CHANGING BY DEGREES

A Study of the Transition from Diplomas to Degrees in Chiropody, Occupational Therapy and Radiography

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This thesis is dedicated to my family, Robert, Ben and Charlotte, in recognition of their love and support while undertaking this research. I would also like to thank my supervisors, Professor Chris Winch and Dr David Field for their helpful comments and guidance. A special thank you also goes to Julia Hole for her help with the final presentation of this thesis.
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ABSTRACT

This study examines the impact of the transition from diploma to degree on the initial education and training of three para-professions in England; chiropody, occupational therapy (OT) and radiography. It focuses on the nature of and reasons for changes to their initial professional education and training and the potential impact of these changes on their professionalisation. The study adopted a multiple method approach; a historical review, which included documentary sources and interviews with key informants, aimed at identifying how and why these three para-professions wanted to achieve all-graduate entry, and the use of case studies to explore the differences between the diploma and degree courses.

It is concluded that the achievement of all-graduate entry for these para-professions was an unintended consequence of the policies of the then government. As a result of the achievement of all-graduate entry changes were made to the respective diploma courses of these para-professions. The extent of these changes were related to the level of control and influence that the professional bodies exercised over the diploma courses. All the degree courses shared the following features; the development of autonomous, reflective practitioners who are life-long learners, an emphasis on theory rather than practice, an emphasis on propositional knowledge and the study of research methods. Although the degree courses for these para-professions achieved approval from HEIs it is argued that degree education is a contested concept.

It is apparent that the para-professions believed that the achievement of all-graduate entry would improve their professional status. However, it is evident from the study findings that it served to maintain rather than enhance their social status and market position. Changes to the initial education and training of these para-professions were the result of the para-professions having to respond to prevailing social, political and economic circumstances. If they had not taken this action it is suggested that their social status and market position may have been adversely affected.
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PARA-PROFESSIONS AND DEGREES

Introduction

This study examines the impact of the transition from diploma to degree on the initial education and training of three para-professions in England: chiropody, occupational therapy (OT) and radiography. Para-professions are defined as part of a division of labour organised into a hierarchy of authority, established and enforced by law and dependent upon the dominant authority and responsibility of the medical profession (Freidson 1970). In England, until 1989, the initial education and training of new recruits to chiropody, OT and radiography involved a three year full-time course which led to state registration and the award of a diploma qualification. State registration was conferred by the respective professional Boards of the Council of Professions Supplementary to Medicine (CPSM) which were established as a result of the Professions Supplementary to Medicine Act (1960). The diploma was a solely professional credential awarded by the respective professional body. In a very short period of time, between 1989-1992, the diplomas were replaced by degree qualifications. Since 1992 chiropody, OT and radiography have been all-graduate entry para-professions; new recruits gain dual qualifications, a degree and state registration.

Surprisingly there has been very little empirically based research related to the impact of the transition from diploma to degree. The research that has been undertaken has centred on nursing the largest of the para-professions (Martin 1988, O'Brien 1984, Jowett et al 1994). However, nursing has not achieved all-graduate entry, only a minority of nurse education and training is at degree level. This empirically based study of the transition from solely professionally accredited diplomas to degrees for chiropody, OT and radiography provides an ideal vehicle to address this deficit. The study addresses the following questions:

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1 The concept of para-profession is more rigorously defined later in this chapter under the heading professions and professionalisation
(i) what factors led to the achievement of all-graduate entry for these three para-professions?

(ii) why did the three para-professions want degree status?

(iii) what were the differences, if any, between initial education and training which led to the award of a diploma qualification and that which led to the award of degree qualification?

Findings from the above will be used to inform current understanding about:

(i) the nature of and reasons for changes to initial professional education and training
(ii) the effects of the transition from diploma to degree on the para-professions

It was beyond the remit of this particular study to undertake an evaluation of the impact of all-graduate entry on professional practice.

Three para-professions were chosen for this study so that a comparative approach could be adopted. This approach enables themes, common to all three para-professions, to be identified, which in turn strengthens the ability to make generalisations from the study findings. The remainder of this chapter places this study in the context of current understanding of:

(i) the establishment and development of professionally accredited degrees in England

(ii) similarities and differences between initial professional education and training and degree education

(iii) professions and professionalisation
The establishment and development of professionally accredited degrees: an historical perspective

Prior to embarking upon a study to explore what factors led to the achievement of all-graduate entry for these para-professions it is important to provide an historical perspective of the establishment and development of professionally accredited degree courses in England and to explore why there has been a very rapid increase in this type of degree over the last thirty years.

In England, the relationship between initial professional education and training and degree education has historically been a tenuous one. Lawson & Silver (1973) noted that, 'the early universities ..... were centres for professional training - equipping men with careers as teachers, preachers, civil and common lawyers, officials and administrators'. This relationship, however, did not develop and flourish. Instead English Universities, during the seventeenth and eighteenth centuries, embraced a 'liberal ethos'. The emergence of a liberal ethos can be traced back to the Renaissance and enlightenment humanist philosophers (Rousseau 1764, Comenius 1680, Locke 1700). These philosophers revived the claims, made very much earlier by Confucius and Aristotle, that the goal of education was the well-rounded development of the individual. These views were the direct ancestors to the 'liberal approach' advocated by Newman in the nineteenth century. Newman (1852) considered that the educational process was an end in itself and that its purpose was to assist the formation of the character.

The effects of the permeation of a liberal ethos through the English universities during the nineteenth century is well illustrated in the following comment by Mill (1867):- 'It (the university) is not a place of professional education. Universities are not intended to teach the knowledge required to fit men for some special mode of gaining their livelihood. Their object is not to make skilful lawyers or physicians or engineers but capable and cultivated human beings'. Engel (1983) believed that this belief was precipitated by two factors; the influence of the Renaissance (as indicated above) plus the establishment of endowed colleges. He argued that the universities were only allowed to adopt a more 'liberal approach' because the establishment of endowed colleges insulated them from the necessity of catering to students' needs and also reduced the power of the State to control their actions. As a result of these influences universities in England, unlike universities in many other European countries, did not play an active part in vocational or initial professional education and training prior to the
In 1858 the Medical Registration Act gave doctors the statutory right to control and credentialise entrance into their profession. This Act heralded the start of a system, separate from the universities, for professional certification and licensing. The English professions, unlike their counterparts in many other European countries and North America, were allowed to assume exclusive responsibility for the training and certification of their entrants. During the nineteenth century a number of professions established their own mechanisms for certification and many established their own education and training institutions. These were usually monotechnics, funded by private or charitable means and were often known as 'schools'. Professional associations were solely responsible for the content, delivery and assessment of the curricula (Hugman 1991). As a result initial education and training for the majority of professions became established separate and divorced from degree education and the universities (Burrage 1994, Engel 1983). During the nineteenth century certification from a professional body often held a greater status than academic qualifications such as degrees (Burrage 1994). The medical profession's achievement of statutory control over their initial education and training prompted other professions to seek the same.
By the end of the nineteenth century it had become clear that other countries, in particular Germany, were becoming serious industrial and economic rivals to Britain. These countries were supported by an elaborate system of technical, scientific and professional education. The British government of the day took the view that the universities, in England, must follow this trend and encompass technical, scientific and professional education (Engel 1983). Additionally, the impact of the First World War was to end the aristocratic tradition whereby English universities were the finishing schools for the children of the upper classes (Kearney 1973). State scholarships and county awards were introduced to allow primarily boys, from lower middle and working class homes, to enter universities. The University Grants Committee was established in 1919 to provide state funding for the universities.

The growth of science and technology industries at the end of the nineteenth century led to an increase in the number of universities at the beginning of the twentieth century. New universities were established in the provinces with the previously independent medical schools providing the nuclei (Engel 1983). This expansion of the university sector also heralded a renewed alliance between the professions and the universities. Professionally based courses other than medicine, law and theology were established in these new universities. In 1903 when Liverpool became a separate university it quickly established degree courses in dental surgery, architecture, veterinary medicine and engineering. However, only a few professions achieved all-graduate entry. For example, although 70% of practising barristers were graduates in 1875 degrees did not become compulsory until 1975 (Eraut 1994 p8). The slow growth in the number of professionally accredited degrees was due to two factors. Firstly, the reluctance of some professions to relinquish their sole rights to control and regulate entry to their professions (Engel 1983). Secondly, some universities were reluctant to approve degree courses for those professions who were perceived to have a low status, lacked a specialised knowledge base and were dependent upon skills as opposed to knowledge (Turner & Rushton 1976).

During the early- to mid-twentieth century there continued to be demands, from British governments and others for a greater vocational and professional orientation in the English universities (Vice Chancellor of London University 1946). However, despite these demands the response of the universities, even during the 1950s and 1960s, was half hearted. It was still
common practice for most professional qualifications to be obtained without study in a university (Caine 1969). There was no major change to this situation until the 1960s.

The recommendations of the Robbins Report (1963) heralded further developments in the relationship between initial education and training for the professions and the HE sector. Boyle (1966) reflected the changes signified by the publication of the findings of the Robbins Committee when he stated: 'But except for that small minority who are going to spend a lifetime in academic pursuits, there must come a time when education for the great majority needs to become more vocational, more concerned with professional training. Part of the justification for greatly increased expenditure on universities must be their success in strengthening the professional infrastructure of our society'. The British government of the day believed that in order to achieve the recommendations of the Robbins committee it was necessary to create a HE sector, separate from the universities, with its own traditions and characteristics which were tailored to social and industrial needs (Silver 1990). The resultant establishment of the Council for National Academic Awards (CNAA) in 1964 and the polytechnics in 1968 paved the way for a greater interchange between initial professional education and training and the HE sector (Barnett 1990). The CNAA was established with the particular purpose of approving degrees for the non-university sector in non-traditional, more vocational subject areas, while at the same time maintaining the standards of the British degree.

The polytechnics and subsequently the Colleges of HE were established as distinct and separate from the universities and with the particular remit of responding to the needs for vocational and professional preparation. As already noted, the universities had not catered for these needs particularly well.

The polytechnics and colleges of higher education were collectively known as the 'public sector for higher education (PSHE). The term 'PSHE', however, is a misnomer in that all HEIs including the universities are funded, in part at least, by the public sector. For the purposes of this study a distinction is made between the university and the PSHE sector for two reasons. Firstly, the majority of the degrees for these para-professions were approved between 1989 and 1992 - a period of time when clear distinctions could be made between universities and PSHE institutions with regard to funding mechanisms and organisation. Secondly, there is evidence to indicate that there may be differences between the role of PSHE institutions compared to
universities in approving professionally accredited degrees (Squires 1990). The old universities had a preponderance of students in the arts, languages and pure sciences whereas the PSHE institutions had a preponderance of students in professional and vocational studies (Squires 1990 p24). Until the establishment of the CNAA in 1964 the award of a degree was the sole prerogative of the universities. With the establishment of the CNAA the majority of PSHE institutions awarded CNAA degrees. However, it is important to note that a minority of PSHE institutions gained accreditation for their degrees from universities as opposed to the CNAA. In these instances students registered with these PSHE institutions were awarded university as opposed to CNAA degrees. A further distinction is, therefore, made throughout this study between PSHE institutions who offered CNAA degrees and those who offered university degrees (see chapter four). In 1992 the CNAA was disbanded (DES 1991). PSHE institutions who had awarded CNAA degrees were given the powers to confer their own degrees and were also given university status (DES 1991). This resulted in a return to the pre-CNAA days where self-governing universities were the sole institutions able to award degrees.

Since the late 1960s many 'professional schools' have merged with and become established within the English HE sector, in particular the PSHE sector. By 1990 there were ninety plus professional bodies associated with the accreditation of courses in HE (Barnett 1990). This increase in professionally accredited courses has coincided with a massive expansion of the HE sector. In 1965 there were 450,00 students in HE in Great Britain, by 1985 this had increased to 880,000 and by 1995 there were one and a half million students (Smithers 1995). This expansion was the direct result of the policies of successive British governments (Barnett 1994).

It is suggested that the increases in professionally accredited degree courses in HE, at the beginning of the twentieth century, post Robbins and in the latter part of the 1980s, were the direct consequence of the need for the HE sector to increase its size. Expansion of the HE sector is achieved by increasing student recruitment to existing courses and/or the establishment of new courses. The inclusion of professionally based courses which were previously outside the jurisdiction of the HE sector provided a convenient means of enabling HEIs to respond to government pressures for higher participation rates. Additionally, it allowed HEIs to respond to government pressure for a greater vocational and professional orientation in HE. Successive British governments, via their policy and funding initiatives, have played an influential role in
ensuring that many of the new courses which entered HE had a vocational and professional basis. In some instances the British government played a pivotal role in helping less well established, semi- and para-professions to gain all-graduate entry\(^2\). For example, it was Robbins (1963) who initially proposed the development of the Bachelor of Education as the entry qualification for teaching. The ensuing transition to an all-graduate teaching profession was funded and supported by the British government.

It is understandable that HEIs, especially the PSHE institutions, under pressure to increase their participation rates, turned to the professions to achieve their expansion. What is particularly noticeable is that since the 1960s HEIs (universities and PSHE institutions) have allowed less well established professions such as para- and semi-professions to gain all-graduate entry (Barnett 1994). However, what is not clear is the extent to which existing staff within these HEIs welcomed the growth of these professionally accredited courses, especially for the less well established professions. Although HEIs may have been willing to embrace these courses in order to expand it does not follow that the staff in these institutions welcomed them.

In summary, the growth in professionally based degrees in HE has been a slow process. This has been due to the reluctance of HEIs, particularly the universities, to approve professionally based degrees especially for the less well established professions such as the para- and semi-professions and a reluctance by professional bodies to relinquish their sole control over the accreditation and credentialling of new recruits. The policies of successive British governments, in particular the establishment of the CNAA and the PSHE in the 1960s and the major expansion of HE in the late 1980s resulted in a dramatic increase in the number of professionally accredited degrees in the English HE sector. It is suggested that without these changes the substantial increase in the number of professionally accredited degrees between 1960 and 1990 would not have taken place.

\(^2\) Definitions for the terms less well established, semi- and para-professions can be found under the heading professions and professionalisation
Similarities and differences between degree status education and initial professional education and training

It is important, for the purposes of this study, to explore what is currently understood by the terms initial professional education and training and degree education and the similarities and differences between these two forms of education. The concept of 'degree education' is not synonymous with the concept of 'higher education'. HEIs are involved with activities other than degree education. However, as degree education accounts for the majority of activity within most HEIs and as more has been written about higher education than degree education use has been made, in this discussion, of the literature related to higher education. Additionally, the use of the term 'degree education' is compounded by the existence of different types of degrees. For the purposes of this study the use of the term 'degree' is confined to bachelor degrees either at unclassified or at honours level. Although the majority of bachelor degrees are offered at honours level a small percentage (12.7% in 1986) of students in the UK are awarded pass degrees (Squires 1990 p12). Most of these unclassified degrees are in the field of medicine, dentistry and veterinary sciences (Squires 1990). The notion of unclassified degrees is, therefore, not unusual in the context of degrees for health professions.

The following aspects of initial professional education and training and degree education are compared and contrasted:

- accreditation
- aims and purpose
- knowledge base.

Accreditation. There are distinct differences between the accreditation process for initial education and training and degree education. In England, professions who wished to regulate and offer credentials for the initial education and training of their new recruits had to do so independently of the universities and latterly the HE sector (see previous section). One of the attributes of an established profession is its sole ability to regulate and control the education and training of its new recruits (Larson 1977, Macdonald 1995). It has been suggested that
control over initial education and training contributes to a profession achieving monopolisation its professional knowledge base (Macdonald 1995).

Initial professional education and training is organised around the internal and external demands of the profession. The stakeholders are the professional body, its members, teachers in the schools, the state (who often employ the newly qualified), other employers and the clients. The contribution and influence of the state, other employers and clients in the accreditation process is debatable. In many professions it is the professional body or a statutory body comprising members of the profession who have the major responsibility for accrediting initial education and training as appropriate for entry to the profession.

By contrast, the universities and the CNAA until its disbandment have sole control over the award of a degree qualification. Unlike initial professional education and training the main stakeholders in degree accreditation are the HEIs and the academic disciplines. The accrediting HEI has to satisfy itself that a particular course of study meets its requirements. Indeed it can be argued that the HEIs' sole jurisdiction over the award of a degree qualification is what differentiates degree education from other forms of education such as further education and compulsory schooling. As highlighted in the following sections there is nothing specific about the aims of or knowledge studied in HE which enables degree education to be differentiated from other forms of education.

The approval of many professionally based degrees, including those for chiropody, OT and radiography, has involved joint accreditation: the professional body and individual HEIs. The role of the HEIs is to ensure the course is worthy of the award of a degree, the role, on the other hand, of the professional body is to ensure the course meets the professional requirements for practice. It is suggested that joint accreditation has arisen because neither the professional body or the HEI were willing to relinquish their right to influence the accreditation process. Little is known about the impact of joint accreditation. It has been suggested that the relationship between the two sides is a sensitive one with the professions often claiming the right to determine standards and curricula and the universities insisting on academic autonomy (Squires 1990).
Aims and purpose. This section explores the aims of initial professional education and training and degree education and concludes by comparing the similarities and differences between the aims of these two forms of education. The obvious aim and purpose of initial professional education and training is to prepare new recruits for professional practice. While this is a given overarching aim differences exist in how this aim can best be achieved. Barnett (1990) suggested that initial professional education and training cannot be both educative and provide a professional training. This implies that there are differences between the aims of education compared to the aims of training. MacMillan (1980) viewed 'training' as the acquisition of knowledge, skills and attitudes and 'education' as including all that plus personal growth and the critical facilities necessary to enable a person to decide what is good practice, what is significant knowledge and what are relevant skills. Historically, the term 'training' often appears to have a narrow focus whereas 'education' has a much broader connotation and is associated with an intrinsic value of its own (Glaser 1962).

Training has historically been associated with instrumental learning, that is the learning of specific knowledge and skills related to an occupation or profession (Winch 1995). The term 'training' has also become inextricably linked with the competency movement and the development of National Vocational Qualifications (NVQs) (Hyland 1994). Those who favour the use of the term 'training' when referring to the initial preparation of new recruits for a profession tend to adopt a positivist-behaviourist approach and view the aims of such preparation as synonymous with a list of clearly articulated and detailed competencies such as skills, routines and procedures which a person is able to perform on completion. The emphasis is on what a person can do and not on what a person knows (Hyland 1994). This approach has been criticised because it has been associated with the marginalisation of knowledge and because it does not take into consideration or allow for the study of professional action itself or the messy indeterminate zones of practice and the unique value laden nature of many practical problems (Hyland 1994, Schon 1987). Additionally, it is usually difficult within any profession to draw up a detailed list of all the competencies required for practice because of differing views as to what constitutes the role of the profession and good practice. It has been suggested that whatever competence means today its meanings will have changed by tomorrow (Argyris & Schon 1974).
By contrast, others have focused on the 'education' element of initial education and training (Eraut 1994, Johnson 1972, Jarvis 1983). These authors believe that the preparation of new recruits should cover knowledge and skills that may not be directly related to practice but which can contribute to developing and improving the profession's knowledge base. This approach advocates a broad based curriculum and the development of high level thinking skills such as critical evaluation so that practitioners are equipped with the skills to question, review and develop their practices (Eraut 1994). The proponents of this approach believe that the emphasis should be on developing students' capacity to learn how to learn (Argyris & Schon 1974).

The relationship between theory and practice is a key feature of initial professional education and training. There is a lack of empirical research related to this relationship and also to the processes involved in learning professional skills. Eraut (1994) asserted that not only does theory inform practice but that practice informs theory. The use of the term 'practice', however, has historically been associated with manual work and has been seen as having a low status (Wilensky 1964). Replication of practical knowledge has been seen as essentially a theoretical and as a result has had a low status in HE (Barnett 1994). However, it is argued that the term 'practice' should not be divorced from the context and conditions in which skills are used (Eraut 1994). Practice can incorporate much more than the replication of manual skills. For example, it can involve the practitioner thinking about the processes he or she is about to undertake so that he or she is able to alter direction and employ different techniques if the situation demands (Jarvis 1983). It has been suggested that in initial education and training theory cannot be divorced from practice and that the purpose of initial professional education is to develop practitioners who can think critically about their practice and problem solve (Eraut 1994).

Three different approaches to initial education and training are evident from the literature; the training approach, the technical-rational approach and the reflective approach. The training approach focuses on the development of skills. Little attention and emphasis are given to the theory underpinning the development and use of these skills. Theory is provided on a 'need to know' basis, the majority of the time is spent in practice (Hyland 1994). The theory that is taught is of a procedural nature. By contrast, the technical-rational approach is based on knowledge developed by the academic elite. The role of the teacher is to transmit this knowledge to the student who is then responsible for putting it into practice (Schon 1987). The
theoretical knowledge which underpins this approach is developed in the rarefied environment of the university or professional 'school'. It may or may not be informed by research. This approach is often criticised because too much emphasis and attention is placed on the classroom based elements. It would appear that once a profession establishes a theoretical base this grows in size and leads to a relative decline in the importance of practice (Squires 1990 p9). It is believed that the classroom based element fails to prepare new recruits for the practical contingencies they meet in day to day practice and which vary considerably from the ideal or hypothetical circumstances associated with theory (Hugman 1991). As a result practitioners have to rely on intuition and professional artistry as the theories they have learnt are not always directly applicable or usable in the practice situation (Schon 1987). The reflective approach, by contrast to the other two approaches, is concerned with the processes a practitioner adopts when arriving at a decision and implementing a course of action (Argyris & Schon 1974, Schon 1987). The role of the teacher is as coach rather than a transmitter of knowledge. The focus of the reflective approach is on enabling the student. This approach incorporates the skills of evaluation and reflection.

An essential feature of initial professional education and training is the importance of socialising the new entrant into the profession (Jarvis 1983). It is desirable that new entrants develop attitudes and values commensurate with those of the profession. Socialisation into the attitudes and values of the profession are usually an implicit rather than an explicit feature of initial professional education and training (Eraut 1994).

It is apparent from the preceding discussion that there are differing approaches to initial professional education and training. Barnett et al (1989) suggest that initial professional education and training should comprise the following four elements:

1. the mastery of a specialised body of knowledge which is directly related to practice
2. the acquisition of 'skills' which can be used in practice
3. the ability to analyse and reflect upon practice (metapractice)
4. socialisation into the values, beliefs and ethics of the profession
A degree is the keystone around which the British higher education system has traditionally been built. It has historically been associated with a high symbolic value and respectability. Degrees have considerable worth in the employment market (King 1995). Recruitment behaviour reflects the notion that 'graduates' are, in some fundamental sense, different from non-graduates and that the fact that someone is a graduate is more important than the subject of the degree (UDACE 1992). However, empirical research about the nature of degree education is limited (Squires 1990).

As already noted in a preceding section a liberal ethos permeated English universities between the seventeenth and nineteenth centuries. However, there have been various interpretations of the aims of this liberal ethos. Barnett (1990) believed that the liberal conception which has historically been associated with HE in England has undergone a succession of re-definitions since the early Greek philosophers, with each redefinition meeting a particular set of challenges and epistemological circumstances. Newman (1852) believed that a liberal ethos in the universities involved the cultivation of the intellect. Peters (1972) associated a liberal ethos with a cognitive conception: advancement of knowledge, the initiation of others into it and the development of knowledge that can be applied to the practical needs of the community. He also believed that education was about the grasp of fundamental principles and not about the acquisition of technical know-how. By contrast Minogue (1973) was concerned with the process by which knowledge is generated and sustained. White (1982) contributed to the discussion by arguing that moral education and autonomy were essential attributes of a liberal education.

Barnett (1988, 1990, 1992, 1994) has been a prolific contributor to the debate about the aims of HE. He believes that contemporary degree education should achieve the following:

a) development of the student's autonomy, with students acquiring intellectual integrity and the capacity to be their own purpose

b) formation of general intellectual abilities and perspectives, the student attaining a breadth of vision and grasp beyond the confines of a single discipline
c) enhancement of the individual student's personal characteristics. In particular through the acquisition of a distinctive socio-linguistic form of interaction characterised by language which is distanced from the speaker in a non-personalised mode.

d) development of ability to participate in critical commentary on the host society. (Barnett 1992 p20)

It is arguable whether all forms of degree education achieve these aims and whether it is these aims which distinguish degree education from other forms of education. It is probable that in some circumstances non-degree based education may also claim to achieve these aims. Indeed White (1997) suggests that there is nothing distinctive or different about the aims of higher education from other forms of education.

It is not surprising, in view of the massive expansion of the HE sector, that the aims and purpose of degree education are currently receiving a lot of attention from within and outside the HE sector (UDACE 1992, HEQC 1996, Dearing 1997). The Unit for the Development of Adult Continuing Education's (UDACE 1992) attempts to define the general outcomes of degree study were singularly unsuccessful. It had to conclude that; 'descriptions of learning outcomes in HE cannot be expressed as a single set of 'national standards' of the type developed for National Vocational Qualifications, since HE exists to meet the needs of a variety of client groups and a range of social, economic, scientific and cultural needs, and properly embodies a range of different cultures and values systems' (UDACE 1992 pii). To a large extent this conclusion is not surprising in that it is very rare to find two degree courses covering the same content and having the same pattern of assessment (Squires 1990). The Higher Education Quality Council concluded that it is possible to identify common attributes across subjects but reported that the extent of agreement on these attributes and support for the notion of 'graduateness' varies across HEIs, faculties and subjects (HEQC 1996). The following were judged to be the general academic skills or abilities ensuing from degree education; critical reasoning, analysis, synthesis, evaluation and the identification of solution to problems (HEQC 1996). These are similar to the outcomes identified by Barnett (1992). However, it is probably fallacious to think that skills such as problem-solving and critical thinking are free-standing and domain-independent (Lewis 1997).
Facilitating students' independence, ability to make decisions, to think critically and to 'learn how to learn' have been seen as key features of degree education (Barnett 1994, Becher 1989, Bines 1992a, Middlehurst & Barnett 1994, HEQC 1996). 'The essential aim for teachers in HE is that students should learn to think and work independently' (Beard & Hartley 1986 p110).

There is a widespread assumption, in HE, that the responsibility for learning is ultimately the students' (Squires 1990). However, the evidence suggests that student centred learning and the development of independent, critical thinking skills have not been key features of degree education in England (HMI 1989). There has been very little empirical research on the teaching strategies utilised by lecturers in HE. However, studies have been undertaken into the learning styles adopted by students in HE (Wilson 1981, Trigwell & Possner 1991, Entwistle & Tait 1990). A lot of this work has been based on the use of learning inventories, most notably that devised by Entwistle (1981). This inventory is based on assessing whether students' adopt a 'deep' or 'superficial' approach to their learning (see Table 1.1). Although the 'deep' approach is the suggested favoured outcome of higher education research has shown that the 'surface' learning approach is common (Ramsden 1983, 1992).

Historically, the aims and purposes of initial professional education and training have been seen as very different from those of a liberal based degree education (Silver 1983, Hodkinson 1991, Hyland 1993, Lewis 1997). Initial professional education and training has been viewed as focusing on the knowledge that future practitioners 'need to know' and on the acquisition of specific skills to enable them to practice. By contrast, although there have been different interpretations of the liberal ethos in degree education, a belief that love of knowledge for its own sake is the surest way to intellectual freedom and rational behaviour has prevailed the English HE sector (Hyland 1994). Barnett suggests that the expansion of professionally based courses in HE, during the latter part of the twentieth century, has affected the nature of HE in England (Barnett 1994). He believes that HE is being forced, by the growth of professionally based courses, to adopt a far more instrumental, training approach than that traditionally associated with the liberal ethos of HE (Barnett 1994). Claims that there are clear distinctions between the aims of these two forms of education have been challenged. William's (1994), Brendan & Silver (1988) and Winch (1988 & 1995) argue that absolute distinctions between liberal and vocational (for vocational also read professional) education are misleading.
<table>
<thead>
<tr>
<th>TYPE OF APPROACH</th>
<th>DESCRIPTOR</th>
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<tbody>
<tr>
<td>DEEP APPROACH (transforming)</td>
<td>Intention to understand material for oneself. Interacting vigorously and critically with the content. Relating ideas to previous knowledge and experience. Using organising principles to integrate ideas. Relating evidence to conclusions. Examining the logic of the argument.</td>
</tr>
<tr>
<td>SURFACE APPROACH (reproducing)</td>
<td>Intention simply to reproduce parts of the content. Accepting ideas and information passively. Concentrating only on assessment requirements. Not reflecting on purposes or strategies. Memorising facts and procedures routinely. Failing to distinguish guiding principles or patterns.</td>
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Table 1.1 Deep and superficial approaches to learning.

'Learning for its own sake and learning for vocational purposes need not be conceived as mutually exclusive activities' (William’s 1994 p89). It is suggested that both forms of education share many common aims: critical analysis, critical self-awareness, logical thought, an ability to solve problems and to relate constructively to dynamic changing conditions (Brennan & Silver 1988). Furthermore, it is argued that any perceived differences between liberal and vocational education lies in the fact that vocational and professional based courses are more closely associated with the practical applications of these skills (Winch 1995). Brennan & Silver (1988 p236) considered that professional and vocational courses, 'provide an educational experience which denies boundaries between academic and real-world knowledge as well as between knowing and doing'.

**Professional knowledge.** Professions are associated with having a knowledge base that is owned by and is distinctive to that profession (Hugman 1991). These attributes are achieved by the profession having a monopoly over who is able to access initial education and training and by developing a discourse which is the reserve of and peculiar to that profession (Macdonald 1995). Professional knowledge has been called into being by professional need rather than having developed out of the inner structure of a discipline (Lane 1975). By its very nature professional knowledge is inter-disciplinary. Professions take appropriate elements from disciplines to give a unique blend which provides the profession with its specialised knowledge base. The extent to which the initial education and training of any profession should focus on a thorough understanding of the concepts and theories informing any one of the disciplines from which the profession borrows is debatable. For example, in pharmacy considerable attention is placed on the study of the supporting disciplines (Barnett et al 1987). By contrast, some professions take more of a utilitarian view and only focus on knowledge from the disciplines which are directly applicable (Eraut 1994). This latter approach has been criticised as it selects fragments from a discipline and divorces students from the context in which the discipline was developed and the debate of which it is a part. It has been suggested that professional knowledge is decontextualised and simplistic and that it is, therefore, difficult to develop the critical abilities of students (Eraut 1994). The difficulty of designing professional degree courses which develop professional knowledge and understanding and which also do justice to
the substantive and methodological concerns of contributing disciplines has been noted (Bines 1992).

Professional knowledge incorporates all the types of knowledge listed in Table 1.2. During initial professional education and training it is likely that the new recruit will be exposed to all the forms of knowledge listed in Table 1.2. Tacit, craft and procedural knowledge have an important role to play as much professional knowledge is not informed by research but by traditions and the experiences of practitioners (Eraut 1994). Additionally, it is suggested that it is important that the knowledge of a profession has a distinctive mystique (tacit and craft knowledge) and is not routine and systematic and thus open to fragmentation and external control (Turner 1987).

Historically, the professional bodies have exercised considerable influence over what is studied during the initial education and training of new recruits. Over the years the professional bodies have been very instrumental in determining the content of the professional knowledge base. This was primarily because they had sole responsibility for initial education and training. However, individual professional bodies have varied in the extent to which they have prescribed the curriculum and the assessment of students (Barnett et al 1987).

By contrast, there has been remarkably little discussion about what is taught and what ought to be taught at degree level (Squires 1990). Variations in the content and emphasis of what may appear to be similar courses across a number of HEIs seems to have grown up largely pragmatically and as a function of the organisational 'discretion' that both HEIs and academics have in responding to the needs, pressures and priorities that they have perceived over a long period of time (Squires 1990). Knowledge which is acceptable for study in HE varies over time (Barnett 1990). HEIs and academic departments within HEIs appear to have had considerable freedom as to how they organise the curriculum, how they determine the core content, where the emphasis should be placed and how the content should be delivered and assessed. However, it is suggested that despite the wide variation in subjects which can now be studied at degree level there are key features associated with the type of knowledge which has historically been studied in HE. Knowledge in HE is associated with:
<table>
<thead>
<tr>
<th>Type of knowledge</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Tacit</td>
<td>Knowledge which is implicit not explicit and, therefore, has not been codified and suggested that it is neither possible nor desirable to attempt to make explicit all the judgement (Eraut 1994). For example, an OT may address the needs of a patient be able to express fully in written or verbal form how or why he/she has undertak</td>
</tr>
<tr>
<td>Procedural</td>
<td>Concepts from different disciplines are selectively and uncritically adapted to inf procedural knowledge is in no position to debate it because they do not have an i disciplines. For example, a chiropodist may know the procedure to adopt when d understand why he/she is undertaking certain of these actions (Eraut 1994)</td>
</tr>
<tr>
<td>Craft</td>
<td>Knowledge which is acquired in practice rather than from formal education and t not articulated in words and which is brought to bear spontaneously, routinely an McIntyre 1992). It appears to defy codification and is instead experiential and im</td>
</tr>
<tr>
<td>Propositional</td>
<td>Knowledge which has been systematically developed, codified and elaborated ov (Barnett 1990). It may include discipline-based theories and concepts, derived fro knowledge, generalisations and practical principles in the applied field of profess about particular cases, decisions and actions (Eraut 1994). Research plays a pivo knowledge.</td>
</tr>
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</table>

Table 1.2 Different types of professional knowledge
a) discipline based theories and concepts which have been systematically developed, codified and elaborated over time in the academic literature (propositional knowledge see Table 1.2 (Barnett 1990)).

b) an emphasis on theory as opposed to the application of theory to practice. Abstraction has been judged to be the most demanding form of intellectual activity (Silver 1983). Universities have promoted knowledge for its own sake as opposed to instrumental knowledge (Lewis 1991).

c) an emphasis on specialised knowledge which is of a higher level than that which has been covered at 'A' level. Knowledge in HE should be continually informed and revised by research (Barnett 1988).

As with the aims of HE it is arguable that the above characteristics are distinctive of and the preserve of knowledge in HE. Firstly, the precise definition of some of the above terms is unclear. For example, how can one identify the extent of abstractness of knowledge studied in HE? Secondly, it is probable that other forms of education, such as adult education, may claim to meet some or all of the above characteristics. White (1997) believed that it was not possible to identify what was distinctive about the knowledge studied in HE.

Although it has been argued that it is difficult to differentiate between knowledge studied in HE compared to knowledge studied in other forms of education three differences between professional knowledge and knowledge associated with degree education are evident. Firstly, in HE the more organised the body of knowledge the more distinct its academic identity and the more likely it is to be called a discipline. Disciplines which exist only at the intersection of other disciplines, as is often the case with professionally accredited degrees, may be regarded as merely derivative or 'parasitic' and their very identity among the HE sector doubted or denied (Albrow 1986, Ellis 1995). Secondly, not all professional knowledge and practice is capable of being made explicit and codified (propositional knowledge). As already noted the professional knowledge relies upon tacit, craft, and procedural knowledge as well as propositional knowledge. Thirdly, research has been identified as a key feature of knowledge in HE, its importance in informing undergraduate teaching has been noted (Barnett 1992, 1994).
However, many professions, especially the less well-established professions lack a well developed research base. These professions on entering HE often find they are not accepted by staff from more established HE subjects due to their lack of a research base (Becher 1989, Ellis 1995). Professional education in HE, especially for the less well-established professions, has been perceived as having a low or marginal status due to these differences in knowledge bases (Watson 1992).

It has been noted that professions on entering HE make changes to their initial professional education and training which reflect the values associated with knowledge in the HE sector. Firstly, professions on entering the HE sector have striven to develop further their research base (Barnett 1990). Secondly, in order to achieve academic legitimacy professional courses located in HE tend to focus on the development of theory as opposed to practice (Becher 1989, Squires 1990). For example, when teacher education made the transition from Certificate of Education to degree theory became detached from professional practice and came to dominate the students' learning experiences (Barnett et al 1987). Thirdly, it has also been noted that professions attempt to develop an abstract body of knowledge which may not directly inform practice (Schon 1987).

Many professionally based degree courses are usually of a longer duration than non-vocational degrees, for example, medicine, veterinary science, pharmacy. The first pre-registration degrees for nursing linked the nursing course with an existing university degree. The resultant courses involved four and a half or five years of study and led to a BSc in Social Sciences as well as state registration as a nurse (Owen 1984). Nowadays most professional degree courses are integrative but continue to be of a longer duration than their non-vocational counterparts. For example, the achievement of the Bachelor of Education resulted in an increase in the duration of initial education and training from three to four years. This increase was believed to be necessary in order to achieve both the requirements of degree education plus professional practice. It is suggested that professionally accredited degrees need to be longer so that there is sufficient time to allow students to practise their newly acquired skills and be prepared for practice.
The extent to which there are fundamental as opposed to cosmetic differences between initial professional education and training and degree education is debatable. It has been suggested that any differences between the aims of initial professional education and training and degree education are ones of focus rather than substance. Some differences between professional knowledge and the knowledge associated with degree education have been discussed, for example, the emphasis on theory in degree education and the dependence upon tacit and craft knowledge and the acquisition of skills in professional education and training. However, it has been noted that many professionally based courses in HE mimic the attributes associated historically with knowledge studied in HE. One area of potential conflict between these two forms of education is the joint accreditation arrangements for professionally based degrees. This arrangement challenges both the professional body and the HEI’s sole rights to influence access to and the content and assessment of these courses.

**Professions and professionalisation**

In order to explore the potential impact of the transition from diploma to degree on the three para-professions it is necessary to define what is understood by the terms 'profession' and 'professionalisation'. It cannot be taken for granted that there is an accepted view within society as to the use of and the meaning of the term 'profession'. Flexner’s (1915) comment that the term 'profession' 'is a title of peculiar distinction, coveted by many activities. Thus far it has been pretty indiscriminately used' still holds true in the 1990s. Profession is a lay or folk term (Freidson 1983). Assessing whether an occupation is or is not a profession, is a semi-profession, or is more or less professional than other occupations is what the 'folk' do. Folk who make the decision are customers, patients/clients and employers and other professional bodies who all monitor, assess and evaluate and make decisions with effect to an occupation's professional standing (Freidson 1983).

Two dominant approaches to the sociology of professions can be identified from the literature:-

- The view that professions act as a stabilising force in capitalistic society and are based upon universalism, disinterested service and affective neutrality
The view that professions are largely dominated by the monopolistic interests and bureaucratic forces of contemporary capitalism (Turner 1987 p133-134)

Both approaches but in particular the altruistic approach have received criticism (Hughes 1971, Johnson 1972, Freidson 1970). Bernard Shaw believed that all professions were a conspiracy against the laity (Concise Oxford Dictionary of Quotations 1981 p237). It has been suggested that professions are motivated more by self-interest than the interests of society, that they serve particular groups in society rather than the whole of society and that it is questionable whether they make an important contribution to the well-being of society (Becker et al 1961, McKinlay 1973). However, Saks (1995) suggests that many of these criticisms lack a clear definition of what is meant by ‘self-interest’ and the ‘public interest and public good’.

The two approaches to conceptualising the term ‘profession’ are associated with specific attributes which differentiate professions from other occupations. The altruistic approach highlights attributes such as ‘concern for the interests of the community’ and the need for ‘a detailed and comprehensive code of ethics’ (Wilensky 1964). By contrast, those who take the view that professions are primarily concerned with monopolistic practices highlight the importance of attributes such as ‘licensure’ and ‘monopoly and jurisdiction over work’ (Abbott 1988, Freidson 1983, Macdonald 1995). Although distinct differences have been drawn between these two approaches Johnson (1972 p17) suggests that these two inconsistent views ‘may be explained by the fact that they relate to different professions at different points in time and also that contradictory processes may exist in the development of any single profession’. However, both the approaches to defining a profession identify the importance of the production and maintenance of a body of esoteric knowledge which is achieved by university based education and which have systematic entry requirements.

The term ‘less-well-established profession is ill-defined in the literature, it refers to occupational groups which are endeavouring but currently fall short of achieving the attributes which have been associated with established professions. The term semi-profession has a more specific meaning. Etzioni (1969) defined semi-professions as occupations which lack a clearly demarcated scientific knowledge base, whose practice is based on skills rather than knowledge and who have not achieved independent occupational self-government traditionally associated
with established professions. Chiropody, OT and radiography were defined by Etzioni as semi-professions. However, Freidson (1970) believed that chiropody, OT and radiography should be defined as para-professions because of their reliance upon the medical profession for their legitimacy and practice. The establishment and development of the para-professions is a phenomenon of the twentieth century and is associated with a growing health care market (Larkin 1983 p69). It is argued that because of their dependence upon the medical profession para-professions will never become established professions (Freidson 1970). Dieticians, Chiropodists, Medical Laboratory Officers, Midwives, Nurses, OTs, Orthoptists, Physiotherapists and Radiographers have all been classes as para-professions. For the purposes of this study the term ‘para-professions’ is used when making collective reference to chiropody, OT and radiography.

When considering the establishment and development of these para-professions a gender perspective must be taken into consideration. All the para-professions are female dominated (see chapter two). The implications of female-based para-professions dominated by a male based medical profession have been discussed by many authors (Hugman 1991, Witz 1992, Davies 1995). These authors suggest that a male dominated medical profession was able to achieve this situation due to concatenation of circumstances. Firstly, much of the work undertaken by the para-professions has historically been undertaken by women. Secondly, female labour was comparatively cheaper than men’s. Thirdly women were excluded from entry to secondary and higher education, an essential means of accessing the medical profession in the nineteenth century. Fourthly, during the nineteenth century women were unable to participate in the means of registration and licensing. This study does not wish to downplay the value of the gender perspective, however, as its basis is the affects of the transition from diplomas to degrees this study focuses on the impact of educational change on the professionalisation of these para-professions and, therefore, is not concerned directly with the gender composition of these para-professions.

Professionalisation can be defined as the efforts that less-well-established, semi- and para-professions make to improve their professional status. One of two approaches have been associated with professionalisation. The first approach focuses on the accumulation of attributes which are associated with established professions. The nature of these attributes are affected by
which approach has been used to define the concept of a profession. Defining professionalisation by the accumulation of attributes has been criticised. This is because the approach tends to be based on the attributes exhibited by established professions and does not take into account social, political and economic changes. The second approach focuses on the achievement of market control. In a society which is organised around the centrality of the market, professions who earn an income on the basis of transacted services cannot escape the affects of this market economy (Larson 1977). It is believed that occupations who call themselves professions do so only in name if they do not have control over their market situation (Parry & Parry 1976).

A 'market' in its simplest form comprises the exchange of goods. It involves a producer, goods and a purchaser. The object of production and the sale of goods is the accumulation of economic benefits for their own sake: 'production of scarce commodities which have a value or values for the consumer but also have an exchange value in money terms for the producer (Marx 1976 125-177). The Marxist interpretation of professions has focused on the production element, in particular the ownership of the means of production and the domination over society of these owners. By contrast, others, in particular Weber, have focused on how professions as occupational groups have succeeded in controlling and manipulating the labour market in such a way that they maximise their rewards (Macdonald 1995, Larson 1977).

This study uses the concept of the professional project, developed by Larson (1977) to inform an understanding of how occupations improve their professional status. The professional project can be defined as an occupation’s quest for monopoly over its knowledge based services and for high status and respectability (see Fig 1.1) (Macdonald 1995) The ultimate achievement of the professional project is social closure whereby an occupational group regulates market conditions in their favour in the face of competition from outsiders by limiting access to a restricted group of eligibles, enabling them effectively to monopolise available opportunities (Saks 1998). The achievement of market monopoly over knowledge based services and high social status are inextricably linked (see Fig 1.1). For example, if an occupational group achieves a degree of monopoly over the delivery of its knowledge based services this is likely to have a positive effect on its social status.
A working theory of the professions: a conceptual outline

The market in which professions operate is a social and political market involving norms, roles, power relations and hierarchy more than price (Light 1995). Additionally, the market is not a classical market of perfect competition but a quasi-market affected by control mechanisms constituted by the government and underwritten by legislation which defines the relative powers and contracted responsibilities of participants. However, these control mechanisms do not result in a fully regulated market. The market in which professions operate embodies the Weberian notion of conflict and competition. It is continually being affected by prevailing social, economic, political and cultural factors as well as the actions of other occupational and professional groups. As a result professions have to continually review their market position and take action to maintain and, where possible, enhance their market position.

Strategies which may have historically been used by occupations to achieve market monopoly over their knowledge based services and improve their social status may not be appropriate today. This point is exemplified by the changing concept of self-regulation. Self-regulation has been defined as the achievement of complete professional autonomy (Freidson 1970). In England 'professional autonomy' has historically been associated with a profession having the jurisdiction to determine its scope of practice and actions. The culmination of self-regulation is licensure whereby the profession gains statutory powers to prevent others impinging upon its scope of practice and its actions. The argument for self-regulation most commonly put forward by professions is that no one else other than members of the profession can fully understand or be in a position to control that profession (Hoyle & John 1995). Historically self-regulation has been seen as an essential pre-requisite to gaining market monopoly and high social status and hence social closure (Freidson 1970)). However, it is questionable whether, in the latter part of the twentieth century, the achievement of self-regulation is a feasible option for professions striving to achieve social closure. The importance of self-regulation has been implicitly equated with the largely mythical past of the 'free' professions such as medicine and law (Larson 1977). This notion of self-regulation is believed to be largely illusory due to the large number of professions now employed in the public sector, industry and commerce (Eraut 1994). Contradictions arise between the self-regulation and peer control characteristics of professional work and the externalised control of the bureaucratic hierarchy that is associated with employment (Larson 1977). For professions where the majority of their members are employed by bureaucracies the concept of self-regulation is different from that historically associated with
professions. It is suggested that for these professions the pursuit of self-regulation is primarily a strategy to secure the maximum degree of freedom in their daily practice and a significant role in determining the organisational policies which affect them rather than achieving self-regulation in the form of licensure.

One of the aims of this study is to explore how the transition from diploma to degree affected the para-professions. This study, therefore, uses the concept of the professional project to explore whether changes to the initial education and training of these para-professions helped to improve their professional status. Improvements to initial professional education and training such as the achievement of all-graduate entry have been associated with the attempts by occupations to achieve social closure (Larson 1977, Hugman 1991, Macdonald 1995). The achievement of a professionally accredited degree credential is believed to provide a warrant of the abilities of practitioners because it carries a certain social cachet which raises the standing of the occupation as a whole in the eyes of the community (Macdonald 1995): 'An academic education leading to a university degree has become the true goal, the ultimate culmination of (professional) educational experience' (Cook 1973 p7). The achievement of all-graduate entry has historically been seen as a valuable asset for aspiring professions not only as a symbol of status but as justification for greater professional power and autonomy (Engel 1983, Atkinson 1989). Other attributes of initial professional education and training which have historically been associated with established professions who have achieved market monopoly and high social status are listed in Table 1.3. None of the attributes listed in Table 1.3 will in themselves lead to the achievement of social closure but, dependent upon prevailing social, economic, cultural and political circumstances it is believed they can make an important contribution. For example, professional knowledge is a core generating trait of a profession (Halliday 1987 p29, Larson 1977, Abbott 1988). While the knowledge base of a profession will not, on its own, result in that profession achieving social closure it is acknowledged that it is a resource which supports a claim for market monopoly and high social status (Freidson 1970:72, Larson 1977, Macdonald 1995).
(i) certified knowledge. It is suggested that only those with certified knowledge can define what are valid subjects of knowledge and valid criteria of pertinence and truth (Macdonald 1995)

(ii) a body of abstract knowledge. Abbott (1988) suggests that only a profession whose knowledge system is governed by abstractions can redefine its problems and tasks, defend them from interlopers, and seize new problems. Abstraction enables survival in the competitive system of professions. It would appear that the need for this body of knowledge to inform and improve practice is of less importance

(iii) long duration of initial education and training (Hugman 1991)

(iv) university based, degree level education (Cook 1973)

(v) the ability of the professional body to regulate and control entry into, the content of and the assessment of students undertaking initial education and training (Macdonald 1995)

(vi) high entry requirements (Cook 1973)

(vii) the importance of ensuring that a body of knowledge is conserved for and owned by the profession. This is achieved via credentials and by a special discourse which only those belonging to the profession understand (Macdonald 1995)

(viii) suggestion that the body of knowledge would be dangerous in the hands of the untrained and unqualified (Torstendahl 1990)

(ix) continued efforts by the profession to develop and enhance its knowledge base, usually through research (Macdonald 1995)

(x) a greater emphasis on theory as opposed to practice (Macdonald 1995).

| Table 1.3 | Features of initial education and training which have been associated with professions who have achieved market monopoly and high social status |
Summary

The aims of this study are two-fold. Firstly, to inform current understanding about the nature of and reasons for changes to the initial professional education and training of three para-professions; chiropody, OT and radiography. Secondly, to explore the effect of the transition from diploma to degree on these three para-professions.

