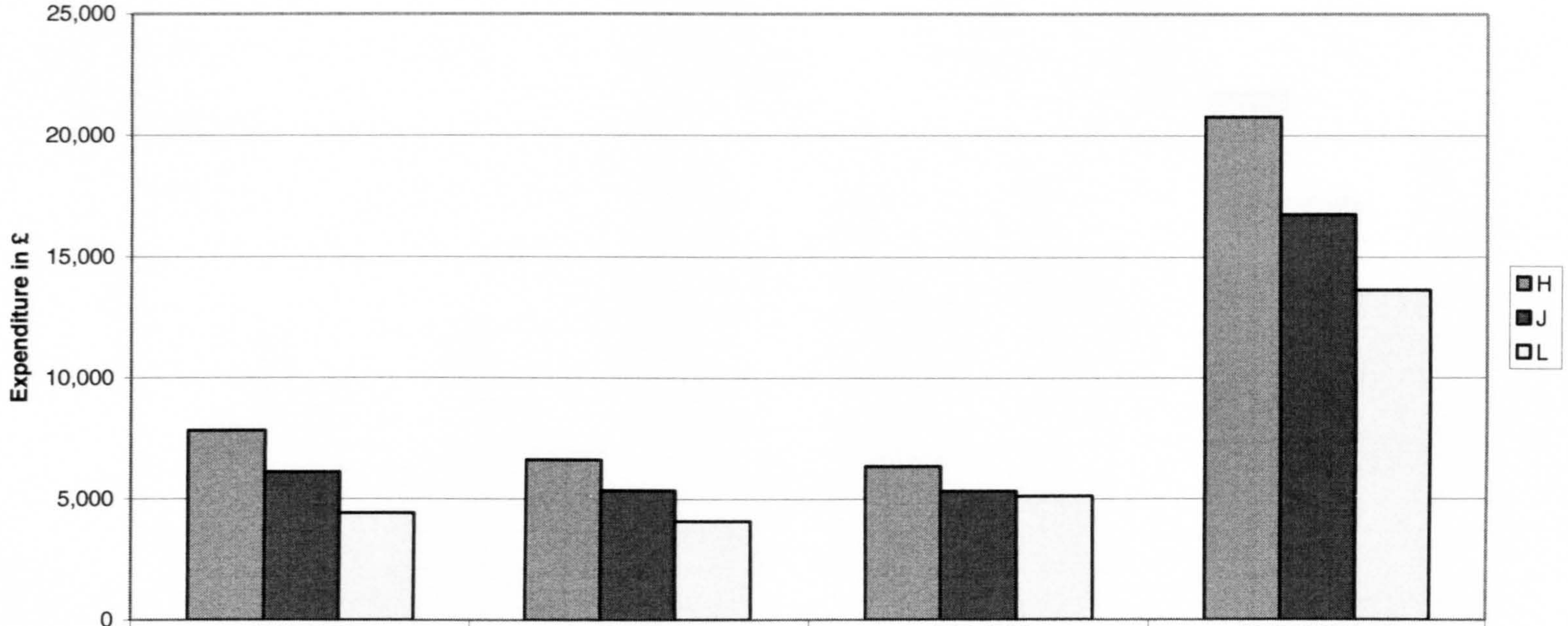
	Indexed 1996-1999	In-Training 1996-1999	Qualified / Fit for Practice 1996-1999	Fit for Purpose Newly Qualified 1996-1999	Fit for Purpose Clinical Preceptors 1996 -1999	Fit for Purpose Sisters/Charge Nurses	Fit for Purpose Directors of Nursing 1996-1999
R	15,708	18,209	23,350	31,050	34,871	36,794	45,901
T	15,874	17,058	18,990	25,637	29,974	29,981	36,449
V	15,477	16,947	21,117	29,883	32,156	32,698	38,640

Graph 5 Sensitivity Analysis: Cost Per Indexed Physiotherapy Student By University By Year



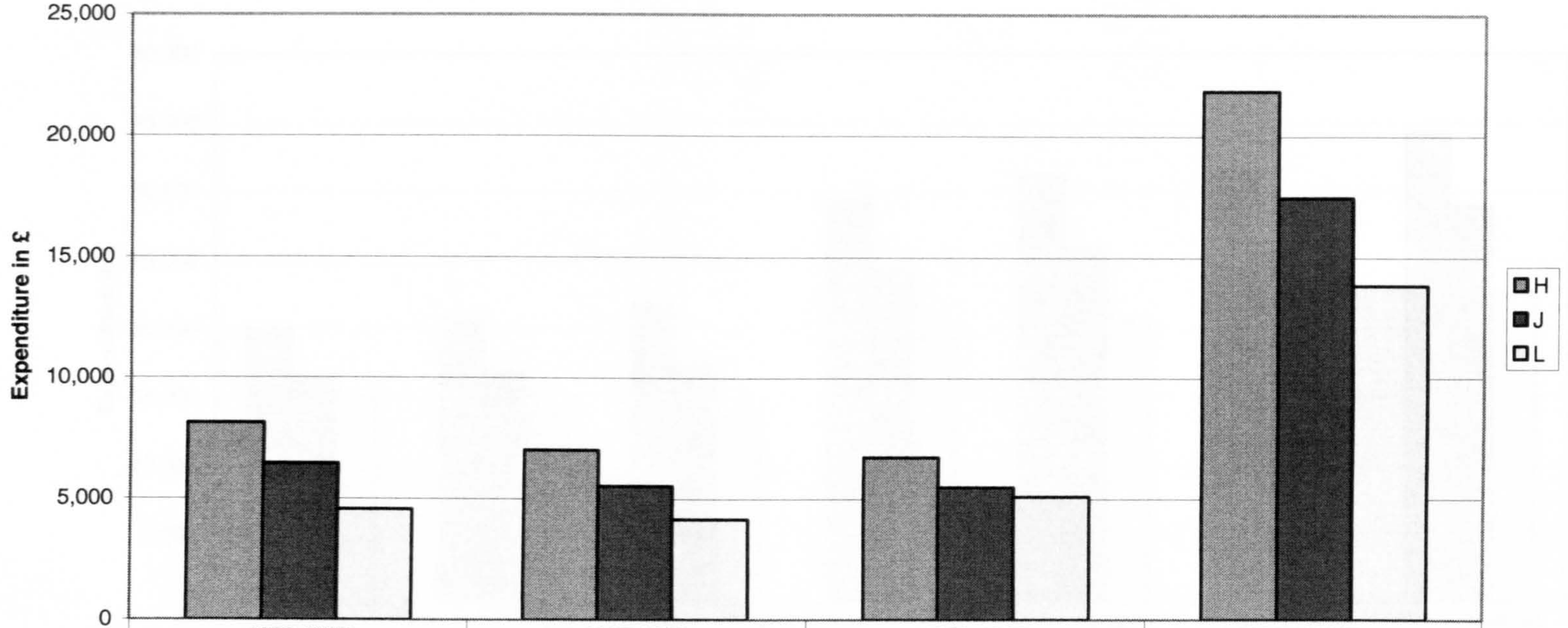
	1996-1997	1997-1998	1998-1999	1996-1999 Total
H	7,396	6,421	6,174	19,991
J	6,070	5,249	5,210	16,529
L	4,788	4,412	5,902	15,102