The first of these aims will be achieved by exploring what factors led to the achievement of all-graduate entry, why the three para-professions wanted degree status and what, if any, are the differences between diplomas and degrees. This chapter has provided a basis for this study by addressing the factors that have led to the establishment and development of professionally accredited degrees, in England, and by discussing the similarities and differences between initial professional education and training and degree education. The establishment and development of professionally based degrees has been precipitated by expansion of the HE sector and by the effect of successive British governments' policy and funding decisions. It is argued that without these factors the increase in the number of professionally accredited degrees in HE would not have been achieved. The extent of the differences between degree education and initial professional education and training are debatable. A review of the aims of and the knowledge studied in degree education shows it is difficult to identify what it is that is distinctive about degree education compared to other forms of education such as initial professional education and training. Both types of education may share very similar aims (development of reflective and autonomous learners) and their knowledge bases may have similar characteristics (value theory rather than practice, emphasis on abstract knowledge base and propositional knowledge). It is suggested that the main distinguishing feature of degree education is that only universities (and the CNAA until it was disbanded) can award degree qualifications. A potential area for conflict is the joint accreditation of professionally based degrees as it challenges the autonomy of both the universities and the professional bodies and their abilities to exercise control over the curriculum.

The second aim of this study is to explore the affect of the transition from diploma to degree on these three para-professions. In order to explore how the transition from diploma to degree affected the para-professions the concept of the professional project has been used (Larson
The professional project focuses on the mechanisms used by occupations to gain market monopoly over their knowledge-based services and high social status and respectability. The ultimate achievement is social closure. Self-regulation has historically been seen as the key factor in the achievement of social closure (Freidson 1970). However, it is unlikely that nowadays professions (including the three para-professions which are the topic of this study), due to the nature of their employment in the public sector, industry and commerce and current government policy, will achieve this form of self-regulation. It is suggested that as a result occupations focus on other means to improve their professional status. This study explores what contribution, if any, the achievement of all-graduate entry makes.
Chapter Two

CHIROPODY, OCCUPATIONAL THERAPY AND RADIOGRAPHY

Introduction

This chapter has two aims. Firstly, to provide an overview of the establishment and development of the three para-professions upon which this study is based: chiropody, OT and radiography. Particular emphasis has been placed in these overviews on the accreditation, organisation and delivery of their initial education and training prior to the transition from diploma to degree. Secondly, to provide a rationale for the choice of these three para-professions for this comparative study. Prior to embarking on an overview of the establishment and development of these three para-professions a brief overview of the statutory regulations affecting these para-professions is provided.

Since 1960 Chiropodists, OTs and Radiographers, along with Physiotherapists, Dieticians, Medical Laboratory Scientific Officers and Orthoptists have been regulated by the 1960 Professions Supplementary to Medicine Act (PSM). Prior to the passing of this act there was no statutory control, in England, over the activity of these para-professions. The purpose of the PSM Act (1960) was 'to provide for the establishment of a council, boards and disciplinary committees for certain professions supplementary to medicine; to provide for registration of members of those professions, for regulating their professional education and professional conduct and for cancelling registration in cases of misconduct; and for the purposes connected with the matter aforesaid'. The PSM Act only provided protection of title (state registration) for those who wished to work within the NHS. There is no requirement for practitioners working in the private or voluntary sectors to be state registered. This limitation of protection of title is similar to that offered to Nurses in the 1919 Nurses Act where the title 'registered nurse' but not 'nurse' was protected.
As a result of the PSM Act (1960) a Council for Professions Supplementary to Medicine (CPSM) was established together with Boards for each of the seven para-professions which initially came under the umbrella of the Act. The CPSM and the Boards comprised elected representatives from the respective para-professions as well as nominated representatives from the medical profession, government departments for health and education and the higher education sector.

Each Board is directly accountable, under the PSM Act (1960), to the Privy Council and not to the CPSM. The role of each Board is to:

(i) register the competence of, and legally distinguish between the state registered and the unregistered

(ii) regulate qualifications, training courses and schools as a basis for registration

(iii) control professional conduct through a statement of conduct and disciplinary procedures.

Chiropody

Chiropodists consider themselves to be specialists in treating problems affecting the feet. The Chiropodist Board defines chiropody as; 'the maintenance of the feet in healthy condition and the treatment of their disabilities by recognised chiropodial methods in which the practitioner has been trained. Chiropodists should confine themselves to this field of work. Ambulatory foot surgery, which is becoming an established procedure in chiropodial practice, is surgery performed by Chiropodists at a level sufficiently minor as to be carried out on a day-care basis and which would not normally warrant inpatient admission, the patient being ambulant with or without assistance immediately after surgery. It should be subject to the limitations of the operator's skills and training, and the facilities available' (Chiropodist Board 1988)

Chiropody is not a closed profession, anyone can set up in practice. There is no requirement for people who wish to practice chiropody to gain any formal qualifications. Anyone can work as a
chiropodist in the private sector either without training or after taking one of the many available courses which do not lead to state registration (Dagnall 1983). However, since 1963 state registration has been a requirement for employment in the NHS. It is believed that there are a significant number of people earning a living from the practice of chiropody who are not state registered (key informant from the professional body).

The practice of chiropody has had a relatively long history in comparison to OT and radiography. References, in England, to 'corn cutters' can be traced back to 1593 (Dagnall 1983). The term chiropodist was introduced in 1785 by a London corn cutter, D Low, who was known as the 'father of British chiropody' (Dagnall 1983). Although corn cutters and chiropodists can be traced back to the 16th century it was not until the early part of the 20th century, 1912, that the first professional body was formed. Why there was such a delay in establishing a professional body is not clear. It may be that the small number of chiropodists did not believe a professional body was necessary until there was an expansion and development of healthcare services around the turn of the century. Additionally, chiropodists may have been influenced by the efforts of dentists and nurses to gain licensure. The National Society of Chiropodists was set up with the aim of developing the 'profession' and training new recruits. Medically qualified personnel were instrumental in establishing the National Society. They acted as patrons and many sat on its committee. The National Society was the first of many organisations which were established during the early part of the twentieth century, in different parts of the country, to represent the interests of those involved with the practice of chiropody (Dagnall 1983).

In 1924 the National Society of Chiropodists established the first school of chiropody; the London Foot Hospital. The school was funded entirely by voluntary subscriptions and fees from patients who attended for treatment. It initially offered part-time evening courses. These courses were of one year duration and were spread over three terms. Students had to attend classes five evenings a week for a total of eleven hours a week. The course involved the study of: 'Chiropody (practical and theoretical); physiology; anatomy; bacteriology; pathology; histology; chemistry of the substances used in chiropody; and physics including mechanics and allied subjects in so far as connected with chiropody' (Dagnall 1983). At the end of each term students sat an unseen written examination. Medically qualified personnel, as well as
chiropodists, were involved in teaching and examining the students. The involvement of medically qualified personnel gave legitimacy to the development of formalised education and training for chiropodists (Dagnall 1983). The opening of the school in London led to a number of other schools being established, primarily in large cities. However, there was no unified professional control over the establishment of these schools.

By the early 1930s the British Medical Association (BMA) had become increasingly concerned about the number of people offering services related to medical practice. This included those who had no medical qualifications and who were making a living out of treating foot problems some of whom were involved with undertaking invasive techniques. In 1933 the BMA established the Board of Registration of Medical Auxiliaries (BRMA) in an endeavour to control the activities and training of these medically related occupations. The BMA invited chiropodists to join the register but required that those who did should only practice under the direction of a medically qualified person. Chiropodists were divided over the benefits of joining the BRMA register. Some considered that loss of the right to treat patients without referral from a doctor was too high a price to pay whereas others believed it was a price worth paying if it led to recognition from the medical profession.

Those chiropodists who wished to be registered entered into negotiations with the BMA. The BMA refused to negotiate with more than one representative body so a Chiropody Group Council, comprising a number of organisations representing chiropodists, was established. After lengthy negotiations the BMA agreed to allow chiropodists to continue to treat patients without referral or direction from a medical practitioner. However, the BMA insisted that those chiropodists who entered the register should practice within a defined scope of practice. This restricted chiropodists to the treatment of cutaneous problems and prevented them from undertaking invasive procedures. In 1938 approximately 3,000 chiropodists were entered onto the first register.

The BMA required, from 1938, that chiropodists who wished to join the register undertake a BMA approved two-year full-time course of training. Responsibility for the administration and monitoring of this training was delegated, by the BMA, to the Chiropody Group Council. By 1944 the BMA approved six centres in England for the training of chiropodists; three in London
and three in Manchester (Dagnall 1983). The BMA syllabus was not dissimilar from that of the first part-time evening course: 'Theoretical and practical chiropody, general elementary science, anatomy and physiology, medicine and surgery in their relation to chiropody' (Chiropody Group Council 1944). The course comprised the study of a number of supporting disciplines such as biology, physics, chemistry, anatomy, physiology, medicine and surgery. Students sat nationally set, unseen, time-restrained written examinations at the end of each year. Medically qualified personnel continued to be involved in the teaching and examination of students (Chiropody Group Council 1944).

By 1949 the British Government became increasingly aware of the need to formalise the work of medical auxiliaries in the newly established National Health Service (NHS) and set up the Cope Committee (1951) to review the supply, demand, training and qualifications of medical auxiliaries employed in the NHS (Larkin 1983). This committee recommended the establishment of a statutory body under the control of doctors to oversee medical auxiliaries. Due to considerable opposition from medical auxiliaries, including chiropodists, the recommendations of the Cope Committee were abandoned and a new working party was set up. Opposition from medical auxiliaries to the findings of the Cope Committee (1951) led to the then British government acknowledging that the medical profession's influence over the professions allied to medicine should be reduced (Larkin 1983). The recommendations of the new working group eventually led to the PSM Act (1960) (Larkin 1983, Page & Dagnall 1992). However, despite objections from the para-professions, medically qualified personnel were well represented on the Council for Professions Supplementary to Medicine (CPSM) and its respective Boards which were established as a result of the PSM Act (1960). It would appear that although the findings from the Cope Committee had been rejected the medical profession were still able to maintain control and influence over the activities of chiropodists and the other professions allied to medicine. One of the recommendations of the original Cope Committee (1951) was that the initial education and training of chiropodists should be extended from two to three years, this was implemented in 1953. The rationale for this recommendation is unclear. It may have been in response to a claim by the chiropody para-profession that two years was not sufficient to cover all the topics that were essential to chiropody practice. However, it is likely that the underpinning motivating factor was a desire to increase the duration of initial education and training so that the chiropody para-profession could argue for greater professional status. It
has been noted in chapter one that occupations use extensions to the duration of their initial education and training as an argument to improve their market position and social status.

In 1954 the Ministry of Health approved the Society of Chiropodists as the body to oversee the training and assessment of chiropodists eligible to be employed by the NHS. The establishment of the Chiropody Group Council (in 1934) had subsequently led, in 1951, to the formation of the Society of Chiropodists. This organisation is currently the largest professional organisation representing state registered chiropodists in England.

The establishment of the Chiropodist Board, in 1963, did not affect the Society of Chiropodists' role in initial education and training. The Chiropodist Board, although it had statutory responsibilities and powers for state registration of chiropodists, had few resources by which to meet these responsibilities. Rather than establish alternative courses to that of the Society of Chiropodists the Chiropodist Board recognised the Society's diploma course for the purposes of state registration. The Chiropodist Board, therefore, delegated day to day management for initial education and training to the Society of Chiropodists. The prime role of the Chiropodist Board was to approve new schools and to undertake monitoring visits.

The Society of Chiropodists' three year diploma course is documented in two slim booklets; 'General information and outline of course regulations and syllabus for training' (Society of Chiropodists 1988) and 'Regulations and instructions relative to examinations' (Society of Chiropodists 1988a). These booklets were the only guidance available to schools operating the Society of Chiropodists’ diploma course. They were up-dated on a two-yearly cycle. The first of these booklets provides an outline of the syllabus and the latter provides detailed regulations pertaining to the organisation and implementation of the examinations.

The 1953 syllabus involved the study of; Physics, Chemistry, Biology, Anatomy, Physiology, Medicine, Surgery and Chiropody Theory and Practice. This syllabus is very similar to that of its predecessors. Students continued to be assessed by unseen, time restrained written papers and viva examinations as well as clinical examinations. Coursework was not summatively assessed. The diploma curriculum was not totally prescribed by the Society of Chiropodists. Each school had the freedom to plan how it wished to schedule the subjects and how and who
taught them. Additionally, individual schools were able to cover additional topics as long as they addressed the core curriculum and prepared students for the final nationally set, time-restrained, unseen written papers.

Initially the practice element of the diploma course was larger than the theory element. In 1953 students were expected to undertake a minimum of 1,800 hours in practice but by the 1970s this had been reduced to 1,000 hours, supposedly in order to allow more time for classroom based study (key informant, ex-member of the Chiropodist Board). In 1987 the Chiropodist Board removed the requirement for a minimum number of practice hours. Individual schools were left to decide how many practice hours were necessary in order to prepare students for the final clinical examination. The rationale for this decision is not clear. One likely reason was the high cost of the practice element of the diploma course. Chiropody students gain the majority of their practical experience in-house and not on placement in the work place. The costs of resourcing this training was high. A reduction in practice hours would help schools to reduce this cost. The reduction in practice hours also has to be seen in the context of the professional project. It was noted in chapter one that many professions reduce the practice component of their courses in an effort to improve their social status. Additionally, a move into the HE sector tends to precipitate a reduction in theory because HEIs value theory (classroom based activities) over practice (see chapter one). By the 1980s many schools of chiropody were located in HEIs (see below).

The removal of the minimum requirement for practice hours was the most radical change to the diploma course between 1953-1989. Few other changes were made. In 1979 local anaesthetics was added to the syllabus and students were required, for the purposes of state registration, to be examined in this topic at the end of the second year. In 1981 separate examinations in biology, chemistry and physics were replaced by a basic medical science paper. During the 1980s the study of biomechanics was introduced into the syllabus. Biomechanics is a topic studied by a number of other occupations and is defined as the study of mechanical principles related to human movement. However, in chiropody it is associated with a specific approach to the assessment and treatment of abnormal foot function. The development of biomechanics, 'the study of abnormal foot function', was developed by podiatrists (American term for chiropodists) in the United States of America. Its development can be seen in the context of creating a
specialised body of knowledge with its own discourse which is peculiar to chiropody. As noted in chapter one the establishment of a discourse peculiar to and distinctive from other professions is one of the ways in which occupations attempt to lay claim to their body of knowledge.

The Society of Chiropodists exercised control over the diploma course by laying down the core syllabus and by requiring that all students undertook pre-specified end of year, unseen, time-restrained, written examinations. These examinations, with the exception of the final written examinations, were internally set and externally moderated. The two final written examinations were nationally set. All written and practical examinations were assessed by two examiners; one internal and one external. The Society of Chiropodists were responsible for appointing the external examiners. They required that external examiners for medicine and surgery were medically qualified.

As already noted, the first schools of chiropody had been funded by charities and private income. With the establishment of the NHS it became increasingly difficult for these charities to resource schools of chiropody. As a result the NHS took over the funding of two schools (London and Manchester). The remainder became established in the Further Education (FE) sector. The reasons for this are unclear. It may be that the NHS was reluctant to fund the initial professional education and training of chiropodists due to the number of chiropodists in private practice. The situation may also have been influenced by the publication of the White paper on Technical Education (DES 1956). This paper proposed a substantial increase in the number of advanced courses in technical and further education. By the mid 1960s of the five schools in England, three were located in and funded by Colleges of Further Education and two were located in and funded by the NHS.

Chiropody services were incorporated into the NHS as a result of the 1974 re-organisation. Prior to 1974 chiropody services were managed by Local Authorities. The NHS immediately experienced a shortage of state registered chiropodists. The response to this situation was to open new schools. Between 1975 and 1989 there was a 100% increase in the number of schools. The majority of these new schools were established in PSHE institutions. Additionally, some existing schools either developed links with or merged with PSHE institutions. It is likely that the move into the PSHE was due to the increasing demarcation
between further and higher education plus the expansion of the PSHE. As noted in chapter one, a number of less well established professions entered the HE sector during this period. It is likely that the chiropody profession welcomed this initiative. One of the ways in which occupations attempt to improve their market position and in particular their social status is by locating their courses in universities (see Table 1.3). The PSHE was probably seen as the next best thing to universities. By 1989 of the eleven schools of chiropody in England, one was based in the NHS, two in the FE sector and the remaining eight in the PSHE. The diploma course was not classed as a designated course by the Local Education Authorities (LEAs), therefore, diploma students were eligible for a discretionary as opposed to a mandatory grant from their LEA.

The entry requirements for the diploma course evolved over the years. In 1925 students who wanted to pursue a chiropody course had to demonstrate they were over nineteen years of age and produce certificates to confirm their character and scholastic attainments (Prospectus of the Edinburgh School 1925-26). By 1989 students had to be eighteen years of age and have a minimum of five passes at GCE O level and two passes at GCE A level. The increase in entry qualifications may be associated with improvements in the academic level of the course, however, the implications of increasing the entry requirements on the professionalisation process cannot be ignored. It has been noted that occupations increase the entry requirements to their initial education and training in order to improve their social status (see Table 1.3).

The Society of Chiropodists' diploma course was not accredited by any HEI or other academic organisation such as the City and Guilds. Up until 1987 the course had no formal title, it was known as the course leading to Membership of the Society of Chiropodists. In 1987 the Society of Chiropodists introduced the award of 'Diploma in Podiatric Medicine'. The reasons for this are not clear. It is likely that the diploma title was introduced because professional bodies representing other para-professions issued their own diplomas and, secondly, because some schools were, by this time, established in HEIs. It is suggested that staff from these schools realised that their students, unlike their counterparts in HE, received no award at the end of the course (key informant, member of the Chiropodist Board).
Between 1953 and 1989 the diploma course received minimal external review. In 1987 Her Majesty's Inspectorate undertook a formal visit to a school of chiropody with the purposes of reviewing the delivery of the course and its resourcing (HMI 1989a). The Chiropodist Board visited all schools on a quinquennial basis and produced formal reports which commented on the delivery and resourcing of the course. The Society of Chiropodists had two internal review mechanisms, the external examiner arrangements plus an Educational Advisory Board. In 1985 this Board reviewed the diploma course and recommended a number of changes to the curriculum, however, these changes were superseded by the advent of all-graduate entry.

In 1989, prior to the establishment of the first degree course in chiropody, 6,358 chiropodists were registered with the Chiropodist Board. A manpower survey, undertaken by the Association of Chief Chiropody Officers (ACCO 1989), revealed that 36% of registrants were male, 64% female and that 61% were below 40 years. Historically, chiropodists have been based in the private sector. By 1989 there was still a significant private practice element although many chiropodists combined NHS work with private practice; 49% worked full time in the NHS (ACCO 1989).

In summary the following points emerge from the review of the establishment of chiropody and the development of its initial education and training:

(i) During the twentieth century chiropodists established their own professional body and, via the PSM Act (1960), gained statutory jurisdiction over the title state registered chiropodist. Only partial jurisdiction was achieved. Firstly, because the PSM Act (1960) specifically relates to the work of chiropodists in the NHS. Secondly, because doctors and other nominees are represented on the CPSM and the Chiropodist Board they are in a position to exercise control and influence over the scope of practice of chiropodists and their initial education and training. As a result chiropodists do not have a market monopoly over their scope of practice nor the initial education and training of new recruits.

(ii) The Society of Chiropodists have formalised and provided credentials for the initial education and training of new recruits.
(iii) Since the establishment of the first school of chiropody in 1924 the following changes have been made to initial education and training:

- the duration of the course has been increased from a part-time evening course to a three year full-time course
- the entry requirements have been raised
- the practice component has been reduced
- the majority of schools are located in the HE sector, albeit the PSHE

(iv) The Society of Chiropodists exercises considerable influence and control over the initial education and training of chiropodists. Individual schools have some freedom over the syllabus and how it is taught and assessed but the Society of Chiropodists centrally prescribe the core syllabus and control the final assessment via nationally set, time-restrained, unseen written examinations.

(v) The medical profession has played an influential role in the establishment of a professional body for chiropody and the development of initial professional education and training. Medically qualified personnel were responsible for establishing the first national register of chiropodists, have been involved in teaching and assessing on the diploma course and currently serve as members of the Chiropodist Board and CPSM. The influence of the medical profession over the practice of chiropody has had positive and negative elements. On the one hand it has provided legitimacy for the practice of chiropody but on the other it has prevented chiropody from gaining total self-regulation and autonomy. Despite the influence of the medical profession the scope of chiropody practice has developed and now encompasses the use of local anaesthetics and the practice of invasive surgery. Chiropodists have maintained the right to diagnose and treat patients without referral from a medically qualified practitioner.

(vi) It would appear that over the years, especially with the introduction of the study of biomechanics into the curriculum, attempts have been made to enhance the professional knowledge base of chiropody.
Occupational Therapy

Occupational therapy encompasses the assessment and management, via activity, of anything from acute physical dysfunction to chronic psychological disorders (Blom Cooper 1989). Due to the breadth and diversity of OT practice the profession has experienced considerable difficulty in defining its scope of practice. The OT Year Book of 1983/4 noted this difficulty: 'members of this profession are only too well aware of the difficulty of defining in a precise and concise way what is of necessity a complex form of treatment (COT 1984)'

The term 'occupational therapist' was first used in 1913 by Dr Dunton, an American psychiatrist, who wanted to establish activity as part of the treatment for his mentally ill patients. Although this is the first recorded mention of the term, throughout history evidence can be found of the healing qualities of work, exercise and play (Hopkins & Smith 1978). For example, the ancient Egyptians dedicated temples for melancholiacs whose time was taken up with the pursuit of pleasurable occupation (Edwards 1980).

It is considered that the origins of twentieth century OT lay in the work of Philippe Pinel, an eighteenth century French psychiatrist. He considered that the most effective method of restoring reason was occupation and that good morale and discipline were best secured through rigorously executed manual labour. As a result, Pinel proposed physical exercises and manual occupation should be employed in all mental hospitals. Samuel Tuke pioneered this approach in the UK by opening a unit in York, in 1816, known as 'the Retreat'.

During the nineteenth century Pinel's 'morale treatment' approach lost favour. It is suggested that this was due to the increasing population of mental hospitals, the unwillingness of the public to spend money on care for the insane and the medicalisation of psychiatric problems (Edwards 1980). Towards the end of the nineteenth century psychiatric disorders were seen as having a pathological as opposed to a morale-emotional basis. The use of activity was not completely lost but rather than serving as a basis for therapy it was used as a supplement to medical treatment. During the first world war OT was seen as having an additional role to play in the rehabilitation of those with physical handicaps resulting from war injuries. Sir Robert Jones established a series of workshops in Shepherds Bush in London with the purpose of using
OT based techniques to rehabilitate the war wounded. By the early twentieth century OT incorporated techniques for the rehabilitation of the physically and the mentally disabled.

In England the initial education and training of OTs has its origins in the professionalisation of nursing and social work (Hugman 1991). Initially nurses and social workers, interested in the use of activity as a treatment, became specialised in this area. In-service training courses were established for those nurses and social workers who wished to develop specific OT skills. Those committed to the development of OT, as a distinct occupation from nursing and social work, looked to set up a training school whereby non-nurses and social workers could train. In 1930, the first school was established in Bristol by Miss Constance Tebbit, under the medical direction of Dr Elizabeth Casson. Miss Tebbit had trained in America where OT had already established itself. The school was a private concern, set up by charitable means. Attempts to persuade English universities to undertake OT training had been unsuccessful (Edwards 1980). This was probably because the universities, at that time, were reluctant to embrace professionally based courses, especially for the less well established professions (see chapter one). The first students qualified in 1932 after a two-year course. Although a system of formalised full-time education for OTs was established, in-service training courses for nurses and social workers continued to be offered until the mid 1940s.

The first professional organisation representing the interests of British OTs was established in Scotland in 1932; the Scottish Association of OTs (SAOT). In 1936 the Association of Occupational Therapists (AOT) was formed to represent OTs in the rest of Great Britain. The first national examinations for new entrants to the para-profession were organised by the AOT in 1938. Occupational therapy relied heavily on the patronage and support of the medical profession in order to establish itself as a distinct health care occupation. Medically qualified practitioners served as patrons of the professional body and served on its committees (Edwards 1980). Additionally, OTs in practice only treated patients who had been referred by a medically qualified practitioner. During the early part of the twentieth century doctors would indicate whether the patient required stimulating, calming or training (Edwards 1980). The medical profession, therefore, played an important role in the development of the OT profession.
The Second World War facilitated the acceptance of OT as a distinct occupation within British health care. The British Government of the day established the emergency hospital scheme to facilitate the quick return of injured personnel to fighting and aviation. OT techniques were used as part of this rehabilitation programme. During the Second World War shortened training courses were organised in order to meet the need for OTs.

Prior to 1954 OT students elected to train either in physical work or psychiatry. In 1954, in order to bring the educational practices in Britain in line with developments in the rest of the world, physical and psychiatric OT were combined (Edwards 1980). At the same time the two-year course was increased to three years due to the recommendations of the Cope Committee (1951). The rationale for this increase is unclear. It may have been because the profession argued that three as opposed to two years was necessary in order to cover the professional knowledge base. However, as with chiropody, it is suggested that the extension to the duration of initial education and training may have been due in part at least to a desire by the professional body to improve the professional status of OT.

The formation of the OT Board, in 1963, had little affect on the diploma course. The OT Board, like its counterpart the Chiropodist Board, approved the course offered by the professional body, in this case the BAOT, as suitable for the purposes of state registration. A joint validation committee was established between the OT Board and initially the BAOT and latterly the COT to oversee initial education and training. In 1978 the British Association of Occupational Therapists became an independent trade union. In order to protect the educational aspects of the professional body's work and also to maintain charitable status the BAOT formed the College of OT (COT) to oversee OT education and training. The BAOT is the only professional body representing OTs in England.

In England between 1954 and 1981 the initial education and training of OTs involved the completion of a three-year full-time course organised and accredited initially by the BAOT and latterly by the COT. The course was divided into three elements; theory, practical skills and clinical placement. Each element occupied a third of the curricula time. The syllabus involved the study of a number of supporting disciplines: anatomy, physiology, psychology, medicine, surgery and psychiatry (Edwards 1980). Students had to sit nationally set and marked, unseen,
time-restrained written examinations. The curriculum was reviewed on a number of occasions and changes made. For example, the BAOT (1969) recommended that the time spent on practical (craft) skills was reduced in order for more time to be spent on activities of daily living, social psychology, social skills and community based practice (Edwards 1980). It was normal practice, at this time, for medically qualified practitioners to be involved with teaching and assessing OT students.

By the end of the 1970s there was a growing recognition within the BAOT that the OT curriculum was overcrowded. The Gay report (1973) suggested that OT schools should be given greater freedom to decide their own curriculum and means of assessment. In 1977 Averil Stewart was appointed by the OT Board to undertake an in-depth study of initial OT education and training. She made the following observation; ‘staff and students agree that the present syllabus is too full and the course design is constrained by national examinations. Each school interprets the course differently, this is shown by variations in subjects taught and number of hours dedicated’ (Stewart 1979 p2). Her report went on to propose that schools should be given the freedom to devise their own syllabus and be responsible for assessing students. This culminated, in 1981, with the OT Board recommending to the Privy Council that OT schools should be allowed to develop, implement and assess their own diploma courses. The Privy Council agreed to this proposal. After 27 years of following a centrally prescribed course schools were able to design and put forward their own diploma course for validation. This initiative became known as Diploma '81 (COT 1984). The professional body believed that this was a very positive development: 'This means that, instead of having to conform to a rigid and overloaded syllabus and centrally conducted examinations, each school will be responsible for the planning of its own curriculum based on guidelines issued by the COT and for assessing and examining its own students. However, the COT together with CPSM maintains the control of standards by validating and monitoring courses and providing moderators for the assessments and examinations (COT 1984 p3).

After 1981 all schools of OT embarked on designing and developing their diploma courses. Each course had to be approved by the Joint Validation Committee (JVC) between the OT Board and the COT. In line with the CNAA procedures the JVC required that each school provided detailed documentation of its diploma course and that the course team defended their
proposed course at a validation event. By 1986 all OT schools, in England, were offering their own internally designed but externally moderated and accredited diplomas.

Discussion with key informants from the professional body suggest that the implementation of the Diploma '81 initiative was due to three factors. Firstly, the influence of practice in Scotland. OT schools in Scotland already had considerable freedom to decide the content and assessment of their courses. Secondly, staff in OT schools believed that giving individual schools the freedom to decide their own syllabus and assessment strategy was preferable educationally to having a centrally prescribed curriculum and assessment (key informant, ex-head of school). Thirdly, the COT believed that changes to the diploma course would improve its case for degree status. This belief is reflected in the following quote: This system (diploma '81) also allows for the possibility of first degree courses being developed as and when the opportunity arises' (COT 1984 p3).

The JVC published an outline of what it expected to be covered in the post 1981 diploma courses (COT 1981). This outline was not prescriptive, it provided only general guidance. However, there was a clear requirement that students must complete a minimum of 1,200 hours in practice. While this requirement was higher than that of the Chiropodist Board it would appear that there had been a decline, over the years, in the number of practice hours. For example, in the 1960s it was usual for students to undertake 2,000 hours (Stewart 1979). OT students have traditionally gained their practice experience on placement in the NHS and social services. Certain skills training such as basketry and weaving were acquired in-school. The reasons for the relative decline in the number of practice hours in the OT diploma course are not clear. However, it is suggested that, as in chiropody, the reduction of the practice element of the course was associated with a desire to improve their professional status.

One of the major developments in the OT professional knowledge base, during the 1980s, was the introduction of theoretical frames of reference. These frames of reference provide a rationale and philosophical base for OT practice. Theoretical frames of references are used by OTs to articulate the theoretical basis of their practices. They were developed in the United States of America where OT established its professional base much earlier than in the UK. Theoretical frames of reference have a discourse which is the preserve of and peculiar to OT. It
is suggested that theoretical frameworks are a means by which OT has attempted to enhance its own specialist knowledge base.

Since the 1970s the OT para-profession has become increasingly concerned about the medical profession's influence over its practice. OTs believes that they have more in common with education than medicine. The following quote highlights the para-profession's desire to be separate and independent from medicine: *'serious and detailed consideration should be given to the assumption that occupational therapists are medical personnel with an educational bias, be replaced by the opinion that occupational therapists are educational personnel with a medical bias'* (BAOT 1969 pi). The OT knowledge base has increasingly centred on the social rather than physical sciences (Wilson 1987). By contrast, medicine has centred on the natural sciences. However, OTs continue to be influenced by the medical profession because the majority of their patients are acquired by referral from medically qualified practitioners although nowadays medical practitioners are far less prescriptive about the type of treatment their patients should receive (key informant ex head of school).

Initially, OT schools were based in the private sector and funded through private, usually charitable, means. With the establishment of the NHS some of these schools found it increasingly difficult to survive on charitable donations. As in the case of chiropody some OT schools transferred into the NHS. However, some continued to maintain their private status whilst at the same time receiving funding from the NHS. The majority of initial OT education and training, unlike chiropody, is funded by the Department of Health. The Department of Health funds the course fees and provides students with a means tested bursary.

During the late 1970s and the 1980s the NHS increased the number of OT student places by approximately 25% (Wilson 1987). New OT schools were established in HEIs and some of the existing NHS based schools transferred from the NHS to the HE sector. The reasons for this are not clear. It is probable, as suggested with chiropody, that this development was linked to the expansion of the HE sector plus a belief that the initial education and training of OTs should be located in an education as opposed to a health service setting (key informant, ex-head of school). The move of OT schools into the HE sector can also be associated with the para-profession's desire to improve its professional status. Some of the OT schools based in the
PSHE received funding via the Department of Education and Science as well as via the DOH. By 1989, prior to the establishment of the first OT degree, there were twelve OT schools in England. Of these three were located in the private sector, one in the NHS and eight in HEIs. The latter, like their chiropody counterparts, were based in PSHE institutions rather than the universities.

Over the years the entry requirements for the OT diploma course have been increased. In 1954, with the introduction of the three-year course, recruits were required to achieve five passes at GCE. By 1989 students had to achieve two A levels as well as five passes at GCSE. This increase in entry qualifications can be linked to the para-profession's desire to improve its professional status. In the UK in 1989, prior to the establishment of the first degree in OT, there were 10,665 occupational therapists on the state register (CPSM 1990). The profession is female dominated (Hugman 1991). The majority of OTs work in the NHS although increasing numbers are now working within social service departments and the private sector.

In summary the following points emerge from the review of the establishment of OT as a para-profession and the development of its initial education and training:

(i) During the twentieth century OTs established their own professional body and via the PSM Act (1960) gained statutory jurisdiction over the title state registered OT. Only partial jurisdiction was achieved. Firstly, because the PSM Act (1960) specifically relates to the work of OTs in the NHS. Secondly, because doctors and other nominees are represented on the CPSM and the OT Board and are, therefore, able to exercise influence and control over the scope of practice and the initial education and training of new recruits to OT. As a result OTs do not have a market monopoly over their scope of practice nor have they achieved total self-regulation.

(ii) The BAOT and latterly the COT have formalised and provided credentials for the initial education and training of new recruits.

(iii) Since the establishment of the first school of OT in 1930 the following changes have been made to initial education and training:
- the duration of the course has increased from an in-service course for qualified nurses to a three year full-time course
- the entry requirements have been raised
- the practice component has been reduced
- the majority of schools are located in the HE sector, albeit the PSHE

(iv) Prior to 1986 the COT and its predecessors centrally determined the syllabus and assessment of the OT diploma course. In 1981 the COT implemented its diploma '81 initiative and, therefore, removed its central control over the diploma course. As a result individual schools of OT designed and put forward for validation their own diploma courses. The COT no longer prescribed the syllabus and assessment strategy. The introduction of the diploma '81 initiative was due to COT's desire to adopt CNAA practices and as a preparation for degree status.

(v) The medical profession has played an influential role in both the establishment of a professional body in OT and the development of initial professional education and training. Medically qualified personnel are the main referrers to OT, are involved in teaching and assessing on the diploma course and currently serve as members of the OT Board and CPSM. The influence of the medical profession over the practice of OT has had positive and negative elements. On the one hand it has provided legitimacy for the practice of OT but on the other it has prevented OT from gaining self-regulation and autonomy. Many OTs argue that a medically based focus is inappropriate to OT practice and that OT should be separate and distinct from medical practice.

(vi) The professional knowledge base in OT has evolved over the years. Over the last ten years the study of theoretical frames of reference has been introduced into the syllabus. These theoretical frames of reference provide a theoretical basis for OT practice. It is suggested that their introduction is related to attempts to improve the professional knowledge base of OT.
Radiography

There are two distinct branches to radiography practice in England: diagnostic and therapeutic. This study focuses on diagnostic radiography as it accounts for the majority of radiography practice. The term radiographer, rather than diagnostic radiographer, is used throughout this study for ease of use.

The traditional and continuing prime role of the radiographer is to take X-rays and to ensure that these X-rays are of an appropriate quality to be read by a radiologist. Due to technological advances during the latter half of the twentieth century there has been a substantial increase in the range of available imaging tools. Radiographers are now involved with imaging modalities other than X-rays such as ultrasound, magnetic resonance imaging and computerised tomography. Additionally, the scope of radiography practice is gradually evolving into a range of areas previously the prerogative of the medically qualified. For example, in a few hospitals there are trial projects where radiographers are administering barium meal X-rays and reading routine chest X-rays. However, the radiographer is still perceived by many as a technician lacking in responsibility and autonomy of action (Milburn 1992).

Radiography emerged, in 1895, as a direct result of Roentgen's discovery of a new kind of ray. The Roentgen Society was established in 1897. It comprised a diverse group of people: physicists, industrial manufacturers, photographers and amateurs as well as medical men (British Journal of Radiology 1932:10). The emergence of radiography as an occupation occurred at the same time as the establishment of radiology as a specialism within the medical profession (Witz 1992). In 1917, medically qualified practitioners formed their own society; the British Association for the Advancement of Radiology and Physiotherapy (BARP) which in 1924 became the British Institute of Radiology (BIR). The aim of the BARP and subsequently the BIR was to establish radiology as a medical specialism with consultant status and its own postgraduate diploma. Radiologists saw the radiographer as acting at the behest of the radiologist in the capacity of technical aid close to, but excluded from, important diagnostic processes in modern medicine (Witz 1992).
The Society of Radiographers, formed in 1920, comprised an equal number of radiographers, radiologists and electrical engineers (Larkin 1983). The Institution of Electrical Engineers did much of the preliminary work establishing the Society of Radiographers. The primarily male electrical engineers offered a private service to the general public and the medical profession which involved not only the taking but also the reading of radiographs. This led to considerable tension among the membership of the Society of Radiographers. Those who classed themselves as radiographers were primarily female and hospital based, with no engineering background. They perceived their role as restricted to the taking of radiographs. Those with an engineering background, many of whom belonged to the Institute of Electrical Engineers and were based in non-hospital based practice, considered their role to be the taking and interpretation of radiographs (Witz 1992). The position of the latter became more problematic as radiologists became a more familiar sight in hospitals and medical practitioners increasingly used their services rather than those of the private radiographer.

Tensions between electrical engineers and radiologists came to a head in 1924 when the Council of the Society of Radiographers passed a resolution stating: 'Membership of the Society of Radiographers does not imply that the member is in possession of the necessary medical knowledge or training for the issue of diagnostic reports, and that the responsibility for diagnosis must rest with the medical man in charge of the case' (Minutes of the Society of radiographers 1924: 155). This resolution was unacceptable to those whose interests were represented by the Institute of Electrical Engineers. Efforts were made to amend the resolution so that it could be possible, where a radiologist was not available, for the radiographer to report his/her findings to a medical practitioner not trained in interpreting radiographs. The General Medical Council (GMC) were unhappy with the wording of this amendment. While the GMC had no problem with radiographers taking radiographs they did not wish anyone other than a medically qualified person to be in a position to interpret radiographs. The matter was resolved by the Institute of Electrical Engineers withdrawing their involvement with the Society of Radiographers. In September 1925 the Society of Radiographers approved the original resolution. This whole issue was one of occupational rights and practices and is a good example of the exercise of market monopoly and patriarchy by the medical profession. It would appear that radiographers were willing to acquiesce to the GMC wishes in order to gain approval and legitimacy from the medical profession for their work. After 1925 close links between the BIR
and the Society of Radiographers were formed. The Society of Radiographers moved into the offices of the BIR. Those operating independent private clinics were not willing to lose their autonomy and independence and, therefore, withdrew from the Society. With the introduction of legislation to protect the health of those working with X rays and the establishment of the NHS most of these independent private clinics closed eventually. However, even today radiographers do not have the sole right to take radiographs.

One of the first tasks of the Society of Radiographers was to set up a training and examination system for membership: 'With the increasing complexity of installations necessitated by recent developments of X ray apparatus, it is obviously essential that the assistant employed in their manipulation shall have undergone an adequate technical training and shall receive some official recognition of the responsible position they hold... The Society of Radiographers was formed to comprise those approved persons, who are at present working on the subject and to qualify new workers after due training and an exhaustive examination' (Kinloch 1980). The first membership examinations for the society were held in 1922. In February 1929 it was agreed by the Council of the Society that the period of training for membership be set at 20 months; eight months theory and twelve months practice.

By the mid 1930s, as previously noted (see section headed chiropody) the BMA had become increasingly alarmed at the development of occupational groups whose work involved medical care. Their concern with radiography focused on the unregulated nature of radiography practice: X ray equipment purchased by hospitals was being used by nurses, porters, dispensers and even handymen (British Journal of Radiology 1937). The BMA responded to this situation by setting up a specific Board to Register Physiotherapists and Practical Therapists and invited radiographers to join. Members of the Society of Radiographers joined in 1937 and were registered as practical electrotherapists. The BMA required that those who wished to join the register as practical electrotherapists should undertake a two-year course approved by the BMA. The BMA delegated day to day responsibility for these courses to the Society of Radiographers. It would appear that the impact of the introduction of the BMA's register on the radiography profession was similar to that for chiropody. That is, it provided legitimacy for the radiography para-profession and resulted in an increase in the duration of initial education and training.
During the Second World War the use of radiographs became a very important tool in assessing the war wounded; it is said that the number of X-rays doubled during the war period (Kinloch 1980). Radiographers, in the army, were awarded the rank of sergeant and were increasingly used because radiologists, on account of their general medical skills, were deployed in other areas. Emergency training of X-ray medical auxiliaries was implemented; these personnel supported the work of the radiographers. After the war the establishment of the NHS ensured a continued role for the radiographer within hospitals.

In 1954 as a result of a recommendation by the Cope Committee (1951) the radiography diploma course was extended to two and a half-years. This was different from chiropody and OT whose courses were extended from two to three years. Why the Cope committee made a different recommendation for radiography is unclear. It may be because the work of the radiographer was perceived as similar to that of a technician and, therefore, did not justify a three-year course (Milburn 1992).

The establishment of the Radiography Board as a result of the PSM Act (1960), as in the case of chiropody and OT, had minimal effect on the initial education and training of radiographers. The Radiography Board accepted the Society of Radiographers course as appropriate for the purposes of state registration. The Radiography Board undertook a similar role to that of the other two Boards, that is, to approve new schools and monitor and review existing schools.

The Society of Radiographers registered as an independent trade union in 1977 and formed the College of Radiographers as a charity to deal with professional and educational affairs. In 1981 the College of Radiographers and the Radiographers Board took the decision to extend the course to three years. The rationale for this is not clear. It is probable that the Society of Radiographers wanted to bring the duration of the radiography diploma course in line with the initial education and training of other PAMs and argued that three years was necessary in order to cover the professional knowledge base. Additionally, it is most probable that the para-profession believed this would improve their social status. The pre-1981 syllabus was reviewed by the College of Radiographers and some changes were made. However, although changes to the organisation and format of the curriculum were made the essential content was not dissimilar to the 'old' syllabus (Newton 1982).
The College of Radiographers exercised considerable control and influence over the diploma course. The College prescribed a very detailed syllabus which all Schools of Radiography were required to adhere to. The syllabus involved the study of a range of supporting disciplines: anatomy, physiology, physics, photography and imaging processes. It was normal practice for medically qualified practitioners and physicists to be involved in the teaching and assessing of the diploma course. Students were assessed at the end of the first eighteen months and at the end of the three years by nationally set, unseen, time-restrained written examinations. Individual schools had little opportunity to include additional material as students had to be prepared for the national examinations. Teaching staff had very little influence over what they taught and no influence over the assessment of their students (Smith 1993). The practice element accounted for approximately two/thirds of the course (Smith 1993). By the end of the course students were required to demonstrate that they had taken a minimum of 1,000 radiographs and to pass a viva voce examination. No changes had been made to the 1981 syllabus prior to the advent of all-graduate entry.

The Society of Radiographers, and latterly the College of Radiographers required that radiographers involved in teaching their diploma course should possess the Higher Diploma of the College of Radiographers. This was a post-registration professional qualification which focused on an in-depth knowledge of radiography. Additionally, radiography teaching staff were also required to hold the College of Radiographers Teaching Diploma. This again was an in-house professional qualification aimed at preparing radiographers to be teachers. Neither of these qualifications were accredited by HEIs or the CNAA.

The first schools of radiography were private enterprises established by those with a vested interest in promoting standards of training in radiography. As a consequence of the establishment of the NHS these schools became incorporated into the NHS. Between the 1950s and 1970s schools of radiography could be found in most large general hospitals. These schools were normally very small, taking between five to twenty students per year. During the mid to late 1980s the NHS embarked on a major rationalisation of radiography schools and drastically reduced the number of schools. Within a five year period the number of schools of radiography was reduced from 88 to 42 (Smith 1993). At the time of the transition from diploma to degree
many schools of radiography were closing. Eighteen schools survived the rationalisation process and made the transition from diploma to degree.

Prior to 1989 all schools of radiography, except one, were based in the NHS. The one exception was located in a FE college. By the 1980s the view was being expressed that schools of radiography should become an integral part of the HE sector: 'schools of radiography should no longer be monotechnics. I am now forced to accept that schools of radiography are an anachronism today and suggest that all should be part of larger higher education institutions, there are many advantage of training within large institutions; lecturers are involved with other courses than radiography, students mix with other disciplines and usually they become actively involved with student politics and extra curricula activities which are offered and which are so important to the development of young people. (Merriman 1987)’. However, prior to 1989 there were very few links between the HE sector and the initial education and training of radiographers.

Over the years the entry requirements to the diploma course were raised. In 1959 potential recruits had to have five subjects at GCE, by 1981 this had been raised to four subjects at GCE and either one science or two non-science ‘A’ levels. By the mid 1980s it was standard practice to require two ‘A’ levels. During the 1980s schools experienced difficulty recruiting students. In 1987 only 57% of the funded places for diagnostic radiography were taken up (College of Radiographers 1990). This was most probably because of the decline in the number of schoolchildren studying the sciences and the range of alternative career options for science based students. The Department of Health was responsible for funding course fees and providing students with a means tested bursary.

In 1989, prior to the first degrees being approved, there were 15,594 radiographers on the state register. Radiography was the third largest of the PAMs and the largest of the three para-professions involved in this study. The majority of radiographers were female (Witz 1992). Most radiographers were employed by the NHS, a minority were employed in the private sector. In a few pilot areas the scope of radiography practice is being developed, however, the majority of radiography practice continues to be undertaken under the direction of medically qualified
practitioners. Medically qualified practitioners continue to reserve their right to interpret images of the human body.

In summary the following points emerge from the review of the establishment of radiography as a para-profession and the development of their initial education and training:

(i) During the twentieth century radiographers established their own professional body and, via the PSM Act (1960) gained statutory jurisdiction over the use of the title state registered radiographer. Only partial jurisdiction was achieved. Firstly, because the title state registered radiographer specifically relates to the work of radiographers in the NHS. Secondly, because doctors and medical physicists as well as other nominees are represented on the CPSM and the Radiography Board and were, therefore, able to exercise considerable influence and control over the scope of practice and initial education and training of radiographers. As a result radiographers do not have a market monopoly over their scope of practice nor have they achieved complete self-regulation.

(ii) The Society of Radiographers have formalised and provided credentials for the initial education and training of its new recruits.

(iii) Since the establishment of examinations for membership of the Society of Radiographers in 1922 the following changes have been made to initial education and training:

- the duration of the course has increased from eight months to a three year full-time course
- the entry requirements have been raised

Unlike chiropody and OT the practice element of the diploma course had not been reduced substantially. Fewer changes were made to the radiography diploma course compared to the other two para-professions, in particular OT.
(iv) The Society of Radiography and latterly the College of Radiographers exercised considerable central control over the syllabus and assessment of the diploma course. The College of Radiographers prescribed a very detailed syllabus and was responsible for setting and marking all examinations.

(v) The medical profession has played an influential role in the establishment of a professional body for radiographers and in the development of their initial education and training. Historically the medical profession and medical physicists have been involved in teaching and assessing the diploma course. Additionally, the medical profession, especially radiologists, exercise considerable influence over the practice of radiography. Radiographers are dependent upon the medical profession for the referral of patients and are also restricted by their professional code of conduct from undertaking activities such as the reading of radiographs.

(vi) Despite the influence of the medical profession the scope of radiography practice is developing. Some radiographers now undertake practices previously associated solely with medical practice. However, for the time being, the majority of radiographers continue to work under the direction of medically qualified practitioners.

Rationale for the selection of the three para-professions

This study is based on a comparative approach. This approach has been adopted because it strengthens the ability to make generalisations about the nature of and the reason for changes to initial education and training and the potential impact of these changes on the professionalisation of these para-professions. The chiropody, OT and radiography para-professions have been selected for comparison because they share many similar features:

(i) During the twentieth century all three para-professions attempted to improve their market position and social status. They established professional bodies which represent and lobby on behalf of their members and gained statutory regulation under the PSM Act (1960)
The medical profession has played a significant role in the establishment of each para-profession. The medical profession continues to exercise control and influence over all three para-professions. For example, medically qualified representatives sit on all three Boards and the CPSM.

The diploma courses were solely professionally accredited courses. None of them led to a nationally recognised academic award. The HE sector was not involved in the design or accreditation of the diploma courses.

Over the years all three para-professions have made changes to their initial education and training. This has involved increasing the duration of initial education and training and raising the entry requirements. Prior to the advent of degree courses all three diploma courses involved three years of full-time study and the entry requirements were a minimum of two 'A' levels or their equivalent. These changes are associated with attempts by these para-professions to improve their professional status.

All three para-professions were regulated by the PSM Act (1960).

All three para-professions made the transition from diploma to degree around the same time (1989-92).

Despite the above similarities there are also differences between the three para-professions. These differences are worthy of note as they may have influenced the nature of and reasons for changes to the initial education and training of these para-professions:

The professional bodies' influence and level of control over the diploma courses varied. The College of OTs exercised minimal control whereas the College of Radiographers exercised the most. Staff in schools of OT had considerable freedom to decide what should be included in the diploma curriculum and how students should be assessed. By contrast, staff in radiography schools were severely constrained, they had to teach to the prescribed syllabus and prepare students for the nationally set and assessed
examinations. The chiropody diploma course sits somewhere between these two approaches.

(ii) There are differences in the level of control and influence the medical profession exercises over the practice of the three para-professions. Radiographers and OTs are dependent upon the medical profession referring patients whereas chiropodists can diagnose and treat patients without referral from a medically qualified practitioner. Radiographers are particularly dependent upon the medical profession to read radiographs and other images which they take.

(iii) In radiography, with the exception of one school, all schools were located in the NHS prior to 1989. By contrast, the majority of chiropody and OT schools were located in HEIs, primarily PSHE institutions.

(iv) Funding for the initial education and training of chiropodists was the responsibility of the then Department of Education via its National Advisory Board (NAB). By contrast, the majority of OT and radiography courses were funded by the then Department of Health. Some schools of OT based in the HE sector also received funding from the then Department of Education. Chiropody students were eligible for a discretionary grant from their Local Education Authorities whereas OT and radiography students received a means tested bursary from the then Department of Health.

Summary

Chiropodists, OTs and radiographers are classed as para-professions because of their dependence upon the medical profession (Freidson 1970). During the twentieth century they each established their own professional bodies and formalised the initial education and training of new recruits. The medical profession has been very influential in the establishment of these para-professions and their initial education and training. Via representation on the respective Boards and CPSM the medical profession continue to influence the initial education and training and scope of practice of these para-profession. There are, however, differences between
the para-professions in the extent to which the medical profession controls and influences their scope of practice.

Over the years each para-profession has made improvements to their initial education and training. This has involved extending the duration of the diploma course and raising entry requirements. In chiropody and OT there has also been a reduction in the amount of time spent on the practice element of the course and the merger of some schools with HEIs. All of these changes can be associated with the efforts of occupations to improve their professional status.

The many similarities between the three para-professions make them a suitable choice for this comparative study. However, there are some differences between these para-professions. The most important of these is the differing levels of central control and influence exercised by the professional bodies over their respective diploma courses.
Chapter Three

METHODOLOGY

Introduction

The aims of this study are to inform current understanding about the nature of and reasons for changes to initial professional education and training for the para-professions and to assess the potential impact of these changes for the professionalisation of these para-professions. To achieve these aims this study addresses the following research questions:

(i) what factors led to the achievement of all-graduate entry for these para-professions?

(ii) why did the para-professions want degree status?

(iii) what were the differences, if any, between initial professional education and training which led to the award of a diploma and that which led to the award of a degree qualification?

In order to address these research questions the study was divided into three stages. The first stage involved an historical study of the factors which led to the achievement of all-graduate entry for these para-professions and the reasons why the para-professions wanted degree status (chapters four and five). The following material was analysed; semi-public literature¹, public documents² and articles in the professional journals. However, because there was relatively little documentary material related to why and how these para-professions achieved all-graduate entry semi-structured interviews with key informants were also used. These key informants were primarily elected members or officers of the professional bodies and statutory boards and, therefore, possessed unpublished knowledge of how and why the para-professions achieved all-graduate entry. The second stage of the study involved a case study approach. One school from each of the three para-professions

¹ For example, minutes from meetings of the professional bodies, statutory boards of the CPSM and the CNAA
² For example, Government white papers, Hansard
was studied in order to explore how the school gained degree status, why it wanted degree status, what changes were made as a result of the transition from diploma to degree and what were the differences, if any, between the diploma and degree courses (chapters six to eight). A range of data collection methods were used: semi-structured interviews with the professionally qualified teaching staff, last cohort of the diploma students and first cohort of the degree students, Entwistle Learning Inventory and content analysis of the documentation related to the diploma and degree courses. The third and final stage of the study involved a comparison of the diploma and degree courses in the case study schools. This comparison was used to inform the nature of and reasons for changes to the initial education and training of these para-professions (chapter nine). Analysis of the data from all three stages was used to assess the potential effect of the achievement of all-graduate entry on these para-professions (chapter ten).

Methodological approach

In order to achieve the aims of this study an integrated approach was adopted (DePoy & Gitlin 1993). As long ago as 1946 Merton and Kendall advocated that researchers should acknowledge that research should be based on the needs of the study and not on a need to follow one research approach to the exclusion of all others: 'Social scientists have come to abandon the spurious choice between qualitative and quantitative data: they are concerned rather with that combination of both which makes use of the most valuable features of each. The problem becomes one of determining at which point they should adopt the one, and at which the other, approach' (Merton & Kendall 1946). There have been considerable disputes in the literature about the differing benefits and values of quantitative and qualitative approaches to research (Sapsford & Jupp 1996). The quantitative approach is considered too restrictive and to ignore an individual's unique ability to interpret his/her experiences and represent them to her/himself. Whereas the qualitative approach is seen to address these deficits but is seen as being seriously deficient in areas such as sampling, reliability and validity. It is felt that too much store is placed on the meaning of statements given by interviewees which may be interpreted differently by other researchers. By contrast, one of the advantages of quantitative research is that conflicting results from previous studies can be re-investigated using an exact replica of earlier studies (Clarke 1992). The nature of qualitative research makes this much more difficult. Disputes about
the values of quantitative and qualitative paradigms ignore the major concern of any research, that is the validity of the research design and whether it provides evidence which can bear the weight of the interpretation that is put on it and lead to credible conclusions (Sapsford & Jupp 1996). The chosen approach for any study should, therefore, be the one most appropriate for that study and not one that is chosen in order to slavishly follow a particular research paradigm.

This study made use of both qualitative and quantitative approaches. It is believed this integrated approach provides a far more appropriate means of gaining an understanding of the nature of, rationale for and potential effects of the transition from diplomas to degrees for these three para-professions. The use of an integrated approach increases the likelihood of gaining breadth and depth, richness and wholeness of data (Begley 1996). The first stage of this study, the historical review, used a qualitative approach. The proper subject matter of historical research consists to a great extent of verbal and other symbolic material emanating from a society’s or cultural past (Cohen & Manion 1989).

The second stage adopted a case study approach and made use of both quantitative and qualitative approaches. The advantage of a case study approach is that it allows an area to be studied in-depth and although the data relates to a relatively small field of study it can yield both unique and universal understanding. Within each case study the differences between the diploma and degree courses were assessed. This study of the differences between diplomas and degrees shares many of the features of a quasi-experimental approach, a derivative of the classical experimental approach. It is acknowledged that the classical experiment is not appropriate for research into social situations in their natural environment (Silverman 1993). The classical experimental approach is based on a null hypothesis, is highly structured and involves an experimental and control group. The experimental group but not the control group is affected by an intervention The researcher has control over the independent variable, subjects are randomly allocated to either an experimental or control group, operational terms are clearly defined and the researcher attempts to control as many extraneous variables as possible. Emphasis is placed on the design of the experiment and the selection of the sample population in order to ensure internal and external validity and reliability. Data is descriptive, usually of a quantitative nature and inferential statistics are used to accept or reject the null hypothesis (Polgar &
Thomas 1988). Variations on the classical experimental approach, the field experiment (McNeil 1990) and the quasi-experiment (Sapsford & Abbott 1992) have been used in preference by social scientists. The field experiment involves the researcher having to 'set up' an experiment in the 'real world'. For example, Rosenthal & Jacobson (1968) used a field experiment approach to test the hypothesis that self-fulfilling prophecies could affect educational attainment by manipulating pupils' IQ scores (independent variable) known to teachers. The quasi-experimental approach, the approach which this study uses, involves the study of 'real' events which are already taking place. It differs from the 'field experiment' in that the situation that is studied has not been 'stage managed'. It also differs from the 'classical experiment' as the population cannot be randomly assigned to an experimental or control group and the researcher does not have control over the independent variable (Sapsford & Abbott 1992). However, it shares certain similarities: it involves the study of the effects of an intervention on a pre-intervention - post-intervention basis. This study is based on the 'real event' of the transition from diploma to degree for these para-professions and explores initial education and training before and after the transition.

Data collection within each case study school was based on between-method triangulation. Denzin (1970) was an early advocate of triangulation. Method triangulation can be used to achieve convergent validity or completeness. The purpose of convergent validity is to confirm information regarding one single phenomenon by bringing together information collected, tested, or analysed through more than one method (DePoy & Gitlin 1993). By contrast, method triangulation can be used to achieve completeness by using different methods to reveal varied dimensions of one phenomenon (DePoy & Gitlin 1993). This study used method triangulation for the latter purpose. Denzin (1970) identified two types of method triangulation; within-methods and between-methods. The between-methods approach was used in this study; this involved the use of more than one method of data collection and, therefore, allowed qualitative and quantitative approaches to be combined (Smith 1981).

Content analysis of the diploma and degree course documents and the use of the Entwistle Learning Inventory were based on a quantitative approach. These methods of data collection were concerned with discovering facts and assumed a fixed measurable reality
(Minichiello et al 1990). This data is analysed through numerical comparisons. By contrast, the semi-structured interviews with staff and students elicited the views and perspectives of people involved with the transition from diploma to degree. This method is based on a qualitative approach where the primary purpose is to discover and reveal the perspectives and views of people and the meanings they assign to behaviours and experiences (DePoy & Gitlin 1993). However, rather than using unstructured interviews, an approach more commonly associated with qualitative research, semi-structured interviews were used. This was because although the study wanted to elicit subjective responses from staff and students the researcher had, as a result of the nature of the topic under the study, examined the course documents for the diploma and degree courses prior to undertaking the interviews and identified key areas for interviewing. This approach has been labelled ‘focused interview’ in view of the prior analysis by the researcher of the situation in which the subjects have been involved (Cohen & Manion 1989).

The third stage used a comparative approach which as the name suggests involves the use of comparisons. The comparative approach is a popular, qualitative based approach for understanding situations in social science and educational research. It was used by classical sociologists such as Marx and Durkheim. More recently Glaser & Strauss (1967) have explored the benefits of this approach. The comparative approach enables similarities and differences between cases and concepts to be identified and allows the full diversity and complexity of the data to be explored.

With any research it is essential that efforts are made to ensure the validity of the research findings. Two mechanisms were used in this study to ensure the findings were valid. Firstly, an integrative approach and the use of between-methods triangulation support attempts to improve the validity of the study. Secondly, a draft of the analysis of the study findings was sent to all case study schools for comment. Although the case study approach was based on a detailed study of one school from each para-profession it is hoped that generalisations can be drawn from the study findings. The use of between-methods triangulation strengthens the ability to make generalisations from the findings of this study (Silverman 1993). Additionally, it is believed that the presence of similarities between the degree courses in the case study schools (see chapter nine) will strengthen the ability to make generalisations from the study findings.
Selection of the case study schools

One school from each para-profession was selected. This was because it was impossible to adopt a case study approach with all the schools within each para-profession, a total of 41 schools, 10 schools of chiropody, 12 schools of occupational therapy and 19 schools of radiography in England (see Annex A). Schools in Wales, Scotland and Northern Ireland were excluded on account of travelling distance and because, due to different funding arrangements in Scotland and Northern Ireland, a few schools had been delivering degree courses for some time.

In order to compare the differences between the diploma and degree courses it was decided to interview the final year students from the last cohort of diploma students and the final year students from the first cohort of degree students. This criterion reduced the number of schools in the sampling frame because, when the study commenced in the spring of 1993, twenty-seven of the 41 schools had completed the transition. These schools were excluded because there were no diploma students to interview. There was a disproportionate number of radiography schools among the fourteen schools left in the sampling frame: nine out of the fourteen. By April 1993 only two schools of chiropody and four schools of OT had diploma and degree students.

Purposive and convenience sampling methods were used to select the three case study schools (Cohen & Manion 1989). As many schools had already completed the transition from diploma to degree it was necessary to select a school from each para-profession which was the last, or among the last, within that para-profession to make the transition. This was considered to be an important factor to take into consideration when analysing the data as the experiences of those who were last might be different from those who were the first. Additionally, it was decided to select schools which had not been located in the HE sector prior to the advent of degree status. It was noted in chapter two that some schools, especially chiropody and OT schools, had moved into the HE sector prior to achieving degree status. The experiences of these schools might have been different from those located outside the HE sector. Of the two schools of chiropody which had diploma and degree students one was excluded because, unlike all the others, it had opted for a four year
degree programme. This made it untypical (see chapter four). The remaining chiropody school met the criterion identified above. Of the four schools of OT one was excluded on account of having second and third year diploma students. The nearest OT school to the researcher was chosen from the remaining three. Data collection in the radiography case study school had to be postponed until Spring 1994. This was because radiography schools were, on the whole, a year later than chiropody and OT in making the transition from diploma to degree (see chapter four). In 1994 there were nine schools of radiography where the last cohort of diploma students were in their final year. The radiography school which satisfied the criteria and was located closest to the researcher was selected.

The schools used for the case studies were, therefore, not statistically representative of their respective para-professions. It would have been very difficult to find a method by which to achieve this. Instead the schools were selected on the basis of their common features: last or among the last within the para-profession to make the transition, located outside of the HE sector prior to the advent of degrees and within travelling distance of the researcher.

Table 3.1 illustrates the number of students and staff in the case study schools (220 in total). It was neither feasible or necessary to undertake interviews with all final year diploma and degree students in each case study school. However, because of differences in the number of radiography and chiropody students compared to OT students it was decided to randomly select a minimum of six students rather than set a percentage of students to be interviewed. Due to the large number of OT students a smaller percentage of the OT students were interviewed compared to chiropody and radiography students (see Table 3.1). Both the diploma and degree students who were interviewed were selected randomly (using random number tables) from a list of students provided by the Head of School. The Entwistle Learning Inventory was administered to all final year diploma and degree students in each case study school. As there was a relatively smaller number of professionally qualified full-time teaching staff attempts were made to interview all teaching staff. This was achieved in the chiropody and OT case study schools but not in the radiography case study as one of the teaching staff declined to be interviewed (Table 3.1) (refer to section headed implementation).
<table>
<thead>
<tr>
<th>PARA-PROFESSION</th>
<th>Number of students in the last cohort of the diploma course and number interviewed (percentage in brackets)</th>
<th>Number of students in the first cohort of the degree course and number interviewed (percentage in brackets)</th>
<th>Number of staff and number of staff interviewed (percentage in brackets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIROPODY</td>
<td>14 in cohort 6 interviewed (43%)</td>
<td>19 in cohort 6 interviewed (32%)</td>
<td>6 (100%)</td>
</tr>
<tr>
<td>OCCUPATIONAL THERAPY</td>
<td>49 in cohort 8 interviewed (16%)</td>
<td>52 in cohort 8 interviewed (15%)</td>
<td>8 (100%)</td>
</tr>
<tr>
<td>RADIOGRAPHY</td>
<td>16 in cohort 6 interviewed (38%)</td>
<td>26 in cohort 7 interviewed (28%)</td>
<td>7 in total 6 interviewed (86%)</td>
</tr>
</tbody>
</table>

**Table 3.1** Number of final year diploma, final year degree and professionally qualified teaching staff interviewed in each case study school (percentage interviewed in brackets)
Data collection methods

The following methods of data collection were used:

(i) key informants
(ii) documentary sources
(iii) semi-structured interviews with the professionally qualified teaching staff
(iv) semi-structured interviews with a random selection of students in the last cohort of the diploma course and the first cohort of the degree course
(v) the Entwistle Learning Inventory.

i) **Key Informants.** The following key informants were used:- the secretary to the College of Occupational Therapists, the secretary to the College of Radiographers, an elected member of the Occupational Therapy Board, an elected member of the Chiropodist Board, an ex-member of the Chiropodist Board, one current Head of a School of Chiropody (other than the case study school) and one ex-Head of an OT school. Key informants were used because there was minimal available documentation from the professional bodies related to the achievement of all-graduate entry. The key informants were selected because it was believed that their positions made them privy to information about the transition from diploma to degree which had not been documented. Purposive sampling was therefore used to select the key informants. An unstructured interview approach was adopted with the key-informants. Notes were made during and immediately after the interviews.

ii) **Documentary sources:** A range of documentary sources were analysed for the first and second stages of this study. Documentary evidence can serve a number of purposes in educational research; to understand the dynamics of educational change, to increase understanding of the relationship between education and the culture in which it operates, to increase understanding of contemporary educational problems (Good 1963). In this study it was used to achieve the first of these: understanding the dynamics of educational change.
For the first stage of this study the following documentary sources were reviewed: professional journals, semi-public documents and public documents. A search of the professional journals for each para-profession for the period 1975-1994 was undertaken to gain information about how and why these para-professions achieved all-graduate entry. This material was complemented by other primary sources such as semi-public documents (minutes of meetings of the respective Boards and CPSM and CNAA circulars) and public documents (Hansard, Government white papers).

For the second stage of this study documentation pertaining to the diploma and degree courses was analysed. This included validation documents and guidelines from the professional bodies about initial education and training. These documents were studied in order to identify a range of quantitative features of the diploma and degree courses, for example, duration of the course, hours spent in practice, timing of placement experience, pass mark, number of examinations. Additionally these documents were analysed and comparisons made between the following features:

(i) Aims of the course
(ii) Teaching and learning strategies
(iii) Syllabus content
(iv) Assessment methods
(v) Admission criteria

Documentation about the diploma and degree courses provided a rich source of data which could be cross referenced with data from the semi-structured interviews with staff and students.

iii) Semi-structured interviews. Interviews provide a relatively easy and accessible means of gaining peoples' views about a range of issues. They may be classified upon a continuum; from a highly structured to an unstructured approach. Structured interviews involve asking each respondent the same questions in exactly the same order. By contrast, unstructured interviews rely on social interaction between the researcher and the respondent, the control exercised by the researcher over the interview is minimal. Each respondent may be asked different questions. Closed responses are associated with
structured interviews and open responses with semi- or unstructured interviews. Open questions provide a frame of reference for respondents' answers, but put a minimum of restraint on the answers and their expression. Semi- and unstructured interviews provide an opportunity for the interviewer to probe so that she may go into greater depth whereas a structured approach constrains the responses that may be given.

This study used semi-structured interviews to gain the views and opinions of the last cohort of final year diploma students, first cohort of final year degree students and the professionally qualified teaching staff from the case study schools. A semi-structured approach is useful when the researcher has a framework upon which she has based the study and a series of open questions which he/she wishes to ask all participants. In this study the researcher had studied the course documents for the diploma and degree courses prior to undertaking the interviews. This had resulted in the generation of topic areas which she wished to explore with each participant. As the third stage of this study involved a comparison of the data from the case study schools it was also believed necessary to adopt a semi-structured as opposed to an unstructured approach in order to ensure that staff and students from the case study schools all had the opportunity to comment on the same range of topics. A structured approach with a series of closed questions is unlikely to have encouraged staff and students to offer their own views and opinions. Conversely an unstructured approach, where the interviewer exerted minimal control over the interview, could have resulted in the collection of irrelevant data with the additional problem that it would be difficult to make comparisons.

The semi-structured interviews with the last cohort of diploma and the first cohort of degree students focused on the following areas. These areas were informed by the analysis of the course documents and by the historical review undertaken for the first stage of this study. The same topics were covered with the diploma and degree students:

1. What students thought made a good professional.
2. Their experiences of the course: good bits and bad bits.
3. Their views about the classroom and practice elements of the course and the relationship between theory and practice.
4. How competent students believed they would feel at the end of the course.
5. What students felt was the purpose of the course and what they had got out of the course.

6. Why students thought their school had wanted to make the transition from diploma to degree.

7. What students thought of the teaching and learning strategies used on the course.

8. What students thought they had to do to pass the course.

9. Why students thought their para-profession wanted degree status.

10. The impact of merging with a higher education institution (degree students only).

11. Their views on diploma and degree qualifications

Diploma and degree students were questioned on the above topics and where appropriate probed for further information. In many cases the students raised other issues not covered in the general list above. Additionally, at the end of the interviews all students were given an opportunity to add anything they wished about their views about initial education and training.

Interviews with the teaching staff focused on the following areas:

1. The professional background and academic qualifications of the staff.

2. Their views about the diploma course (aims, content, assessment, teaching and learning strategies)

3. Why they thought their school had replaced the diploma with a degree.

4. Why their para-profession wanted degree status.

5. What they saw as the differences between the diploma and the degree courses.

6. The changes which had taken place to the course (specific probes:- aims, teaching and learning strategies, syllabus, organisation, assessment) due to the transition from diploma to degree.

7. Differences between diplomates and graduates

8. The effect these changes had on their roles and on the students.

9. The potential effects of these changes on the para-profession.

10. The impact of merging with a higher education institution.
Staff were questioned about the topics and where appropriate probed for further information. As with the students the staff raised issues that had not been raised with the general topic list. Additionally, they were all given an opportunity at the end to add anything they wished about their views of the transition from diploma to degree and the effect of this on initial education and training.

iv) **Entwistle Learning inventory.** The Entwistle Learning Inventory (ELI) was devised by Entwistle in 1981 and provides a quantitative method for studying approaches to learning (see Annex B). Differences between students learning styles (deep versus superficial) in HE were discussed in chapter one. It would appear that there is a general consensus that a deep approach to student learning is to be encouraged although empirical evidence indicates that many HE students adopt a superficial approach (see chapter one). The ELI allows eight dimensions of student learning to be studied (Entwistle 1981):

(i) **Achieving orientation** indicates well-organised study methods, competitiveness and hope for success.

(ii) **Reproducing orientation** indicates surface approaches to learning, extrinsic motivation and syllabus-boundness.

(iii) **Meaning dimension** indicates deep approaches to learning, intrinsic motivation and academic motivation

(iv) **Comprehension learning style** indicates the use of analogies in building up descriptions of topics, emphasising the outline of ideas and inter-connections.

(v) **Operation learning style** indicates reliance on step-by-step, logical approach emphasising factual details

(vi) **Versatile learning style** indicates the use of holistic and serialist strategies. Students can vary their strategy according to the characteristics of the task and can cope with diversity and inconsistency.
(vii) Indicates the presence of **learning pathologies** where students have difficulty building up an overall picture and adopt a rather superficial approach to memorising facts and details. Such students have a tendency to jump prematurely to conclusions or to seek generalisations without sufficient evidence.

(viii) **Prediction of success** indicates that the student adopts a versatile approach with organised study methods and does not demonstrate learning pathologies.

For each of the above dimensions Entwistle (1981) has identified 'average' scores for HE students (see Table 3.2). A score which is more than half a standard deviation above the average score gained from Entwistle's study (Entwistle 1981) is judged to be 'high' and a score of a full standard deviation or more is judged to be 'very high'. The reverse is the case for 'low' and 'very low'.

The use of learning inventories was a popular method for assessing students' learning styles during the 1970s and 1980s. In higher education the Entwistle Learning Inventory has been used in a number of settings. The use of learning inventories and specifically the Entwistle learning inventory declined in the 1990s. The ELI was chosen for this study because it has been specifically used with health students and has been used to explore how the relationship between theory and practice influences learning styles (Titchen 1992, Cheung 1988 and Coles 1985). As the transition from diploma to degree may affect the relationship between theory and practice it was decided that the ELI could be a valuable asset to this study.

Titchen (1992) used the ELI to study the learning styles of physiotherapy students in a hospital based, polytechnic based and university based schools of physiotherapy. Her findings showed that physiotherapy students based in a hospital school scored higher on the dimensions in the ELI which indicate a deep approach to learning than their counterparts based in a university. It was suggested that one of the reasons for this may have been that there was a better link between theory and practice in the hospital school than the university (Titchen 1992). Coles (1985) studied the effect of delaying the second year examinations undertaken by medical students on their approaches to learning. Data from the research showed that students who took their second year examinations at the end of the third year
<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>AVERAGE SCORE</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieving</td>
<td>12.82</td>
<td>4.26</td>
</tr>
<tr>
<td>Reproducing</td>
<td>13.51</td>
<td>4.40</td>
</tr>
<tr>
<td>Meaning</td>
<td>14.31</td>
<td>4.51</td>
</tr>
<tr>
<td>Comprehension learning</td>
<td>13.12</td>
<td>3.63</td>
</tr>
<tr>
<td>Operation learning</td>
<td>13.25</td>
<td>3.70</td>
</tr>
<tr>
<td>Versatile approach</td>
<td>29.63</td>
<td>7.03</td>
</tr>
<tr>
<td>Learning pathologies</td>
<td>24.57</td>
<td>7.15</td>
</tr>
<tr>
<td>Prediction of success</td>
<td>65.88</td>
<td>13.01</td>
</tr>
</tbody>
</table>

Table 3.2  ELI dimensions, average scores for students in HE and standard deviation (Entwistle 1981 p.274)
scored higher on the dimensions in the ELI which indicate a deep approach to learning compared to those who took the examinations at the end of the second year. It was suggested that this may be due to the students being better able to relate theory to practice having gained a year’s clinical experience prior to taking the exams (Coles 1985).

Titchen (1992) and Coles (1985) made use of three of the eight dimensions covered by the ELI: reproducing, meaning and versatility. A high score on the reproducing orientation indicates rote-learning, a surface approach to studying and a reliance on lecturers to define learning tasks. According to Entwistle (1981) it is related to fear of failure and interest in passing exams to gain a qualification, and is associated with poor academic performance. A high score on the meaning orientation indicates a deep approach to learning where the student actively questions, relates ideas in one part of the course to those in another part, is interested in learning for its own sake and links evidence to conclusions. It has been suggested that there is a correlation between academic success and those who score high in the meaning orientation (Titchen 1992). A high score on the versatility scale demonstrates the student is adopting a learning approach to suit the prevailing circumstances and is demonstrating an orientation towards meaning. Those students who score high with this approach are seen as adopting a successful approach to learning (Titchen 1992).

There are a number of limitations to the use of the ELI. The mean average many conceal a wide range of marks amongst the student group. Additionally, comparing the scores of final years students from the last cohort of the diploma course with the scores of the final year students from the first cohort of the degree course may lead to spurious results because it measures the short term rather than what maybe the more consistent long term effects. Table 3.3 indicates the number of students from each of the case study schools who completed the Entwistle learning Inventory. As the numbers were small it was not possible to assess the statistical significance of the results.

The use of participant observation and questionnaires were excluded for the following reasons. Participant observation would have been useful for studying how the new degree courses were designed and validated. However, due to the timing of this study and the speed with which all three para-professions made the transition from diploma to degree all degree courses had been approved prior to the commencement of the study. As a result
<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>NOS OF DIPLOMA STUDENTS COMPLETING THE ELI (percentage of students from the cohort completing the ELI)</th>
<th>NOS OF DEGREE STUDENTS COMPLETING THE ELI (percentage of students from the cohort completing the ELI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIROPODY</td>
<td>14 (100%)</td>
<td>18 (95%)</td>
</tr>
<tr>
<td>OCCUPATIONAL THERAPY</td>
<td>26 (53%)</td>
<td>29 (56%)</td>
</tr>
<tr>
<td>RADIOGRAPHY</td>
<td>16 (100%)</td>
<td>24 (92%)</td>
</tr>
</tbody>
</table>

Table 3.3 Number of diploma and degree students (in brackets the percentage) who completed the ELI from the case study schools
participant observation would not have offered any advantages over the approaches adopted in this study, especially as it would have been far more time consuming to concurrently undertake participant observation studies. Further, it would not have been feasible for the researcher given her full-time paid work commitments.

Questionnaires can be an ideal mechanism for gaining peoples' views and opinions. They are relatively cheap to administer and a lone researcher can involve a much larger group of people than if she was using an interview technique. The main drawback to the use of questionnaires is that it is difficult to elicit detailed responses from respondents. It is for this reason that questionnaires were not used in this study. One of the prime purposes of this study was to gain an in-depth understanding of the effect of the transition from diploma to degree on the three para-professions. It was believed that this could best be achieved by semi-structured interviews.

**Implementation**

Pilot interviews were undertaken with some of the researcher's own students. This proved to be a valuable exercise as it revealed that the initial interview schedule was too structured and impeded students talking about their own experiences of the course. The interview schedule was revised in light of this experience. Pilot interviews were also undertaken with the staff in the researcher's own school, this revealed no problems.

The Head of School, from each case study school, was approached to obtain her permission to involve staff and students with the study. Contact was made with individual staff to arrange an appropriate time for the interview. In the case of the chiropody and OT case study schools a verbal explanation of the research was provided prior to the start of the interview. The Head of the radiography case study school requested that a letter be sent to all staff explaining the purposes of the research and requesting their permission to be interviewed. The staff in the radiography school were facing yet another regional re-organisation and the Head of School did not wish staff to feel that they had to participate in the study if they did not wish (see chapter five). As shown in Table 3.1 all full-time staff in chiropody and OT schools were interviewed. In the case of radiography all but one member of staff gave their permission.
All students were sent a letter describing the purpose of the interview and asking them to participate. With the diploma students it was felt, both by the researcher and the Heads of School, that they might be sensitive to the notion of being asked to participate in research about the differences between diplomas and degrees, especially as they had missed the opportunity to pursue a degree by one intake. In discussion with the heads of schools it was agreed that diploma students would be told that the prime purpose of the interview was to record their experiences of the diploma course. This was in fact the case as data from interviews with the diploma students provided a baseline from which to compare the changes brought about by the transition from diplomas to degrees. Diploma students were asked, towards the end of their interviews, about their opinions of the replacement of the diploma qualification with a degree. The first cohort of degree students were told that the purpose of the interview was to explore the effect of the transition from diploma to degree and what they saw as the differences between diplomas and degrees. As diploma and degree students were asked the same series of questions (with the exception of questions about the merger with a HEI) it is believed that the slightly different approach to introducing the research study had no adverse effects on the diploma students responses.

The last cohort of the diploma students were interviewed just prior to finishing their final year of study. For the chiropody and OT diploma students interviews were conducted in the summer term of 1993 and for radiography students in the spring of 1994. The timing of the radiography diploma students' interviews was influenced by the earlier dates of their final written examinations (April 1994). Chiropody and OT teaching staff were interviewed during the autumn and spring terms of 1993/4 and the radiography staff during the same terms in 1994/95. The degree students were interviewed during the summer term of their final year: 1994 for chiropody and OT students and 1995 for radiography students.

No difficulties were experienced with gaining access to the case study schools. However, as students were interviewed towards the end of their course some difficulties were experienced getting students to agree to being interviewed while at the same time revising for finals. This was not a problem with chiropody or radiography but was with OT degree students who had no formal timetable during their last term. Every effort was made to get the OT diploma and degree students identified by random sampling to attend for interview.
However, it was necessary to identify more students by random sampling in order to ensure sufficient numbers of students were interviewed.

All interviews were audiotaped and the participants assured that their anonymity would be protected. The audiotapes were transcribed for the purposes of data analysis. None of the staff or students interviewed are mentioned by name, all participants have been numerically coded in order to maintain anonymity. However, although the case study schools are not mentioned by name their identity is not difficult to detect by those who are familiar with these para-professions. As some of the study findings may be of a sensitive nature to the schools it was agreed with the Head of each of the case study schools that they would be circulated with a draft copy of the thesis prior to submission. This would allow each case study school to comment on the thesis prior to publication. Any comments would be discussed with the Head of School and staff and the thesis, where appropriate, amended. This latter course of action has not proved necessary.

The researcher was, at the time of data collection, the head of a school of chiropody. She, therefore, had experience of the transition from diploma to degree in her own school. In some ways this experience was invaluable to the research. It assisted in pointing to sources of data and the topic points for the semi-structured interviews. A close involvement of the researcher in the phenomena being researched in qualitative research is not uncommon (Silverman 1993). However, the researcher needs to be aware, at all times, that her perceptions of the transition may lead to bias. It is hoped that the use of an integrated approach to this study as well as method triangulation and the reading of the draft thesis by the case study schools reduced this likelihood.

The researcher was known to some of the staff at two out of the three case study schools. The researcher had been employed as a lecturer by the chiropody case study school between 1983 and 1984. Since that time the Head of School had changed and only 50% of the staff were the same. Students at the school were unknown to the researcher. The OT case study school was based in the researcher's home town and as part of the transition process had merged with the HEI which employed the researcher. A few of the staff were known to the researcher but none of the students. The staff and students at the school of radiography were unknown to the researcher. Knowledge of the identity of the researcher
might have influenced the responses of those being researched. With qualitative research of this nature it is impossible to control all the variables nor is it always desirable (Silverman 1993). In this instance it is not believed that the study findings were adversely affected.

Analysis of the data

The data was analysed in relation to the stages of the study. The first stage, the historical review produced data from the documentary evidence and the semi-structured interviews with key informants. This data was divided into two sections: data related to how the para-professions achieved all-graduate entry and data related to why the para-professions wanted to achieve all-graduate entry. With historical data it is important to assess the authenticity of the material and the accuracy or worth of the actual data (Cohen & Manion 1989). The majority of the data related to how the para-professions achieved all-graduate entry was semi-public and public documents. This data was believed to be authentic and accurate. A search of the professional journals revealed that there was very little in these journals about how the para-professions achieved all-graduate entry. The data related to how the para-professions achieved all-graduate entry was sorted into chronological order to develop a picture of the events which led up to and the factors which resulted in the achievement of all-graduate entry. Gaps within the picture were filled by the use of data from key informants. Semi-structured interviews were used with key informants to pursue specific points which were either not addressed at all or very briefly in the documentary evidence and to gain other information which was volunteered by the key-informants.

Data about why the para-professions wanted all-graduate entry was scarce. The main source of data was the Next Decade (CPSM 1979) a report of a committee which was established to review the professions supplementary to medicine and which commented in detail in its findings about the para-professions’ desire for degree status. There were only a few articles in the OT and radiography professional journals related to why the para-professions wanted degree status. This documentary evidence was analysed and categories identified which related to the reasons why these para-professions wanted degrees. Because there was relatively little documentary evidence, data from the interviews with staff and students from the case study schools was also used (see chapter five). This data
was analysed to see whether the categories which emerged were the same as those which emerged from an analysis of the documentary evidence. There was remarkable similarity between the two sources of data, however, the data from the interviews with staff and students resulted in additional categories (see chapter five).

The case studies resulted in a large amount of data; scores from the ELI, primarily quantitative but some qualitative data from the content analysis of the diploma and degree course documents, qualitative data from the interviews with staff, diploma and degree students. The scores from the ELI were analysed using the formula provided by Entwistle (1981) (see Annex C). Results for each of the three dimensions studied were expressed as mean average scores for the group as a whole. Using the information in Table 3.2, the mean scores for each cohort of students were assessed to see whether they were half a standard deviation above or below the mean identified by Entwistle (1981). Scores which were half a standard deviation below the mean indicate a 'low' score and scores that were a full standard deviation below the mean indicate a 'very low score'. The reverse is the case for scores that are a half or a full standard deviation above the mean. Due to the relatively small number of students who completed the ELI (see Table 3.3) it was inappropriate to use statistical tests such as the Analysis of Variance to identify statistical differences between the case study schools or between the two cohorts of students within each case study. Additionally, it has already been noted that there are limitations to the ELI. As a result generalisations from the ELI scores have not been made. The results from the ELI were used to supplement and provide an additional perspective to the other methods used in this research (see chapters six to nine).

As previously noted semi-structured interviews were used because the researcher had undertaken prior analysis of the situation. In view of this a framework was developed for the analysis of the data from the interviews with staff and students. This framework was based on a comparison between the two courses using the following headings:- aims, entry requirements, content, structure, teaching and learning, assessment. These are familiar headings to anyone involved in curriculum planning and can be found in any standard text on curriculum design (Curzon 1980). Additional categories which were used for this particular study were the accreditation process, organisational issues, staff qualifications and impact of the changes on staff and students. Data from the documentary sources
provided another dimension to these analytical categories. In the majority of the cases data from the documentary sources complemented rather than conflicted with the data from the staff and students. Analysis of the data from the case study schools is presented in chapters six to eight.

The final stage of this study involved a comparative analysis of the data from chapters six to eight. This analysis is presented in chapter nine and was used to achieve the first aim of this study that is to inform current understanding about the nature of the changes to initial professional education and training. Again analysis of the data was facilitated by the standard analytical headings which were used with the case studies. From this analysis the main differences between the diploma and degrees in the case study schools and reasons for these differences were identified (see chapter nine).

Summary

This chapter provides a description of and rationale for the study design used in this study. The study adopts an integrated approach making use of both qualitative and quantitative approaches. Additionally, between-methods triangulation has been used in order to achieve completeness and validity of study findings and to strengthen the ability to make generalisations. The study was divided into three stages. The first stage involved a historical review of how and why the para-professions achieved all-graduate entry. The second stage used a case study approach based on a quasi-experimental design to compare the similarities and differences between the diplomas and degrees. One school from each of the three para-professions was chosen for the case studies. Each of these schools were among the last within their respective para-professions to make the transition from diploma to degree and were located outside of the HE sector prior to gaining degree status. The final stage of this study involved a comparison of the findings from the case study schools in order to identify the nature of and reasons for the changes to initial education and training of these para-professions which ensued from the transition from diplomas to degrees.
Chapter Four

THE ACHIEVEMENT OF ALL-GRADUATE ENTRY

Introduction

This chapter explores the factors, which led to the achievement of all-graduate entry for chiropody, OT and radiography. The achievement of all-graduate entry for these three para-professions reflects the increase in the number of professionally accredited degree courses in England since the 1960s (see chapter one). It is suggested that this increase is because of the policy and funding initiatives of successive British governments, in particular the establishment of the PSHE and the CNAA, and the expansion of the HE sector, especially the major increase in student numbers since the late 1980s (see chapter one). Additionally, as noted in chapter one successive British governments have played a pivotal role in helping some less well established professions to gain all-graduate entry. However, this was not the case for these three para-professions. Indeed, as revealed in this chapter, the then British government were opposed to all-graduate entry for these para-professions. This chapter addresses how these three para-professions achieved all-graduate entry despite this opposition.

Throughout this chapter a distinction is made between pre- and post-registration degrees. The term 'pre-registration' is synonymous with 'initial education and training'. It relates to the education and training of new recruits which leads to state registration. By contrast, the term 'post-registration' denotes education and training which is undertaken by members of these para-professions who are already state registered. It is important to make a distinction between pre- and post-registration education and training as the achievement of post-registration degrees preceded the achievement of pre-registration degrees and all-graduate entry.

Data for this chapter has been obtained from documentary sources and semi-structured interviews with key informants (see chapter three). The analysis of this data is presented in four sections. Their order of presentation reflects the chronology of the achievement of all-graduate entry for these para-professions. The first section explores the establishment and development
of post-registration degrees. The second section explores why attempts to achieve pre-registration degrees in England were initially unsuccessful. In the third section the factors which led to the approval of the first pre-registration degrees are addressed. The fourth and final section examines how each para-profession achieved all-graduate entry within a relatively short period of time. The first pre-registration degrees were approved in 1989 and by 1992 all three para-professions had achieved all-graduate entry.

Post-registration degrees

The first and only major report, which put forward a case for both pre- and post-registration degrees for chiropody, OT and radiography, was published in 1979 (CPSM 1979). This report, entitled 'PSM Education and Training: The Next Decade' concluded there was a case for degrees for the Professions Supplementary to Medicine. The report recommended that: 'professional institutions, ministries and registration authorities must decide now what is the likely requirement for an all- or part-graduate profession, taking account, inter alia demographic changes, recruitment, tiering and options for degrees' (CPSM 1979)

The then British government's response to this report was lacklustre. It did not offer its support nor did it establish a committee of enquiry to explore the case for degrees for these three para-professions. An indication of the then British government's support for degree status for these three para-professions can be gleaned from its response, in 1983, to a parliamentary question about the need for degree courses for physiotherapists and occupational therapists. The then Secretary of State for Health and Social services, Mr J Patten, replied: 'My Right Hon. Friend the Secretary of State for Education and Science and I are not convinced that there is a case for all-graduate status for the physiotherapy and occupational therapy professions. We support in principle the case for a small nucleus of graduates who could specialise in particular fields such as teaching, research and in developing clinical work. This may, however, be most readily achieved through post-registration courses' (Hansard 1983).

It would appear that neither the then Department of Education and Science or the Department of Health and Social Science were in favour of pre-registration degrees. However, they did support the notion of post-registration degrees for a small section of each para-profession.
Although the government's response relates specifically to physiotherapy and OT there is no reason to suggest that their position on this issue was any different for chiropody and radiography.

Prior to the 1980s the opportunities for chiropodists, OTs and radiographers to gain post-registration degree qualifications were very limited. HEIs offered relatively few opportunities to study for a degree on a part-time basis. Additionally, they were often reluctant to accept diplomas in chiropody, OT or radiography as entry qualifications. The main options available for members of these para-professions who wished to gain a degree qualification post-registration were either to:

- undertake a three year full-time degree course

- enrol with the Open University (OU) and undertake a degree by part-time study.

The OU degree was the most popular option as it allowed those in practice to study for a degree whilst remaining in employment. The OU was established in July 1969. In its first year it developed a scheme to award general credit exemptions to students who could demonstrate that they had relevant prior learning experiences (Perry 1976). OU degrees are based on six credits for an unclassified and eight for an honours degree. Two credits were equivalent to a year of full-time study at a university (Perry 1976). Students could make a claim, to the OU Credit Exemption Unit, for credits for previous learning. It was possible for a student to gain a maximum of three credits for previous learning and, therefore, be exempted from up to 50% of an unclassified degree.

Chiropodists, OTs or Radiographers who applied to the OU Credit Exemption Unit in the early 1980s discovered that their professional diploma qualification received no or a very low credit rating. Those with a chiropody or OT diploma qualification gained after 1953 (start of the three-year course) were awarded one credit. This was later increased to two credits for those who gained an OT diploma qualification post 1981 (Wilson 1987). The radiography diploma qualification was not awarded any credits but the College of Radiographers post-registration qualification, the Higher Diploma, received one credit (England & Grimshaw 1978).
The OU's credit rating of the chiropody, OT and radiography diploma courses was in stark contrast to the credits given to the Certificate in Primary Education (Cert Ed). Teachers with a Certificate in Education who wished to enrol for an OU degree were awarded three credits. This was despite the fact that the entry requirements for teacher education were the same as those for the para-professions and that both sets of students undertook a three year full-time course. Four factors may have influenced the OU's low credit rating of the para-professions' diploma courses in comparison to the Certificate in Education. Firstly, many schools of chiropody, OT and radiography, prior to the 1980s, were located either in the private, NHS or further education sector. This may have led the OU to decide that the initial education and training of these para-professions was not synonymous with study at higher education level. Secondly, the OU may have judged teaching to be primarily an intellectual as opposed to practical activity. In comparison chiropody, OT and radiography are associated with very practically based activities. This is an important point and highlights a possible distinction between 'practical' based as compared to 'intellectual' based professional courses. Thirdly, the OU based a number of its degree courses on the study of disciplines related to education. It could be argued that an OU degree built upon and developed further the content of the Certificate in Education. This was not the case for the para-professions, in particular, chiropody and radiography. One of the reasons for the award of two credits for the OT diploma course may have been that the content of this course and its educational focus (see chapters two and seven) had more in common, than the other two para-professions, with degree courses offered by the OU. Fourthly, all three diploma courses required students to spend a significant amount of time in practice. This was particularly the case in radiography (see chapters two and eight) and may have been a reason why no credits were awarded to this qualification. Milburn (1992) believed that the work of a radiographer was akin to that of a technician. An additional factor is likely to have been the shorter duration of the radiography diploma course prior to 1981: two and a half as opposed to three years (see chapter two).

During the early 1980s a few HEIs, in England, developed part-time, post-registration degree courses for the para-professions (Spencer 1988). These were usually unclassified degrees of three or four years duration and involved one day/evening per week of study. They provided an opportunity for chiropodists, OTs and radiographers to:
gain a degree qualification in a shorter period of time than had been possible with the OU.

- receive greater academic recognition for their diploma qualification. This was implicit rather than explicit. The new post-registration degrees were of a shorter duration than a three-year full-time degree.

- study subjects, which were of direct professional relevance.

These new post-registration degrees were designed specifically for PAMs and other health professionals. Some were multi-disciplinary and led to a degree in health sciences/studies whereas others were profession specific. For example, the Polytechnic of Central London established a BSc in Chiropody, in 1983. It has been noted that the PSHE institutions played a major role in developing these courses (Spencer 1988).

The following factors are likely to have led HEIs, especially the PSHE institutions to offer post-registration degrees. Firstly, there was a demand from the PAMs for such courses (CPSM 1979). Secondly, the British government had given its support to the development of post-registration degrees. Thirdly, the PSHE institutions and the CNAA, in view of their particular focus on applied and vocational courses, were more likely to be supportive of these degrees than the universities. Fourthly, the development of these new degrees allowed HEIs to increase their student numbers and hence gain additional funding. Fifthly, it was normal practice for the post-registration degrees to result in the award of a Bachelor of Science as opposed to a Bachelor of Arts degree. It has been suggested that the establishment of post-registration degrees for the para-professions was aided by a desire by HEIs to sustain the number of science students at a time of declining recruitment for degrees in pure science (Jones 1986).

The opportunities for chiropodists, OTs and radiographers to study for post-registration degrees were increased further by the introduction of the CNAA's Credit Accumulation and Transfer Scheme (CATs) (CNAA 1985). The CNAA's CATs initiative was a national scheme which facilitated 'the progress of non-traditional entrants, provided enhanced opportunities for
continuing professional education and established reliable procedures for the recognition of employment based learning for credit towards the academic awards of the CNAA' (CNAA 1992). This scheme was introduced to increase access to degree level study and to enable students to transfer academic credit from one institution to another. It is likely that the CNAA in introducing this policy was influenced by the OU's credit exemption scheme and by developments in North America (Lane 1975). The CNAA is also likely to have initiated the scheme in response to the government's desire to increase access to vocational and professional courses in HE.