Graph 6 Sensitivity Analysis Cost Per InTraining Physiotherapy Student By University By Year



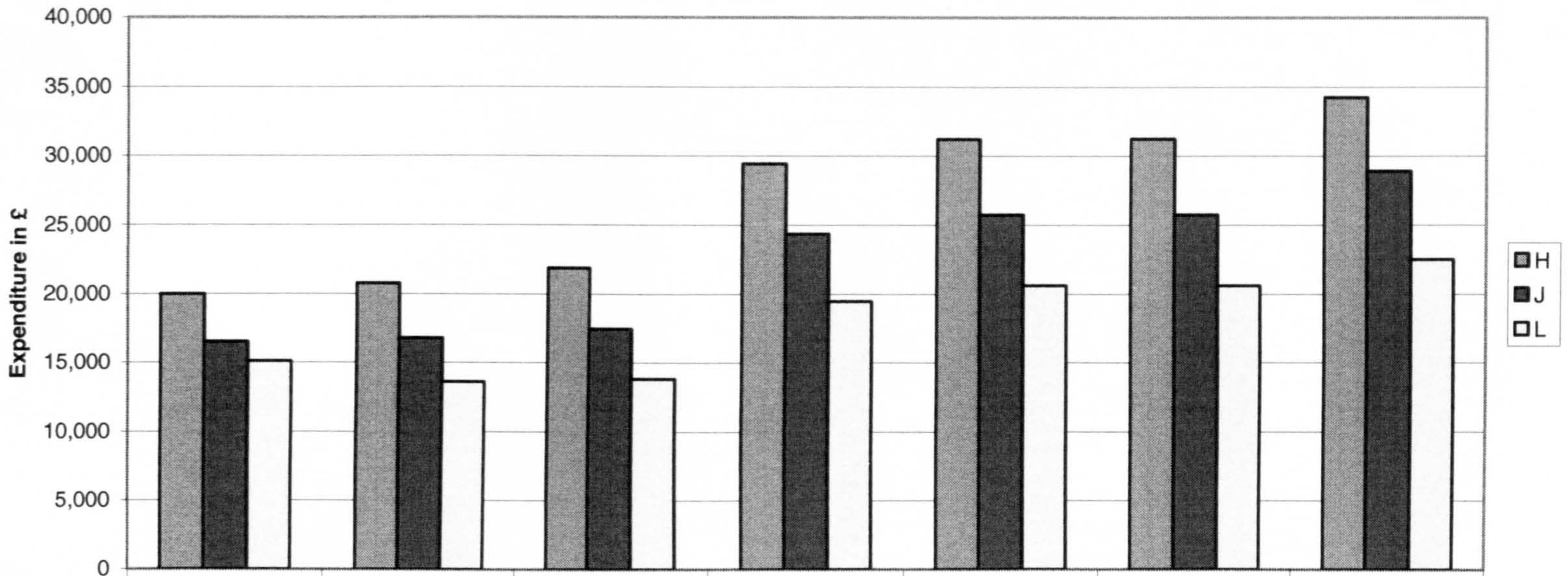
	1996-1997	1997-1998	1998-1999	1996-1999 Total
H	7,813	6,623	6,347	20,783
J	6,100	5,347	5,325	16,772
L	4,410	4,086	5,117	13,633

Graph 7 Sensitivity Analysis: Cost Per Qualified Physiotherapist By University By Year



	1996-1997	1997-1998	1998-1999	1996-1999 Total
H	8,131	7,023	6,725	21,879
J	6,450	5,536	5,493	17,479
L	4,571	4,171	5,103	13,845

Graph 8 Sensitivity Analysis Cost Per Physiotherapy Student By Category By University By Year



	Indexed 1996-1999	In-Training 1996-1999	Qualified / Fit for Practice 1997-1999	Fit for Purpose Newly Qualified 1996-1999	Fit for Purpose Clinical Supervisors 1996-	Fit for Purpose Physiotherapy Services	Fit for Purpose Heads Physiotherapy
H	19,991	20,783	21,879	29,439	31,225	31,255	34,266
J	16,529	16,772	17,479	24,391	25,746	25,746	28,933
L	15,102	13,633	13,845	19,456	20,618	20,618	22,530