The CNAA identified the PAMs as potential benefactors of the scheme and sent a guidance letter to all HEIs entitled 'Post registration courses for the Professions Allied to Medicine (CNAA 1986)'. This letter gave approval for either a one-year full-time honours degree course or a two-year part-time honours degree course for those with the following qualifications:

- Diploma of the College of Occupational Therapy
- Diploma of the College of Speech Therapists
- Diploma of the British Orthoptic Society
- Diploma in Dietetics
- Higher Diploma of the College of Radiographers
- Membership of the Chartered Society of Physiotherapists
- Membership of the Society of Chiropodists (The Diploma in Podiatric Medicine was only instigated in 1987, see chapter two)

It is believed that the CNAA adopted this pro-active stance because they were aware of the difficulties being experienced by these para-professions in gaining pre-registration degrees (see later discussion). There was a belief that if these three para-professions could not achieve pre-registration degrees then access to post-registrations should be facilitated where possible (Whiting & Potter 1991). The CNAA's support was in keeping with its general aims and purpose (Lane 1975). However, it is also likely that representatives from chiropody, OT and radiography who sat on the CNAA's Health Science committee influenced the CNAA. The researcher personally knows that these representatives vociferously lobbied for degree status.
The CNAA's guidance letter (CNAA 1986) enabled chiropodists and OTs to gain an honours degree qualification in a shorter period of time than had previously been possible: two as opposed to three or four years of part-time study. Unfortunately, it is not possible to identify the number of diplomates who took this opportunity. Post-registration degrees became known as 'top-up' degrees as they took into account and built upon the content of the diploma courses. However, only radiographers with the Higher Diploma of the College of Radiographers were allowed to access these degrees. As has already been noted the OU had initially differentiated between radiography and the other two para-professions in the award of its credits. It is probable that the CNAA in deciding that the Diploma in Radiography was not at a suitable level for entry to a top-up degree were influenced by the same factors.

In 1987 the CNAA credit rated the diploma courses (CNAA 1987). The credit-rating scheme was based on an honours degree being equivalent to three years of full time study with each year of study being equivalent to 120 CAT points. The CNAA awarded those who had completed a diploma qualification in chiropody, OT and radiography, after 1981, 240 CAT points at Level 2. In other words the diploma was equivalent to two thirds of an honours degree. The educational basis for this credit rating is not clear. The COT had made quite radical changes to the OT diploma course (see chapters two and seven). However, the radiography diploma course was only extended to three years in 1981 and relatively few changes had been made to the chiropody diploma course since its establishment in 1953 (see chapters two, six and eight). The fact that the radiography diploma qualification was awarded the same number of CATs points as the OT diploma marks a major change in policy by the CNAA. A year earlier the CNAA had not allowed those with a radiography diploma qualification to access its 'top-up' degrees. No changes had been made during this time to the content or the assessment of the radiography course (see chapter two). It is suggested that the decision to credit rate all three diploma courses at 240 CATs points at level 2 may have been due to political as opposed to educational factors. It is known that during this period of time the radiography profession was actively lobbying for the same recognition as chiropody and OT (Smith 1993). It is also suggested that lobbying by all of the para-professions, an increase in the number of health related courses offered by HEIs and the then government's support of post- as opposed to pre-registration degrees were influential factors.
To summarise, during the 1980s it became possible for chiropodists, OTs and radiographers to gain post-registration degrees which took into account and built upon what they had covered in their diploma courses (top-up degrees). As a result these post-registration degrees were of a shorter duration than a three-year full-time degree, usually one year of full-time or two years of part-time study for an honours degree. The achievement of these post-registration degrees was precipitated by four factors. Firstly, the British government supported their development. Secondly, the CNAA, in line with their remit for increasing access to and the vocational relevance of HE, promoted their development via the introduction of its CATs scheme. Thirdly, it would appear that some HEIs, particularly the PSHE institutions, were keen to be involved with their development because they saw it as a means of increasing student numbers and hence funding and additionally because these degrees were in keeping with their remit of increasing vocational emphasis in HE. Fourthly, there is evidence to indicate that each of the three para-professions were actively lobbying the CNAA and HEIs for degree status at pre- and post-registration levels.

Attempts to establish pre-registration degrees prior to 1989

Prior to 1989 all attempts, within England, by the three para-professions to gain pre-registration degrees failed. For example, in 1984 the Salford School of Chiropody, which was based in a Further Education College, put forward a proposal for a three year unclassified degree. This unclassified degree course was approved by Manchester University for the award of a degree and by the Chiropodist Board and the CPSM for the award of state registration. Difficulties arose when the degree was put forward to the Privy Council for approval. It is normal practice for the Privy Council to consult with the appropriate government departments regarding decisions it has to take. In this instance the then Department of Education and Science (DES) was approached as it was responsible, via the National Advisory Board (NAB), for the funding of chiropody courses (see chapter two). The DES refused to allow the degree to be approved (key informant from the professional body). Despite this the school decided to go ahead and recruit students to the degree. It, however, had to withdraw the degree course when the NAB threatened to withdraw its funding.
Watson (1983) when discussing the reasons for the failure to establish pre-registration degrees in radiography cited both a reluctance on behalf of the then DES and the DHSS to fund these pre-registration degrees. Additionally he noted a reluctance to the idea of degrees among some radiographers: 'As you will be aware, many of the efforts of the College of Radiographers to seek entry degrees and end on degrees for radiographers have been thwarted for very fundamental reasons, including: lack of provision of finance by the DHSS (who do not accept the argument that radiographers need degrees); lack of provision of finance by the DES (who generally do not appear to be enthusiastic about funding training in the NHS section); and radiographers themselves, who agree with the DHSS that radiographers do not need degrees' (Watson 1983). Bentley and Watson (1987) cite many unsuccessful attempts by schools of radiography to establish both pre-registration and post-registration degrees. As already noted the reason why radiographers experienced particular difficulties gaining post-registration degrees was because the OU did not award any credits for the diploma qualification and the CNAA did not initially allow those with the diploma qualification to access its top-up degrees.

Occupational therapy was also unsuccessful in its attempts to gain pre-registration degrees in England. However, attempts to establish pre-registration OT degrees in Northern Ireland and Scotland were successful although their approval was not without difficulties. The British government opposed the proposal for a four-year degree OT degree course at the University of Ulster. It is believed that the only reason the University of Ulster was successful in gaining approval for a pre-registration degree in OT was because of different funding mechanisms and educational policies in Northern Ireland which prevented the British government from stopping the proposal from going ahead: 'The newly established University of Ulster flexed its charter muscles to break new ground with an honours degree in occupational therapy. This was in the face of government opposition which stopped short of challenging a university's right to award degrees to whatever it saw fit.' (Ellis 1995)

It would appear that, for all three para-professions, the main factor which prevented the approval of pre-registration degrees was opposition from the then British government via its Department of Education and Science and the Department of Health and Social Services. One of the reasons for this opposition is probably the belief that pre-registration degrees would involve four as opposed to three years of study. It has historically been normal practice for
professionally based courses on gaining degree status to increase their duration in order to ensure that the academic as well as professional requirements are adequately covered (see chapter one). The CNAA had stated that it would not entertain approving degrees for the PAMs unless they were longer in duration than three years: 'Within the Board's area of work when a full time degree programme includes a licence to practice or leads to professional registration (PAM courses) and, therefore, must include a substantial period of supervised placement, it is likely to be significantly longer in duration than three academic years' (CNAA 1981).

A fourth year of study would require additional funding. In the case of chiropody and those OT schools and one radiography school based in the education sector the NAB would have provided funding. NHS based OT and radiography courses would have been funded by the DHSS (see chapter two). The NAB refused to provide additional resources to fund chiropody degree courses (Chiropodist Board 1981). The NAB reinforced its opposition to pre-registration degrees when it issued the following statement in 1986: approval should not be given to any pre registration degree courses in the three subject areas (chiropody, OT and physiotherapy); and that there should be more part-time opportunities for professionals in these fields to study for a degree' (NAB 1986).

Although the potential need for increased funding appears to be a major reason for the opposition to pre-registration degrees there is evidence to suggest that the opposition from the then DES, NAB and the DHSS was not entirely financially based. In 1984 the proposed degree in chiropody at Salford had been designed to be delivered in three years of full-time study, the same duration as the diploma course. The degree course had specifically been planned to span three years so that additional resources would not be necessary (key informant from the professional body). Manchester University was able to approve a three-year degree because unlike PSHE institutions it was not constrained by the CNAA's decision to only approve four-year pre-registration degrees. However, the DES via the NAB threatened withdrawal of funding. It would, therefore, appear that factors other than financial ones contributed to the DES's opposition to pre-registration degrees.
It is suggested that both the then DES and the DHSS were opposed to pre-registration degrees because they believed that in addition to the effects of potential increases to the cost of initial education and training degrees would lead to:

- members of these three para-professions demanding much better terms of employment and pay if they gained graduate status

- applicants who had the practical but not the academic entry requirements being prevented from undertaking initial education and training

- too great an emphasis on theory and a reduced emphasis on the practice element of initial education and training

All of these points were highlighted in the Next Decade (CPSM 1979) as reasons for opposition to degree status. Additionally, although the Conservative British government, during the 1980s, was supportive of vocationally relevant education in HE it was apparent that they were ideologically opposed to occupational monopolies (Burrage 1994). It is probable that this anti-professional stance was the main reason why the then government did not support pre-registration degrees for chiropody, OT and radiography. The then government may have believed that these three para-professions would use the achievement of all graduate entry to improve their market position (see chapter one).

To summarise, the main opposition to the establishment of pre-registration degrees was from the then British government via its Departments of Education and Science and Health. Their opposition appears to have been due to a combination of financial and ideological factors.

A 'window of opportunity'

Between 1988 and 1989 a concatenation of factors created an opportunity for all three para-professions to achieve all-graduate entry. In 1988 the CNAA issued a statement endorsing the development of three year unclassified degrees for the three para-professions: The Council is aware that there has been continuing development in the standard of the diploma courses which
lead to state registration for the professions of chiropody, occupational therapy, orthoptics, physiotherapy and radiography. The Council has already approved 3 year unclassified degree courses in Scotland in the fields of physiotherapy and occupational therapy, and one of these courses has been satisfactorily producing graduates since 1985. Following consideration of the issues involved by the Committee for Health Sciences, the Council wishes to make clear that validating authorities may accept for validation in England and Wales also, unclassified degree courses for the five above named professional areas, based on normal degree entry requirements and of three academic years in duration - which also include the requirements for professional registration.' (CNAA 1988)

The CNAA's guidance note (CNAA 1988) went on to state that clinical training must be 'considered to be an informal but real part of the degree progression'. The CNAA have previously used unclassified degrees as a probationary validation period for courses new to HE; these courses usually go on to acquire honours status at a later date (Lane 1975). This change in the CNAA's policy was a major boost to the efforts of these three para-professions to achieve pre-registration degrees. The CNAA's change of policy appears to have been precipitated by:

- the pro-active lobbying of representatives from the PAMs and others sympathetic to their cause who sat on the CNAA's Health Sciences Committee (Smith 1993). It has already been noted that such lobbying appears to have played an influential role in the development of post-registration degrees.

- the belief that changes to the diploma courses had resulted in the inclusion of many of the attributes associated with degree courses

- the belief that it was unlikely that the government would change its policy about funding four years degrees. If the impasse was to broken it would be necessary to allow three year degrees (Ellis 1995)

- the belief that the practice element of the three diploma courses carried academic merit
It is not clear on what grounds the CNAA based its assertion that all the diploma courses had changed. Major changes had been made to the OT diploma course during the 1980s (see chapter two). However, during the 1980s there had been no changes to the radiography diploma and relatively minor changes to the chiropody diploma course. It would appear that any educationally based differences between the three diploma courses were not taken into consideration; the CNAA treated all three para-professions the same.

The CNAA's agreement to three-year degrees for these para-professions was an important factor in the achievement of all-graduate entry for these para-professions. However, it is suggested that it was not the key factor. As noted earlier in this chapter, in 1984 a three year unclassified degree in chiropody had been approved by a university but had not been able to recruit students due to the threatened withdrawal of funding by the NAB. It is suggested that without the combined effects of the following three factors these para-professions would not have achieved all-graduate entry:

- expansion of the HE sector
- disbandment of the NAB
- changes to the management of NHS based OT and radiography courses

Expansion of the HE sector. There was a major expansion of the HE sector during the late 1980s and early 1990s (see chapter one). This expansion could only be achieved by increasing the number of students on existing courses or by developing new courses (DES 1987). It is suggested that as a result HEIs were more open to developing new degree courses and to approving degree courses for professions whose initial education and training was not at degree level. It was noted in chapter one that an increase in the number of professionally accredited courses coincides with periods of expansion of the HE sector.

Disbandment of the NAB. The passing of the Education Reform Act (DES 1989) heralded major changes for the funding and management of the PSHE sector. Indirectly these changes allowed for the funding of degrees for the education sector based courses for these para-
professions. In 1989, as a result of the Act, PSHE institutions were incorporated and removed from the control of the Local Education Authorities. The NAB was disbanded and funding for all PSHE institutions was transferred to an independent, non-departmental body, the Polytechnic and Colleges Funding Council (PCFC). The NAB had been responsible, in conjunction with Local Education Authorities, for funding 'advanced pool' courses via local and regional committees; this included all but one chiropody diploma course, most OT courses and one radiography course. It was via these committees that NAB, as was demonstrated at Salford in 1984, was able to directly prevent degree courses from being established. The disbandment of the NAB meant that there was no one body which could directly influence the funding of the initial education and training for these para-professions. As a result PSHE institutions and universities were in a position to approve pre-registration degrees for these para-professions.

Changes to the management of NHS based OT and radiography schools. In 1989 the DOH agreed to fund three-year degree course (key informant from the OT profession). The rationale for this is unclear but appears to have been precipitated by two factors. Firstly, the removal of obstacles within the HE sector to the funding of degrees. It is suggested that in view of this change the NHS came under increasing pressure from the NHS funded courses, to allow degree courses. Secondly, the effects of the government's reforms of the NHS. In 1990 as a result of the publication of the White paper on NHS reforms (DOH 1989) radical changes were implemented into the NHS. Included in these reforms was a major change to the management of NHS based pre-registration education and training. All initial education and training for PAMs and nurses, currently located in the NHS, was to be moved out of the NHS into HEIs or independent Colleges of Health (DOH 1989). Regional Health Authorities were to become the purchasers of this education and training and HEIs or independent Colleges of Health the providers.

The funding and policy changes introduced into the HE sector and the NHS during the latter part of the 1980s were part of a wide-ranging government strategy. They were in line with the then government’s policy initiatives related to a market economy. Changes to the HE sector and the NHS involved the introduction of a quasi-market into both these sectors. It is unlikely that the government considered the impact of these changes on the initial education and training of these three para-professions. However, the net effect was to provide a 'window of opportunity'
for the approval of pre-registration degrees for all three para-professions. Due to the manner in which these changes occurred there was no clear strategy as to how each of the three para-professions would manage this situation. Questions such as 'how should degrees be introduced', 'what educational changes, if any, need to be made' or fundamental questions such as 'is an all-graduate profession necessary or desirable' do not appear to have been asked or addressed. As shown in the following section within a very short period and in an unplanned manner all three para-professions gained all-graduate entry.

All-graduate entry

Chiropody. Chiropody gained all-graduate entry within a four-year period (Table 4.1). By 1990 eight out the ten diploma courses in England had been replaced by degrees. The first degrees experienced some difficulty gaining Privy Council approval (Klenerman 1991). This was due to opposition by medically qualified practitioners on the CPSM and from the Privy Council to the proposal from some HEIs to title their degrees Bachelor of Science in Podiatric Medicine (key informant from the professional body). Their objection was to the inclusion of 'medicine' in the title of the degrees. This situation was resolved when these HEIs changed the title to Bachelor of Science in Podiatry. The use of the term 'podiatry' is in keeping with terminology in Europe, America and Australasia. All pre-registration degrees were entitled degrees in Podiatry as opposed to Chiropody. However, the term chiropody is used throughout this study because it is the recognised statutory title in England. Six of the chiropody degrees were approved by the CNAA, the remaining four were approved by universities (Table 4.2). As already noted in chapter two a number of schools of chiropody had merged with PSHE institutions prior to the advent of degree status. Most of these PSHE institutions offered CNAA degrees. It is, therefore, not surprising that the majority of chiropody degrees were CNAA approved. Table 4.3 shows that the number of unclassified degrees was much higher in chiropody than for the other two para-professions. The CNAA's guidance note in 1988 gave specific approval for the establishment of three year unclassified degrees (CNAA 1988). As the majority of schools of chiropody were in CNAA approved institutions it is not surprising that initially the majority of chiropody degrees were approved at unclassified level.
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Table 4.1 Establishment of degrees in chiropody, occupational therapy and radiography, in England, between 1989-92.
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<th>PARA-PROFESSION</th>
<th>CNAA DEGREES</th>
<th>UNIVERSITY DEGREES</th>
<th>DEGREES APPROVED FOR COURSES LOCATED IN PSHE INSTITUTIONS WITH UNIVERSITY ACCREDITATION</th>
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<td>n=12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RADIOGRAPHY</td>
<td>9 (47%)</td>
<td>7 (37%)</td>
<td>3 (16%)</td>
</tr>
<tr>
<td>n=19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>20 (49%)</td>
<td>11 (27%)</td>
<td>10 (24%)</td>
</tr>
<tr>
<td>n=41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2 The number (percentage in brackets) of CNAA and university approved degrees for each of the three para-professions (1989-1992)
<table>
<thead>
<tr>
<th>PARA-PROFESSION</th>
<th>UNCLASSIFIED</th>
<th>HONOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIROPODY</td>
<td>7 (70%)</td>
<td>3 (30%)</td>
</tr>
<tr>
<td>n=10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCCUPATIONAL THERAPY</td>
<td>3 (25%)</td>
<td>9 (75%)</td>
</tr>
<tr>
<td>n=12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RADIOGRAPHY</td>
<td>0 (0%)</td>
<td>19 (100%)</td>
</tr>
<tr>
<td>n=19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3  Percentage of unclassified as opposed to classified degrees for each of the three para-professions between 1989-1992.
The three honours degrees in chiropody were approved by universities, however only one of these degree courses was located in a university. This was a four year course; the only four year degree in chiropody. The remaining two honours degrees were based in PSHE institutions accredited by universities and were of three years duration. The reasons why these universities were willing to approve three year honours degrees in unclear. As already noted the universities were unaffected by the CNAA’s ruling that pre-registration degrees should be at unclassified level. The researcher was head of the first school of chiropody to gain an honours degree approved by a university. In this case the staff of the school had proposed an unclassified degree in line with degree initiatives in other schools. The university pressed for honours status because it was normal custom and practice for it to approve classified degrees and because it believed that the proposed course met their requirements for honours.

The one university which approved a four year honours degree in chiropody had insisted that it should be of four years duration in order to provide sufficient time to meet the requirements for degree level study and the practice component of the course (key informant from the professional body). However, this particular course faced difficulties recruiting students because it was in competition with other HEIs offering three-year degrees. In 1993 the four-year course was replaced by a three-year honours course. It is believed that the university had to reduce the duration of the degree course in order to ensure its viability (key informant from the professional body). It is also important to note that although seven of the chiropody degrees were approved initially at unclassified level, by 1994 they had all been changed to honours degrees.

**Occupational Therapy.** Occupational therapy gained all-graduate entry within a four-year period (Table 4.1). The majority (11 out of 12) of OT diplomas had been replaced with degrees by 1991, a year later than chiropody. However, nine out of the twelve OT degrees were approved at honours level compared to only three out of ten of the chiropody degrees (Table 4.3). Those OT degrees, which were approved at unclassified level, were replaced with honours degrees by 1994. The reason why more OT than chiropody degrees were approved initially at honours level may be because universities as opposed to the CNAA (Table 4.2) approved seven out of the twelve OT degrees. In 1989 Blom Cooper noted that the universities were less reluctant than they had previously been to approving degrees for the para-professions: *The
elitism of the university sector, too, which once served to exclude all but a handful of learned professions and to denigrate occupations requiring the acquisition of human relations and practical skills, is for various reasons more and more a thing of the past' (Blom Cooper 1989 p65). Additionally, it is likely that the universities had been influenced by the growth of the PSHE sector and were being pressed by the PSHE institutions whose degrees they accredited to approve honours degrees.

All OT degrees, like their counterparts in chiropody, were entitled Bachelor of Science. This is of note as many OT's believed that the OT course had a greater social science than physical and biological science base. Hugman (1991), however, has noted that in order to gain professional status, especially from medicine, it has been necessary for OT to emphasise its science as opposed to its social science base.

Radiography. The time scale for the establishment of degrees in radiography is shown in Table 4.1. The majority (14 out of 19) of radiography degrees were approved in 1991 and 1992, one to two years after the approval of the majority of chiropody and OT degrees. This delay in comparison to the other two para-professions is likely to be due to the following factors:

- all radiography schools were located, with the exception of one, in the NHS prior to degree status, therefore, they all had to find a HEI willing to approve their degrees. A number of chiropody and OT schools were already established in PSHE institutions prior to the advent of degrees so did not have this added complication.

- there was considerable opposition from radiologists and NHS scientific officers to the approval of radiography pre-registration degrees (see chapter five). Opposition, from the medical profession, to radiographers extending their scope of practice and status has been evident since the formation of the Society of Radiographers in 1920 (Witz 1992) (see chapter two).

- both the OU and initially the CNAA had not equated the radiography diploma qualification with the same academic level as the chiropody and OT diploma qualifications. This is
thought to be due to the much higher practice component within the radiography course and its relatively recent (1981) move to a three-year full-time course.

It is suggested that because of the above factors the College of Radiographers had to play a far more pro-active role in promoting degree status than the other two professional bodies. In 1990 the College published a handbook entitled 'The development of degree courses' with the specific aim of offering support and guidance to schools to develop a degree submission (COR 1990a). In the September of the same year the College stated it would not award its diploma qualification after 1995 (COR 1990b). This latter action forced radiography schools to replace their current diploma courses.

Nine of the radiography degrees were approved by the CNAA and ten by the universities (Table 4.2). All the degrees were entitled Bachelor of Science. Unlike the other two para-professions all the degrees were approved at honours level (Table 4.3). The reasons for this are not clear. It may have been that HEIs approving radiography degrees were influenced by what was already happening to chiropody and OT degrees. That is, the increasing number of degrees approved initially at honours level and the upgrading of unclassified to honours degrees. HEIs approving radiography degrees may have seen little purpose in approving unclassified degrees if there was going to be pressure to upgrade them to honours in a short period of time. Additionally, the radiography profession, having taken into account what was happening with the other para-professions, lobbied for honours status (key informant from the professional body). However, it is clear that the achievement of all-graduate entry at honours level for radiography was not the direct result of educational differences between the radiography diploma course and the diplomas of the other two para-professions (see earlier section).

Discussion

It is clear from the publication of the 'Next Decade' (CPSM 1979) that these three para-professions wanted to achieve degree status for their initial education and training. However, it is apparent that their attempts to secure this outcome were thwarted by the then British government's opposition. This opposition revolved around two factors: that is finance and ideology. It is suggested that the government of the day believed that degrees for these
practically based occupations were unnecessary and that these para-professions would try and use degree status to argue for improved social status and better remuneration.

It is, therefore, ironic that despite opposition from the then government it was the unintended consequences of their own policies which led to all-graduate entry for these para-professions. Four factors were responsible for the approval of pre-registration degrees all of which were either directly or indirectly related to government policies: the expansion of the HE sector during the mid to late 1980s, the disbandment of the NAB, the introduction of a purchaser-provider relationship within the NHS and the consequent move of NHS based and funded initial education and training into the HE sector and the CNAA's decision to allow the approval of three year unclassified degrees for these para-professions. The disbandment of the NAB and the changes to the NHS resulted in the introduction of a quasi-market into the HE sector and the NHS which provided an opportunity for these para-professions to achieve their goal of all-graduate entry. However, it is unlikely that the para-professions would have achieved all-graduate entry without the concurrent expansion of the HE sector in the late 1980s and early 1990s. Some HEIs may have been reluctant, in the absence of the pressure to expand, to approve these degree courses despite the removal of the then British government's ability to prevent the approval of pre-registration degrees for these para-professions. Many HEIs, in particular the universities, have historically been very apprehensive and in some cases directly opposed to the approval of professionally accredited degrees for less well established, low status professions (Squires 1990).

The unwanted effects of government policies are not a new phenomenon. It has been noted that the results of complex processes involving the interweaving of the more-or-less goal-directed actions of governments include outcomes which no one has designed (Elias 1987). This effect has been described as 'blind social processes' (Elias 1987).

The achievement of all-graduate entry for these para-professions does not appear to have been the consequence of educational changes to the diploma courses prior to the achievement of all-graduate entry. Prior to 1987 distinctions have been made between the academic level of the three diploma qualifications. Both the OU and the CNAA had awarded less academic credit to the radiography diploma qualification. It has been suggested that this was because the practice
component of this course was much higher than that of the OT and chiropody diploma courses and because radiography was later than the other two para-professions in achieving a three-year full-time course. However, possible differences between the academic level of the diploma courses do not appear to have influenced the achievement of all-graduate entry. Indeed any differences appear to have been ignored. Although the radiography diploma qualification had been given a lesser rating than the other two diploma courses, radiography was the only para-profession to convert all its diploma courses to honours degrees.

A distinction was made in chapter one between the role of the universities and the PSHE institutions in approving degrees for the less well established professions. It was suggested that the PSHE institutions would be far more likely than the universities to approve professionally accredited degrees for the less-well established professions. It is apparent from the findings of this study that the university sector approved approximately half (51%) of the degrees (see table 4.2). However, although the universities played a major part in the approval of degrees for these para-profession only 27% of the degree courses were located in the university sector. Seventy three percent were located in PSHE institutions. Many of the university approved degrees were located in PSHE institutions accredited by universities rather than the CNAA. The findings from this study, therefore, support the belief that PSHE institutions, in line with their philosophy and purpose, were far more willing to accommodate professionally accredited degrees for the less-well established professions. It would appear that although the universities accredited many of the new degree courses on behalf of PSHE institutions they were far less willing to accommodate these courses within their own institutions.

Once the approval of pre-registration degrees became a reality all three para-professions achieved all-graduate entry at honours level in a very short period of time. It is apparent that once a few schools gained approval for pre-registration degrees the rest quickly followed. Additionally, unclassified degrees were replaced with honours degrees. These achievements were not planned nor does it appear that the process was monitored or regulated by either the professional bodies, the HE sector or an agency of the British government.
Summary

The increase in the number of professionally accredited degrees has been associated with periods of expansion of the HE sector and to the policy and funding initiatives of successive British governments (chapter one). All-graduate entry for chiropody, OT and radiography followed this trend in that the achievement coincided with an expansion of the HE sector. However, rather than being an intended consequence of the then British government's expansion of the HE sector the achievement of all-graduate entry was an unintended consequence of this and other policy initiatives of the then government. That is the introduction of a quasi-market into the HE sector and the NHS. As a result all-graduate entry for these three para-professions occurred in an unplanned albeit speedy manner and without the benefit of additional resources.
Chapter Five

WHY DEGREES?

Introduction

This chapter explores the reasons why the three para-professions wanted to achieve all-graduate entry. The documentation related to this topic is minimal. The Next Decade (CPSM 1979) identified a range of reasons why the para-professions wanted degree status for their initial education and training. Other than this there are only one or two articles in the radiography and OT journals which discuss why these respective para-professions wanted degree status (Bentley & Watson 1987, Baird & Ellis 1982). It would be inappropriate to base this part of the study solely on this evidence. Unfortunately, it was beyond the remit of this study to undertake a national survey into why the three para-professions wanted degree status. It was, therefore, decided to supplement the available documentary evidence with data from the semi-structured interviews with diploma students, degree students and teaching staff from the case study schools. During their interviews staff and students were asked two questions related to this topic; why they believed their school had replaced the diploma with a degree course and why their respective para-professions wanted degree status. Additionally, use was made of each case study schools’ degree validation document. All three validation documents contained a rationale for the transition from diploma to degree.

The chapter is divided into two parts. The first part explores the case for degrees as presented in the Next Decade (CPSM 1979). The second part introduces the case study schools and explores why they replaced their diplomas with degree courses and why staff and students believed their respective para-professions wanted degree status. The data presented in this chapter, therefore, reflects the views of those who were among the last within their para-professions to make the transition from diploma to degree (see chapter three). The data may have been different if the views of those who were the first to gain degree status had been elicited.
The Next Decade

In 1976 the CPSM considered it was timely to undertake a review of its activities and to develop a strategy for its future. A committee was established which consulted widely with the professional bodies, the Departments of Health and of Education, Regional Health Authorities, Area Health Authorities, the CNAA and HEIs. In its report the committee noted their surprise at how predominant the issue of degree status had been in their discussions and noted that; \textit{there was inevitably, a surfeit of opinion and a dearth of fact when it came to considering the evidence (for the need for a degree)} (CPSM 1979).

A range of factors were cited in the Next Decade (CPSM 1979) as to why para-professions should gain degree status. These can be summarised under three headings:

- the need for these para-professions to maintain parity with other similar occupations and professions
- a desire to develop a different, better, type of practitioner
- a desire to achieve greater autonomy and independence from the medical profession

(i) The need for these para-professions to maintain parity with other similar occupations and professions. The need to maintain parity with similar occupations appears to have been a prime reason why the PAMs wanted degree status. This desire to maintain parity appears to have been influenced by two factors. Firstly, an increasing number of less well established professions had gained degree status (chapter one). Secondly, there was a major concern that the declining number of eighteen year olds would make it difficult to recruit suitably qualified students to the diploma courses (CPSM 1979). During the 1970s demographic projections indicated that the number of eighteen year olds was declining. The HE sector and the PAMs recruited traditionally from this section of the population. With the predicted decline in the number of eighteen year old the PAMs believed that, unless they could offer a degree qualification, they would find it difficult to compete successfully for students (CPSM 1979).
(ii) **A desire to develop a different, better type of practitioner.** A desire to develop a different and by implication better practitioner was also evident (CPSM 1979). There was a belief that degree qualified practitioners would have the following attributes; a better knowledge base, research skills, ability to adapt to change, commitment to continuing professional education and good inter-professional skills (CPSM 1979). Although not explicit, there was an assumption that the diploma courses did not and could not achieve these outcomes. No evidence was presented to support how degree courses, as opposed to the current diploma courses, would achieve these outcomes. The proposition that degree courses would develop different, better practitioners implies that graduates would offer a better service to patients. However, no direct reference is made in the Next Decade (CPSM 1979) to how patients would benefit from pre-registration degrees.

(iii) **A desire to achieve greater autonomy and independence from the medical profession.** A degree qualification was also seen as a means by which the para-professions could gain greater autonomy and independence, especially from the medical profession (CPSM 1979). It is not clear how degree status would achieve this aim. However, it has been noted that occupations have used the achievement of all-graduate entry and university based education and training to argue for improvements to their market position (see chapter one).

While the Next Decade (CPSM 1979) acknowledged that there was considerable support for degree status it noted that there was also opposition to degrees, from both outside and within the para-professions. The following reasons were cited for this opposition (CPSM 1979):

- degrees would be too academic and would focus on theory at the cost of the practice. Chiropody and radiography were particularly cited as para-professions that would be adversely affected if the diploma was replaced with a degree. This was probably because of the need for good levels of manual dexterity for chiropody practice and the extensive practice element in the radiography diploma course.

- degrees would prevent those who were practically very able but academically weak from joining the para-professions. It was believed that degree status; 'may unnecessarily
inhibit the supply of those less academically skilled who nevertheless have all the additionally required traits of manual dexterity, social skills and dedication to the caring professions' (CPSM 1979). This implies that the entry requirements to degree courses would be higher than those for the existing diploma courses. Additionally, it implies that the academic base associated with degree level study did not necessarily inform and was, therefore, not essential for practice.

those who were diploma qualified feared the advent of degrees because they might de-value their diploma qualification and might result in diplomates being disadvantaged when it came to gaining jobs and promotion.

the para-professions, if they achieved all-graduate entry, would demand better working conditions and pay.

To summarise, the rationale for degree status in the Next Decade (CPSM 1979) revolved around three factors. Firstly, the need to maintain relative parity with other professions and occupations. Secondly, as a means of developing better practitioners. Thirdly, as a mechanism for increasing their autonomy and independence, especially from medicine. Although there was considerable support for degree status it is clear that there was also opposition both from within and external to the para-professions.

The case study schools

Chiropody. The chiropody case study school is situated in a large city in England. It was established in 1946 by a charitable organisation, which dates back to 1793. In 1964 ownership of the school was transferred to a newly established FE college in the city centre. The school's clinic continued to be based in accommodation owned by the charity until 1973 when all classroom and practical teaching was transferred to facilities within the FE college.

Between 1953 and 1990 the school had offered the Society of Chiropodists three year diploma course. In the summer of 1991 the staff put forward, for validation, a proposal for a franchised unclassified degree (see chapter six). The validation panel approved the degree and in
September 1991 the school recruited its first intake of degree students. These students graduated with an unclassified degree in chiropody in 1994. The school was the last school of chiropody, in England, to gain degree status. The unclassified degree was replaced with an honours degree in 1994.

At the time of data collection (1993-4) there were six full-time chiropody lecturers in post. Fourteen students were in the last cohort of the diploma and nineteen in the first cohort of the degree course. Of the six chiropody lecturers, four had taught at the school for over ten years and two were relatively recent appointments having been at the school for four and three years respectively.

By 1990 the chiropody case study school was under considerable pressure to offer a degree course. The majority of other chiropody schools had already attained degree status, including a newly opened school in very close proximity to the case study school. Staff felt they had to act quickly if they were to compete successfully for students with these other schools: *We had a competitor down the road offering an honours degree, we had students applying who were interested in honours degrees and degrees basically and we'd got a problem with discretionary awards so we couldn't get students. So whilst there might be higher reasons for wanting to convert to degrees, from the college authority point of view the valid reasons for them would be that we needed students and we had to press forward with our conversion to a degree fairly rapidly at that point' Chiropody staff 6

Difficulties in student recruitment were exacerbated by problems with student grants. The Department of Education and not the NHS (see chapter two) have historically funded schools of chiropody. Diploma students were eligible for discretionary grants and as the term 'discretionary' implies, LEAs did not have to give these grants. In times of fiscal constraint it was common for LEAs to cut back on the number of the discretionary grants especially as they had to honour applications for mandatory grants. The latter were given to students who were registered on degree courses. The award of discretionary as opposed to mandatory grants implies that the LEAs and the British government placed greater value on degree courses than the diploma course in chiropody. During the 1980s a number of LEAs cut back on their discretionary grants, this was seen to have a major impact on recruitment to the chiropody
diploma course: 'No we could not have carried on with the diploma. Discretionary awards were drying up. So, therefore, the course could not have carried on at all, we would not have got any students or the vast majority of students we would not have got because they needed the grant that goes with a degree. We had to go on to the degree which is a mandatory award' Chiropody staff 3.

Not all the staff and students believed that a pre-registration degree was desirable. They believed that the diploma course developed competent practitioners and that there was a need for a practitioner who was practically based and willing to undertake routine work. They believed that degree status would result in the theoretical elements of the course being more valued than practice: 'But the diploma I think still produced good practitioners, if you could get the finance, I think there is a place for the diploma. Perhaps you could alter it for the less able student. Say you produce one who is more practically orientated than one who may go on and do research or more post-graduate work. You may be able to get two tiers of practitioner apart from the basic foot care assistant' Chiropody staff 3. Additionally, diploma students believed that if employers had a choice they would offer a job to a graduate rather than a diplomate.

It would appear that the achievement of degree status in the chiropody case study school was externally rather than internally driven. Without the influence of external factors the transition from diploma to degree may have been delayed or never have taken place. Not surprisingly the degree validation document made no reference to the need for the school to gain degree status so that it could compete for students with those schools who had already achieved degree status. Instead it identified the following five reasons why the diploma should be replaced with a degree course:

- to achieve parity with other paramedical professions in England

- to achieve international parity

- to improve the status of the chiropody profession within health care

- to improve recruitment to the course
- to ensure students develop a critical and conceptual basis to enable them to function in a changing health service.

Chiropody Validation Document March 1991

The above have a lot in common with the reasons stated in the Next Decade (CPSM 1979). Staff and students concurred with the rationale in the validation document. They stressed the need to maintain parity with similar occupations and para-professions, in England, who had already achieved all-graduate entry. However, they did not appear to be concerned about the international context and the need to maintain international parity. Their main concern was the need to compete successfully for students with those professions, in England, who had already achieved all-graduate entry and to maintain relative parity with those professions who had not achieved all-graduate entry: 'Because physio got it. I am convinced of that. Once they went through and of course much at the same time the nursing profession, that big body, was suddenly, a very practical skill, suddenly there was talk that they were going to do Project 2000. So we would have been totally left behind if they did not get their act together and make the profession a graduate profession' Chiropody Staff 2.

Staff and students believed that pre-registration degrees would improve the status of chiropody. This was because they believed that a degree had a greater symbolic value than the diploma qualification: 'It's just status isn't it. If you've got a degree it always sounds that bit better than a diploma' Chiropody degree student 6.

Reference was also made in the validation document to degrees developing students' critical and conceptual skills. This implies that degree courses would develop different and, by implication, better practitioners than the diploma course. However, only two staff mentioned this as a key rationale for pre-registration degrees: 'Between the diploma and the degree course what we wanted to produce was a more reflective practitioner and analytical practitioner' Chiropody staff 4.

By contrast most staff and the students believed that the diploma course was for all intents and purposes equivalent to an unclassified degree. No reference was made to this in the degree
validation document. However, this belief was quite strong among the staff and students interviewed: 'I think it was to bring the course its true value.' I think in many respects the diploma did equate with an unclassified degree to be truthful. I think it was obviously recognition that was the prime move' Chiropody Staff 1

'I think it (the diploma) should be because it warrants it. It is on par from application of our abilities and I think it (the diploma) is reflective academically of degree status' Chiropody Diploma student 3.

The belief that there were few educational differences between the diploma and the degree is most probably due to the following three factors. Firstly, students recruited to the diploma course since the early 1980s had entry qualifications, which were acceptable for entry to some degree courses. Secondly, there was a belief that diploma students having spent three years in full-time study deserved a degree qualification. Thirdly, and linked to the first factor, it is probable that the increased access to degree courses plus the range of subjects which could be studied at degree level had changed people's perception of a degree qualification. A degree qualification no longer held quite the mystique that it had when degrees had only been accessible to a small elite. During the mid to late 1980s a much greater proportion of the general population enrolled on degree courses (see chapter one). Most of the staff in the chiropody case study school had either gained (during the late 1980s) or were currently studying for a degree qualification. Prior to this none of them had had exposure to study at degree level and appear to have believed that degrees were of a higher academic level than diplomas. However, their experiences of degree level study led them to believe that degrees were not beyond the abilities of the average chiropodist: 'To be honest I don't think until a few years ago I knew the difference between degrees (and diplomas) and its different levels and everything else. It was just something that was there. Having been through the process I was disillusioned by it all. I think it is made up to be a lot more than it actually is' Chiropody staff 2.

Both staff and students believed that degree status would benefit primarily the para-profession. No reference was made as to how pre-registration degrees would benefit patients. Staff and students believed that chiropody as a para-profession would be the main beneficiary and that any benefits for patients were secondary: 'No I mean the main argument then was to put the
profession on a different footing and the fact everybody else was doing it, then we ought to as well. There was a little bit about making a reflective practitioner stuff and all that sort of thing but it hadn't been thought through' Chiropody staff 5.

None of the staff from the case study school appeared to be aware of who within chiropody had been pro-active in promoting the case for degrees. This is probably because they had adopted a reactive rather than a proactive approach to gaining degree status. The researcher was head of a school of chiropody during the 1980s and knew from personal experience that some of her colleagues based in chiropody education, two of who were on the CNAA Committee for Health Studies, actively lobbied relevant personnel in the Department of Education and the CNAA. The case for degrees in chiropody was initially led by a few key people from the education sector who were able to use their position to promote the case for pre-registration degrees for chiropody.

To summarise, the chiropody case study school made the transition from diploma to degree because of external factors. Staff believed it was necessary for the school to gain degree status in order that it could compete successfully for students with other chiropody degree courses as well as with the increasing number of vocationally and professionally based degree courses. Additionally, degree status was seen as essential so that students could secure a mandatory as opposed to discretionary grant. It is suggested that without these external factors the case study school may not have made the transition when they did especially as it appears some staff and students believed that the diploma was a worthwhile and appropriate qualification for practice.

Four factors were cited by staff and students why the chiropody para-profession wanted degree status. The first was the need to maintain parity, in England, with other similar occupations and para-professions so that chiropody could compete for students and maintain the recruitment of suitably qualified students. Secondly, a belief that a degree qualification, due to its symbolic value, would enhance the professional status of chiropody. Thirdly, a belief that the diploma courses was academically equivalent to an unclassified degree. Staff and students believed that the course should be granted degree status to reflect this. Fourthly, and in conflict with the third factor, were the statements in the validation document and the belief expressed by a few staff that a degree would develop a 'better' practitioner.
**Occupational Therapy.** The OT case study school is situated in the grounds of a large private hospital in England. The hospital, which has charitable status, established the school in 1941. The school is one of the oldest in England. Between 1954 and 1986 the school had offered the three year diploma course prescribed by the Association of Occupational Therapists and latterly the College of Occupational Therapists (COT). In 1986 it had successfully, following the COT's Diploma '81 initiative, gained approval for its own diploma course (see chapter two). The OT case study school had been one of the last OT schools in England to gain approval under the Diploma '81 initiative. From 1986 until the advent of the degree course it had offered this internally designed and assessed but externally moderated diploma course.

In the spring of 1991 the staff submitted a proposal for an honours degree in OT to its local HEI. This HEI was based in the PSHE sector and offered a university as opposed to a CNAA degree. The validation panel did not approve this proposal and recommended that the course team submit a revised proposal at a later date (see chapter seven). This was submitted for validation in the spring of 1992 and was approved. The validation panel agreed to offer retrospective approval to 1991 entrants. As a result the first honours degree students graduated in July 1994.

At the time of data collection (1993-94) there were seven full-time lecturers (six OTs and one physiotherapist) and three part-time staff, two of whom were OTs. Of the seven full-time OT staff one had been in post for twelve years, two for eight and seven years respectively and the remainder for less than four years. There were 49 students in the last cohort of the diploma and 52 in the first cohort of the degree course.

The OT staff, like their colleagues in chiropody, believed that they had to offer a degree in order to survive and compete with other OT schools already offering degree courses: *I think the staff were quite concerned because like anything it started off fairly slowly and one school got the degree programme off the ground and then another one did, and then there was a big rush, we were actually fairly much towards the end of that rush. So I think people were concerned that if we didn't get the degree course validated, the school wouldn't survive and that was a genuine concern. So there was much about that in wanting to get the degree off the ground. We also*
noticed that our applications had gone down so that our ideas of something to do with status I think were quite founded. That people if they had a choice they would go for the degree, and why not, you know you get the same professional qualification at the end. At the last intake of the diploma we had a very low (number of applicants), I think it was about 2 applicants for every place.' OT Staff 5.

Some staff and students were opposed to degrees. They believed that there were a number of practising OTs who were either indifferent to or opposed to degree status. It would appear that the main reason for their opposition was a belief that degree status would result in the course becoming too academic: ‘A lot of people think that it’s a practical hands on job and that’s what you need at the end of the day. You don’t need a load of academics going into that sort of job because its more problem solving’ OT Degree student 1 Additionally, diploma students were concerned that employers would be more likely to offer jobs to graduates than diplomates.

Whether the school would have made the transition from diploma to degree if there had not been the need to compete with other schools is not clear. The head of the school had played a pro-active role in facilitating the transition from diploma to degree. She had encouraged staff to develop a degree course and had secured a HEI willing to approve a degree course. However, during the 1980s the school had recruited a number of staff who were new to OT education and who, at the time, were either indifferent to or opposed to degree status. Until there was a need to compete with other OT schools who already had a degree course most of these staff did not believe a pre-registration degree was a necessity.

Not surprisingly the degree validation document made no reference to the need to gain degree status so that the school could compete for students with those OT schools who had already achieved degree status. The degree validation document identified the following three reasons why the diploma should be replaced with a degree course:

- Students enrolling on a three year full time course with entry qualifications equivalent to those for degree courses should be rewarded with a degree.
The diploma course was already equivalent to a degree. It was noted that this was one of the conclusions of an independent commission, chaired by Blom Cooper (1989), which looked at the future of occupational therapy.

Changes within the health service had resulted in the need for OTs who were autonomous, adaptable, effective and capable of independent practice. Degrees, as opposed to diplomas, were seen as the means to develop these skills.

Occupational Therapy Validation Document 1992

Staff and students concurred with the above and identified them as reasons why it was important to the OT para-profession to gain degree status. Like their counterparts in chiropody, the OT staff and students believed that diploma students were being unfairly treated. They believed that many of the diploma students had the necessary entry requirements for a degree course. Additionally, they believed that the internally designed and externally moderated diploma course, which they had offered since 1986, exhibited many of the features of a degree course. They believed that the diploma course was equivalent to an unclassified degree and that the requirement that students should undertake an empirical piece of research would make it equivalent to an honours degree.

The staff in the OT case study school, like their counterparts in chiropody, had either recently gained or were currently studying for a degree qualification. This experience served to introduce them, for the first time, to study at first or second degree level and challenged their previously held beliefs about degree level study. Whereas prior to studying for their own degree many had believed that degrees were of a much higher academic level than the diploma, their experiences of degree level study led them to believe that diploma qualified OTs were academically quite capable of gaining a degree qualification: 'People were at that time also gaining first degrees, that is teachers were gaining first degrees...they came to recognise that the academic level of the diploma course was much the same as the degree course but without the dissertation' OT Staff 6.

'Diploma students had never seen themselves as capable of getting a degree... there was a growing confidence within the diploma students that if we had hung on a couple of years they
could have got a degree. Whereas I think ten years ago they didn't see themselves as people who would ever have got a degree' OT Staff 5.

Although most staff believed that the diploma was for all intents and purposes equivalent to a degree many of them also believed that pre-registration degrees would develop a different, better type of OT. The contradiction between the belief that diplomas were academically equivalent to a degree and the belief that degrees would develop a better practitioner was particularly apparent in the OT case study school. These conflicting views were held by staff and students. For example, individuals expressed both points of view during their interview: 'It was already accepted as being an unclassified degree standard and, therefore, if the content and everything else was accepted as that standard then it seemed silly to only award a diploma if it was recognised as being of a degree standard. If you do three years you don't expect to get a diploma out of it, you expect a degree out of it, its higher education, every other sort of faculty you go into in higher education and do that level of study you get a degree out of it. There didn't seem to be any reason why we should be out of it.' OT Staff 3.

'A thinking therapist which is what we wanted to produce. We didn't want somebody who was just going to follow orders (implication being that this is what the diploma achieved). We wanted somebody that we could put out there and they would survive on their desert island and because they could figure it out for themselves' OT Staff 3.

The first quote expresses the belief that there were few academically based differences between the diploma and degree courses while the second expresses the belief that degrees would develop different and by implication better academic skills (analysis, evaluation and research) than the diploma. There was a belief that these skills would enable OTs to practice independently and autonomously. In particular there was a belief that these skills would enable OTs to practice independently of the medical profession. It was noted in chapter two that OTs have for some time wanted to divorce themselves from their close links with and dependence upon the medical profession. Staff and students highlighted this desire: 'As a profession everyone felt that we should be responsible for our own treatment. The gate keepers are still the medical profession. You can't call yourself a profession if you have someone else acting as a gate keeper to say whether you can treat a patient or you can't. We had grown up under a
medical umbrella and indeed we are not really that medical we are far more psycho-social’ OT Staff 3.

This desire to achieve independence and autonomy from the medical profession was not mentioned in the degree validation document. Although staff and students believed that the achievement of pre-registration degrees would enable OTs to achieve this goal, when pressed there was considerable confusion and lack of clarity as to how it would do so. There was certainly a belief that the symbolic value associated with a degree qualification would help. Staff and students believed that all-graduate entry would result in OTs being perceived by others (primarily other health professions such as medicine) as having an academic status which was nationally understood and valued and that due to this status they would be in a better position to argue for greater autonomy and independence: 'We were becoming independent practitioners, the push for the degree status was to give us an academic status in order to better argue our case with other people who had degrees’ OT Staff 6.

'We need to be putting ourselves over as professionals. I think the degree will help, that's definitely going to help. Whereas before, oh well you're just a diploma OT, you haven't got a degree’ OT Degree student 5.

Another factor, which was not identified in the degree validation document but which was highlighted by staff and students, was the need to gain all-graduate entry in order to maintain relative parity with what were judged to be other similar occupations and para-professions who had already gained degree status: 'it's notable that OT went for degree level because if all the other professions were at degree level and we're just at diploma it doesn't say much about the quality of the work that we're doing so its a sort of professional gimmick I think' OT Degree student 1.

Staff and students believed that if the OT para-profession did not achieve degree status they would have problems recruiting suitable applicants and would have to lower their entry qualifications. The importance of gaining a degree in order to maintain relative parity with other similar para-professions, particularly health related ones, has been identified as an important factor: 'The recent decision of the Chartered Society of Physiotherapists to transform
their profession into an 'all graduate' one lends an urgency to the debate...if the College of Occupational Therapists does not promptly take at least the initial steps to achieve the same end in the long run, it will be in danger of being left behind for a fair share of the kind of recruits from among school leavers' (Blom Cooper 1989 p60).

What is important to note was that, like the chiropody case study school, no reference was made to the benefit of pre-registration degrees for the patient. The need for all-graduate entry appeared to revolve around the needs of the OT para-profession: 'I think the degree is for the benefit of the profession. Now I would like it to be said that its for the benefit of the patient as well but I haven't got any evidence to say that' OT Staff 2.

Staff believed that the need for degree status had initially been promoted by a few OTs who were involved in OT education and training and based in the PSHE sector: 'I think the move primarily came from within education spearheaded by people who had degrees, who could actually see what the difference was' OT Staff 5. It was noted in chapter two that a number of OT schools, prior to the advent of degree status, had merged with PSHE institutions. Staff in the case study school believed that these OTs had been influenced by the HE environment they found themselves in and from contact with staff and students on other degree courses. It is suggested that these OTs pioneered the need for pre-registration degrees and encouraged the professional body to support the notion of pre-registration degrees.

To summarise, it would appear that the transition from diploma to degree in the OT case study school was primarily a reactive response to external factors. Staff believed the prime purpose of gaining degree status was so that their school could compete successfully for students with OT schools who had already achieved degree status. Not all staff and students believed that the diploma needed to be replaced with a degree. They were concerned that the degree course would value theory rather than practice. Without the encouragement of the head of the school and the need to compete with other schools who had already gained degree status it is unlikely that the OT case study school would have made the transition from diploma to degree when it did.
Staff and students cited four reasons why the OT para-profession wanted degree status. Firstly, a belief that the diploma course was academically equivalent to an unclassified degree. Staff and students believed that the diploma course should be granted degree status to reflect this. Secondly, and in conflict with the first factor, was a belief that degrees would develop a ‘better’ practitioner. A ‘better practitioner’ appears to be one who would have the skills to undertake autonomous and independent practice. Thirdly, a desire to maintain parity with other similar occupations and para-professions, in England, so that OT could compete successfully for students and maintain and potentially improve the recruitment of suitably qualified students. Fourthly, a belief that degree status would enable OTs to gain greater autonomy and independence from the medical profession.

**Radiography.** The radiography case study school is situated in a large city in England. It was established in the mid 1930s by a large general hospital. The school was funded and managed by this hospital until 1974 when, as a result of a major re-organisation of the NHS, responsibility for the funding and the management of the school was transferred to the newly established Area Health Authority. The school continued to be located in the grounds of the general hospital until 1984 when it was re-located, due to poor facilities, to a large converted house approximately three miles from the hospital. The 1974 re-organisation of the NHS heralded the start of a number of re-organisations, which resulted in changes to the management of the school. At the time of this study the school was funded by the Regional Health Authority and managed by a NHS Trust.

Seven full-time radiography lecturers and five clinical tutors (three full-time and two part-time) were in post during the data collection phase. Of the seven full-time teaching staff, two had been at the school for ten years, the remaining five for five or less years. Three of these had been transferred from schools of radiography, which had been closed by the Regional Health Authority. Sixteen students were in the final cohort of the diploma and twenty-six in the first cohort of the degree course.

In 1987, the Regional Health Authority was responsible for seven schools of radiography. These schools were all relatively small. As part of a national rationalisation programme, the Regional Health Authority, in 1988, reduced the number of its schools from seven to four. In
1991 it took the decision to further reduce the number of schools from four to two. During the period of data collection (1994-5) the Regional Health Authority was in the process of reducing the number of schools to one. Towards the end of the period of data collection staff in the radiography case study school were informed that their school was to be the Region's only school of radiography. It must, therefore, be taken into consideration that during the period of data collection staff were under considerable stress due to this latest rationalisation process. However, their success in gaining approval implies that it may have been the better school.

Since its establishment the radiography case study school had offered the diploma course approved by the College of Radiographers (see chapter two). In April 1992 the staff put forward an honours degree proposal to their local PSHE institution (see chapter eight). This HEI was accredited by the CNAA and already approved a range of health related degrees many of which were accredited by professional bodies. The validation panel approved a three years honours degree. The first cohort of degree students were recruited in September 1992 and graduated in July 1995.

In 1989 the Head of the case study school together with the Heads of the three other schools located in the Region, at that time, collectively approached the Regional Health Authority to discuss replacing the diploma course with a degree. Approval had to be obtained from the Regional Health Authority as it was responsible for the funding of radiography schools. The Regional Health Authority was opposed to the notion of degrees in radiography and refused to give permission for any of its schools to develop degree courses. Staff believed the Regional Health Authority's refusal was due to national and local factors. At a national level radiologists and NHS scientific officers were opposed to degrees for radiographers. At a local level opposition came from the regional scientific officer (medical physicists). It was not until 1991 that the Regional Health Authority finally gave its approval. The staff believed that by this time the region had no option but to allow degrees. Three factors were believed to have contributed to the Region's change of policy. The first was the difficulties that were being experienced in recruiting students. Staff believed that they had to gain degree status in order to compete successfully for students with radiography schools who had already achieved degree status: 'I think the pragmatic reasons were that if we did not have a degree course we would not have a course...The argument was that in this region you will not recruit anyone to do radiography on
a diploma course if they can get a degree (elsewhere). That was the strongest argument.' Radiography staff 1. The second was the College of Radiographers’ decision not to offer the diploma course after 1995 (College of Radiographers 1990b) (see chapter four). The third factor was the retirement of the regional scientific officer.

Most of the staff believed that gaining degree status was essential if they were to improve their chances of surviving the national and local rationalisation of schools of radiography: 'I think I was for it really, I mean on the basis of the fact that at that time a lot of schools saw it as survival bearing in mind that we are now in our third reorganisation. I mean people saw it as if you could get in there with a degree it would improve your chances of survival' Radiography Staff 5.

It would appear that external factors played a pivotal role in the move to degree status in the radiography case study school. Like the other two case study schools the need to compete successfully for students was a major motivating factor. There were also two additional factors: firstly, the College of Radiographers’ decision to no longer to offer its diploma course and secondly, the desire to survive the national and local rationalisation of radiography schools.

Although the staff and students believed that the move to degree status was necessary for the survival of the school not all of them believed it was desirable. There was concern that a degree course would focus too much on theory and not enough on the practice element of the course: 'My initial reaction and I still feel it a bit was that all radiographers did not need to have degrees, I was very much in favour of having a qualifying course which took you part way towards a degree and that those who wanted it could do some post- registration courses because I was concerned that you would have radiographers qualified with a degree doing general bread and butter radiography' Radiography staff 2. Diploma students were also concerned that they would be adversely affected in the job market. They believed that employers, if they had a choice, would be more likely to offer jobs to graduates than diplomates.

Staff and students commented on the opposition among many practising radiographers to the advent of all-graduate entry. Bentley and Watson (1987) cited this opposition as one of the
reasons why radiography had been unsuccessful in its attempts to establish pre- and post­registration degrees (see chapter four).

The degree validation document identified two reasons why the diploma should be replaced by a degree:

- the College of Radiographers' decision not to offer the diploma course after 1995 (College of Radiographers 1990b)

- a belief that rapid changes in the NHS and developments in the field of diagnostic imaging required radiographers to be educated to honours degree level to ensure practitioners had the necessary knowledge, skills and expertise to prepare them for their technical, managerial and developmental responsibilities in a dynamic health service.

The first of these factors has already been highlighted in this chapter and in chapter four. Staff believed that without the College of Radiographers' decision to cease the diploma course it would have taken a lot longer for pre-registration degrees to become established in radiography. They believed that the indifference and opposition within radiography plus the opposition from the medical profession (in particular radiologists) and scientific officers (medical physicists) had delayed the approval of pre-registration degrees.

Staff and students concurred with the belief that a degree would equip students with different, better, skills than were currently developed in the diploma course. Radiography practice was rapidly changing due to advances in technology. Staff believed that degree courses would provide future practitioners with the skills to adapt to these changes.

Unlike the other two case study schools staff from the radiography case study school did not believe that the radiography diploma course was academically equivalent to a degree course. This was most likely because of the prescriptive and moribund nature of the diploma course. The diploma course was didactic, inflexible and remote from clinical practice (Smith 1993). Staff believed that a degree course would enable them to bring the pre-registration education and training of radiographers into step with the more informed educational and vocational
training practices deployed by some other para-professions. They, therefore, welcomed the advent of degree status because it would release them from having to teach a nationally prescribed course and would enable them to design a course which was far more relevant to the needs of radiography: 'I was all for it because it released people from the shackles of an external examination and set syllabus and I have always thought that these syllabuses were bad because they were only reviewed about once every ten years and my view has always been that there must always be a search for continuous improvement' Radiography staff 7.

Although staff did not believe the radiography diploma course was academically equivalent to a degree they believed, like their counterparts in the other two case study schools, that radiography diploma students were academically capable of achieving a degree qualification. Staff had believed that degree level study was of a higher academic level than the diploma course. Their opinions appear to have been changed by three factors: the national increase in access to degree level study, the range of subjects which could be studied at degree level and their own relatively recent experiences of studying for a degree qualification. Like their counterparts in the other two case study schools, staff from the radiography case study school had recently gained or were currently studying for their own degree qualifications. The sum of these three factors had led staff to believe that diploma students were academically capable of gaining a degree qualification and should no longer be denied that opportunity: 'But I look at other degrees and think ours (students) do just as well. I think the whole idea of a degree has come down very much from when I left school, which was many moons ago. When you think of the number who went to university or who the opportunity to go, it was less than it is now' Radiography staff 3.

Staff and students highlighted a number of other reasons, not identified in the validation document, as to why they believed the radiography para-profession wanted degree status. These factors have a lot in common with those identified in the other two case study schools. Both staff and students believed that it was important that radiography gained degree status in order that it could maintain parity with other similar occupations and para-professions: 'It keeps them up with others, personally yes I think that's why they have done it... I think they have done it for political reasons.' Radiography degree student 3.
The need to maintain parity with similar occupations was first highlighted by Jones and Weatherburn (1979). These authors made reference to the introduction of a degree course for teachers and the implications of this for radiography: *The net result will be that after 1981 the qualification to take employment as a primary school teacher will exceed that of a radiography school principal; (for radiographers) to be qualified to degree level is therefore obvious* (Jones & Weatherburn 1979).

Staff and students also believed, like their counterparts in the other two case study schools, that degrees held a greater symbolic value than the diploma qualification. They believed that irrespective of whether there were academic differences between the diploma and degree courses the symbolic value of a degree qualification would enable radiographers to improve their professional status: *'It is a dynamic profession so you need to have people with innovation and whatever to carry the profession forward and to do that you need undergraduates... You need to give radiographers the confidence that they can stand on their own. That may have happened anyway but having a degree course gives them a bit more status if you like on which to lean. You know, "I am a graduate"'* Radiography staff 2.

*'It is academic and gives you three little letters after your name. To actually have an academic qualification like that improves your chances in today's society'* Radiography Degree student 7.

No direct reference was made to the benefit of pre-registration degrees for patient care. The belief that the degree course would equip students with additional skills implied that it would lead to an improvement in patient services. However, staff believed that the main rationale for degree status was to benefit radiography, any benefits to patients were secondary: *'I suspect that it was the profession wanting to improve the status of the profession. I remember here in this region there were debates around at that time saying is it really looking at service needs or is it really professional aspirations'* Radiography staff 1.

It would appear that a few radiographers had initially been instrumental in promoting the need for all-graduate entry within radiography. Staff in the case study school named three people: Bentley, Watson and the secretary to the College of Radiographers. An analysis of publications in the Radiography journal shows that five of the seven papers which appeared between 1975-
1988 and which discussed the development of degree courses were written either jointly or individually by Bentley and Watson. Both Bentley and Watson were involved in the education and training of radiographers. Staff believed that they, along with the Secretary of the College of Radiographers, had encouraged and persuaded the Council of the Society of Radiographers and the College of Radiographers to support the move for pre-registration degrees: 'It was not the College of Radiographers that were the main thrust. I don't think so. I think it was people with vision in radiography who said that this is the way we must go... I think the College got on the bandwagon and supported that view or that movement rather than the other way round.' Radiography staff.

To summarise, the prime motivating factor for the school to gain degree status was the need to compete successfully for students with radiography schools who had already achieved degree status. This had been the prime motivating factor in the other two case study schools. Additional factors, which were peculiar to radiography, were the College of Radiographers' decision not to offer its diploma course after 1995 and the desire by individual schools to survive the national and local rationalisation of schools of radiography.

Five reasons were cited by staff and students from the radiography case study school as to why the radiography para-profession wanted degree status. Firstly, the need to maintain relative parity with similar occupations and para-professions, in England, who had already gained degree status. Secondly, a belief that a degree course would develop a better type of practitioner than the diploma course. Staff believed that it was essential that future practitioners were equipped with the skills to adapt to changing technologies and health service policies. Thirdly, a belief that degree status would free schools of radiography from having to deliver the College of Radiographers' prescribed diploma course and allow them to develop courses which reflected current educational practices and contemporary practices in radiography. Fourthly, staff and students believed that radiography students were academically quite capable of gaining a degree qualification and that there was no justifiable reason why they should be denied this opportunity. Fifthly, a belief that degree status, because of the symbolic value associated with a degree qualification, could be used to argue for improved professional status.
Discussion

The purpose of this chapter has been twofold; firstly, to explore why the case study schools replaced their diplomas with degrees and secondly, to explore why each para-profession wanted degree status. It is clear that, for all three case study schools, the need to maintain intra-professional parity was the prime motivator for gaining degree status. Staff from each of the case study schools believed that their respective schools had to gain degree status in order to compete successfully for students with those schools, within their para-profession, who had already gained degree status. They believed that without degree status they would have experienced increasing difficulties recruiting suitably qualified students. Additionally, it would appear that once a few schools, in each para-profession, gained honours degrees the remaining schools had no choice but to follow in order to continue to maintain intra-professional parity. This explains why all three para-professions achieved all-graduate entry at honours level in a relatively short period of time (see chapter four). Other external factors were also influential but these were specific to each para-profession. For the chiropody case study school it was the desire to replace the discretionary grant with a mandatory grant whereas in the radiography case study school it was the decision by the College of Radiographers to discontinue the diploma course (College of Radiographers 1990b) and the desire to survive the rationalisation process.

The case for degrees, for each para-profession, was driven by a relatively small group of people based in the education as opposed to the practice side of their respective para-professions. It is suggested that these people were motivated by a desire to improve the professional status of their para-profession. Additionally, because they were based in education they were more likely than their practice colleagues to have been exposed to and hence influenced by general educational developments and changes in the HE sector. It has been noted that calls for a higher level of academic credit for nursing qualifications were voiced by nurses in education who discovered that the educational world attached little academic currency to their nursing qualification (Mangen 1993).

Not everyone within the para-professions, as exemplified by the case study schools, believed degree courses were desirable. Opposition to degree status for initial education and training was noted in the Next Decade (CPSM 1979). Similar reasons to those presented in the Next Decade...
(CPSM 1979) were given by staff and students from the case study schools. There was concern that practice would be de-valued and that job opportunities for diplomates would be adversely affected. However, once the first few pre-registration degrees were approved these concerns were overshadowed by the need for individual schools to maintain intra-professional parity with those schools who had already gained degree status.

A comparison of the data from the case study schools shows that there were many similarities between the three para-professions as to why they wanted degree status. Many of the reasons given by staff and students from the case study schools concurred with those presented in the Next Decade (CPSM 1979). It is suggested that the extent of these similarities enable generalisations to be made from the study findings.

The desire to maintain inter-professional parity was a major reason why these para-professions wanted to make the transition from diploma to degree. There were two components to this desire. Firstly, the para-professions wanted to maintain parity with those professions who were perceived as having a similar professional status and who already had or were in the process of gaining all-graduate entry, for example, physiotherapy and teaching. The para-professions believed that if they did not gain degree status they would be unable to compete for suitably qualified students with these professions. This was because it was believed that prospective students, if they had a choice, would rather join a profession where they could gain a degree qualification plus a professional qualification than one where they could not. Secondly, the para-professions wanted to maintain their current status vis-à-vis those professions whose initial education and training was at a lower academic level. Nursing, in particular was cited. Changes to the initial education and training of nurses, which were being implemented in the late 1980s, would have resulted, if the three para-professions had not achieved all-graduate entry, in nurses having the same academic qualifications as chiropodists, OTs and radiographers. It was, therefore, important to these para-professions that they gain degree status so that they could maintain the historical differential between the initial education and training of nurses. These differences can be summarised as higher entry requirements and a higher level academic qualification at the end of the course.

As well as the desire to maintain relative parity, the para-professions also believed that pre-registration degrees would improve their professional status. This was because they believed
that the symbolic value associated with a professionally based degree qualification was greater than that associated with a solely professionally accredited award. A degree qualification was seen as an important credential to achieve. In particular OTs believed that a degree would lead to greater autonomy and independence. How these attributes would be achieved through gaining degree status was not clear.

No reference was made by any of the staff from the case study schools to potential benefits of degree status for patients. It cannot be concluded from this that degree status would not result in benefits to patients in the form of improved care. The lack of reference to patients does not necessarily imply that these para-professions did not wish to improve patient care. However, it does suggest that as far as the staff and students were concerned the prime motivation for degree status was to maintain inter-professional parity and improve professional status.

Alongside the belief that the symbolic value of a degree credential would improve professional status staff also believed that a degree course would develop a 'better practitioner'. This suggests differences between the aims of professionally based degrees compared to diploma courses (whether this was the case is discussed in detail in the following four chapters). However, the term 'better practitioner' was ill-defined. In OT it appeared to refer to an autonomous and independent (especially from the medical profession) practitioner, in radiography to someone who could adapt to technological changes and the changes in healthcare policies and in chiropody to someone who would evaluate critically and problem solve. Although staff believed, especially in OT and radiography, that degrees would lead to a 'better practitioner' staff, in particular those from the chiropody and OT case study schools, also expressed the belief that diploma courses were academically equivalent to an unclassified degree. It is difficult to provide a rational explanation for this conflict especially when, as highlighted in the OT case study school, an individual can express both beliefs. Two explanations are offered. Firstly, it is suggested that the conflict is indicative of the difficulties related to identifying differences between degree education and professional education and training (see chapter one). Secondly, it is suggested that the manner in which the three para-professions gained their first pre-registration degree courses and the subsequent speedy achievement of all-graduate entry meant that there was no time for these para-professions to engage in a debate about the need for and benefits of all-graduate entry. All three para-
professions and their respective schools were probably more involved in gaining approval for and implementing their pre-registration degrees than in reflecting upon the reasons why they should do so and the extent of the differences between the diploma and degree courses.

It is also apparent that staff from all three case study schools believed that diploma students were capable of studying for a degree. The following changes to HE, since the 1960s, were most probably responsible for this. Firstly, the substantial increase in the number of students accessing degree courses (see chapter one). As a result diploma students had similar, if not better, entry qualifications. Secondly, the number of professionally based degree courses, especially for the less well established professions, had increased (see chapter one). This challenges the notion that degree education was the reserve of the well-established professions. Thirdly, the increase in the opportunities available, during the 1980s, to members from these para-professions, including teaching staff from the schools to study for post-registration degrees (see chapters four and six to eight). This enabled members of these para-professions to experience, at first-hand, degree level study and make favourable comparisons with their diploma courses. Fourthly, the merger of a number of chiropody and OT schools with HEIs during the 1980s (see chapter two). It is suggested that this would have resulted in staff from these schools being exposed to HE practices and also led them to make favourable comparisons between the demands of the diploma courses and degree courses.

Summary

The desire to gain all-graduate entry was led by a few members from each para-profession who were based in education rather than practice. It is concluded that the rationale for replacing the diplomas with degrees was motivated by the para-professions’ desire to both maintain and also improve their professional status. The para-professions believed that they needed to gain degree status for their initial professional education and training in order to maintain parity with similar occupations who had already gained degree status. They also believed that degree status would help to improve their professional status because a degree credential had a greater symbolic value than a diploma credential.
Although there was opposition internally and externally to degree status it would appear that once one or two schools, within each para-profession, achieved degree approval the rest had to follow in order to maintain intra-professional parity and to compete successfully for students. It is suggested that the speedy achievement of all-graduate entry and the subsequent achievement of all-graduate entry at honours level were the direct consequence of intra-professional competition.

One of the issues that has been highlighted in this chapter is whether the diploma and degree courses were for all intents and purposes very similar or whether there were differences between the two courses which would result in the degree courses developing a 'better practitioner'. The following four chapters (chapters six to nine) explore the extent to which there were differences between the diploma courses and the degree courses. This is followed by chapter ten, which focuses on whether or not the achievement of a degree credential has the potential to improve the professional status of these para-professions.
Chapter Six

CHIROPODY: FROM DIPLOMA TO DEGREE

Introduction

This is the first of three chapters, which explore the differences between diplomas and degrees and the impact of the transition from diploma to degree on staff and students. Each chapter addresses one of the three case study schools. This chapter focuses on the chiropody case study school. The data for each chapter has been obtained from an analysis of documentation pertaining to the diploma and degree courses, interviews with staff and students (diploma and degree) and the Entwistle Learning Inventory (ELI). Information regarding the number of staff and students interviewed and the number of students who completed the ELI, for each case study school, can be found in chapter three. To enable comparisons to be made between the three case study schools standardised headings are used in each chapter. These were developed prior to the analysis of the data and were used as a framework for comparing the diploma and degree courses:

(i) Gaining approval
(ii) Staff qualifications
(iii) Aims of the courses
(iv) Entry requirements
(v) Course structure
(vi) Course content
(vii) Teaching and learning strategies
(viii) Assessment strategies
(ix) Organisational issues
(x) Differences between graduates and diplomates

Each of the above are considered in turn below. This is followed by a discussion of the main themes, which emerge, from the data.
Gaining approval

As the chiropody case study school was located in a FE institution it was necessary for staff to find a HEI who would be willing to approve its degree course. The school experienced some difficulty in finding such a HEI. It had a very informal link with the local university. The diploma students attended this university for anatomy dissection. Initially staff had hoped that this informal link could be developed and that, in time, the university would agree to approve the chiropody case study school's degree course. However, the school needed to gain approval for the degree in a relatively short time span so that it could compete for students with a nearby school who had already achieved degree status (see chapter five). Staff believed there was insufficient time to develop further links with this university. Additionally, they believed that the university would wish to see a four as opposed to three year degree course. A four year degree course would have presented the school with problems as the nearby school had already gained approval for a three year honours degree. Staff believed that they would have difficulty recruiting to a four year degree course (see chapter four): 'which I think is a bit of a shame because we had a developing embryo of a degree design with the local university which we could, had we not had to rapidly change, have gone forward with... the suggestion was that in order to get our clinical content in we should really span it over four rather than three years' Chiropody staff 6.

The case study school's difficulties were resolved when the then head of school arranged to franchise an unclassified CNAA degree course from a PSHE institution located over a hundred miles from the school. This degree had been developed by the PSHE institution in conjunction with another school of chiropody, which was also located in a FE college. It is probably for this reason that this degree was chosen. Arrangements for the franchise were made between the then head of school, the other school of chiropody based in a FE college and the PSHE institution who were franchising the degree. Other staff from the case study school, including the current head of school, were not involved with the negotiations. The franchise arrangement was the most expedient means of gaining degree status. This was the only case of a franchised degree among the three para-professions.
As their degree course was franchised, the staff in the chiropody case study school, unlike their counterparts in the other two case study schools, were not involved in writing the validation document. The documentation produced for the case study school's validation event was a replica of the document produced by the other school of chiropody. Despite this it is suggested that comparisons between the three case study schools can be made as the chiropody staff had experience of delivering the degree course and, therefore able to comment about the differences they perceived between the diploma and degree courses.

The documentation prepared for the validation of the degree was very detailed. It contained the aims, rationale, entry requirements, syllabus and assessment for the degree course. By comparison the diploma documentation, produced by the Society of Chiropodists, contained minimal detail about these aspects (see chapter two). Prior to the advent of pre-registration degrees the Society of Chiropodists had not required schools of chiropody to produce additional documentation related to their diploma courses.

The validation event was held in the summer of 1991 and involved representatives from: the franchising HEI, the school of chiropody who already offered the franchised degree, the Chiropodist Board and the Society of Chiropodists. Neither the Chiropodist Board nor the Society of Chiropodists had produced guidelines for schools developing degree courses. The Chiropodist Board was ill-prepared for the advent of degree status and had no formal policy for the approval of degree courses (key informant from the professional body). It is suggested that this was because of the speed of the transition from diploma to degree (see chapter four).

Staff believed they were ill-prepared for the validation event. They had not been involved with the franchising negotiations and knew little about the franchised course. Neither had any of them attended a degree validation: 'We were totally ill prepared for that (validation)... I mean I didn't see the document until the morning of the validation... I was just talking off the cuff because I had not even read the document.' Chiropody staff 1.

'I don't think any of us had any idea why we were there because we had not seen the document that was presented on the table in front of us. It just went over my head. I did not have a clue
what they were talking about. I think that was in common with everyone bar the head of school. He was the only one who knew what was happening at that event.' Chiropody staff 2

The need to justify why the course should be at degree level was not a significant feature of the validation. Because the course had already been approved as suitable for state registration and worthy of degree status the panel members may have believed it was not necessary to question the course team on this issue. The chiropody representatives on the panel appear to have made little contribution to the event, the majority of the questioning came from the non-chiropodial members. This may have been because representatives from the professional bodies did not wish to obstruct the approval of the degree course. The focus of the questioning appears to have been related to the resources required to deliver the degree course: 'I think primarily they assumed, quite rightly, we could do the level of work because the degree had already been validated and, therefore, they assumed as we were teaching, the level of teaching would be satisfactory. To a certain extent they did not know much about chiropody so they could not ask us much about that aspect of it.... They were more interested in the actual building and whether the learning resources and the support facilities were capable of backing up a degree.' Chiropody staff 3.

As part of the franchise arrangement it was agreed that the case study school would deliver their degree in tandem with the other school of chiropody offering the same degree course. However, the case study school would continue to be managed and resourced by the FE institution in which it was based. In retrospect the staff valued the experience of offering a franchised course. They found the liaison with staff from the other school of chiropody and the franchising HEI very helpful. This may have been because they were otherwise isolated from a HE environment.

Staff did not appear to be concerned that their degree was unclassified. They believed an unclassified degree was more appropriate than an honours degree because of the difficulty of meeting, in three years, the clinical and professional requirements plus the educational requirements of an honours degree. The consensus was that there should be an unclassified degree with the opportunity for those who wanted to develop to honours level and beyond to achieve this post-registration: 'I don't really see the point for an honours degree in a medical
type subject. Like dentistry or medicine it ought to be straightforward unclassified degree.' Chiropody staff 2.

'If I'm honest about everything, I probably would say that the degree should be unclassified and that anything you do afterwards is done as post registration work. People could come back and do these and add to their profession rather than trying to raise the whole thing at undergraduate level.' Chiropody staff 5.

Despite the above views the unclassified degree was replaced with an honours degree in 1994. Staff believed that this was necessary because other schools of chiropody were replacing their unclassified degrees with honours degrees and that they, therefore, needed to be in a position to compete for students with these schools (see chapter four). The staff from the case study school developed their own honours degree. They believed that their experiences of delivering the franchised course had enabled them to develop the skills to write and to deliver their own honours course. Their experiences of the validation of the honours degree were very different from those associated with the unclassified degree. Staff believed that because they had designed the honours course they had ownership and were, therefore, in a better position, than they had been with the unclassified degree, to defend the course at the validation event: *I mean we were ready for. We knew exactly what we were going to do you know and they (the validation panel) were impressed by the fact that we could knock them dead on it'* Chiropody staff 2.

(ii) Staff qualifications

Prior to the advent of pre-registration degrees it had not been a requirement of either the Society of Chiropodists, the Chiropodist Board or the FE institution in which the chiropody case study school was based that chiropody teaching staff should be degree qualified. The only requirement was that all chiropody staff should be state registered chiropodists. However, the Society of Chiropodists and the FE institution encouraged staff to gain a teaching qualification. Of the six staff four had teaching qualifications, either the City and Guilds 730 or the Certificate in Further and Higher Education.
Prior to 1991 only two out of the six staff in the chiropody case study school were degree qualified. One had a degree, in a non chiropodial-related subject; this had been achieved prior to pursuing a second career in chiropody. The other had undertaken an Open University degree during the early 1980s. As noted in chapter four, the Open University, until the advent of the CNAA 'top up' degree initiative, was the main route by which qualified chiropodists could gain a degree qualification.

With the advent of the pre-registration degree staff believed that it was essential that they were degree qualified. They believed that HEIs expected them to be qualified to the same academic level that they were teaching. By the time the degree in the chiropody case study school was presented for validation all of the four staff without degrees were in the process of gaining a degree qualification. For these staff this involved returning to academic study after a long period away from it: 'I thought what on earth am I doing here (on a degree course). But what motivated me, well the fact that all the schools were going over to degrees so, therefore, how can you possibly teach on a degree course if you haven't been through the ritual yourself?' Chiropody staff 3.

There appears to have been an assumption that gaining a degree qualification was all that was necessary to prepare staff for teaching at degree level. The staff's experiences of studying for a degree may have broadened their knowledge base, exposed them to a HE environment and provided them with the experience of studying at degree level but it cannot be assumed that it necessarily prepared them for teaching at degree level. However, other than gaining their own degree qualification staff in the chiropody case study school received no other preparation with the exception of contact with staff in the other school of chiropody delivering the same degree programme.

(iii) Aims of the courses

The aims of the diploma course were not stated in the Society of Chiropodist's diploma documentation Society of Chiropodists 1988, 1988a). There was no requirement upon or obvious need for the Society of Chiropodists to specify the aims and rationale for its diploma course. The course had been developed outside of the HE sector and was unaffected by the
practices and procedure of the CNAA. The only reference to the purpose of the diploma course was in the booklet entitled 'General Information and Outline of Course, Regulations and Syllabus for Training (Society of Chiropodists 1988). This stated that: 'In order to become an efficient chiropodist the student must learn to understand the structure and function of the human foot and its relationship to the body. He must learn to recognise how and why abnormalities occur and to discern those having special medical or surgical significance. He must acquire skill and experience in treating those conditions that come within his province, and develop tact and confidence in his approach to patients of all ages' (Society of Chiropodists 1988 p3)

Staff and students concurred that the prime aim of the diploma course had been to develop practitioners who had the knowledge, psychomotor and affective skills perceived as necessary to practice chiropody: 'I think first and foremost its got to be a person with good personal development, humanistic values, basically able to relate and empathise with another person. Obviously there is the need to have manual and technical skills. Thirdly good theoretical knowledge because you can't relate conditions to your patient unless you understand everything holistically' Chiropody diploma student 3.

Staff believed that the diploma students were passive recipients of this body of knowledge, which they were required to learn by rote and reproduce in unseen, time restrained written examinations. Diploma students were not encouraged to question, challenge practice or to think for themselves: 'You weren't having to sort of think for yourself too much and go away from that and actually make up ideas which you could then follow up by looking up literature searches or whatever. Most of the work was a straight forward rehash of what you were given, just sort of juggling the words about.' Chiropody staff 5.

'Regurgitation. Unfortunately your ideas are not really, they are not as encouraged as they should be.' Chiropody diploma student 4. The emphasis in the diploma course appears to be on the mastery of a body of procedural knowledge (see table 1.2).

By contrast, the aims of the degree course were clearly outlined in the validation document (Table 6.1). These aims imply that the degree course aimed to develop a different type of
1. To provide a qualification leading to membership of the Society of Chiropodists and State Registration thus enhancing the chiropodists ability to autonomous practice.

2. To produce graduate chiropodists who, by the application of their heightened intellectual, analytical and problem solving skills will be able to provide a greater clinical professionalism.

3. To develop and improve the skills of patient diagnosis, assessment and treatment.

4. To develop a wider, clinically determined knowledge base in order to facilitate a greater scope of practice.

5. To develop enterprise skills of the chiropodist so enhancing effective performance within the health care team.

Table 6.1  Aims of the degree course in the chiropody case study schools

Source:- Degree validation document. March 1991 p13
practitioner from that of the diploma course. It was noted in chapter five that one of the reasons why the para-professions wanted pre-registration degrees was because of a desire to develop a ‘better’ practitioner. The aims of the degree course can be summarised as follows:

a) an emphasis on the development of analytic and problem solving skills, the ability to undertake autonomous practice and to demonstrate enterprise skills. These terms are very different from those associated with the diploma course: learn, understand, and reproduce. The importance of producing ‘autonomous’ practitioners was highlighted both in the aims and the rationale for the degree. This term did not appear in the diploma documentation nor was it referred to by the staff in the context of the diploma course.

b) the acquisition of research skills. Research skills were not mentioned in the diploma document. By contrast, the degree document stated: *The current practice of chiropody still shows a significant dependence on empirical techniques which are based on observation and subjective evaluation, a practice which has been perpetuated by a lack of research into specific chiropodial techniques...The sound academic base provided by an initial degree will greatly enhance the practitioner’s ability to assimilate new information and will actively encourage initial research and development* (Chiropody degree validation document 1991 p12).

c) the need to facilitate the development of life long learning skills. No mention of this was made in the diploma documentation. By comparison, the need to facilitate independent learners who would carry on learning throughout their professional careers was emphasised in the degree validation document.

Staff and students concurred that there were distinct differences between the aims of the degree compared to the diploma course. The diploma course was seen as being insular, reliant on custom and practice and procedural knowledge and immune to thoughtful reflection. By contrast, the degree course was associated with producing chiropodists who could analyse and evaluate their practices: *'I mean I think 20 years ago there was much more emphasis on the sort of competency bit, the skill bit. Whereas today I think you have a combination. You are still
looking for the competency bit but I think you are looking for people who have a much more analytic and evaluative approach to what they are doing' Chiropody staff 1.

Staff believed that the degree course would equip students with the skills to problem solve, critically evaluate and undertake research. They believed that it was necessary to abandon the 'cookbook approach' (procedural knowledge), adopted with the diploma course, where students learnt skills and techniques to use in specific clinical situations. Diploma students had been expected to carry out instructions whereas staff expected degree students to be far more questioning, not to accept information at face value and to be able to provide a justification for their practice. Staff believed that it was essential that the degree students considered alternatives and developed better methods of addressing clinical problems: 'They (graduates) can think for themselves. They can think a problem through for themselves rather than if you get an old chiropodist they say oh we were taught always to put liniment A on condition A and ointment B on condition B and they never varied from that even after 30 years they were still doing the same thing whereas nowadays they will experiment and sort things out for themselves at a much higher level than we did.' Chiropody staff 3.

'Between the diploma and degree course anyway we wanted to produce a more reflective practitioner and analytical practitioner... somebody who is actually thinking about why do they (patients) have that problem, what can they do about it with the limited resources that they may have. But they're actually thinking about what they're doing and then thinking beyond maybe what they've been taught so they might pick up a journal and say, oh somebody tried this, wonder if I could try that' Chiropody staff 4.

Staff believed that it was essential that students in the future develop these skills so that they could survive the many changes in the NHS. They believed that chiropodists were increasingly having to justify their practices and that it was, therefore, essential that chiropodists could provide a clear rationale for their practice.

Additionally, there was an emphasis in the degree course on the need for students to substantiate their opinions by reading the literature and referencing their assignments. This suggests that there was a greater emphasis on propositional as opposed to procedural knowledge. Diploma
students had not been required to reference their work. The focus of the diploma course had been on mastering a body of knowledge that was given to them, either via dictation or notes, by their tutors. By contrast, degree students were expected to take responsibility for their own learning and develop their knowledge and understanding from reading the literature: *They (degree students) are taught in a way that they actually substantiate the things they are saying and reference things... rather than going home and getting one or two books and doing your essay on 2 sides from that (as the diploma students did). They find out some information, précis that and write things in a logical fashion. In other words try and bring in some original thought'* Chiropody staff 3.

Prior to the advent of degrees chiropodial research had been minimal. None of the staff had published research based papers. However, staff expected the degree students, unlike their diploma counterparts, to undertake empirical research as part of their degree course. They believed that it was essential that the degree students participated in research in order to inform and develop the chiropody knowledge base. It would appear that the staff believed that the degree students would help to establish a research base in chiropody. How this would be achieved is not particularly clear; the intention appears to have been that the degree students, as a result of the degree course, would become active researchers after they had graduated: 'It will give people (chiropodists) an advantage to carry on and do research because it would give them a chance to get out there. ...We need people (chiropodists) to stand up and say hey I've done this, I do know a little bit now about how to do a bit of research work let me get out there and do it and the more people who do it, it will further, there's no doubt about it, it will further understanding. There's a lot of stuff we don't know. We're our worst enemies in that area because up to now no one ever bothered to do a great deal' Chiropody staff 5.

It is clear that the degree course had different aims from the diploma course. The aims of the degree course embraced a more liberal ethos than was apparent in the diploma course. The degree course emphasised critical evaluation, problem solving, independent learning skills and propositional knowledge. These are all features, which have traditionally been associated with an educative as opposed to a training approach to initial education and training (see chapter one).
(iv) **Entry requirements**

Since the late 1980s the school had experienced increasing difficulties in recruiting to the diploma course. Staff believed that this situation was due to a concatenation of factors. Firstly, students experienced difficulties gaining discretionary grants from their LEAs (chapter five). Secondly, competition for students from other post-18 courses was much greater due to the expanding HE sector (see chapter five). Thirdly, staff believed that the case study school faced particular difficulties because, unlike most of the other schools of chiropody it was located in a FEI as opposed to an HEI.

Particular difficulties had been experienced recruiting to the last cohort of the diploma course. Target numbers had not been achieved. Staff believed that the students recruited to the last cohort of the diploma were academically less able than students recruited to the diploma during the 1970s and 1980s. They believed that this was because other schools of chiropody in England were offering degree courses: *'They were the last of the diploma students and academically if you looked at their background they were not well equipped really. It was a time when all the other schools had moved forward to degrees ... we were scraping the barrel!'* Chiropody staff 1.

Some of the students recruited to the first cohort of the degree had applied thinking the course was at diploma level. These students had been interviewed and offered places prior to the approval of the franchised degree. One of the diploma students interviewed had purposefully applied to the school because it offered a diploma. She had been told by her secondary school that she was not academically able to cope with a degree course: *'I went looking for a diploma course... because I was always told at school you can't cope with a degree, you're not intelligent enough. So I went looking for a diploma course'* Chiropody degree student 4.

The entry requirements to the diploma course, prior to the advent of degree status, had been two A levels (grade E or above) or their equivalent. These entry requirements were not changed with the advent of degree status. This suggests that the degree course did not require students to have educational entry qualifications that were any different from those for the diploma course.
(v) **Course structure**

The diploma course was structured around classroom and practice elements. Both elements were delivered within the FE College. Chiropody students gained the majority of their practical experience in a clinic located in the FE College. A limited amount of time was spent on clinical placements in the NHS. The classroom and practical elements were fully integrated. Each week students were timetabled for classroom as well as practice sessions. Diploma students commenced the practice element after the first six weeks of the course; the practice element continued throughout the remainder of the course.

The introduction of the degree course did not result in changes to any of the above arrangements nor did it involve a change to the length of each academic year. The changes, which were made to the structure of the diploma course as a result of the transition to degree status, can be summarised as follows:

- a reduction in the practice element of the course

- an increase in private study time

- the introduction of modular framework.

**Reduction in the practice element of the course.** The practice element of the diploma course was reduced as a result of the introduction of the degree course. In the diploma course there had been approximately a 50:50 ratio between classroom and practical based activities. With the degree course this ratio was changed to 62:38. Degree students spent 690 hours in practice during the three year course. Not only was there a reduction in the amount of time students spent in practice but there was also a reduction in the number of patients treated: *When I came in 1980 there was still a fair level of clinical work, probably two and a half days a week whereas now it is probably a day or might be a day and a half a week and the number of patients throughput is much less than it was* Chiropody staff 2
It was noted in chapter two that the number of practice hours in the diploma course had reduced over time and that the Chiropodist Board did not stipulate that students had to complete a minimum number of clinical hours before qualifying. Staff believed that the reduction in practice hours between the diploma and degree courses was a direct result of gaining degree status and was not due to the need to achieve further financial savings (see chapter two). They believed a reduction had been necessary because HE placed greater emphasis on theory as opposed to practice: *'I think there's a degree of belief that validating authorities wanted to see a great deal more theoretical content in the course in order to get an honours degree programme... the amount of hours actually spent on theory is being increased at the expense of the clinical hours and I think it's basically been seen that was the way you'd get validation'* Chiropody Staff 4. The degree students concurred with the belief that in a degree course theory was more valued and given priority over practice: *'given that you've only got five days in a week and you've got to do so much theoretical work you can't devote too much time to clinical practice'* Chiropody degree student 2.

The staff regretted that the practice component of the course had been reduced. They would have preferred a three year theory based course followed by a post-graduate practice year. They had been unable to achieve this for two reasons. Firstly, there was no additional funding for a fourth year (see chapter four). Secondly, it would have been difficulty to recruit to a four year degree if other schools were offering three years honours degrees (see chapters four and five).

**Increase in private study time.** The reduction in practice hours did not lead to more time being spent on classroom based teaching, instead it led to timetabled study time for students. Timetabled study time had not been a feature of the diploma course. For most of the week diploma students were timetabled either in the classroom or in clinics. Staff associated degrees with student centred learning. They believed that student centred learning was a key feature of a degree course and was necessary if students were to have the time to develop independent learning skills. Staff had been surprised at how little time had been spent in the classroom in their own degree courses and how much time was devoted to student centred learning. On average degree students were timetabled for approximately eighteen to nineteen hours per week compared to over twenty six hours for the diploma students.
Introduction of a modular framework. The HEI, which approved the degree course, operated a modular system, hence the degree course was based on a modular structure. The degree syllabus had been broken down into numerous small modules (31 in total). Staff would have preferred the integrated approach, which had been used with the diploma course. However, they believed that they had to adopt a modular framework because the accrediting HEI was a modular institution. Staff had found it difficult to adapt to the modular system. They believed students found it difficult to make connections and links between modules and that this had a deleterious effect on their ability to make relationships between theory and practice: 'everything was split into so many fiddly little modules that it was very difficult to get cross referencing between these modules to produce a whole' Chiropody staff 5.

(vi) Course content

The content of the diploma course had been specified by the Society of Chiropodists (Society of Chiropodists 1988). Schools had the freedom to add additional topics, at their discretion, as long as the content identified in the Society's syllabus was addressed (see chapter two).

Table 6.2 compares the content of the diploma course with that of the degree course. It shows that there were a number of differences in the codification of the content of the degree course compared to the diploma. It is noticeable that the titles of the discipline based subjects studied in the diploma course carried podiatric labels in the degree course (it was noted in chapter four that all degree courses were entitled podiatry). For example, physiology in the diploma course was entitled the physiological basis of podiatric medicine in the degree course. These changes suggest a change in emphasis from the study of cognate discipline based subjects to the application of these subjects to the chiropody knowledge base (see chapter one). However, despite changes to the codification of the course content staff believed that there were few differences in the professional knowledge base studied in the diploma compared to the degree course: 'They are called different things but basically its the same' Chiropody staff 3.

Staff believed that the professional knowledge base had evolved over time and that there had been no major changes as a result of the move to degree status: 'the diploma course evolved and the old diploma syllabus that you looked at way back was different than a diploma syllabus as
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<td>additionally students in the case study school had studied microbiology, pathology, pharmacology, information technology and psychology. They had also been required to undertake a third year project although this did not contribute towards their final exams</td>
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Table 6.2 Comparison of the course content of the diploma and degree courses in the chiropody case study school

Source:- Chiropody diploma document and chiropody degree validation document
we had it before we progressed to degree and so in many ways there's no stark difference, there's no break point because the evolving occurred from years back and that's why I see a difficulty in saying, well what's the difference now between diploma and degree, because the diploma as I knew it at the very end was heading towards degree in any case' Chiropody staff 6.

These comments are not surprising given that the advent of degree status did not coincide with major changes to the professional knowledge base. Nothing had happened to change it during, or immediately prior to, the transition from diploma to degree. However, two differences between the content of the diploma compared to the degree are worthy of note:

- the removal of the basic sciences syllabus

- the inclusion of the study of methods of enquiry and statistics.

There were other less significant changes to the content of the diploma course. For example, greater attention was placed on professional studies (entitled professional enterprise in the degree). Analysis of the content shows that professional enterprise focused on topics such as organisation of the NHS, professional ethics, professionalism. These topics, according to the staff, had all been addressed, but to a lesser extent, within the diploma course.

**Removal of the basic sciences syllabus.** A significant amount of time in the first year of the diploma course was spent on the study of the basic sciences: biology, physics and chemistry. Just prior to the advent of degree status the Society of Chiropodists recommended that the basic sciences syllabus be removed from the diploma course (Society of Chiropodists 1989). Staff believed this decision was taken because most students studied these subjects prior to entry to the course. In the past (when the entry requirements were set at 'O' levels) staff believed the inclusion of the basic sciences in the diploma course had been necessary because the students had not studied these subjects in sufficient depth prior to commencing the diploma course. However, when the entry requirements were raised to two A levels (and preference was given to students who studied the sciences at A level) staff believed that this was no longer necessary. It is probable that the removal of the basic sciences would have eventually occurred whether or not the diploma course had been replaced with a degree course. It is suggested that transition
from diploma to degree served to speed up this change. The net result of the removal of the basic sciences was that less time was spent on studying these supporting disciplines and more time on applied knowledge.

**Inclusion of the study of methods of enquiry and statistics.** Staff believed that the inclusion of methods of enquiry and statistics into the degree syllabus was the main content difference between the diploma and the unclassified degree course. Three factors appear to be responsible for this belief. Firstly, a CNAA working group, established in 1987, had recommended that diplomates, who wished to gain a 'top up degree', should study methods of enquiry and complete a satisfactory project in order to achieve honours level (Whiting & Potter 1991). The study of research methods and statistics were, therefore, a key feature of all post-registration degrees. Secondly, staff believed that students needed to be equipped with research skills so that they could undertake post-graduate research. Thirdly, staff believed that the study of these subjects would equip students with the skills to problem solve and critically evaluate their practices.

Students undertaking the unclassified degree course were not required to undertake an empirically based piece of research. However, they were required to undertake a critique of the research literature on a topic of their choice. When the unclassified degree was replaced with an honours degree students were required to undertake an empirically based piece of research. Staff believed that a critique of the literature as opposed to an empirically based study was the prime difference between an unclassified and honours degree: 'it is there (research) that I think the difference lies between the unclassified and the honours...I think it would have been difficult to get it (the unclassified degree) through validation (for an honours). There was not enough emphasis on research methodology. The dissertation itself was really just a critical review and it was only 3,000 words. I don't think that would have got through to be truthful' Chiropody staff 1.

Many of the degree students appeared to be uninterested in research methods and research in general. They saw it as something they had to do in order to get the degree. The majority were orientated towards the clinical aspects of the course and did not believe that they would undertake further research after graduating: 'Not for the everyday chiropodist. I don't think I
mean if you're going into research or whatever, then maybe you would need it but not for everyday' Chiropody degree student 1

(vii) Teaching and learning strategies

The diploma course had been based around a didactic approach to teaching and learning. A diverse range of teaching and learning strategies had not been used: 'Well I think on the diploma course we did an awful lot of didactic teaching. Virtually all of it was done by didactic teaching' Chiropody staff 1. Staff referred to the diploma course as adopting the 'empty jug model'. Diploma students were seen as passive recipients of procedural knowledge. They undertook very little background reading. Their main access to knowledge was via the course notes, which they made either during lectures, were given on handouts or in some cases had dictated to them.

A considerable proportion of the diploma course had been taught by the chiropody qualified teaching staff. Appropriately qualified staff from other departments of the FE College taught the basic sciences, microbiology, pharmacology and psychology elements of the diploma course. It had also been custom and practice to use medically qualified visiting lecturers to teach most of the medicine and surgery syllabus. Due to financial restrictions the amount of part-time lecturing medically qualified staff undertook had been reduced. However, medically qualified practitioners were still involved in teaching and assessing a considerable part of the medicine and surgery syllabi.

Staff believed that with the advent of the degree they needed to change their teaching and learning strategies. They believed that these changes were necessary in order to foster skills of independent and life long learning and to achieve the aims, previously outlined, of the degree course. They believed that it was necessary to provide degree students with timetabled study time (see course structure) and to use a range of teaching and learning strategies to facilitate student centred learning: 'Well ideally we are supposed to have got this cohort of students who are a little bit more self thinking, a bit more motivated who will through the three years progress and become independent individuals and who can select information and work effectively by themselves' Chiropody staff 2.
These views appear to have been influenced by three factors. Firstly, staff believed that they had to facilitate student centred learning because it was generally accepted that degree students should take responsibility for their own learning and that there was a general move towards a student centred, participative approach in education as a whole: 'I think we felt that this was the way teaching was going and also teaching in schools has changed considerably from the old sort of teacher standing up at the front' Chiropody staff 3. Secondly, staff had been told, both by the franchising HEI and by the then head of school, that they had to adopt a more student centred approach to learning and incorporate a far greater range of teaching and learning strategies: 'we were very much you know told you must change the way things are taught. No longer will you just pump the facts out, student centred learning would be the thing' Chiropody staff 5.

We must have discussed it at meetings. This is how a degree course is taught. So we were very much led by what was being done in the HEI and other schools of chiropody' Chiropody staff 4.

Thirdly, staff were probably influenced by comments in a HMI's report (HMI 1989a) of teaching and learning methods used in another school of chiropody. In their report the HMIs comment adversely on the didactic approach to teaching and learning that was evident in the school and recommended that other, more participative, approaches were used to encourage students to develop critical thinking skills: 'a significant shift from a lecturing/note taking approach to a more participative process where students are required to plan their own work and the development in the students of a critical, evaluative stance which will lead to improved learning and the development of more advanced work' (HMI 1989a).

One can speculate whether the staff would have changed their teaching and learning strategies without the above factors. They were not given any guidance or support in making these changes. The majority, especially those who had been at the school for ten or more years, had only used a didactic approach and were unclear what was required of them or how they should change their approach: 'That frightened me because I didn't know how to do it and no-one was giving me any training to do it... But the concept came really from what was fed down from the
fact that we were franchised. That this was the way it had to be done and when you asked, well how do I do this, you know no-one had any ideas really' Chiropody staff 5.

Staff appear to have initially made changes to their approaches to teaching and learning. They made use of seminars and tutorials and required students to read around, evaluate and summarise the literature: 'students are being encouraged to work in groups, tutorials, seminars and to go away and find information for themselves. A lot more student centred and student directed learning than there was on the diploma course' Chiropody staff 1. What was apparent was that some staff, after the initial impetus, returned to a didactic approach. This was probably because staff were ill-prepared for the change and also because they believed that students preferred a didactic approach. Staff believed it was less time consuming for them to tell students the information than to get students to go out and find the information for themselves.

One of the reasons for this was probably the lack of readily available text-books and journals: 'I think particularly in the first year the students still want a lot of information and to be taught didactically and traditionally in the old chalk and talk way. Our students are reluctant to do things for themselves to produce seminar work and go off and do things' Chiropody Staff 2.

'I think one of the biggest problems we find is actually the time. Especially when you come to do tutorials and group work. I think students do learn much more from tutorials and group work but it is the time factor, If you have 30 students in a group you just cannot do it that way. I have to say we have gone back to doing a lot of the foundation stuff with lectures simply because of the time factor' Chiropody Staff 6.

One member of staff believed that the change to the teaching and learning strategies had reduced his control over the learning environment. With the didactic approach he had been the purveyor of knowledge; the diploma students had been dependent upon the notes he provided. With the move towards student centred learning and reading around the literature and giving references he believed this was no longer the case: 'If you are actually giving out all your information to students on day one to start with and you are not hiding something back in a book that you do not give them the name of. If you are referencing everything that you say or do and then guiding them to take things a bit further you are losing control' Chiropody staff 3.
It is probable that some staff were returning to a more didactic approach because the change had, to a large extent, been foisted upon them and they had received very little guidance and support in making the change. The implication of a return to a didactic approach might be that the degree students would, like their diploma counterparts, become passive recipients of knowledge. Additionally, they may not be encouraged to question and challenge and, therefore, develop the higher level thinking skills associated with the aims of the degree course.

The chiropody qualified staff continued to teach the majority of the degree course. Those FE staff who had taught the basic sciences were no longer used due to the removal of these subjects from the syllabus. Other staff from the FE College, who had taught subjects such as microbiology, continued to be involved. The input from medically qualified practitioners, with the exception of the occasional lecture, ceased with the advent of the degree course. Two factors appear to have been responsible for this. Firstly, changes to the delivery and assessment of the course resulted in much greater demands being made on those who lectured on the degree course. Staff believed that medical practitioners would have been unwilling to undertake these tasks: 'Busy consultants just have not got the time to sort out assignments. Really they just want to stand at the front of the class and tell them what they are going to tell them and then go. They really do not have the time to do any alternative forms of teaching in the way of tutorials or seminars, kind of preparing for seminar presentations and that. I think it is mainly if the subject suddenly develops two assignments they haven't got the time to do it' Chiropody staff 2. Secondly, the titles of the medicine and surgery courses were changed to podiatric medicine and podiatric surgery with the implication that the subject matter would relate to topics of particular importance to chiropodists. This change in emphasis implies that the chiropody teaching staff were taking ownership of these subjects and removing their previous dependence upon the medical profession. It is not clear whether the above was an intended or unintended consequence of the change to degree status. What is clear is that the transition from diploma to degree reduced the teaching input of medically qualified practitioners.

(viii) Assessment

The classroom element of the diploma course was assessed entirely by end of year unseen written examinations. These examinations, with the exception of the two final chiropody
examinations, were internally set and externally moderated. The two final chiropody examinations were nationally set by a panel of examiners appointed by the Society of Chiropodists. The practice element of the diploma course was assessed by end of year clinical examinations. Neither the written nor the clinical components included the assessment of coursework. The written and clinical examinations were marked by internal (lecturers from the school) and external examiners. The latter were either medically qualified practitioners, physiologists or anatomists or in the case of chiropody subjects lecturers from other schools of chiropody.

There were three major differences to the assessment of the degree course compared to the diploma course:

- the introduction of assessed coursework
- the removal of the two nationally set chiropody final papers
- a reduction in the number of external examiners.

**Introduction of assessed coursework.** The degree course in contrast to the diploma course involved the assessment of coursework as well as the students' performance in end of year written and clinical examinations (Table 6.3). As a result the assessment load for degree students was far greater than it had been for the diploma students. Each module in the degree course was summatively assessed by either a combination of coursework and examination or by one of these modes of assessment. This resulted in topics, which had not been assessed on the diploma course, for example psychology, now being summatively assessed.

Staff believed that the introduction of assessed coursework meant that there was less emphasis on the students' abilities to reproduce information under examination conditions. As a result there was less need for students to learn by rote and to reproduce large chunks of information as had been the practice with the diploma course. Staff believed that coursework was educationally far more acceptable than written examinations: 'Well with the diploma it was almost kind of a year end exam process and you, almost like O levels teach to it because
basically you knew the styles of paper that was coming and you could teach to the exam. With it (assessment) coming along in smaller bouts and having a lot more work during the modules and some things only being assessed on coursework I think it has made it easier for the student to take in information and disseminate it and use it at a meaningful time rather than keep things to the year end" Chiropody staff 2.

Staff believed that coursework allowed students to demonstrate skills of problem solving and critical evaluation in a way that was not possible with unseen written examinations. They also believed that the requirement to undertake a substantial critique of the literature encouraged students to develop independent learning skills. Staff believed that the diploma course had not encouraged students to develop these skills. This change in emphasis between the diploma and degree course reflects the move from passive to active learner that had been precipitated by the transition from diploma to degree.

Removal of the two nationally set chiropody final papers. The move to degree status resulted in each school of chiropody having the freedom to decide how they wished to assess their students. As a result the nationally set final chiropody examinations were no longer used. The chiropody case study school continued to have written, unseen final examinations but rather than being nationally set these papers were internally set and marked.

Reduction in the number of external examiners. The number of external examiners was dramatically reduced. A range of external examiners examined the diploma course: one for each subject (6 in total) plus for the chiropody final clinical and written examinations one external examiner per six students. The Society of Chiropodists required that the external examiners for medicine and surgery had to be registered medical practitioners.

By contrast, the degree course had two external examiners. It would have been unusual for a single degree course in HE to have as many external examiners as the diploma course (ten in total). One of the consequences of the reduction in the number of external examiners was that the school decided to have solely chiropody qualified as opposed to medically qualified external examiners. Historically it had been seen as essential that medically qualified personnel should not only lecture but also examine chiropody students (see chapter two). With the degree course
Table 6.3 Relationship between coursework and examinations in the diploma and degree courses in the chiropody case study school

<table>
<thead>
<tr>
<th></th>
<th>DIPLOMA</th>
<th>DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSEWORK</td>
<td>0%</td>
<td>40%</td>
</tr>
<tr>
<td>WRITTEN EXAMINATIONS</td>
<td>66.6%</td>
<td>27.9%</td>
</tr>
<tr>
<td>PRACTICAL EXAMINATIONS</td>
<td>33.4%</td>
<td>32.1%</td>
</tr>
</tbody>
</table>

SOURCE: chiropody diploma document (Society of Chiropodists 1988) and degree validation document March 1991
the staff in the school were responsible for setting and assessing all coursework and written examinations under the aegis of the chiropody external examiners. The removal of medically qualified practitioners as part-time lecturers and as external examiners reduced the school's previous dependence upon the medical profession and ensured that only chiropodists were responsible for assessing new recruits. Again it is not clear whether this was an intended or unintended outcome of the transition from diploma to degree.

It is difficult to gauge whether there were differences in the standards achieved by degree in comparison to diploma students. No criteria had been laid down for the marking of the diploma examinations. The final mark achieved by diploma students, for each examination they sat, was dependent upon the internal and external examiner coming to an agreement over the mark to be awarded. There was a difference in the pass mark between the diploma and degree courses. The pass mark for the diploma had been 50% for all examinations whereas, in the degree course, it was 40%. The only exception to the 40% pass mark was the final clinical examination where degree students had to obtain 50%. The Privy Council had insisted on this requirement. The reasons why are not clear as numerical scores are not directly related to standards. Nor is it clear why 40% is traditionally used as a pass mark in HE.

Staff believed that some students were passing the degree who would have experienced difficulties passing the diploma. They cited the lowering of the pass mark as the reason for this:

'I would think because of the difference in the pass mark with the Society of Chiropodists (diploma course) being 50% and the degree being 40% that the people are passing the exams now that would not have passed the old diploma exams' Chiropody staff 3.

Three factors may have been responsible. Firstly, staff were still marking to a 50% pass mark. As a result students who gained 40% were judged to have passed because this was the pass mark on the degree although for the same piece of work they would have been classed as a fail on the diploma course. Secondly, staff were required, by the franchising HEI, to state their marking criteria for assessed pieces of work and to apply this criteria when marking. This approach may have resulted in staff being more objective in their marking than they may have been on the diploma course. It may also have made the staff more apprehensive about failing a student because the student would have been informed of the marking criteria and would be in a
position to question the marking process. Thirdly, staff believed that an unseen written examination was far more demanding academically than producing coursework.

(iv) Organisational issues

The advent of degree status resulted in staff from the school being accountable to the franchising HEI as well as the Society of Chiropodists. Staff believed that the move to degree status had resulted in the HEI having a greater influence over the course than the professional body. They believed that the role of the professional body was unclear and in limbo. The professional body no longer appeared to have the influence and control that they had exercised over the diploma course: 'I can't believe the Society (of chiropodists) have let go of everything. I don't think they realised at the time of its inception quite what would happen. I am not sure they know what their role is now, they are trying to cling on to something' Chiropody staff 3.

The franchising of the degree course and the need for the staff to be accountable to the HEI had two main effects on the staff from the case study school:

• they had less freedom over how they delivered the degree course compared to the diploma

• they had to adopt the quality assurance requirements of the HEI.

The Society of Chiropodist laid down what subjects had to be taught and examined for each year of the diploma course but within this the staff, in each school, had had the freedom to decide how the course should be timetabled and the number of hours spent on each subject. They also, as noted earlier in this chapter, were able to include other subjects, which they believed to be appropriate. The advent of the franchised degree course changed this situation. The validation document specified, in detail, the syllabus for each module, the duration and timing of each module and how each module should be assessed. As a result staff found the degree course far more prescriptive and confining of them than the diploma: ‘It is a very prescriptive situation. I mean if you are working to a document which has got certain timetables for assessment and modules have got to, therefore, be fitted in within the semester and you have got to actually have the exam dates and all this sort of thing. Then you have less
freedom to suddenly change one week and say well I will do this work because it will be better because you have to do it in order to fulfil the criteria for the assessment which comes later on, so I think in that sense you get less autonomy' Chiropody staff 6.

Feelings of lack of control and autonomy over the course may have been exacerbated by the franchise arrangements. Staff had to work in close liaison with the other school of chiropody delivering the same degree programme. The other school had commenced the degree course a year ahead of the case study school, therefore, staff were required to visit this school, on a relatively frequent basis, to learn from their experiences.

Staff had to come to terms with a range of unfamiliar quality assurance mechanisms. The HEI had their own quality assurance mechanisms, which they implemented with the degree course. The only quality assurance mechanisms for the diploma course had been the external examiners and the quinquennial monitoring visits by the Chiropodist Board (see chapter two). The quality assurance mechanisms of the HEI involved annual reviews of the course, external examiner reports and the establishment of examination Boards and course committees. The implementation of the HEI's quality assurance policies came as quite a shock to the staff who found that their workload was considerably increased as a result: 'I mean there's certainly a great deal more monitoring. There's Boards of studies and things like that which do affect the work, we've probably increased the workload as well. The fact that you have to record marks, follow up accurately, you have to present them and do an exam board which was never the case before' Chiropody staff 6.

(v) Differences between graduates and diplomates

It is too early to comment, with any conviction, about the long term differences between graduates and diplomates. An extensive piece of research devoted to this end would be necessary. However, three indicators have been used to inquire whether, in the early days of the transition from diploma to degree, there were any perceived differences between graduates and diplomates:

• opinions of the diploma and degree students
Opinions of the teaching staff

- results of the Entwistle Learning Inventory

Opinions of the diploma and degree students. The diploma students expressed concern that the degree would attract students who were more interested in gaining a degree than a professional qualification. There was no evidence to indicate that this was true for the first cohort of the degree course. As already indicated many of the students in the first cohort of the degree course had applied believing they were applying for a diploma course. For these students, although they were pleased that they would be getting a degree, the professional qualification was as, if not more, important: 'I didn't think about going to do a degree. I just wanted to do something (chiropody) that I wanted to do and it happened to be a diploma, but then it got changed to a degree' Chiropody degree student 6. However, degree and diploma students recognised that a degree qualification had a currency in the job market that was different from that of the professional qualification. Whereas the professional qualification could be used to gain work as a chiropodist a degree qualification could be used to access a range of different types of employment outside of chiropody: 'I feel particularly about it now we have just changed over from the diploma to a degree course. Principally degrees were used to get people a job, no matter what job they were going for as long as they had a degree. It shows they have this special calibre. I think that makes a poor chiropodist, someone who is just doing it for the qualification not someone who is doing it for a profession or job at the end of it' Chiropody diploma student 2.

It is too early to comment whether degree status may in the future influence the number of graduates deciding to take up employment as a chiropodist. However, staff commented that there were students in the current first year (1993-4) who openly said they were more interested in the degree than the professional qualification. One of the net effects of degree status may be that a number of graduate chiropodists use their degree qualification to access other types of employment and thus increase the drop-out rate from chiropody.
The degree students believed there were very few differences between them and their diploma colleagues. They believed that they had been taught very similar subjects to the diploma students and by the same people who had taught the diploma course: 'It's the same teaching, it's the same staff here, the same teaching. OK it might be a slightly different syllabus but essentially we are learning the same things perhaps in a different order' Chiropractic degree student 4. Nor did they believe that they would be better practitioners than their diploma counterparts: 'I've got a degree rather than a diploma but I don't think I am coming out with any more, I don't think we will be a better chiropodist than people who have got a diploma' Chiropractic degree student 3.

Opinions of the teaching staff. Among the staff there was considerable confusion as to whether there were any differences between diplomates and graduates. Staff believed that there were few differences between their knowledge base but that there were differences in how graduates would use their knowledge base. The following quotes, from the same member of staff, exemplify the confusion about the academic differences between the two courses: 'I find this a difficult one really. I think the academic level is probably about the same. It is difficult to equate but I think it is about the same to be honest' Chiropractic staff 1.

'I think at the end of the three years they are much more critical. They will ask questions they want to know why and how. They will not just sit back and accept something. So I think at the end of the day we have probably produced a student who has a higher level of thinking' Chiropractic staff 1.

It would appear that staff believed that at one level the degree students' professional knowledge would be no different from that of the diplomates. As indicated earlier this is not surprising as there had been no major changes to the knowledge base as a result of degree status. By contrast, staff believed that because of the different aims, approaches to teaching and learning and assessment strategies the graduates would be far more questioning and critical than their diploma counterparts.

All staff were in agreement that there were differences between the clinical abilities of the graduates compared to the diplomates. They believed that the first cohort of graduates were less
clinically able and adept than their diploma counterparts: 'Quite honestly my opinion is that the students who will graduate this July will not be competent practitioners as the ones who have graduated from the diploma course' Chiropody staff 1.

'But their skills aren't I don't think quite as good as they were because its practice isn't it and if you knock out a third of the time they're there then they don't get that third for practice....I'd hate to see everybody coming out you know wonderfully academically qualified and couldn't do anything as a chiropodist' Chiropody staff 5.

Staff believed that the net impact of reducing the practice element of the course was that students did not have the time to practise and master clinical skills. On account of the reduction in practical time there was only sufficient time to show the students a particular skill rather the time necessary for the student to become proficient in that skill: 'Well they (graduates) are no bloody good at making things now because the time has gone down so much. They are not getting the practice to produce anything. They are shown it once, make it once but then they have not acquired that skill to do it if they needed to themselves. They need to practice a bit more' Chiropody staff 2. Thus it would appear that staff believed that graduate chiropodists, compared to their diploma counterparts, may have better intellectual abilities but that their clinical skills were inferior.

There was some concern among the staff as to whether practice required the type of graduate they were producing. They were not convinced that practice wanted chiropodists who would question and challenge existing practices. However, they believed that professionally it was essential, if chiropody was to improve its status, that practitioners could articulate and justify their practices to others. Staff believed that this was especially the case for chiropodists working in the NHS who were being affected by the establishment of general management, the internal market and evidence based health care.

**Results of the Entwistle Learning Inventory.** The Entwistle Learning Inventory was used to explore whether there were differences between the learning styles adopted by degree students in comparison to their diploma counterparts (see chapter three). It has already been indicated in this chapter that the focus of the diploma course was on students being passive recipients of a
body of procedural knowledge that they could reproduce in examinations. This approach is
associated with encouraging students to adopt a superficial approach to learning. By
comparison the aims, teaching, learning and assessment strategies in the degree course have
been associated with encouraging students to adopt a 'deep' approach to learning (see chapter
three). One would, therefore, expect that diploma students would score higher than the degree
students on the Entwistle 'reproducing' scale and that the degrees students would score higher
than the diploma students on the 'meaning' and 'versatile' scales.

Analysis of the ELI shows that the reverse was in fact true (Table 6.4). The diploma students
scored significantly higher on the meaning and versatile characteristics than the degree students
(see chapter three for an explanation of these terms and the scoring mechanism for the Entwistle
Learning Inventory). These results indicate that the diploma students, in comparison to their
degree counterparts, were more interested in looking for meaning in the topics covered,
attempted to relate topics to real life and developed logical and rational approaches to their
learning. By contrast, according to the results from the Entwistle Learning Inventory the degree
students did not exhibit these attributes.

Research has suggested that where professionally based courses are structured to facilitate direct
links between theory and practice, students score higher on the characteristics related to 'deep
learning' (Coles 1985, Titchen 1992). It may be that despite the desire to develop critical,
independent and autonomous practitioners the degree course was structured and delivered in
such a way that students found it difficult to make links between theory and practice. As a
result they were unable to develop a 'deep' approach to their learning. This may be due to two
factors. Firstly, it would appear that in the degree course theory received greater priority than
practice. This may have resulted in students finding it harder to make links between theory and
practice. Additionally, students may have found it difficult, as a result of the lack of time in
practice, to acquire the craft and procedural knowledge associated with chiropody practice.
Secondly, the modular structure of the degree course may have mitigated against the linking of
theory to practice. It has already been highlighted that staff believed there were too many
modules and that students were having difficulty making sense from all the separate modules
they studied. Staff identified the lack of relationship between theory and practice as a major
weakness of the franchised unclassified degree course: 'I think it was the nature of the degree
<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>MEAN with standard deviation in brackets (source Entwistle 1981)</th>
<th>MEAN OF DIPLOMA STUDENTS nos=14</th>
<th>MEAN OF DEGREE STUDENTS nos=18</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPRODUCING</td>
<td>13.51 (4.40)</td>
<td>15.36</td>
<td>14.00</td>
</tr>
<tr>
<td>MEANING</td>
<td>14.31 (4.51)</td>
<td>17.07*</td>
<td>14.78</td>
</tr>
<tr>
<td>VERSATILE APPROACH</td>
<td>29.63 (7.03)</td>
<td>33.84*</td>
<td>30.23</td>
</tr>
</tbody>
</table>

**Table 6.4** Results of the Entwistle Learning Inventory for diploma and degree students in the chiropody case study school.

* bold type indicates more than half a standard deviation from the mean found by Entwistle's (1981) study of HE students.
programme really. *I don't think there was enough integration of the theoretical content into the clinical bit* Chiropody staff 1.

**Discussion**

The preceding evaluation of the differences between the diploma and the degree courses in the chiropody case study school reveals that many changes were made to the diploma course as a result of the transition from diploma to degree. These changes are summarised in Table 6.5.

The transition from diploma to degree in the chiropody case study school led to a number of educationally based changes. However, it has to be noted that these changes did not lead to an increase in the entry requirements or extend the duration of the course.

The changes resulting of the transition from diploma to degree in the chiropody case study school are considered under the following headings:

(i) joint accreditation  
(ii) aims of the courses  
(iii) professional knowledge base  
(iv) relationship with the medical profession.  
(v) staff and students

(i) The main effect of the change from a solely professionally accredited diploma course to a degree course which was jointly approved by a HEI and the professional body was that the HEI acquired a significant influence over the initial education and training of chiropodists and that the professional body’s influence decreased. The HEI exercised considerable influence over the design and delivery of the new degree course. The degree course was designed on a modular basis despite staff’s reservations that this might adversely affect the link between theory and practice and the integrated nature of the course. The HEI required that the practice element of the course was reduced and that the teaching and assessment strategies, which had been used on the diploma course, were changed. Additionally, staff had to comply with the quality assurance mechanisms of the HEI. As a result they believed that they were more accountable to the HEI than the professional body for the new degree course. By contrast, the Society of
1. Change to the aims of the course
2. Reduction in the number of clinical hours
3. Increase in the amount of student study time
4. Introduction of a modular course
5. Removal of the basic sciences syllabus
6. Inclusion of methods of enquiry and statistics in the syllabus
7. Re-codification of the course content to reflect the primacy of the chiropodial knowledge base
8. Change from a didactic to a more student centred approach to teaching and learning
9. Students encouraged to read around the literature
10. Requirement that students reference their written work.
11. Introduction of summatively assessed coursework
12. Removal of the nationally set exam papers
13. Introduction of marking criteria for coursework
14. Implementation of the HEI's quality assurance methods
15. Requirement that students complete an in-depth critique of the literature about a topic of their choice
16. Less use of medically qualified staff to teach and assess the course
17. Chiropody staff gaining degree qualifications
18. Reduction in the number of external examiners
19. Detailed documentation of the degree course
20. Reduction in the influence of the professional bodies over the course
21. Less practice time for students to develop their clinical skills
22. Honours degree requires an empirically based research project

Table 6.5 Summary of the changes which occurred to the diploma course in the chiropody case study school on account of the transition from diploma to degree.
Chiropodist's control and influence over the course appears to have been substantially reduced. The case study school's degree course had been designed and planned in the absence, at the time, of any guidance from the professional body on issues such as the minimum number of practice hours or indicative content. The Society of Chiropodists no longer produced nationally set final examination papers or appointed their own external examiners to the course.

A secondary consequence of joint accreditation was that the degree course was documented in far greater detail than had been the case for the diploma course. It would appear that the HEI approving the degree had adopted the practices developed by the CNAA as regards course documentation. As a result, all aspects of the degree curriculum were made explicit. For the first time teaching staff had to provide full details of the syllabus and assessment strategy prior to offering the course.

(ii) It is apparent from the findings presented in this chapter that there were notable differences between the aims of the diploma and the degree courses. The diploma course focused on students acquiring procedural knowledge in the classroom which could be regurgitated in examinations and spending time in practice where they gained the practical skills and craft and tacit knowledge associated with chiropody practice. By comparison the degree course focused on students developing higher level thinking skills so that they could problem solve and undertake research. The desire was to develop autonomous practitioners who would have the skills to undertake life-long learning.

Changes to the aims of the diploma course appear to have been welcomed by the staff. They believed that the changes would be to the benefit of the para-profession and aid its endeavour to improve its professional status. Staff believed that practitioners who could problem solve, critically evaluate and undertake research would help the para-profession to develop and enhance its knowledge base as well as facilitate autonomous and independent practice. In particular staff believed that these skills would enable chiropodists employed in the NHS to cope with the many changes being introduced into the NHS as a result of the then British government's policies.
Staff were in agreement that there were no immediate changes to the core professional knowledge base. As already noted this is not surprising given that there were no new developments to the professional knowledge base. It would have been too early for any changes to the syllabus, as a result of the transition from diploma to degree, to affect the professional knowledge base. Although there was no immediate change it is suggested that there will be changes over time to the professional knowledge base as a result of the impact of degree status. Four factors are likely to lead to this change. Firstly, there appears to be less emphasis on the study of the supporting disciplines and far greater emphasis on the study of chiropody in the degree course. As noted, the basic medical sciences were removed from the syllabus and there was a re-codification of the course content to highlight the primacy of the application of knowledge to the chiropody knowledge base. Secondly, the emphasis on propositional knowledge in the degree course. Students were required to reference their work and to use research evidence. With the diploma course the emphasis was on gaining procedural knowledge. Thirdly, there appears to be far greater emphasis on developing theory rather than practice. Time for students to acquire and develop expertise in specific clinical skills was reduced. Fourthly, the degree course emphasised the importance of students developing research skills and undertaking their own research projects. The intention was that graduates would undertake research which would inform and enhance the chiropody professional knowledge base. It is impossible to predict the net effect of these changes over a period of time; it may be that these changes will lead to a strengthening of and improvements to the professional knowledge base.

The changes outlined above, with the exception of the move away from the study of supporting disciplines, have a lot in common with the features associated with knowledge in HE: propositional knowledge, valuing of theory over practice and research (see chapter one). Where there is a difference is in the emphasis in the degree course on the study of an applied and interdisciplinary subject such as chiropody. HE has historically been associated with the study of pure as opposed to applied knowledge and has emphasised disciplinary rather an interdisciplinary study (see chapter one). It is suggested that the increase in vocationally and professionally based courses in HE together with the explosion in knowledge has challenged traditional notions of disciplines and led to far greater flexibility in HE over what is considered to be a discipline.
(iv) One of the consequences of the transition from diploma to degree was that the medical profession had very little influence and control over the teaching and assessing of students. Medically qualified practitioners were no longer used to assess students in medicine and surgery. Additionally, their contribution to the teaching of these subjects was considerably reduced. It is not clear whether this was an intended or unintended consequence of the transition from diploma to degree. What is clear is that the advent of degree status led to a reduction in the influence of the medical profession over the initial education and training of chiropodists in the case study school.

(v) Staff were affected by the transition from diploma to degree in a number of ways. They had to gain degree qualifications and become socialised into HE culture and practices. Staff believed that as a result of the transition from diploma to degree they were far more accountable (to the HEI) than they had been with the diploma course. This may have been a particular factor with the chiropody case study school on account of its franchise arrangement. Staff believed that some of the changes that had been made to the diploma course had been imposed on them (modularity, reduction in practice hours) but there were many things they liked about the degree course (change in aims, content and assessment) and which they believed were necessary in order to safeguard the future of the para-profession.

As far as the students were concerned staff believed that the transition from diploma to degree had a deleterious affect on their practical skills. Additionally, the results from the ELI indicate that the aims of the degree course, as regards developing higher level thinking skills, were not being achieved. The findings from the ELI indicate that the degree students did not adopt a 'deep approach' to their learning. They suggest that the degree students had more difficulty, than their diploma counterparts, in attaching meaning to their learning. It was suggested that this may be because of the way in which the degree course had been organised together with the reduction in the amount of time spent on the clinical elements of the course.
Summary

The transition from diploma to degree resulted in many changes to initial education and training in the chiropody case study school. There were notable differences between the aims of the degree compared to the diploma. The aims of the degree course have a lot in common with the 'educative' element of initial education and training and with aims associated with degree courses (see chapter one). It is also apparent that many of the changes to the professional knowledge base reflected the values associated with knowledge in HE.

One of the major implications of the transition from diploma to degree was that the HEI had a greater influence over the degree course than the professional bodies. The Society of Chiropodist and the Chiropodist Board appear to have made a minimal contribution and had little influence over the changes which were made. Some of the changes that were made to diploma course such as the introduction of a modular designed course, reduction in practice hours and the introduction of the HEI's quality assurance mechanisms appear to have been imposed by the HEI. However, many of the changes, although they appear to be a direct result of gaining degree status (for example the change to the aims of the course and the assessment strategy), were welcomed by the staff and were seen as necessary and desirable for the future of the chiropody para-profession. To conclude that the changes to the diploma course were due entirely to the impact of the HE culture and values on initial professional education and training is to ignore their potential contribution to the professional agenda (see chapters nine and ten).
Chapter Seven

OCCUPATIONAL THERAPY: FROM DIPLOMA TO DEGREE

Introduction

This chapter compares the diploma and degree courses in the OT case study school and explores the impact of the transition from diploma to degree on staff and students. The same headings as in chapter six have been used.

(i) Gaining approval

It was noted in chapter five that the OT case study school was a private school located in the grounds of and managed by a large private psychiatric hospital. In order to achieve degree status the school had to find a HEI willing to approve its degree course. There was only one HEI in close proximity, the next nearest was situated approximately 30 miles from the school. The local HEI which was based in the PSHE and at the time was accredited by a university expressed an interest. 'A statement of Commitment' was jointly issued by this HEI and the school's management committee which agreed that each institution would maintain their independence and integrity but that the OT case study school would comply with the HEI's procedures for monitoring and evaluating academic standards and that for its part the HEI would assist the school with its moves towards degree validation. Work began on developing the degree course during the summer of 1990. One day conferences were held where staff discussed the design of the degree course and were assigned to write up particular sections of the validation document. Staff found these days useful as the course had not been reviewed since 1986 when the school had gained approval from COT for its own diploma course (see chapter two). Documentation detailing about the aims, structure, content and assessment of this diploma course had been produced; this had been a requirement of the COT. However, only three of the staff who wrote the diploma document were still in post at the time of writing the degree document. The majority of staff had been appointed since 1986. Some of them were inexperienced in course design and validation: 'It was quite a difficult time because I came into
a new post and was responsible for writing my part of the degree and I found that was very difficult. I was given a lot of help and support of course but I had to make enormous jumps during that first year' OT staff 4.

The COT were in the process of developing guidelines for schools developing degree courses but the speed of the transition to degree was such that these guidelines came too late to be of any help to the case study school. The only stipulation made by COT and the OT Board was that degree courses should comprise a minimum of 1,000 clinical hours. Staff received little external guidance and support during the planning of their degree course. The HEI provided staff with copies of their validation guidelines but gave very little other assistance or support. What help the staff received came primarily from personal contacts with colleagues within OT: 'I know they weren't given any (help from the HEI) but I also know they asked for it... there had been informal links for example, but with people who had expertise in education who were themselves OTs and personally known to people within the school. They would come in and say well things like, that in our institution wouldn't be quite right, if you rephrase it this way. It had been a personal information network arrangement' OT staff 6.

In May 1991 a validation event was held with representatives from the HEI, the accrediting University, the OT Board and COT. None of the staff, other than the Head of School, had had any external experience of such events. The staff appeared to be bemused by the whole event: 'I think that I didn't have the insight, at the time, to appreciate all of the processes that were going on or to question sufficiently what was being imposed upon us because I didn't have the educational experience' OT staff 4.

The course was not approved. The validation panel recommended that the course team spend further time developing the course and resubmit at a later date. Staff believed that the HEI, rather than the professional representatives, were responsible for rejecting the course. They thought the rejection was due to:

- lack of support and guidance from the HEI
- differences in discourse between OT education and mainstream HE
- their lack of experience of degree education
As already highlighted the staff received little guidance from the COT or the validating HEI. They believed they had been left to their own devices and because of the failure to gain approval were resentful towards the HEI. Staff believed that the HEI did not value their professional and clinical expertise. They believed that the HEI perceived the OT course as being of a lower educational level than their other courses because of its practical content: 'we felt so cross and angry... because they think we're basket making little old ladies sitting in the corner... they obviously don't value us, they don't think very much of us, they think we are not as good as them, they think we need teaching a lesson and shown how to do things' OT staff 2.

Staff from the HEI were not interviewed as part of this research so it is difficult to know whether this was correct. The HEI offered a range of vocationally related degree qualifications. It may have been that the OT staffs' perceptions were influenced by differences in culture between the two organisations. For example, differences in discourse between staff in the OT case study school and staff from the HEI was a recurring theme: 'one of the things that it was kind of thrown out for was because we hadn't got the right language and that very much came across to me as we became part of the college (HEI) because they speak a very different language and still do' OT staff 7.

'It was phrasing things in the appropriate language for the (educational) institution and to a certain extent that has been a problem all along in that the transition of language from occupational therapy education into mainstream education has been the problem so that it's been a mismatch of language and learning the new language has been a lot of trouble' OT staff 6. This implies that there were differences in jargon used by OTs based in education in comparison to that used by those from the HE sector. It would appear that these differences led to confusion and misunderstanding.

The fact that some staff did not have degrees while at the same time developing a degree course was also believed to have contributed to the failure at validation. Many of the staff had enrolled on masters courses as opposed to first degrees. Staff were, therefore, developing a course at a level of education that they had not experienced themselves: There were a limited amount of people on the staff who had degrees, therefore, they were writing programmes for a level of education they didn't understand. So there were on the one hand, one, two, three people on the
staff with degrees and the rest who hadn't got them. They were trying to pull forward a group of people to write a degree course and they didn't actually know what it was they were trying to do’ OT staff 5.

When it came to writing the re-submission document staff believed that they had to make changes to the original document so that the proposal would be acceptable to the HEI: 'we did have our own course that we had come up with but we had to compromise and we had to make changes if we wanted it validated we had to make changes' OT staff 4. Staff believed that the HEI wanted to see a greater emphasis on the theoretical as opposed to the practice elements of the course. They believed that they had to demonstrate how theory underpinned clinical practice and to make this explicit in order to get the HEI to approve the degree course: 'They were looking at the academic side and I don't think they understood the professional practice side which is why we pinned some academic assignments to the clinical practice element so that they did understand' OT staff 1. Staff regretted that alterations had to be made to the original submission. They believed that the HEI was adversely affecting the focus of the course and shifting the emphasis too much towards the academic: 'So its culture, its academia and its from within that culture that brownie points actually come, from the academic prowess. Now whilst within that culture that's fine, I think that academic prowess is only part of what actually is important within the education of the therapist and I think if that gets too strong then the emphasis of the training culture will shift. It has implications in the sort of things that we were talking about earlier, in that there is less credence put upon clinical skills, clinical confidence, clinical demands and so therefore the institution doesn't hold those as equally important, therefore, if we're not careful the students won't either. And I think that's perhaps one of the dangers of being in a big academic culture' OT staff 4.

The second validation event in February 1992 was successful and an honours degree in occupational therapy was approved. No consideration had been given to submitting an unclassified degree for approval probably because the HEI already approved an honours degree for one of the other para-professions. The validation panel agreed that retrospective validation should be awarded to students who entered the course in September 1991. Although the degree had not been approved at the first validation staff had decided to implement the degree
curriculum in September 1991. Staff had hoped that retrospective validation would be awarded as this was not an uncommon event in the validation of these new degrees.

The validation panel required, as a condition of their approval, that the school merge with the HEI within the year. The panel believed that the school would benefit from becoming an integrated part of the HEI. This was agreed to by the school's management committee and the hospital governors. Reactions among the staff to the merger were mixed. Staff believed it was necessary to ensure the survival and future of the school. They believed that following changes to the NHS and the HE sector the school could no longer survive as an independent private school. At the same time, staff believed that they would be a small part of a large HEI and as a result would lose their autonomy and independence: 'we're no longer if you like in a pond we have drained into a much bigger puddle. The result is that the niceness of OT schools is being lost... Here we have all got identities, up there we're just another number' OT staff 6.

(ii) Staff qualifications

Of the seven teaching staff in post at the time of data collection, six were state registered OTs and one was a chartered physiotherapist. Two of the staff were degree qualified (both at masters level) and two had a Certificate in Education. Prior to the advent of degree level education the COT had not required that teaching staff should be degree qualified.

The OT staff, like their counterparts in chiropody, believed it was necessary that they acquired a degree qualification in order to teach on the degree course. The HEI had stressed throughout the first validation event the need for all staff to be degree qualified. By the second validation staff without a degree qualification were either completing or currently in the process of gaining a degree qualification; three at masters and one at first degree level. Some staff believed that having a degree qualification especially at masters level gave them the confidence and credibility to teach on a pre-registration degree: 'it makes me more confident about saying things, and its purely status, purely status, I feel that well I'm doing an MA so its okay I can teach BSc honours degrees. It purely that, its dreadful really' OT Staff 2
It would appear that the HEI believed it was important that the professionally qualified OT staff were degree qualified. However, other than being encouraged to gain a degree qualification the teaching staff from the OT case study school were not given any other help or support to prepare them to teach at degree level.

(iii) Aims of the courses

The aims of the diploma course are listed in Table 7.1. The COT, as a result of its diploma '81 initiative, required that all schools make explicit the aims of their diploma courses. The aims of the diploma course focused on students developing the knowledge and skills necessary for practice. There was an emphasis on developing practitioners with a strong commitment to the OT profession and who would continue to develop knowledge and skills after qualification (life long learning) (see Table 7.1).

Staff believed that the aims of the diploma course had been associated historically with developing practitioners who were technicians and who could work well under direction (that of the medical practitioner). Diploma students were not encouraged to question their practices. Staff believed that diploma students were able to perform a range of different tasks and skills but that they would have found it very difficult to give a clear rationale why they were using these skills: *the diploma students would be able to work under direction at a level of technical competence, if you had asked them to give an explanation of what they were doing they would find it very difficult'* OT staff 1.

Over the years and especially as a result of the COT's diploma '81 initiative staff believed that the aims of the diploma course had and were continuing to evolve. One of the prime reasons for the introduction of the Diploma '81 initiative had been the belief that schools of OT needed to be removed from the shackles of a national curriculum and given the freedom to design their own courses (see chapter two). The COT believed that OT schools should have the freedom to develop and to make changes to the diploma course at their discretion. Staff believed that the advent of the degree course provided a timely opportunity for them to re-look and re-focus the aims of the diploma course. It is clear that the aims of the diploma course had evolved over time, however, when compared with the aims of the degree course differences are noted (see

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<table>
<thead>
<tr>
<th>Aims of diploma</th>
<th>Aims of degree</th>
</tr>
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<tbody>
<tr>
<td>1. Qualify students for the award of the Diploma of the College of Occupational therapists.</td>
<td>1. Enable students to gain professional recognition from COT and thereby register with CPSM.</td>
</tr>
<tr>
<td>2. Provide students with a structure of knowledge and professional skills upon which further education and development can be met.</td>
<td>2. Enable students to develop their academic and professional capacities within a climate which provides opportunity to question, challenge and investigate.</td>
</tr>
<tr>
<td>3. Enable students to function competently on qualification as an occupational therapist.</td>
<td>3. Provide students with the opportunity to set goals and decide which theories are most helpful to assist the learner achieve the goals.</td>
</tr>
<tr>
<td>4. Enable students to understand and appreciate the role of an occupational therapist and develop a clear sense of identity.</td>
<td>4. Assist students to develop the ability to relate theoretical concepts to practice and extrapolate theoretical assumptions from practice.</td>
</tr>
<tr>
<td>5. Enable each student to recognise and develop personal characteristics and attitudes required for professional practice.</td>
<td>5. Provide an opportunity for students to develop the capacity to continuously question, inquire, create, discover and evaluate personal theories of action.</td>
</tr>
<tr>
<td>6. Enable students to recognise and develop a sense of purpose and commitment to the profession of occupational therapy</td>
<td>6. Provide students with the opportunity to develop professional orientations, confidence, commitment and a professional identity.</td>
</tr>
<tr>
<td>7. Recognise the need for continuing professional development and innovation in professional practice.</td>
<td>7. Encourage the student to recognise the need for continuing professional development and innovation in practice.</td>
</tr>
<tr>
<td>8. Equip students with the skills to interpret data and undertake research and thereby increase professional knowledge.</td>
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</tbody>
</table>

**Table 7.1** Comparison of the aims of the diploma and degree courses in the OT case study school

Source:- Diploma (1986) and degree (1992) validation documents

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Table 7.1). These differences include, the ability to undertake research, question, challenge and evaluate practice, provide theoretical justifications for OT practice, problem solve and contribute to the profession's knowledge base. Staff believed that the acquisition of these skills would lead to a more autonomous practitioner. They believed that OTs of the future should be able to 'think things out for themselves' and able to practice autonomously: 'A thinking therapist which is what we wanted to produce. We didn't want somebody who was just going to follow orders. We wanted somebody that we could put on their own desert island because they could figure it out for themselves' OT staff 3.

Staff believed that the current diploma course was already attempting to achieve many of the aims associated with the degree course. The diploma students confirmed that they had been encouraged to question and evaluate their practices. They believed that their course required them to undertake background reading and to challenge and question practice and not accept anything at face value: 'Since we have started here we have always been encouraged to question textbooks and why this and why that and to get further background reading... There seems to be quite a lot of emphasis on never taking things at face value, never saying oh this person has got that condition so that is it. Always looking at the broader implications and bringing them in somewhere' OT diploma student 7.

Staff believed that the aims of the diploma course had evolved from developing technically proficient OTs towards developing OTs who could question and evaluate their practices and suggest alternative and new ways of practising. They believed that the introduction of the pre-registration degree had resulted in the opportunity to make this more explicit and to introduce the importance of research skills and research into OT practice: 'I think now we are teaching them to, I hope, we're teaching them to question and to bring in different schools of thought and to formulate their own ideas and to think for themselves as well. I think there has been quite a lot of difference. Now, I think there was a radical difference between 1974 and 1985, a huge difference for me, but if you look at the time, I think there's been twice as much difference between 1985 and 1993.... 1974 was prescriptive you did this, this and this and you had a particular client and this is what you did and you used these, these and these techniques and we were taught how to do it without thinking, you know. For someone with a stroke, this is what you did and I didn't think about it and I listened to what other people said and I copied what
other people said, so I didn't really think about it. In 1985 I think we'd gone a bit further away from that and people were encouraged to think about what they were doing. I think there were still schools of thought that we followed and said that this is the right school of thought. I think we encouraged the student to discuss the school of thought, but I don't think we necessarily encouraged the student to question a school of thought or to think very carefully about it, so I think we went from a prescriptive approach to encourage them to question a bit and to talk about a particular thing and identify why' OT staff 2.

Where the degree course differed from the diploma was in the emphasis on research: the acquisition of research skills and the contribution that research can make to professional practice. There had been minimal research into OT practices prior to the advent of the degree. None of the staff from the OT case study school had been actively involved in research. Despite this all staff believed the degree students should engage in research in order to inform and enhance the para-profession's knowledge base. The inclusion of research methodology and data analysis, into the degree curriculum, was seen as a way of equipping students with research skills so that they could undertake research post-graduation (see course content).

Staff also expected degree students to substantiate their opinions and views by referencing their written work and demonstrating that they had read the relevant literature. They believed that students should not make value judgements which could not be substantiated. The requirement for referencing had recently been introduced into the diploma and was seen as a key feature of the degree course: 'Tools for writing essays like referencing and using lots of literature and things like that and actually we hadn't really expected that. I mean we only started demanding proper referencing from about 4-5 years ago. We would have before then but I didn't know what it was. 5-6 years ago I probably wouldn't have done it myself' OT staff 2.

Two factors appear to have influenced the staffs' and students' beliefs that OT needed practitioners who could undertake research and practice autonomously. Firstly, health and social services in England were undergoing major changes. They believed that these changes questioned the need for and purpose of OT interventions and as a result OTs had to provide a defensible rationale and justification for their practices. Additionally, staff and students believed that OTs should be far more pro-active in promoting their para-profession: 'I think it is getting
more and more important that they (OTs) can justify why they are seeing someone, why they are treating them, how they are doing it, why they are doing it and where they are coming from. I think it is just all happening now because of the political changes and the uncertain future' OT diploma student 7.

'You can't have OTs as a quiet little lady sitting in the corner working with their clients. We've got to be high profile I think we've got a fight. I think we have to have the tools to fight' OT staff 5.

Secondly, staff believed that the changes to the diploma course provided an opportunity for OTs to release itself from the dominance of the medical profession. They believed that the introduction of diploma '81 had allowed OT to develop its own model of practice, distinct from that of medicine. The advent of degree status was seen as a further move in this direction: 'the process of actually changing to a degree and the years that were leading up to that and changing the thinking with Diploma '81 have actually enabled us to go away from the medical model and develop much more our own thinking' OT staff 4.

(iv) Entry requirements

The entry requirements to the diploma course had evolved through time (see chapter two). Prior to the advent of the degree course students were required to have two A levels (a minimum of two Grade Es), or their equivalent. The introduction of a degree course did not result initially in any change to these entry requirements. The first cohort of degree students were recruited to and enrolled initially onto the diploma course. As a result of retrospective validation these students were re-registered onto the degree course. A number of students from the first cohort of the degree had specifically applied to the school because it was still offering the diploma course only to find some months later that they were registered on a degree course: 'it was quite amusing that I wasn't particularly keen on doing a degree course. All the other colleges that I applied to were doing a degree at the time but I knew from the information that I got from this college that they were still doing the COT diploma and I thought well it would only be for the wrong motives that I'd want to do a degree for the kudos and I thought well that is not the right
motive ... only to be informed three months later that they were planning to have it validated as a degree' OT degree student 3.

After the first two intakes to the degree course there was a dramatic increase in the number of applications to the course: 'We would typically have for 60 places perhaps three or four times that number of applicants (240 applicants). Last year we had ten times and then it wasn't pushed fully. This year (1994) it is 20 times (1,200 applicants)' OT staff 6. Staff believed that this increase was due to the achievement of degree status and the wider publicity the course was receiving now that it was part of a HEI. Prior to the merger, with the HEI, promotion and marketing of the diploma course had primarily been undertaken by the College of OTs and the NHS. Once the degree course was part of the HEI it was advertised, along with all other degree courses offered by PSHE institutions in England, in the Polytechnics and Colleges Admission System (PCAS) handbook. Staff believed this wider publicity of the course had contributed to the increase in the number of applicants.

As a result of the increase in the number of students applying for the course the entry requirements were raised from 2 Es at A level to 2 Cs. It would appear that the entry requirements for the degree course were raised not as a result of a need to attract students with better educational entry requirements but as a means of controlling the number of applicants. Additionally, staff decided that it was no longer feasible, because of the time required, to interview all applicants. Prospective students were, therefore, invited to open days and a decision was made as to whether to offer a student a place on the course based on their application form. With the diploma course all students had been interviewed in order to assess whether they had the personal attributes required for practice.

(v) Course structure

The diploma course was of 110 weeks duration (see Table 7.2) and was structured around blocks of classroom and placement based sessions (see Table 7.3). Diploma students were timetabled between 18-20 hours per week when in school. The school had a range of facilities and equipment for students to develop and practise skills, for example, weaving and basketry. However, the majority of the practice element of the course was undertaken on placement either
<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPLOMA COURSE</td>
<td>38</td>
<td>43</td>
<td>29</td>
<td>110</td>
</tr>
<tr>
<td>DEGREE COURSE</td>
<td>39</td>
<td>39</td>
<td>38</td>
<td>116</td>
</tr>
</tbody>
</table>

Table 7.2 Comparison of the duration of the diploma and degree courses in the OT case study school

Source:- Diploma (1986) and degree (1992) validation documents
<table>
<thead>
<tr>
<th>YEAR</th>
<th>AUTUMN</th>
<th>SPRING</th>
<th>SUMMER</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1</td>
<td>2 WEEK ORIENTATION PLACEMENT AT THE BEGINNING OF THE COURSE</td>
<td>10 WEEK PLACEMENT</td>
<td></td>
</tr>
<tr>
<td>YEAR 2</td>
<td>10 WEEK PLACEMENT</td>
<td>10 WEEK PLACEMENT</td>
<td>10 WEEK PLACEMENT</td>
</tr>
<tr>
<td>YEAR 3</td>
<td>10 WEEK PLACEMENT</td>
<td>TWO 6 WEEK PLACEMENT</td>
<td></td>
</tr>
</tbody>
</table>

Table 7.3 Comparison of the scheduling and duration of placements on the diploma and degree courses in the OT case study school

Source: Diploma (1986) and degree (1992) validation documents
in the NHS or within social service departments. When on placement students were supernumerary to the normal workforce but were required to work a 37 hour week.

The following changes were made to the structure of the diploma course as a result of the advent of degree status:

a) the duration of the course was increased

b) the number of hours spent on placement was reduced

c) the timing and number of placements were changed

d) the number of hours spent on developing practical skills in school was reduced

e) the amount of timetabled study time was increased.

a) The duration of the diploma course was extended from 110 to 116 weeks as a result of the advent of degree status (see Table 7.2). The final year of the diploma course had been very short in comparison to the first and second years (29 weeks compared to 38 and 43 weeks respectively see Table 7.2). It is not clear why it was necessary to increase the duration of the course especially as the number of hours on placement and in classroom were reduced (see Table 7.4). It is probable that the increase in the amount of timetabled study time (see below) accounted for the increase in the duration of the course.

b) Diploma students spent 1,470 hours on placement. By comparison degree students spent 1,120 hours, a 24% reduction (see Table 7.4). The COT specified that all OT degree students must complete a minimum of 1,000 clinical hours. Staff regretted that the number of placement hours were reduced as a result of gaining degree status. They believed this was an inevitable consequence of achieving degree status because the HEI approving the degree placed greater value and importance on the theory as opposed to the practice aspects of the course.
Table 7.4 Differences in timetabled hours between the diploma and the degree courses in the OT case study school

<table>
<thead>
<tr>
<th>TIMETABLED TIME IN:</th>
<th>DIPLOMA</th>
<th>DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOOL</td>
<td>1,396 (48%)</td>
<td>961 (46%)</td>
</tr>
<tr>
<td>PLACEMENT</td>
<td>1,470 (52%)</td>
<td>1,120 (54%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,866</td>
<td>2,081</td>
</tr>
</tbody>
</table>

Source: Diploma (1986) and degree (1992) validation documents
c) The scheduling and duration of placements on the degree course were different from the diploma course (see Table 7.4). Additionally, the number of placements were less: diploma students attended a minimum of seven different placement centres whereas the degree students attended a minimum of four. The reduction in the number of degree course placements appeared to be the result of difficulty in gaining placements for students rather than the direct result of the advent of degree status.

d) With the advent of degree status the time spent in school on the development of specific practical skills such as basketry was also reduced. This accounts for some of the reduction in classroom based hours from the diploma to the degree (see Table 7.4). Staff believed, as noted earlier, that the HEI did not want to see extensive periods of time, in the degree course, devoted to acquiring practical based skills such as basketry. They believed that not only the HEI but also the HE sector and society in general that did not value practical skills: 'we have a society in which intellectually activities are prized more than doing. People don't want to be doing things with their hands, you know the intellectual elite do not get their hands dirty' OT staff 1.

The degree students regretted that they did not have sufficient time to acquire practical skills. They believed they were ill-equipped to go out on placement because they had not been able to practise and develop their skills prior to their placements: We’ve got a kitchen (in the school). I've only ever been in it once. It would have been quite nice to have done like kitchen assessments, mock kitchen assessments. The sorts of things that you would see on placement. I saw these things for the first time with real people, it would have been nice to have tried with other students' OT degree student 1.

e) the degree students were given more timetabled private study time than their diploma counterparts. They were timetabled on average for 12 hours per week class contact compared to the diploma students who had been scheduled for 18-20 hrs per week of class contact. Staff believed that it was essential that the degree students were given time to read around the literature and to undertake student-centred and student-led learning. They believed this was a key feature of a degree course. Staff believed that student centred learning was the main
mechanism by which students could develop skills to equip them for independent practice and life-long learning.

(vi) **Course content**

As a result of the COT's diploma '81 initiative schools of OT had considerable freedom to decide what to include in their diploma courses. The OT case study school developed its diploma course to reflect the interests and values of the staff in the school. It would appear the same happened with the degree course. As already noted, at the time of the approval of the degree course, neither the COT nor the OT Board had produced any guidelines for staff about the content and structure of the new degree courses.

Table 7.5 compares the content of the diploma with the degree course. It is evident from Table 7.5 that a number of the topic areas remained the same. Staff believed that the core OT knowledge base covered in the diploma course remained the same with the degree course: *The topic areas were given different titles but they've stayed very much the same* OT staff 4.

'I think as far as content is concerned, there is very little difference, as I said there really is very little difference even from when I trained and I think that its because that is what occupational therapy is about' OT staff 3. These comments are not surprising given that the advent of degree status did not coincide with a major change or development in the OT knowledge base. The core knowledge remained the same, nothing happened to change it during, or immediately prior to, the transition from diploma to degree. Additionally, it was probably too early for any changes to the content of the course to impact on the professional knowledge base.

Although the core OT knowledge base did not change there were differences between the content of the two courses (see Table 7.5). The main differences were:

- the inclusion of the study of research methods and statistics

- the requirement that students undertake an empirically based piece of research
<table>
<thead>
<tr>
<th>OT DIPLOMA</th>
<th>OT DEGREE</th>
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</thead>
<tbody>
<tr>
<td>BIOLOGICAL SCIENCES:-</td>
<td>BIOLOGICAL SCIENCES:-</td>
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<tr>
<td>Kinesiology</td>
<td>Kinesiology</td>
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<td>Anatomy &amp; physiology</td>
<td>Anatomy &amp; physiology</td>
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<td>Physical dysfunction</td>
<td>Physical dysfunction</td>
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<tr>
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<td>PROFESSIONAL STUDIES:-</td>
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<td>Principles &amp; practice</td>
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<td>Research skills</td>
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<td>Management skills</td>
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<td>Introduction to dysfunction</td>
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<td>Social policy</td>
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Table 7.5  
Comparison of the content of the diploma and degree courses in the OT case study school

Source:- Diploma (1986) and degree (1992) validation documents
• a greater emphasis on teaching the principles underpinning practice as opposed to specific practical procedures and skills.

Staff believed that it was essential that degree students studied methods of enquiry and statistics so that they were equipped to undertake research. They also believed that the acquisition of research skills would enable degree students to develop the skills of critical evaluation and problem solving. It was noted in the preceding chapter that the CNAA required that students who enrolled for a 'top-up' post-registration degree studied research methods and statistics (see chapter six). Staff believed it was the research project which gave the degree its honours worthiness.

Diploma students, since 1986, had been required to produce a summatively assessed final year project. Staff believed that introducing the project into the diploma course had been a means of preparing students and themselves for the advent of pre-registration degrees: 'I knew we would eventually get degrees. We had introduced projects. Our students have been doing projects here since 1983. Not very big ones but they had been doing, enquiring, investigating something of their choice...I was delighted that we had that (diploma '81) to go through because I saw it as a step to the goal of degree' OT staff 1. One has to question the academic nature of the diploma projects. The diploma students had only recently been required to reference their work (see earlier comments in this chapter). Secondly, research methods and statistics had not been studied in the diploma course. A HMI visit to a school of chiropody noted that the projects which the diploma student undertook were of a highly variable nature with an overall standard below that of final year undergraduate biology students (HMI 1989a). They specifically commented that: 'much of the experimental protocol was not statistically well founded; conclusions were not always based on valid comparisons; literature was not always critically reviewed; references were sometimes omitted and few students seemed to have learned the correct format for their notation; there was general lack of scientific precision and objectivity' (HMI 1989a).

Many of the degree students saw little relevance or purpose in undertaking an empirically based piece of research. The majority did not intend to undertake any research after graduation: 'It
wouldn't make me a better OT. I don't think other than making me think more about theoretical things. I think it's been slightly pointless... it seemed to be more or less something that the college thought was a good thing for us to do but it wasn't perceived as particularly useful. It has to be grounded in the real world and something that's going to be useful rather than research for the sake of research' OT degree student 3.

Historically, the diploma course had been associated with learning a range of practices, procedures and crafts which OTs could use with patients in the clinical situation. With the advent of diploma '81 there had been a move away from this approach towards the teaching of principles rather than specific procedures and crafts. The advent of degree status heralded a further shift in this direction. The emphasis in the degree course was on the principles behind the procedures and crafts used in the clinical situation: 'So if you are teaching now on principles people actually learn the principles of activity analysis. They should be able to take any skill and analyse it even if they cannot do it' OT staff 1.

'I think its released them (the students) from having to learn a huge amount of factual knowledge. Its taken away from them the need to learn vast amounts of practical skills because what they are learning is principles that they can apply to any practical skill they happen to develop' OT staff 5. Staff believed that if degree students understood the principles underpinning a range of activities and developed skills to analyse activities there would be no need for them to be proficient in a range of skills: 'You don't have to be an expert at something like basketry. All you needed to do was to learn how to teach it. So there wasn't this high degree of expectation of excellence if you like in craftwork' OT staff 2.

Retrospectively, staff and students believed that this belief was ill-advised and that it had adversely affected students' practical skills. The degree students believed they had a smaller range of skills at their disposal and that this influenced what they could do in practice: 'I think they've gone straight over to loads of theory and models and all this stuff and they've just forgotten about the activities. I think they're starting to realise this now. We've done sort of workshops and they say well what activity would you use and we're sort of going "eh"... we can't tell them because we haven't actually done it' OT degree student 5.
The degree students believed that staff had been over-zealous in their efforts to demonstrate to the HEI approving the degree that the course was academic. Staff recognised that the lack of time devoted to the acquisition of practical skills was a problem. They were in the process, at the time of data collection, of re-introducing more practice based sessions so that the degree students could acquire specific practical skills: *The point was that the whole course was run on the grounds that we were going to give people thinking abilities, analytical abilities, the ability to choose what to do, without giving them the technique to choose and so it was fine them (the students) saying yes, I'll use basket weaving and bunny stuffing without actually teaching them to bunny stuff and basket weave... with the first few cohorts of undergrads we assumed a higher level of expertise at their first placement and so they were in a position of saying well all that theory is fine but what do I actually do when I get one ?... we are putting more prescriptive work into the first year to give them a foundation' OT staff 6.

Other, less significant changes, were made to the content of the diploma course as a result of the introduction of degree status. These changes included:

- the inclusion of management studies
- a reduction in the content of the biological sciences syllabus
- a reduction in the content of the medicine syllabus
- a greater emphasis on the philosophy and rationale underpinning OT practice.

In the degree course management studies was included as a separate part of the professional studies curriculum. Management studies had been covered briefly in the diploma course. Staff believed that the changes that had and were continuing to take place in the NHS and social services made it essential that OT students should have a good grounding in management studies. Topics such as quality assurance, audit and organisational management were included in the syllabus. It could be argued that the inclusion of these topics reflected the growing managerialism in the NHS and social services and was not as a direct result of the advent of degree status.
In the diploma course the study of the biological sciences had extended over two years. Diploma students had been expected to have a reasonably detailed knowledge of the body's anatomy and physiology. With the advent of degree status the syllabus had been reduced and the amount of time spent on the study of biological sciences reduced from two to one years. The content of the medicine syllabus and the number of hours identified in the timetable for the study of medicine were also reduced. Diploma students had been required to learn the clinical features and pathogenesis of a range of medical conditions. With the advent of degree status the focus of the medicine syllabus, like that of biological sciences, was on the study of those aspects which had a direct bearing on OT practice: 'I think we've dropped a hell of a lot of stuff which was irrelevant. I mean we used to do medicine for medicine's sake. We used to do things like, oh I don't know, the digestive system and stuff like that which was actually totally irrelevant' OT staff 2.

The reduction in the biological sciences and medicine syllabi highlights a shift in emphasis away from the study of underpinning, subject based disciplines (which the diploma had historically been based upon). Staff believed that the degree course was designed around the theory and practice of OT whereas the diploma course had been based upon the study of the underpinning, medically related disciplines of anatomy, physiology and medicine: 'Now the core element within the course is OT and the art and science of OT which is called professional studies. The other subjects are there as a complement to them. Whereas with Dip '81 the medical sciences were actually the base and the OT was there, not exactly as an add on, but as a complement to the medical sciences' OT staff 5.

The move to degree status coincided with a greater emphasis on the philosophy and theory underpinning of OT practice. As noted in chapter two theoretical frames of reference had been introduced into the OT diploma course during the 1980s. This had been taught in the final year of the diploma course since the late 1980s. With the degree course theoretical frames of reference were introduced in the first year and became the foundation for the study of OT theory and practice. Both the diploma and degree students found it difficult to apply these theoretical frames to their clinical practice. A number of students were very cynical about their usefulness and questioned their inclusion in the syllabus: 'All these frames of reference. You have to have them but how realistic is it to use them in practice... who needs to do it, if you are out there
treat someone and you treat someone this way do you really have to sit there and think oh what model am I using now. It doesn't fit into practice' OT degree student 7.

Many students thought theoretical frames of reference had been introduced so that the para-profession could argue that there was a theoretical basis underpinning and informing its practice. They believed that if OT was to be taken seriously by other health care professions it was essential that there was a theoretical justification for OT practice: 'Frames of reference and models and approaches so that we can justify ourselves to other professionals, so that it makes us look good you know...I mean they probably look better in Doctors meetings and they can justify themselves better to consultants and physios which is almost just as important. Well it is important if we are going to keep jobs and if people are going to refer to us and we are going to be recognised as a valuable profession then that is important' OT diploma student 8.

The introduction of the COT diploma '81 initiative introduced quite major changes to the OT curriculum. It is suggested that the introduction of the pre-registration degree built upon and developed further these changes. Although the core OT knowledge base remained the same changes were made to the content of the diploma course were made. The changes which are directly attributable to the transition from diploma to degree are the inclusion of the study of research methods and statistics, the requirement for an empirically based piece of research and the emphasis on principles underpinning practice rather than the acquisition of particular clinical skills. The latter is associated with a greater emphasis on theory and propositional knowledge as opposed to procedural and craft knowledge. Staff regretted the reduction in the practice element of the course but welcomed the inclusion of research skills and the requirement to undertake research. Staff believed that these inclusions would develop a better practitioner; one whom would improve the professional status of OT and enable OTs to provide a rationale and justification for their practices.

(vii) Teaching and learning strategies

Historically the diploma course had been based on didactic teaching methods; students had been scheduled in class from 9.00 - 16.00 each day. Students were expected to make notes or take
dictation from the teachers. They were not required to undertake background reading nor were they expected to question or comment upon the material covered in class.

Since the establishment of the diploma course there had been a gradual shift away from a didactic approach. The introduction of the diploma '81 initiative coincided with a move towards student centred approaches to teaching and learning. Since 1986 staff had expected diploma students to undertake background reading and to be familiar with a range of primary source material. The diploma students were given timetabled private study time to undertake this background reading. The diploma students believed a good range of teaching and learning strategies had been used on their course and that they had been encouraged to question and critically evaluate.

The transition from diploma to degree heralded an even greater move towards student centred learning. Degree students were given more timetabled study time to facilitate this development. The number of key note lectures was reduced and students were expected to participate in tutorials and seminars and work in groups and individually. For example, theoretical frames of reference were introduced into the first year by students being divided into groups and being assigned one of the theories. Each group of students was expected to find out about one of the theories and feedback to the rest of the group. The degree students believed that this was a misuse of student centred learning strategies: 'I mean like with the models (theoretical frames of reference) in the first year. Excellent practice for us to do (student centred learning with presentations) but the actual topic they did it on. I really think they should have done it with lectures. We as students really needed that taught to us in quite some depth and in that style really because of the topic it was' OT degree student 4.

The degree students believed that there was far too much emphasis on student centred learning within their course. They believed that more time should be spent in lectures and that the teaching staff should provide far more guidance on what they had to learn: 'I don't like student centred learning to be honest, that seems to be one of the main bones of contention that the staff had with the students and vice versa. I think from the students' perspective, I'm on a few committees where we seemed to get all the gripes the students have and they'd present them to staff. It seems to be that there was an expectation that the course would have been (teacher)
learning based rather than student lead learning. One of the ongoing jokes of the course is the words "break up into small groups and discuss this" and if we're told to do this we think it is not particularly useful when all we're doing is sharing our ignorance with each other' OT degree student 3.

The following three factors appear to have influenced the staffs' beliefs that student centred learning was an essential feature of a degree course:

- their own experiences of studying for a degree;
- a belief that this was the direction education in general, and in particular higher education, was moving towards
- a belief that a student centred approach helps students to develop higher level thinking skills.

Staff believed that there was an emphasis on student centred learning in HE. Their own experiences of studying for a degree, usually a masters degree, had involved a considerable amount of student centred learning. Staff believed that student centred learning encouraged the development of independent learning skills, higher level thinking skills and encouraged students to appreciate that there were many differing perspectives to any one topic: 'in a nutshell it (degree course) taught me the difference between teaching and learning... it actually gave me the tools to go and find out things without being told them and it made me think which the diploma course, good as it was, did not make me think. It expected a right or pretty much a right answer, where as with a degree course you put forward your ideas and you argue them and see how you are thinking and there wasn't necessarily a right and a wrong answer but there were different ways of going about things... I had four hours contact, but my God I learned and that's what I think it really taught me that you could actually learn on your own if you have got the tools to do it' OT staff 5. The degree students believed staff used a student centred approach because this was the approach they had experienced on their own degree courses: 'I know they're quite keen here on student led learning.. the staff that are doing their MAs are very sort of keen on it and think it is the bees knees and it is how students should learn' OT degree student 3.
The majority of the diploma course had been taught by staff from the school. Where the staff considered it appropriate they invited in speakers from practice including medically qualified practitioners. The degree students like their diploma counterparts were taught primarily by the full-time OT staff. However, as a result of the merger with the HEI two subjects on the degree course, sociology and research methods, were taught by staff from the HEI. The degree students noticed major differences between the teaching style and content of the lectures provided by the HEI staff compared to the staff from the school. They believed that the staff from the HEI who taught sociology and research methods were better informed and able to teach to a higher level: 'she (discipline based lecturer from the college) was excellent, she was much more like the type of lecturers that I was used to (had previously studied for a non vocational degree) and very up on her area of knowledge, I mean the staff here, if one person is ill and they're not here, somebody else can stand in for them, but I get the feeling that because of that there is less specific knowledge' OT degree student 1.

The lecturers from the HEI may have been exceptionally good. It cannot be assumed all lecturers from the HEI would have been compared to the OT teaching staff in the same way. However, the students' comments are worthy of further discussion. A number of factors, other than the exceptional teaching abilities of the HEI members of staff, may account for the differences. These include the rather tenuous nature of the OT knowledge base and the lack of research into OT practices. The degree students cited both of these factors as the reasons for the differences between the staff in the school compared to the staff in the HEI: 'Unfortunately its quite a common experience here that the lecturers don't know what they're talking about and don't know what they are doing. Well they give the impression that they don't know what they are doing. It could well be that their educational training hasn't been as high a standard as it would be if they were a HE lecturer' OT degree student 3.

'Its the theory behind OT. I think its quite unstable and I think, not that I am looking for concrete facts, but I think it would be nice to have had more of a framework or guidelines to work within' OT degree student 1.

Staff made even greater use of student-centred learning strategies in the degree course than they had in the diploma course. However, the degree students were concerned that too much use was
being made of this approach and that it lacked focus and structure. It is suggested that the OT teaching staff did not have a detailed knowledge about specific aspects of the syllabus, they tended to be generalists. Additionally, due to the lack of research into OT practices staff were unable to develop their knowledge and understanding of theory.

(viii) Assessment

Historically, assessment of the diploma course involved nationally set, unseen written examinations. The advent of the COT's Diploma '81 resulted in schools being given the freedom to decide upon their own assessment strategies. In the OT case study school this resulted in the use of coursework to assess students' performance summatively. Sixty percent of the diploma course was based on formal examinations and 40% on coursework (see Table 7.6). These examinations were internally as opposed to nationally set and were internally marked and then moderated by one of three external examiners.

The advent of degree status, other than placing a greater emphasis on coursework did not result in any major changes to the assessment strategy used on the diploma course (Table 7.6). Staff had wanted to increase further the amount of coursework in the degree course but were prevented from doing this by the HEI approving the degree. The HEI insisted that there should be written, time restrained examinations within the course. This annoyed staff. They believed that coursework rather than written examinations was a more effective way of assessing students' higher level thinking skills: *The majority of staff wanted to get away from end of term exams, end of year exam... Those that were in to education research etc. said that you know it was shown that sitting somebody in a classroom for 3 hours and saying what do you know about this, what do you remember about this doesn't actually demonstrate the person's understanding and knowledge necessarily' OT staff 3. Staff believed that it was the representatives from the HEI and the medical school on the validation panel who opposed an increase to the coursework component. The HEI, who approved the degree, was accredited by a university which had a medical school. Historically, medical schools have used unseen written examinations as their main assessment (GMC 1991).
### Table 7.6 Relationship between coursework and examinations in the diploma and degree courses in the OT case study school

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<th>DIPLOMA</th>
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<td>60%</td>
<td>50%</td>
</tr>
<tr>
<td>PRACTICAL EXAMINATION</td>
<td>must pass all clinical assessments</td>
<td>must pass all clinical assessments</td>
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Source: Diploma (1986) and degree (1992) validation documents
The degree students believed that they had been over assessed because staff were not clear as to how much work should be set for an honours degree: 'the quantity of work we had in the first year was far more than I had in my first year in my first degree. I thought because they (the staff) had just changed to a degree they're not going to be able to judge you know, how much work should we be doing and what is reasonable and what isn't reasonable. There was nothing to compare it against' OT degree student 1.

The degree students like their diploma counterparts had to pass a series of clinical assessments. These clinical assessments were undertaken by practising OTs in the placement setting and did not count towards the final classification of the degree (see table 7.6). The staff believed that the validating HEI would have been reluctant to allow marks from the clinical assessments to count towards the degree classification. They believed that this was because the non-OT members of the validating panel considered that assessment of clinical skills by practising OTs was subjective and unreliable: 'In fieldwork you are only working on a pass/fail basis. We didn't go for classification on the fieldwork. I think the reason for this was bound up again with validation and the basic distrust I suspect of the ability of fieldwork educators to assess accurately and with such assessments being fairly subjective anyway' OT staff 4.

With the diploma course the pass mark for all theoretical assignments had been 50%. The pass mark was reduced to 40% on the degree course. Staff did not believe that the reduction in the pass mark effected the standards achieved by degree compared to diploma students. They believed that degree students produced a better standard of work than the diploma students.

(ix) Organisational issues

Historically, the College of OTs had considerable control and influence over the diploma course. The COT had prescribed the syllabus and produced nationally set and assessed examinations. As a result of the COT's Diploma '81 initiative each OT school had been given responsibility for the design and delivery of their own diploma course. The COT's role was to accredit the diploma course and to ensure that the quality and standards achieved were at a level commensurate with the award of state registration. Staff believed that the COT's role had changed with the introduction of the diploma '81 initiative from controller to facilitator: 'The
whole profession has grown up and I think they no longer see the need for this very tight parental control that there was around before. I think they see control being looking at standards and helping people to achieve what is necessary, helping people to develop in a way they want to develop. I think before they were very controlling, very parental, wanting to know everything about everybody and did, I think, know everything' OT staff 5.

Staff believed that the role of the COT remained the same with the advent of the pre-registration degree. However, they believed that the HEI’s role in approving the degree course and the subsequent merger with the HEI had had a major impact. Merger with the HEI was a 'double edged sword'. On the one hand it allowed the course to achieve degree status and enabled staff and students to be part of a HE culture and environment. Staff believed this was important so that they and their students could benefit from the range of facilities on offer in HE: 'And looking I think also at the way training was set up, that schools on the whole were independent, isolated, a bit precious, that they weren't in with the hubbub of education, that they weren't gaining the other things that higher education gives you over and above knowledge' OT staff 5. On the other hand staff were concerned that the merger with the HEI resulted in the practice aspects of the course being less valued than the theoretical aspects. Staff believed that as a result of the merger they were torn between meeting the professional demands placed on them by their clinical colleagues and the academic demands placed on them by the HEI. Staff found it very difficult to meet what sometimes appeared to be competing demands: 'We are immediately within an educational culture and that puts pressures on us on a day to day basis. But we equally have pressure from our clinical people who put not equal pressure, it's a different sort of pressure in that if our students don't come up to their clinical expectations, they will no longer take them on placement and without our placements we don't survive. Whilst its so easy on a day to day basis for the staff to get pulled along an academic line, the students prefer to identify themselves clinically at the moment because that's what they want to do, they don't want to be an educationalist' OT staff 5.

The OT case study school merged with the HEI shortly after the approval of the degree course. The school continued to be located in the grounds of the private hospital, however, staff believed that eventually they would be relocated in the grounds of the HEI.
As noted in the preceding chapter it is too early to comment on the long-term differences between diplomates and graduates. However, as with the preceding chapter the following three indicators have been used to inform whether there were any differences between OT graduates and diplomates in the early days of the transition from diploma to degree:

- opinions of the diploma and degree students
- opinions of the teaching staff
- the results from the Entwistle learning inventory.

**Opinions of the diploma and degree students.** The last cohort of diploma students were unhappy that they had missed out on gaining a degree qualification. Staff had told them that their diploma qualification was equivalent to a degree, however, they did not believe this. Although they had undertaken a similar course the diploma students believed that a degree qualification held a higher status and symbolic value than their diploma qualification: 'I am jealous because I missed out by a year and I am quite peeved... like we are doing the essays and everything the same as they are doing on the degree course but they are coming out with a degree and we are getting a diploma and although we are being told it is equivalent to a degree, that we are practising OTs, it is not the same' OT diploma student 1.

The diploma students believed that the degree course placed too much emphasis on theory and ignored the practice based needs of the course. As a result they believed that the degree students were not as clinically able. The diploma students regretted that the degree course appeared to value theory at the cost of clinical skills. They believed that employers wanted new recruits with good practical skills and abilities: 'I would say this, that at the moment the colleges (schools of OT) are moving more towards an academic kind of core structure .... but I think that supervisors and clinicians who are actually practising would rather have people who can do practical solutions who can work therapeutically rather than people who are developing a big theory base' OT diploma student 7.
Additionally, the diploma students were concerned that the degree course would attract a different type of student, one who was more interested in gaining a degree qualification than practising as an OT. They believed that the decision not to interview degree students was misguided because selection would be based solely on paper qualifications and how well the application form had been completed rather than taking into account the students' interpersonal abilities: 'so they cannot interview people. They have to meet different criteria. That is going to mean that perhaps people who have the personal qualities more than anything else are going to lose out, where perhaps those might be the skills they actually need... So I think that sort of the quality and the type of people we have on the course is going to change. I think it has changed to be honest with you' OT diploma student 2. There was no evidence, however, to suggest that there were students in the first few cohorts of the degree course who were more interested in the degree than the professional qualification. It may be that future cohorts from the degree course use their degree in OT to gain employment not in OT practice.

The degree students did not believe there were any noticeable differences between themselves and the diploma students. They believed that this was because the degree course had a similar content to the diploma course and that the majority of the course was taught by the same staff: 'I would say it's on the same level from what I've seen. They seemed to be learning the same things and being taught the same things' OT degree student 3.

Opinions of the OT teaching staff. Staff believed that the diploma students who had completed the diploma course during the 1980s were just as capable of gaining a degree qualification as the students who were in the first cohort of the degree course. However, they also believed that the degree course, unlike the diploma course, produced independent minded practitioners who were more confident and more willing to question existing practices. They believed that these attributes were essential for the future of OT: 'They have the ability to stand up and be counted and I think in the past one of the faults of OTs (diploma OTs) was that they were nice shy obedient soldiers but these students now have the confidence to know what they're doing... they will stand up and say I have this to offer' OT staff 5.

Staff believed that degree students were far more demanding to teach than the diploma students. They believed that this was because the degree students undertook far more background reading
and were, therefore, able to ask far more searching questions. The staff believed that they were no longer in control of the students learning. As a result they found the degree students far more challenging to teach and far less compliant than their diploma counterparts: 'I think they're more confident. I think they're more questioning. They're sods to teach sometimes. If I'd come in 8 years ago and they (students) were at their level now, no I would have sunk. I really would because they are questioning all the time and I think you have to have the confidence in yourself to be able to say well I haven't a clue, you know and discuss it. Ask them what have you read about it?' OT staff 2.

Staff believed that the degree students were less clinically able than their diploma counterparts. They believed that this was because the degree course placed too great an emphasis on the theoretical basis behind practice: 'I think they'll be better educated but on the other hand, perhaps my concern is that the course that we run now although in many ways gives them a wider education certainly fits them for things like research but I think the emphasis away from the interactive skills and the practical skills is a loss, I think we should have been more practically orientated and much less theoretical, they are very theoretical and less practically orientated' OT staff 7. Staff were very concerned about the degree students' practical skills. There was a general feeling that the degree course had focused too much on theory and had not fully prepared the students for practice: 'I'm beginning to think, oh gosh, what are we actually producing? Are we producing something that will actually do the client any good?...and saying well it's all very well you churning out these OTs who can do this (degree level study), but it is actually not working in practice. I don't think there is anything around that says whether it (the degree) is working in practice....I wonder whether in the end the good therapist will be those who actually say sod the degree. I've got it now. Let's forget about that, let's get our hands dirty and actually work with the patient and don't worry about anything else' OT staff 2. As already noted the staff had recently begun to re-introduce skills based sessions into the curriculum and to re-focus the development of students' clinical skills.

Results from the Entwistle Learning Inventory. The results from the ELI show that there were no significant differences between the scores achieved by the degree students compared to the diplomates (Table 7.7). The scores for both the diploma and degree students were within half a standard deviation of the means found by Entwistle (1981) when he undertook an
<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>ACCEPTED MEAN with Standard Deviation</th>
<th>MEAN OF DIPLOMA STUDENTS nos=26</th>
<th>MEAN OF DEGREE STUDENTS nos=29</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPRODUCING</td>
<td>13.51 (4.40)</td>
<td>12.58</td>
<td>14.38</td>
</tr>
<tr>
<td>MEANING</td>
<td>14.31 (4.51)</td>
<td>14.50</td>
<td>15.90</td>
</tr>
<tr>
<td>VERSATILE APPROACH</td>
<td>29.63 (7.03)</td>
<td>30.77</td>
<td>31.93</td>
</tr>
</tbody>
</table>

Table 7.7 Results from the Entwistle Learning Inventory for the diploma and degree students in the OT case study school.
extensive study of learning styles among HE students. The degree students scored slightly higher than their diploma counterparts on all dimensions but none of the scores were significant (i.e. more than half a standard deviation). Although there were some differences between the structure of the diploma and degree courses these do not appear to have affected the results from the Entwistle learning Inventory. In particular there were no major changes to the assessment strategy. Changes to assessment strategies have been shown to influence learning styles (Entwistle & Tait 1990). It may be for this reason that there were no significant differences between the learning styles of the diploma and degree students.

**Discussion**

There are many similarities but few differences between the diploma and degree courses in the OT case study school. The differences between the diploma and degree courses are far less than those between the diploma and degree courses in the chiropody case study school. It is suggested that this is because of the implementation of the COT's diploma '81 initiative, an event which preceded the establishment of the degree course. The diploma '81 initiative appears to have set the scene and prepared the OT case study school for the introduction of the degree course. The similarities and differences between the diploma and degree courses in the OT case study school are summarised in Table 7.8. Of particular note is that the entry requirements were the same for both courses. The entry requirements for the degree course were eventually raised, not for educational reasons but because of an increase in the popularity of the course.

The impact of the changes from diploma to degree on the initial education and training of OTs in the case study school are considered using the following headings:

i) accreditation
ii) aims of the courses
iii) professional knowledge base.
iv) relationship with the medical profession
v) staff and students
Similarities:-

1. entry requirements initially remained unchanged
2. the core OT knowledge base remained unchanged
3. the assessment strategies remained unchanged
4. there were no differences in the learning styles adopted by the diploma and degree students
5. both the diploma and degree courses were documented in detail.

Many of the developments which had been initiated with the 1986 diploma course were built and expanded upon in the OT case study school's degree course. This included

1. a further move away from the influence of medicine on curriculum design and syllabus
2. a greater emphasis on theoretical frames of reference
3. a greater emphasis on the teaching of principles as opposed to specific practices and procedure
4. a greater emphasis on student-centred and student-led learning
5. a greater emphasis on OT theory and practice as the core discipline rather than the cognate disciplines upon which OT has been historically based.

Differences:-

1. the introduction of research methods and statistics into the curriculum
2. the requirement for final year students to undertake an empirically based piece of research
3. valuing of theory and less emphasis on practice.

Table 7.8  Similarities and differences between the diploma and degree courses in the OT case study school.
i) The change from a solely professionally accredited diploma course to a jointly accredited degree course does not appear to have significantly affected the role of the COT in the initial education and training of OTs. However, joint accreditation resulted in the HEI gaining considerable influence and control over the new degree course. The HEI directly influenced the design and delivery of the degree course, for example, it was instrumental in reducing the practice element of the course, requiring that staff from the HEI teach certain elements of the course and preventing a greater emphasis on the summative assessment of coursework.

The major outcome of the joint accreditation was the merger of the OT case study school with the HEI. This resulted in a loss of the school's independence. Staff became employees of the HEI and had to comply with all its internal procedures. As a result staff believed that they were far more accountable to the HEI than to the COT for the degree course.

ii) There were some differences between the aims of the diploma and degree courses but these were not as great as those in the chiropody case study school. The implementation of the COT's diploma '81 initiative resulted in changes to the aims of the diploma course that were reflective of the aims traditionally associated with degree education and the 'educative element' of initial education and training (see chapter one). The introduction of the degree course led to a further enhancement of the diploma aims. It is very clear that staff wanted to develop practitioners who would be able to practice autonomously and who would make a very positive contribution to the further development of the OT para-profession. In particular staff believed it was important to develop practitioners who could provide a rationale for and justify their practice. Staff believed that the development of these attributes were essential if the para-profession was to develop autonomous and independent practitioners who could provide a rationale and justification for their practices.

iii) Staff believed that the degree course would develop practitioners who would not be reliant upon the medical profession. It is evident from the OT case study school that staff wanted to reduce the influence of the medical profession achieve greater independence in practice (see chapter five). The aims of the degree course and the changes to course content
were linked to the achievement of these goals. How the degree course would achieve the goal of independence from the medical profession was not clear from the study findings.

Unlike the diploma course in the chiropody case study school representatives from the medical profession made a minimal contribution to teaching on the OT diploma course nor were they involved in the assessment of OT students. This situation continued with the degree course. Additionally, the transition from diploma to degree was used as a vehicle to reduce the medically based focus of the syllabus. The syllabus of the degree course reflected the primacy of the social sciences applied to OT practice rather than a medical focus.

iv) Staff did not believe there were major differences between the professional knowledge base studied in the diploma course compared to the degree course. The same factors suggested for this finding in the chiropody case study school appear to be responsible. However, as with the chiropody case study school, it is probable that the transition from diploma to degree will impact on the professional knowledge base in the future. Firstly, because of the emphasis on research and research skills in the degree course. This may lead to the development of a research base which informs clinical practice and enhances the theoretical base of OT. Secondly, because of the emphasis on propositional knowledge in the degree course. An emphasis on propositional knowledge could enable OTs to substantiate and provide a theoretical justification for their practices. Thirdly, because of the emphasis on theory rather than practice may lead to the development of a more robust theoretical base than at present. Fourthly, because there is less emphasis on the study of the supporting disciplines and far greater emphasis on the study of applied knowledge related to OT. In particular, there is a move away from the study of medically related subjects and a focusing on the social sciences. These developments may have the effect of enhancing the OT professional knowledge base.

v) The main impact of the transition from diploma to degree on staff was the merger with the HEI and their loss of independence as a private school. Many of the staff regretted these changes but believed that it was the price that had to be paid for degree status. As regards the diploma and degree students there appears to be few differences between them. The ELI showed that there were no differences in their approaches to learning. However, staff and students believed that the degree students, as a result of the changes to initial education and training,
were more questioning and challenging but that they had fewer practical skills and were initially less clinically able.

Summary

There were far fewer differences between the diploma and degree courses in the OT case study school than there were between the diploma and degree courses in the chiropody case study school. It would appear that, as a result of the COT’s diploma ‘81 initiative, many of the changes associated with degree education had been introduced into the OT case study school prior to achieving all-graduate entry. The joint accreditation of the degree course resulted in the HEI gaining considerable influence and control over the initial education and training of OTs. Although staff regretted some of the changes to the diploma course that had been demanded by the HEI, such as the reduction in the practice component, they believed that many of the changes, such as a greater emphasis on student centred learning, on the principles and theory underpinning practice and on research, would have a positive effect on the professional status of OT and would serve to reduce the influence of the medical profession over OT practices (see chapter ten). They also believed that the degree course would develop practitioners who could provide a rationale and justification for their practices. The main impact of the transition from diploma to degree on the staff was the merger with the HEI. Staff believed that this merger was necessary to the future survival of the school but that at the same time it reduced their independence and control over the initial education and training of OTs.
RADIOGRAPHY: DIPLOMA TO DEGREE

Introduction

This chapter explores the differences between the diploma and degree courses and the impact of the transition from diploma to degree on staff and students in the radiography case study school. The same headings have been used as in the preceding two chapters.

(i) Gaining approval

Once the Regional Health Authority gave permission for the radiography case study school to develop a degree course the Head of School approached the local university. The university seemed an ideal choice; it was located adjacent to the school and had a medical and dental school. The staff believed that a greater kudos would be attached to a university as opposed to a CNAA degree and were, therefore, supportive of this approach. The head of school's informal approaches were re-buffed. Staff believed that this was because the university considered radiography was not academically suitable for a degree course: 'I think we were not big enough, it was not considered to be academically recognisable, a degree in radiography...I think the PAMs are seen very much as not really being degrees and because they have a medical school and there is that hierarchy which there isn't at the polytechnic' Radiography staff 2.

Having been turned down by the university the Head of School approached a local PSHE institution which was situated approximately four miles from the school. This HEI already approved degrees for other PAMs and was willing to be involved in approving a degree in radiography. Staff believed that this was because it would enable the HEI to increase its student numbers as well as to increase its profile of health courses. In retrospect, although staff were disappointed that the university would not consider approving a degree in radiography they believed that they had fared much better linking with a PSHE institution: 'Well originally we felt that the university being a university would be ideal, especially as we were so close, but they
were not interested at all and the poly (PSHE) I think was second best. Now having gone through the system the poly environment which is still there, even though it is now a university, was much more conducive to having students and vocational courses, so it was the right thing’ Radiography staff 4.

Staff believed that the PSHE institution was far more sympathetic to and appreciative of the requirements of professionally based courses than the university. They also believed that the PSHE institution gave them far more support in gaining approval for the degree than they would have received from the university: 'the (old) universities have come late to things like quality assurance and even validation. The CNAA influenced the polytechnics so they have a much more developmental approach to things and their attitude to clinical work is in general better. I think in general it is more difficult to get clinical work regarded as an integral part of a degree in the universities and not something you add on, or pop out to do in your break time....I also think there is much more of leaving you to get on with and leaving you in your own nest, rather than developing it in partnership and learning from others' Radiography staff 1.

Staff in the school commenced the planning of their degree course in November 1991. None of the staff had any previous experience of either of these activities. They had not been involved with the design of the diploma course nor had they been required to produce any documentation related to the diploma course. As noted in chapter two the College of Radiographers had been solely responsible for the syllabus and assessment of the diploma course. Staff believed that they were the experts in their subject area but that they were not experts in designing a degree course or writing a validation document in a manner which would be acceptable to a HEI: 'I used to say they need us as much as we need them. They want courses and you know we have our strengths as well as they have got their strengths. Our weakness really, our main weakness, was not knowing what the system was but we knew we were the experts in our subject areas' Radiography staff 3. The staff received help and support in designing the degree course and in writing the validation document from staff from the HEI. The HEI appointed three staff to the course development team, one of whom was appointed the co-ordinator. The course development team established syllabus working groups with membership from the radiography teaching staff and the HEI. The radiography staff welcomed the support from the HEI and thought that the planning arrangements worked very well: 'I was personally a bit apprehensive
having to work with true academics and in fact it has never turned out to be the case. They have been very supportive. They have been very helpful in getting us, without them having to do anything specific, to think about different ways to deliver the course. And because they were involved right from the start and all the school staff, clinical tutors and clinical staff it has actually worked extremely well' Radiography staff 2.

The College of Radiographers produced brief guidelines for radiographers involved in designing degrees course (1990a). These guidelines were not prescriptive. They contained no specific pre-requisites for clinical training, such as the minimum number of clinical hours. The guidelines suggested the subjects which should be covered but did not provide details of the content nor how the subjects should be delivered and assessed. Some staff found it difficult to make the shift from delivering a nationally prescribed course to designing their own degree course: 'They prepared (The College of Radiographers) quite a nice guide of the sort of things one needed to consider. It was not prescriptive, which of course all previous publications had been, which I think a lot of people in radiography found quite difficult as a lot of people in radiography had that mentality up until quite recently and were saying what is the College doing about this, whereas it was that change in philosophy, you develop we will support' Radiography staff 1.

The degree course was planned and the validation document written within a relatively short period of time (November 1991 - April 1992). The validation event was held in April 1992. The panel comprised representatives from the Radiography Board, the College of Radiographers and the HEI. Staff were very positive about the whole event. They were pleased that they had been able, with support from the HEI, to design their own degree course and put it forward for validation: 'It was quite enjoyable in a way because it proved to us that we had designed the course right from the start. We looked at what we wanted and then worked backwards kind of thing. We looked at what a radiographer would need and worked backwards. It made us defend what we had done and why. It actually gave us ownership of the course. This was something we had done and this was why we had done it. I mean it (the validation event) was fairly grilling, we had to explain this, that and the other. There were quite positive comments at the end' Radiography staff 5. The validation panel approved a BSc (Hons) in Radiography.
Just prior to the validation the Regional Health Authority and the HEI signed an agreement with the following terms:

- the degree students would be students of the PSHE
- the PSHE would deliver and assess 20% of the degree programme
- the school would comply with all the quality procedures of the HEI
- students would be taught for two days of the week on the HEI site.

The impact of these requirements is discussed in detail later in this chapter. Staff from the radiography case study school were not entirely happy with these requirements but believed that they had to comply with them to gain approval. In 1995, as a result of a national policy which required that all NHS based radiography schools merge with an HEI, the radiography school merged with the HEI which approved its degree.

(ii) **Staff qualifications**

At the time of the validation there were seven full-time radiography lecturers and five clinical tutors (three full-time and two part-time). All the full-time radiography lecturers held the Higher Diploma and the Teachers Diploma of the College of Radiographers. The College of Radiographers required that all full-time radiography staff teaching on the diploma course should be qualified to this level. The College of Radiographers did not require that radiography qualified teaching staff should be degree qualified.

Staff, like their counterparts in chiropody and OT, believed that they needed to be degree qualified if they were to teach on the degree course. Two staff had enrolled with the OU in the early 1980s because they believed that radiography would eventually achieve degree status and wanted to prepare for this eventuality: 'I started an Open University degree because I knew degrees were coming on line and that all teachers at that time would be expected to have a degree' Radiography staff 4. Staff were told by the HEI approving the degree and by the Head
of School that they would need to be degree qualified if they wanted to teach on the degree course: 'It was put to us that if we wanted to teach on a degree course then you had to have a first or higher degree yourself' Radiography staff 3.

By the time of the validation four of the seven full-time staff were degree qualified; one at masters and three at first degree level. All these degrees had been obtained relatively recently, between 1989-1991, and were in related subjects areas such as education, biology and physics. The remaining three full-time lecturing staff were enrolled on first or second degrees. Staff found studying for their degrees to be a valuable experience and one which they considered helped to prepare them for teaching on the degree course. They believed that studying for a degree qualification gave them experience of the process of studying for a degree and undertaking a research project: 'It was excellent, it took me a while to get through to myself that they were not going to teach me things or tell me things and that was actually a very useful exercise but it did take me a while to twig, 'oh its me that is doing it'. They are guiding me through it..... the process of education and having to do some research myself, you do need that experience if you are going to supervise students.... once you have been through the process yourself you have a bit more background for being there, you can say to the students and say to yourself, well I have done it as well' Radiography staff 2.

(iii) Aims

The College of Radiographer's diploma course document (College of Radiographers 1981) lists the aims and objectives for each specific subject covered in the course, e.g. radiographic photography and imaging processes. However, it does not contain aims for the course as a whole. It is probable that the College of Radiographers saw no purpose or need to state aims and objectives for the diploma course. The diploma course had been developed outside of the HE sector (see chapter two), therefore, there was no requirements to comply with the requirements of educational organisations such as the CNAA.

The aims and objectives for each subject in the diploma course were couched in terms such as describe, understand, carry out, effectively use. The emphasis in the diploma course appears to have been on students mastering a body of knowledge which they could regurgitate in unseen
written examinations. The staff equated the diploma course with training technicians, albeit that the knowledge base was complex and of a high academic level. They believed that the diploma students were passive learners because of the emphasis on rote learning factual knowledge. Students were not encouraged to question and challenge the knowledge they were learning nor were they required to take responsibility for their own learning. Staff compared the diploma course unfavourably with OU courses where the emphasis was on student centred learning and encouraging students to question and to think critically: 'The Open University teaches by answering questions and problem solving all the time. It gives you these self-assessed questions and this is how you learn. With the diploma course it is a matter of learn this, learn this and see if it comes up in the exams' Radiography staff 3.

The diploma students concurred that the focus of their course was on learning factual information provided by the lecturers. They did not believe that there was a need to read around the literature, in fact they believed that this type of activity was no help to them in their endeavour to prepare for the written, unseen examinations: 'The journals do not give you so much of the actual information that you need to regurgitate in an exam. They give you background and updated knowledge you know on the latest things, the latest technology and case histories. They are very interesting to read but for what we need to learn for the diploma it is the set theory that you have to know' Radiography diploma student 5.

Diploma students and staff believed that much of the knowledge covered in the diploma course was redundant and had been superseded by technological developments: 'I mean my husband is an electrical engineer and he was astounded at some of the stuff I was having to learn because it is obsolete. The tutors will tell you this as well and that they are teaching you stuff that is obsolete. I mean we have had a new digital angiographic suite just put in and we have only scratched the surface of digital technology. Everything has moved on so quickly since computers came in and we are a bit behind' Radiography diploma student 5. Staff believed that they were bound by a nationally prescribed and assessed curriculum and because of this were prevented from making changes. They believed that they had to cover all the topics listed in the diploma syllabus just in case they came up in the nationally set examinations: 'You couldn't afford to leave anything out as it might come up in the examinations' Radiography staff 3.
It has already been noted that the radiography staff wanted degrees because they believed that it would remove them from the shackles of an externally driven syllabus (see chapter five). Staff believed that the nationally prescribed diploma course prevented them from being innovative and initiating change. They believed that the diploma course restricted students and made them comply with a particular approach to education, that of learning by rote factual information much of which the students did not fully understand: 'My opinion of any course which is externally dominated is that your creative skills are nullified and are contained within the mould and the shackles of whatever that external exam is' Radiography staff 7.

The aims of the degree course are listed in Table 8.1. There were three main differences between the aims of the degree compared to the diploma course. These are summarised as follows:

- The development of students with higher level thinking skills, e.g. critical thinking, analysis, problem solving. Associated with this was a desire to develop active as opposed to passive learners.

- The need for graduates to develop research skills so that they could undertake research and, therefore, inform the radiography knowledge base.

- The development of practitioners who could respond to increasingly complex technological changes.

The rationale and aims of the degree course emphasised the need for students who could question, challenge and critically evaluate their practices. Staff believed that the acquisition of these skills was necessary if radiographers were to be able to provide a rationale and justification for their practices. They believed that the diploma course had not developed these important skills: 'A degree means that a person has, at a particular initial level, some foundation level of understanding based on knowledge. That at another level of understanding that knowledge could be developed in a more diverse way and at a further level of understanding students could select or justify the strengths and weakness of a particular concept and justify its purpose. That was not the case with diploma. With the diploma they had
1. Establish the knowledge and skills required to achieve the level of competence required by the relevant professional and registration bodies for professional practice as a radiographer.

2. Encourage a critical and evaluative approach to both the theory and practice of radiography.

3. Establish the personal skills, confidence and managerial competence required to establish a career in a caring service.

4. Through the study of radiography and supporting disciplines to develop the intellectual and practical skills to provide the basis for further research and additional responsibilities.

5. Provide an academic base required for progression to study and implementation of specialised fields in post graduate education programmes.

Table 8.1 Aims of the degree course in the radiography case study school

Source:- Degree (1992) validation document
information in and information out but could do little with it and understood little about it'
Radiography staff 7.

Staff believed that associated with the development of these skills was the need for students to be active as opposed to passive learners. They believed that active learners would be better equipped and far more able to problem solve: 'For the degree course we are trying to instil into students the ability to find things out for themselves to challenge things and not just to learn what we tell them and reproduce it in some way and apply what they see in books to what they do in practice' Radiography staff 2. 'Compared to a diploma I would imagine that well really its a lot more free thinking and sort of working by yourself and sort of making decision for yourself instead of being spoon-fed the information. As I say you know more free thinking about the subject' Radiography degree student 1.

Degree students were actively encouraged to read the literature, reference their work and to incorporate what they had learnt from the literature, especially research based literature, into their clinical practice. This had not been required in the diploma course: 'How to get knowledge about certain things rather than having to learn lots of radiographic techniques which are obviously important but most of these things are learnt in clinical practice' Radiography staff 4.

'In a nutshell, the diploma course, you're teaching students to pass an exam albeit that a lot of it (the knowledge) is useful, but you were teaching them to pass an exam. For the degree course we are trying to instil into students the ability to find things out for themselves, to challenge things and not just learn what we tell them and reproduce it in some way and to apply what they see in books to what they do in practice' Radiography staff 2.

Staff believed that the inclusion of research methods and statistics and the requirement for an empirically based piece of research were key features of the degree course. They also believed that it was important that radiographers undertook research in order to inform and enhance the radiography knowledge base: The main difference that I could see was that the first degree, always from my experience, has to have a research component. As a consequence everyone has got research methods under their belt. Whereas with the diploma we did not have anything like
that because we never had the reason to do research. I suppose with the profession going to expand people did perhaps ought to have a wide research base' Radiography staff 3.

Staff believed research skills were a useful means of developing problem solving skills. Degree students were expected to develop 'a reflective research-based approach to problem solving in the "real world" of the modern imaging department' (degree validation document 1992). Staff believed that it was essential that degree students undertake research which will add to the knowledge base of radiography so that in the future radiographers could take on some of the roles and responsibilities currently undertaken by radiologists: 'I think we need to push the profession forward and we need to be able to take on some of the roles that radiologists do so we need that background (research) that degrees give you which the diploma does not' Radiography staff 6.

Radiography practice is particularly affected by rapid technological changes (Quick 1992). Staff believed that it was essential that future radiographers should be able to adapt to changes in practice brought about by technological developments. They believed that a degree course would enable them to facilitate this aim. Staff believed that the degree course would be far more flexible than the diploma course and that the curriculum would evolve to reflect new knowledge and technological developments. They believed that degree students should be taught principles rather than specific procedures.

There are some noticeable differences between the aims of the degree compared to the diploma. Staff believed that the diploma course prepared radiographers to be technicians whereas they associated the degree course with an 'education' where the emphasis was not on telling students how to do something but in developing students who could work things out for themselves: 'I really do believe that the diploma course was training people to do something. You did have some individuals who would then go on to develop things. My hope is that with the degree course, we are ensuring that they can do what they have to do, but I hope that we are ensuring that we are educating as opposed to training. That they will be able to change things, not to react to change but to promote change because it is a changing world. I don't think that training people prepares them to do this. A diploma training is limiting, it does not help people to show they can do something else. The degree is a different education process. In the past in
clinical meetings with surgeons etc. you would not find radiographers daring to speak whereas I think just the learning process they go through will help them, (the degree students) to stand up and do that sort of thing' Radiography staff 1.

Some of the aims of the degree course (the need for critical evaluation, research skills) have a lot in common with the aims of the 'educative' element of initial education and training and degree level education (see chapter one). However, it is also clear that the aims of the degree course reflect the desire for a practitioner who would be able to enhance and improve the social status and market position of radiography as a result of these skills: 'The profession is changing in that radiographers are being given more responsibility. The extended role has been talked about for a number of years. It takes a long time because you are still working with radiologists who are the doctors who report on the radiographs and they still have a fair bit of control in some departments. I think degree status will make a difference. The degree has enabled the changing role to happen more easily. It has facilitated it' Radiography staff 2.

(iv) Entry requirements

The entry requirements to the diploma course were two 'A' levels (grade E or above) or their equivalent, for example, BTEC or Access qualifications. Historically, students recruited to the diploma course had been school leavers with A levels. However, by the late 1980s the number of mature students applying had increased. This change reflects national changes in the age profile of students accessing HE courses (Keates 1994). Staff believed that the entry requirements and the age profile of students recruited to the last few cohorts of the diploma course were very different from those of students recruited during the 1970s and early 1980s: 'In fact the type of student we recruit now has relaxed. We are not constrained by the College of Radiographers. We take mature students who don't have the educational background but who can demonstrate certain life skills. We take students who had no exams at school but who have gone on to take an Access course as a mature student. It is actually much more open I think' Radiography staff 2.

No changes were made to the entry requirements as a result of the introduction of the degree course. Staff believed that those entering the first cohort of the degree had slightly lower entry
qualifications than those who had been recruited to the diploma course during the 1970s and early 1980s. Two reasons were suggested. Firstly, approval of the degree course had not been achieved until May 1992. This had delayed publicising the degree course. Many of the students who enrolled onto the first cohort of the degree course had applied thinking the course was at diploma level. Secondly, there was a lot of competition for students from other schools of radiography already offering degrees: 'For our first intake to the degree course, because the course was not validated and was not in the PCAS handbook. If we had very rigid entry requirements we would have had great difficulty recruiting. I am not saying we would have taken people who were not appropriate, I mean they are doing quite well' Radiography staff 1.

Promotion and advertising of the diploma course had primarily been the responsibility of the NHS, the College of Radiographers and schools of radiography. By contrast, the degree course was advertised along with other courses offered by the HEI in the PCAS handbook. Staff believed that the appearance of the radiography degree course in this handbook resulted in a very noticeable increase in the number of applications to the course: There have been a lot more because of PCAS. Last year (1994) we had 350 applicants for 25 places (in previous years the school had received approximately 200 applications). We interviewed about 150 and offered 110 places and we landed bang on 25, a lot of them were conditional. We only ask for 2 Ds' Radiography staff 3. As a result of this staff were considering increasing the entry requirements. They believed that this would be necessary in order to reduce the number of applications they had to process and interview. The potential increase in the entry requirements to the degree course was not, however, seen as necessary for academic reasons.

(v) Course structure

The diploma course was based around an extended academic year, students were timetabled for 46 weeks per year (see Table 8.2). The diploma course comprised classroom and practice based elements. The classroom element of the course was delivered in the school while the practice element was undertaken on placement. Diploma students spent two out of every three weeks on placement in hospital departments, the other week was spent undertaking classroom based activities. They were assigned to one hospital for the duration of the course and would only gain experience at another hospital if there were specific experiences that the host hospital could
Table 8.2  Comparison by year of study of the duration of the diploma and degree course in the radiography case study school.

Source:- Diploma course document (College of Radiographers 1982) and degree validation (1992) document plus data from interviews with staff in the case study school.
not provide. During their placement experience students were supernumerary. The diploma course was divided into two parts. Part One ran concurrent with the first eighteen months of the course and Part Two from eighteen to thirty six months.

Five changes were made to the structure of the diploma course as a result of the advent of degree status:

- reduction in the duration of the course
- reduction in the number of hours spent on placement
- alteration to the sequencing of placements
- an increase in the amount of timetabled student study time
- the introduction of a modular course.

**Reduction in the duration of the course.** The advent of degree status resulted in a reduction of the duration of course by eight weeks (see Table 8.2). The reasons for this are not clear.

**Reduction in the number of hours spent on placement.** Degree students spent 1000 hours less on placement than their diploma counterparts (Table 8.3). This may have been the reason for the reduction in the overall length of the course. Seventy percent of the diploma course had been spent on placement whereas degree students spent 51% (see Table 8.3). Staff believed that this 29% reduction was a direct consequence of achieving degree status. The HEI had insisted that students should not spend greater than 50% of the course on placement: 'getting the 50:50 split between clinical and theory was difficult. From the university's (change in status from polytechnic to university in 1992) point of view they were very reluctant to let go of too many theory hours' Radiography staff 3.

The College of Radiographers had not stipulated, for either the diploma or the degree, the minimum number of placement hours. Their only requirement was that all students, on
Table 8.3  Comparison of the ratio of theory to practice and number of hours in clinical practice in the diploma and degree courses in the radiography case study school.

Source:- Degree validation (1992) document and data from semi-structured interviews with staff.
qualifying, must have taken a minimum of 1,000 X rays\(^1\). The staff were unhappy about the reduction in the number of placement hours but believed that this was the price they had to pay in order to gain degree approval. They believed that the HEI placed far more value and emphasis on the theory as opposed to the clinical elements of the course.

**Alteration to the sequencing of placements.** Not only were the number of hours on placement dramatically reduced but the scheduling of the placements was also changed. Diploma students attended placement for two out of every three weeks. By contrast, the degree students were timetabled for blocks of placements (see Table 8.4). Whereas diploma students' placement experience commenced after the first week of the course degree students did not commence their first placement until the spring term of the first year. The HEI encouraged the radiography staff to adopt this approach. This was motivated by a belief that it was necessary to cover a sufficient amount of classroom based study prior to students attending placement. It would also appear that the scheduling of blocks of placement was how other degrees for health professions, within the HEI, managed their placements.

The degree students did not like the block placements. They would have preferred more frequent but shorter periods in placement so that they could better relate classroom based study to practice: *'I would have shorter periods in department. Its better to have a short academic period and then go and put it into practice and then go back again. Doing it that way rather than for instance the whole first year was all academic apart from 4 weeks'*. Radiography degree student 1. *The clinical blocks in and out are too long. You lose your confidence. You don't forget but you can be out for so long the department's completely changed. I got back and there was a new waiting room'* Radiography degree student 3.

**Increase in the amount of timetabled student study time.** The diploma students were given minimal timetabled private study time. Staff believed that it was expected, both by the HEI and the degree students, that there would be timetabled study time in the degree course. Study time was believed to be essential if students were to have the time to read the literature and to adopt

\(^1\) This requirement was under review by the College of Radiographers at the time of data collection.
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<thead>
<tr>
<th></th>
<th>DIPLOMA</th>
<th>DEGREE</th>
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<tbody>
<tr>
<td><strong>YEAR 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUTUMN</td>
<td>One week in classroom and two weeks on placement.</td>
<td>4 WEEK PLACEMENT</td>
</tr>
<tr>
<td>SPRING</td>
<td>Students started placement after one week on the course</td>
<td>8 WEEK PLACEMENT</td>
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<tr>
<td>SUMMER</td>
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<tr>
<td><strong>YEAR 2</strong></td>
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</tr>
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<td>Same as year one</td>
<td>19 WEEK PLACEMENT</td>
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<td>SUMMER</td>
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<td><strong>YEAR 3</strong></td>
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<tr>
<td>AUTUMN</td>
<td>Same as year one</td>
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<td>5 WEEK PLACEMENT</td>
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</tbody>
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Table 8.4 Comparison of the organisation of placements in the diploma and degree courses in the radiography case study school.

Source:- Diploma course document (College of Radiographers 1982, degree validation document (1992) and data from semi-structured interviews with staff
student centred learning techniques. Because of the diverse forms in which the information is presented it is impossible to get a concise picture of the extent of the degree students' study time. What became apparent from interviews with the diploma students was that they had been very heavily timetabled when in school; 9.00 - 16.00 every day. In comparison the degree students had not been timetabled for classroom sessions for all this time. They had been given some timetabled study time. However, the degree students believed their allocated study time was insufficient when compared with other, especially non-vocational degree courses.

**Introduction of a modular course.** The degree course had initially been designed as an integrated course but very shortly after approval was changed to a modular structure. The HEI had decided that all its courses would be based on a modular structure. This change was not welcomed by the staff: 'In one way we worked very hard to do that (produce an integrated course) and then of course everyone was going round modularising courses and we have had to go that route. The faculty went modular so we had to go through another validation' 'Radiography staff 1.

Staff believed that the HEI's move to a modular approach was influenced by a desire to make financial savings by encouraging different courses to share modules and thus reduce teaching costs. In converting the course to a modular system staff were restricted to the size and content of the modules that they could offer. This in turn restricted the content that could be put into each module and acted as a constraint on the design of the course. Staff believed that as a result of the introduction of a modular approach the degree students had to study some modules that were not entirely relevant to radiography: 'One feels perhaps the universities have got these courses (modules) on their shelves and they have just dusted them off. It does not seem as though they are always being related to the needs of the course. They do take up time that perhaps could be better spent doing subjects that they can relate to more' Radiography staff 3.

The advent of degree status resulted in a number of quite major changes to the structure of the diploma course. The motivation and rationale for these changes appears to have originated from the HEI rather than the radiography staff. The HEI were instrumental in reducing the number of placement hours, increasing the amount of timetabled study time and in enforcing a modular structure onto the course.
(vi) Course Content

As already noted the syllabus for the diploma course had been prescribed in considerable detail by the College of Radiographers. Staff welcomed the advent of the degree because it provided an opportunity for them to take out a lot of the redundant material and to incorporate new ideas and topics: 'Developing the degree course has been quite a good experience. We have been given the opportunity to leave out that which was dated and add things and be able to change with the times. Rather than being held to an external syllabus which was out of date'

Radiography staff 5.

Table 8.5 compares the content of the diploma with that of the degree course. As can be seen from this table there is a marked difference between the content of the two courses. The degree course was designed around five themes whereas the diploma was structured around the study of seven subjects. However, despite what appear to be major differences between the content of the two courses, staff believed that the core radiography knowledge base had not changed: 'Although we tried to forget the diploma there is still a lot of diploma stuff in there (the degree course)' Radiography staff 1. 'If we are looking at the syllabuses, the syllabus content of a lot of the subjects is the same because we are producing the same end product. We have only just taken the out of date stuff and put in the new. ...as far as imaging and clinical radiography inevitably they are the same' Radiography staff 3.

Differences in the content between the diploma and degree courses can be summarised as follows:

- the inclusion of research methods and statistics
- the requirement that students undertake an empirically based research project
- a reduction in the physics component
- a reduction in the anatomy and an increase in the physiology component

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<table>
<thead>
<tr>
<th>Radiography Diploma</th>
<th>Radiography degree</th>
</tr>
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<tbody>
<tr>
<td>PHYSICS</td>
<td>IMAGING SCIENCE &amp; TECHNOLOGY</td>
</tr>
<tr>
<td>RADIOGRAPHIC PHOTOGRAPHY &amp; IMAGING PROCESSES</td>
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<td>DIAGNOSTIC RADIOGRAPHY</td>
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<td>RADIOGRAPHIC TECHNIQUE</td>
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<td>ANATOMY, PHYSIOLOGY &amp; PATHOLOGY</td>
<td>BIOLOGY</td>
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<td>CARE OF THE PATIENT</td>
<td>PSYCHO-SOCIAL CONTEXTS OF RADIOGRAPHY</td>
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<td></td>
<td>RESEARCH AND INFORMATION TECHNOLOGY</td>
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<td>CLINICAL PRACTICE</td>
<td>CLINICAL PRACTICE</td>
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**Table 8.5** Comparison of the course content of the diploma and degree courses in the radiography case study school.

Source:- Diploma course document (College of Radiographers 1982) and degree validation document (1992)
• a greater emphasis on psychology and the inclusion of sociology into the course, the inclusion of management studies.

Research methods and statistics had not been studied in the diploma course. Staff believed that these topics were essential features of a degree course and were necessary if students were to be equipped with the skills to undertake postgraduate research. They also believed that studying research methods and statistics would help students to develop problem solving skills and would encourage students to question and challenge practice.

Staff believed that the requirement for an empirically based research project gave the degree its 'honours worthiness'. Prior to the advent of degree status staff had not undertaken research other than that associated with gaining their own degrees. However, they believed that this limited experience was invaluable. Without it they believed they would have experienced great difficulty knowing how to supervise final year students research projects: 'I have never done any research and I did a dissertation which was probably heftier (registered on a masters course) than the ones the degree students are having to do but you expect that. That was quite a useful experience when it comes to supervising students with their projects at least you have been through it and you know' Radiography staff 3. The degree validation document emphasised the need for radiographers to undertake research in order to develop the radiography knowledge base. However, staff believed that it was difficult for degree students to undertake meaningful research during their course due to time and resource restraints: 'My own view is that research should be meaningful and the projects, dissertations or whatever you would like to call them that the students are doing are just giving them the opportunity to go through the process rather than do meaningful research. ...we are always getting questionnaires from people we have to fill them in but if it is for someone who is just going through the process is it necessary' Radiography staff 3.

Degree students could not see the purpose of undertaking a research based project. They believed it was a very time consuming exercise and one for which they could not see the benefits. They saw it as something they had to do in order to gain an honours degree: 'I don't think every radiographer should do research. I don't think its that important. To me it was do a
research project because that is how you get your honours. Personally I did not feel it was very valid' Radiography degree student 3.

The diploma course had involved the study of a significant amount of physics, especially circuitry. Staff believed much of this was irrelevant and of no direct benefit to radiography practice: 'I teach physics and yes some of it I thought was unnecessary. When I say physics a lot of the science stuff that we taught we taught because it was on the (diploma) syllabus and yet you could not understand why a student would need to know about it. For example, we always taught how they manufactured X ray film and it was quite possible in the old diploma days that people would have a question on that but students don't need to know how you manufacture X ray film. It might be quite interesting but he (the student) needs to know what the film is for' Radiography staff 4.

A much reduced physics syllabus, which was of direct relevance and informed radiography practice, was incorporated into the imaging science and technology theme of the degree course. The imaging science and technology theme also included three other radiographic subjects covered in the diploma course: radiographic photography and imaging processes, diagnostic radiography and radiographic technique. The syllabi for these subjects were reviewed and redundant or unnecessary material was removed.

In the diploma course the focus of the 'anatomy, physiology and pathology' syllabus had been on the study of anatomy. The amount of time devoted to physiology and pathology was much less. Staff and students believed it was essential that radiographers gained a very detailed understanding of the anatomy of the body as the practice of radiography was dependent upon being able to correctly position the body so that precise images could be taken. In the degree course anatomy, physiology and pathology were incorporated into the biology theme. Less time was devoted to the study of anatomy and far more time to the study of physiology. Both staff and degree students were unhappy about this. They believed that the degree students knew less anatomy than the diploma students: 'I mean we (the degree course) have a large physiology component whereas I would say radiographers are anatomists, now whether or not that is going to be good or not we will have to wait and see. With the diploma course we spent hours telling them about the anatomy of the kidney, that has all been cut out' Radiography staff 5.
'They (diploma students) have been taught completely different things in a way although basic ground has been covered. I mean I think they (diploma students) learn much more anatomy, much more spoon-fed information, basic information. I think we needed (that) and I don't think we really have been given that on the degree course' Radiography degree student 1.

Staff believed that the change in emphasis from anatomy to physiology was due to two factors. Firstly, the influence of staff from the HEI who had been involved with designing the degree course. One of these was a physiologist who appeared to view anatomy as a subject which could be learnt from books and did not require the depth of understanding and the higher level thinking skills which were required for the study of physiology: 'In our particular case they study physiology to an enormous depth and anatomy to a very shallow depth because quite rightly the lecturers (university based) say that they can get anatomy from a book but physiology requires understanding. So in order to demonstrate they can understand they need to study something very complex. Now whilst I agree with that in principle it is very difficult for clinical people to look at what the students are doing and understand why' Radiography staff 2.

Secondly, one of the requirements of approval from the HEI was that staff from the HEI should teach 20% of the degree course. In the diploma course the radiography staff had been responsible for teaching all the anatomy as well as physiology and pathology. With the degree course the biology component was taught by physiologists from the HEI. The HEI did not employ anatomists. Therefore, there was no one from the HEI who could teach anatomy. It would appear that the need for radiographers to have a sound knowledge of the anatomy of the human body was not taken into consideration by the physiologists.

Psychology had been covered in the diploma course and had been taught by staff from the school who did not have a psychology degree. It was a relatively small part of the diploma course and focused on the care of the patient: 'We did have the psychological care of patients in our care of patient syllabus (in the diploma) but it was only a small part of it. It recommended that it was taught by radiographers which again was something that not everyone agreed with' Radiography staff 3. With the introduction of the degree course greater emphasis was placed on the study of psychology. Additionally, the study of sociology was introduced into the course. Psychology and sociology became one of the five themes upon which the course was based.
Staff believed that the extent to which the new radiography degree courses covered psychology and sociology varied throughout the country and was dependent upon the ethos of the HEI approving the degree and the expertise of its staff. Staff believed that the emphasis on the psychology and sociology theme within their course was because of the influence of staff from the HEI: 'In general we have more emphasis on the psychosocial things. We had no sociology before but we do have now. My personal view is that the type of faculty you are in makes a difference to what you do and the HEI (who approved the degree course) is strong in that area. We cut down a lot in the pure physics, the sort of background sciences' Radiography Staff 1. Staff and degree students were concerned that too much emphasis was placed on the study of these subjects. The relevance of much of what was covered was not clear to staff or to students. Both believed that the lecturers from the HEI who taught these subjects went into too much detail: 'There is more sociology and psychology which is not a bad thing but then again one wonders to what depth they need to go in that….I think if you want radiographers to be part of a whole rather than blinkered in the X ray department I think it has a place but I am just not sure of the depth' Radiography staff 2.

Management, as a topic, had not been addressed in the diploma course. Staff believed that it was essential that degree students gained a knowledge of management theory and practice. They saw this as essential to modern radiography practice as many senior radiographers were responsible for the management of radiography departments. Major organisational changes within the NHS had resulted in the need for radiographers to manage caseloads and resources and to participate in quality audits. On account of these changes staff believed it was essential that there should be a far greater management focus to the degree course.

(vii) Teaching and learning strategies

The diploma course had been based on a didactic approach to teaching and learning. Staff referred to the diploma students as passive recipients of the knowledge which they imparted. Students' access to information was primarily from course notes which they either made during lectures, were given on handouts or in some cases had dictated to them: 'We were not very innovative, we tended to go into the classroom with a set of notes and talk about something, dictate notes to the student and at the end of the year a student would have a set of notes that
had mainly been dictated by us. We did not use handouts much. What we tried to do was teach to the syllabus but always have our eye on past papers so that we knew more or less the type of questions that came up' Radiography staff 4.

The majority of the diploma course was taught by the radiography staff. Visiting lecturers, such as radiologists, medical physicists and clinical radiographers covered specific topic areas which required their expertise. The advent of degree status resulted in three changes to the teaching and learning strategies:

- a change from a didactic to a student centred approach

- twenty percent of the degree course was taught by staff from the HEI

- delivery of part of the theory element of the course at the HEI campus rather than at the school of radiography.

Staff associated the advent of the degree with a student centred approach to teaching and learning. As a result staff believed that they had to change their previous approach. Three factors appeared to underpin this belief. Firstly, staff believed that this was reflective of changes in higher education. They believed that student centred learning was a key feature of degree level education: 'People were aware that they had to change. They said we hear all this stuff about this being a different sort of course and everyone was aware that they had to change from the didactic approach. They have done that quite well. Some more successfully than others. There is much more group work. People have put a lot of time and effort into coming up with ways that they think are more appropriate' Radiography staff 1. Secondly, staff believed that student centred learning helped to develop students' higher level thinking skills. They believed that the emphasis on learning facts, in the diploma course, stultified students' intellectual development: 'I think it is probably because we are also thinking along the lines that this was going to be the new breed of thinking radiographers and that if you got them to learn more facts on their own rather than spoon-feed them then this would breed it in to them' Radiography staff 3. Thirdly, staffs' experiences of studying for their degrees involved student
centred learning, this reinforced their belief that student centred learning was synonymous with studying at degree level.

The degree students did not like student centred learning. The main reason appears to have been that they were given very little guidance about how to undertake student centred learning. Students also believed that the staffs' lack of experience with this approach contributed to their difficulties: 'Their (diploma students) course seems more factual and ours is more discussion based. It's a bit like being asked to read a Shakespeare play and told to learn it and then told 'oh by the way you have to know what is happening in contemporary Scotland when Macbeth did this'. And no one has actually discussed these things with you' Radiography degree student 6.

Staff did not find the change to a student centred approach an easy one to make. This was probably because they were having to change an approach, which they had used for a number of years, without any guidance on how to do it. There was also evidence that some of them had tried to change from a didactic approach but had returned to it because they believed it was more effective and less time consuming. Staff believed there was too much material to cover and that the best way this could be achieved was via lectures and note taking: 'I think there is still a kind of diploma mentality in the school a little bit. People say we have got this work to get through and that is what the students have got to know about. So there is still this idea of students having to go through a lot of work and that the best way to teach them is in the classroom' Radiography staff 4.

With the exception of a few visiting lecturers the diploma course had been taught entirely by the radiography qualified staff. As already noted the HEI, as part of their approval, requested that 20% of the degree course should be taught by staff from the HEI. One reason for this request may have been because the HEI believed that the radiography staff had insufficient expertise in teaching at degree level. The HE staff were responsible for teaching physiology, psychology and sociology: subjects which had not been taught to any depth in the diploma course. Another factor may have been that the HEI believed that the contribution of their staff would help to ensure students achieved the standards associated with degree level study.
The degree students noticed a difference between the teaching styles of the HEI staff compared to the radiography staff. They believed that the staff from the HEI were more knowledgeable about their subject area and that they were able to make better use of student centred learning strategies: ‘I think the university staff appear to have a greater depth of knowledge than here and tackled it from the beginning on the lines of you will have to discuss this whereas here it was factually given to you and then you were told you have to critically evaluate this now' Radiography degree student 3. These comments are not surprising in that many of the radiography staff were developing their own knowledge base and gaining first hand experience of student centred learning at the same time as teaching on the degree. However, staff and students believed that the HEI placed too much emphasis on the academic as opposed to the practical aspects of the course. They believed that the HEI staff covered topics in too much depth and that this depth was not necessary or always relevant to practising radiographers. Students had difficulty relating what they were taught to practice: ‘One of my concerns was that academic depth is all very well but is it necessarily relevant. I am not saying that students should not be able to consider things and evaluate things but do they need the depth. That is very much the way that our course has begun to develop. The university has very set ideas about the kind of study that any student should be doing on a degree course so that fear has been realised’ Radiography staff 2. ‘We are always being told we ought to be doing less topics but in more depth so we have got degree status. In my experience the depth is about right, there is no point teaching people to a depth of knowledge they don’t require just for the sake of it’ Radiography staff 3. There was tension between the staff from the HEI and the radiography staff about what was required of degree level study. It would appear that the staff from the HEI adopted a 'knowledge for knowledge sake' approach. By contrast, the radiography staff appear to be more interested in knowledge which directly informs practice.

As part of the agreement with the HEI the degree students were based at the HEI campus for part of the time and for the remainder at the radiography school some four miles from the HEI. Students experienced a very different culture and environment at the HEI campus compared to that at the school: ‘At the university if you turn up for your lesson you are there to learn. If you don’t turn up well, so what, its your problem not theirs whereas the school treat you like you have got to come to this lesson and I think it is because they are used to being just the little school over here on its own’ Radiography degree student 2. ‘I think school of radiography is a
good term because I think they do treat us as schoolchildren as it were whereas the university
does not. I think that is something they will have to change once they get to the university
because I don't think the students will put up with it.' Radiography degree student 1. The culture
in the radiography case study school was far more paternalistic than in the HEI. There was a
definite divide between the student and the teacher. By contrast in the HEI students were given
far more independence and expected to take responsibility for their own learning.

(viii) Assessment

The diploma course was assessed entirely by nationally set, unseen, time restrained written
examinations: three at the end of Part One and three at the end of Part Two. To pass these
examinations diploma students had to achieve 50% in the Part One examinations and 60% in
the Part Two examinations. The students' scripts were marked by external examiners appointed
by the College of Radiographers. Additional to the written examination students had to present
a practice log in which they had recorded the details of all the images they had taken during
their placement. Each student had to take and record in their log a minimum of 1,000 images.
Diploma students were not summatively assessed on their ability to take these images, all they
had to show was that they had taken them. At the end of the diploma course they were given a
fifteen minute viva voce examination where they had to present their log book and answer
clinically applied questions. There was no other assessment of their clinical abilities.

The advent of the degree course resulted in major changes to the assessment strategy used on
the diploma course. These changes involved:

- the cessation of the nationally set and externally assessed written examinations

- the introduction of summatively assessed coursework into the assessment strategy.

- the summative assessment of students' clinical practice

- a change in the pass mark from 50% in part one and 60% in part two of the diploma to 40%
in the degree course
• external examiners specifically appointed to the degree course in the radiography case study school.

In 1990 the College of Radiographers decided that they would not offer their diploma course after 1995 (College of Radiographers 1990b). Therefore, national written examinations would no longer be organised. The nationally set and assessed written papers had received considerable criticism from within the education sector of the profession (Smith 1990). Additionally, it is unlikely that HEIs would have been willing to use nationally set examinations to assess their radiography degree courses. With a few exceptions it is custom and practice for all HEIs to decide upon the assessment strategies for the degrees they award.

Table 8.6 compares the assessment strategy for the degree with the diploma course. Staff believed that the use of unseen, time restrained, written examinations was outdated and did not allow students to demonstrate or be assessed in skills other than those involved in sitting unseen written papers. They believed that summative assessment of coursework would allow degree students to demonstrate higher level thinking skills. They also believed that most HE courses included some form of continuous assessment and that it was important that the radiography degree conformed to this approach.

With the degree course, students had to pass a series of clinical assessments. These assessments were marked on a pass/fail basis, they, therefore, did not contribute towards the classification of the degree. Staff believed that these clinical assessments were one of the many benefits of degree status. In the diploma course there had been no summative assessment of the students' clinical performance. Staff believed that the assessment of clinical skills was essential as it would allow students who were clinically weak to be identified and remedial work to be undertaken: 'They (degree students) are probably assessed in the clinical situation much more rigorously that they were before (on the diploma course) because they only had a written radiographic technique paper and then a sort of 15-30 minute viva. Now they are assessed in all years on clinical assessments' Radiography staff 3.
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<td>Viva voce and completed 1,000 radiographs</td>
<td>7 summative assessments not graded but marked on a pass/fail basis</td>
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</table>

Table 8.6 Relationship between coursework and examinations in the diploma and degree courses in the radiography case study school

Source:- Diploma course document (College of Radiographers 1982) and degree validation document (1992)
Staff and students believed that the degree course was easier to pass than the diploma course. Three factors appear to underpin this belief:

- the change in pass marks

- the removal of the nationally set, unseen written examinations

- greater dependence upon students' performance in coursework and, hence, a reduced dependency upon students performance in unseen written examinations.

Staff believed it was harder to pass the diploma examinations because of the higher pass marks. This implies that the staff were not adjusting their pass/fail criteria in line with the change in the pass mark. In other words they were marking degree students work using a similar criteria to that which had been used on the diploma course but because the pass mark was less degree students were passing when the diploma students may have failed. Additionally, staff believed that the degree course was easier to pass because students were not required to sit nationally set examination papers. It had been difficult to gauge what might come up in the national examinations. On account of this diploma students had to ensure that they had mastered all aspects of the syllabus, including the more obscure sections. It would appear that in the HEI it was not uncommon for students to be given a pre-warning of the type of topics which would be covered in the examination. Staff, therefore, believed that students could be far more selective about their revision and as a result assessment of the degree course were not as arduous or demanding as those on the diploma course: 'I think they (diploma exams) were the unknown quantity which we don't have in the degree now. I mean we don't overtly tell them the questions but we can give very good clues and I think the university staff are a bit more guilty of giving clues than we do... with the diploma it was the unknown and the unexpected even for the school staff. Things cropped up that even I had not heard of because one of the external examiners thought, oh well, this looks a bit different we will use it ....I think the fail rate nationally with the diploma was terrible. I mean you could have fail rates of 25% which was rather high....With the new system we have not failed too many people' Radiography staff 3.
A significant part of the degree course was based on coursework (64%). Staff believed that coursework assessed students higher level thinking skills better than unseen written examinations. Students were informed of what they had to do for the coursework, and were also informed about the marking criteria, therefore, staff believed that students were in a much better position, than they had been with the unseen written examinations in the diploma course, to score well.

External examiners for the diploma course were appointed nationally by the College of Radiographers. These external examiners were primarily state registered radiographers, sometimes radiologists and medical physicists were used. With the advent of the degree course external examiners were appointed by each school of radiography to their specific course. The HEI required that four external examiners were appointed to the case study school. Two of these were state registered radiographers and approved by the Radiography Board. They were responsible for all the radiography elements of the course. The other two were responsible for biology and psychology and sociology respectively and were disciplined based lecturers and not state registered radiographers. No medically qualified practitioners were used as external examiners.

(ix) Organisational issues

The introduction of the degree course had a number of organisational implications for the school and its staff. These can be summarised as follows:

- merger with a HEI

- a greater administrative burden for staff in the school

- a reduction in the influence of the professional body over the course.

The implications of the merger have already been addressed under the headings 'aims', 'content' and 'teaching and learning'. As a result of the merger staff believed a far greater administrative burden was placed upon them. Three factors appear to have been responsible for this. Firstly,
staff had to adopt the quality procedures that were used by the HEI. The College of Radiographer's quality mechanisms were minimal and were vested in the nationally set and assessed examinations. Secondly, staff had to set and mark coursework and examinations as well as keep records of students' performance for the purposes of examination boards. This had not been a feature of the diploma course due to the nationally set exams and the external marking of these scripts. Thirdly, staff found that with the degree course they had to read around the literature and update their teaching notes on a regular basis. Because the syllabus for the diploma course had been prescribed and was not updated on an annual basis staff could use the same lecture material year after year. However, with the emphasis on student centred learning in the degree course and the dynamic nature of the curriculum, staff found that they were continually reviewing and updating their teaching materials. Staff found these changes resulted in a greater administrative burden: 'There is much more admin and paper... It is a lot more stressful because you are more responsible for your own course. It is probably harder work. In the old days you could have taught something and pulled out your notes out year after year. Now you can't do that you are continually evaluating the course, the students evaluate it, you are continually modifying it and thinking of new ways of doing things. It is very dynamic. It is changing all the time' Radiography staff 4.

Staff believed that the College of Radiographer's influence was far less than it had been over the diploma course. They believed that responsibility and control of the degree course primarily rested with them and the HEI. The College of Radiographers' could only influence the degree course via its presence at the validation event: The College of Radiographers has some influence in that they are part of the validation panel so they have to agree that it will produce radiographers who can do the job. Other than that none at all, we own it, we have the influence' Radiography staff 2. Staff were happy, despite the increase in their workloads, to have greater responsibility for the degree course than they had with the diploma course. However, they believed that the HEI had considerable influence over the degree course. Examples of this influence have been discussed under preceding headings, they include influencing the content of the course and the teaching and learning strategies.
Differences between graduates and diplomates

As noted in the preceding chapters it is too early to comment on the long-term differences between graduates and diplomates. However, as in the preceding chapters three indicators have been used to inform whether, in the early days of the transition from diploma to degree, there were any perceived differences between radiography graduates and diplomates:

- opinions of the diploma and degree students
- opinions of the teaching staff
- results from the Entwistle learning Inventory.

Opinions of the diploma and degree students. On the whole diploma and degree students did not believe that there would initially be too many differences between the diploma and degree students when they qualified: 'At my clinical base there are newly qualified diplomates and also degree students. I don't think there is much difference between them.' Radiography degree student 3.

Diploma students were concerned that they might be disadvantaged when it came to competing for jobs with graduates. They were very apprehensive about the advent of degrees for this reason and were unhappy that despite, having the same entry qualifications, they would gain a diploma rather than a degree qualification: 'Someone with a degree will get chosen over someone with a diploma when it comes to getting jobs. It threatens.' Radiography diploma student 2. There was no evidence to indicate that degree students were more interested in a degree qualification than a professional award. As noted earlier, many of those recruited to the first cohort of the degree had applied thinking the course was at diploma level. The degree students, however, recognised that the degree qualification had a currency of its own, separate from the professional qualification, and that it could be used to gain employment other than in radiography: 'the advantage of a degree is its a degree in a science subject. If you did not want to be a radiographer you could possibly use it to do something else whereas with the diploma qualification it is limited.' Radiography degree student 3.
Opinions of the teaching staff. Staff believed that many of the diploma students were academically as capable of gaining a degree as their degree counterparts. They did not believe there was any differences in the academic abilities of the degree students compared to the diploma students: 'I think a lot of the students (diploma) were quite bright. I don't think there is any difference in academic ability between the diploma and the present students....If I think of other (diploma) radiographers they have always thought of themselves as being intelligent but not up to degree standards. Degrees have been a bit of a myth really....I mean we did have people with degrees coming on to the diploma course. They didn't seem to do any better than the other students. I think a lot of diploma radiographers would have got quite good degrees....I think at first people thought they (degree students) were going to be academics, purely academics and of course they have found out they are not and that as people they are almost exactly the same as the other radiographers' Radiography staff 4.

Although staff did not think there were differences in academic ability between the degree and diploma students they did believe that the degree students would be far more questioning, would think more critically about their practices and would continue to learn throughout their professional careers: 'There may be in the way that the degree students think about things and hopefully you know suggest other ways or ask why do we always do this and be a bit more challenging because that is very much a feature of the course. They may be more inclined to carry on learning and you know do some further study because that is the environment they have been in, the way they have been brought up' Radiography staff 5

Staff did not believe that the clinical skills of the graduate would be any different from the diplomate. One of the reasons for this may be that although the clinical element was reduced by 1,000 hours the degree course still involved a significant amount of time in practice: 2,479 hours. Staff believed that it would be some time before there would be differences between graduates and diplomates: 'I don't think you will see much of a change initially but I think you will see a gradual change. The thing is the people who are doing the degree at the moment, remember they spend 50% of their time being influenced by diploma radiographers (when on placement). And so in many ways a lot of the good work we do in the university is being undone in the department so they are being influenced by them but gradually as more graduates come into radiography they will influence future graduates. There will be a gradual change'
Radiography staff 4. Staff were unsure whether degree students would be allowed to use the higher level thinking skills that they were being encouraged, as part of the philosophy of the degree course, to develop. Vosper (1992) believes that the skills used by the average radiographer are not demanding and that the radiographers' working environment does not allow graduates to demonstrate higher level thinking skills. It may be for this reason that differences in practice between diplomates and graduates will be minimal. If graduates had skills over and above those of the diplomates they might be unable to practice them because of the work environment they found themselves in.

Results from the Entwistle Learning Inventory. The findings from the ELI for the radiography diploma and degree students are presented in Table 8.7. The diploma students scored significantly high (half a standard deviation above the mean average for HE students (Entwistle 1981)) on the reproducing and versatile dimensions whereas the degree students scored significantly low (half a standard deviation below the mean average for HE students (Entwistle 1981)) on the meaning and versatile dimensions.

The diploma students' high score on the reproducing dimension indicates that they were very syllabus bound and motivated by a need to memorise content. This finding is not surprising given the teaching and learning strategies and the mode of assessment deployed in the diploma course. It confirms staff and students beliefs that the diploma course encouraged learning by rote so that students could pass the unseen, nationally set examinations: 'The actual understanding of it did not seem to matter to some of the lecturers. I mean it was like guided study, here is the stuff you have got to learn it parrot fashion, come back and do your exams' Radiography diploma student 4. By contrast, diploma students scored above average on the meaning dimension whereas the degree students scored below average. This indicates that the degree students did not look for meaning in what they were taught and were not motivated by an interest in the topics they were covering. This may relate to the emphasis on physiology, psychology and sociology within the degree curriculum. As noted earlier staff were concerned that the balance in the curriculum had swung too much in the direction of these subjects. Staff believed that the content of these subjects had not been tailored to inform radiography practice directly.
<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>ACCEPTED MEAN WITH STANDARD DEVIATION (ENTWISTLE 1981)</th>
<th>MEAN OF DIPLOMA STUDENTS n= 16</th>
<th>MEAN OF DEGREE STUDENTS n= 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPRODUCING</td>
<td>13.51 (4.40)</td>
<td><strong>15.62</strong></td>
<td>12.79</td>
</tr>
<tr>
<td>MEANING</td>
<td>14.31 (4.51)</td>
<td>16.19</td>
<td><strong>11.58</strong></td>
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<tr>
<td>VERSATILE APPROACH</td>
<td>29.53 (7.03)</td>
<td><strong>33.32</strong></td>
<td>23.30</td>
</tr>
</tbody>
</table>

**Table 8.7** Results from the Entwistle learning Inventory for diploma and degree students in the radiography case study school.

Numbers in **bold** indicate a half a standard deviation higher than the mean average.

Numbers in *italic* indicate a half a standard deviation below the mean average.
Diploma students scored above average whereas the degree students scored below average on the versatile scale. A high score (more than half standard deviation from the mean) on the versatile scale implies that students attempt to relate ideas to real life, look for meaning and show an interest in logical problems and rationality. A low score indicates the opposite. Three factors may have contributed to this finding. Firstly, the diploma students attended their placement centre on a frequent and regular basis. During their regular (two out of every three weeks) placements they would have been in a position to apply theoretical knowledge to their practice. Degree students, as a result of changes to the scheduling of the placements and the decrease in the number of hours spent on clinical placement, may have found it more difficult to make links between theory and practice. Secondly, degree students may have found it difficult to relate some of the subjects they studied (sociology, psychology, physiology) to their practice. Thirdly, degree students had not been able to apply, in practice, the skills they gained from the classroom based element of the course because they were not supported in this endeavour by the radiographers they met on placement. The vast majority of these staff were at diplomate level and may have been unaware or uncertain how to support degree students' learning in the clinical environment. It was noted in chapter four that radiographers had found it more difficult than chiropodists and OTs to access post-registration degrees.

Discussion

There are many differences between the diploma and degree courses in the radiography case study school. These differences are summarised in Table 8.8. Despite these differences the entry requirements were not raised nor was the duration of the course increased. As regards the latter the opposite occurred the course was reduced in duration. The impact of these differences listed in Table 8.8 are considered using the following headings:

- accreditation
- aims of the course
- professional knowledge base.
- Staff and students
Change to the aims of the course.

Reduction in the amount of time spent in practice.

Increase in the amount of timetabled study time.

Introduction of a modular course.

Inclusion of the study of methods of enquiry and statistics in the syllabus.

Requirement that students undertake an empirically based study for the honours component of the degree.

Reduced emphasis on anatomy and greater emphasis on physiology.

Greater emphasis on the teaching of psychology and the inclusion of sociology into the course.

Change from a didactic to a student centred approach to teaching and learning.

Requirement that students read around the literature.

Requirement that students use references in their assignments.

Introduction of assessed coursework.

Removal of the nationally set examinations.

Establishment of marking criteria.

Introduction of summative assessment of clinical skills.

Introduction of HEI quality assurance mechanisms.

Requirement that staff teaching on the degree should be degree qualified.

Requirement that 20% of the course should be taught by staff from the HEI.

Requirement that part of the course should be taught on the HEI campus.
Accreditation. The approval of the radiography degree course is a good example of an effective working relationship between a HEI and a NHS based school of radiography. The HEI provided support and guidance and helped to steer the degree proposal through the validation process. The radiography staff's experiences of the validation process were very different from those of the staff from the OT case study school. The differences between their experiences demonstrates how support and guidance from a HEI was essential in gaining approval. It has been noted that schools of nursing developing Project 2000 courses who had good support from their validating HEI fared much better than those who did not (Jowett et al 1994).

The influence and control of the College of Radiographers was considerably reduced as a result of transition from diploma to degree. This was welcomed by staff as they wanted to free themselves from the confines of a nationally prescribed curriculum and assessment scheme and make what they believed to be necessary changes to the diploma course. The joint accreditation of the radiography degree resulted in the HEI having a major influence over the degree course. The shift in influence and control from the professional body to the HEI was noted in the other two case study schools. However, it was particularly evident in the radiography case study school. For example, the HEI had a major influence on the content of the course (emphasis on sociology, psychology and physiology), who taught the course (20% taught by staff from the HEI) and where it was taught (on the site of the HEI for 2 days a week). It can be concluded that HEIs, if they so wish, can use their influence over the syllabus of a degree course to promote their own values and culture even if these are different from those of the para-profession.

After approval of the degree course the school merged with the HEI and the course was redesigned at the request of the HEI to fit into the HEI's modular scheme. It is suggested that although the staff were pleased to free themselves from the restrictions of the College of Radiographers' diploma course they gained other restrictions as a result of the joint approval of the course with a HEI. Not all the changes to the diploma course were well received by the staff, however, they believed they had to agree to them in order that they could gain approval for their degree course.
Aims of the course. The aims of the diploma course were very different from the aims of the degree course. Whereas the diploma course focused on developing technicians with the procedural and craft knowledge to practice, the aims of the degree course emphasised the need to develop a reflective, autonomous practitioner with higher level thinking skills. The degree course emphasised the importance of critical evaluation, problem solving and research skills. Staff believed that it was important to develop this different type of practitioner. They believed that if radiography was to adapt to future technological change and working practices in the NHS practitioners of the future would need to be equipped with these skills. Additionally, they believed that the degree course would develop radiographers who had skills to enhance radiography practice so that the para-profession might work alongside rather than be subservient to the medical profession. It is concluded that the reasons for some of the differences between the aims of the diploma and degree courses were due as much to professional needs as they were to the impact of the values and culture of HE on initial education and training.

Professional knowledge base. Staff did not believe there was any difference between the professional knowledge base which was taught in the diploma compared to the degree course. This same finding was noted in the other two case study schools and is most probably due to the same factors: no major changes to the professional knowledge during the transition process and too soon to assess the effects of changes in course content on the professional knowledge base. It may be that the transition from diploma to degree, as suggested with the other two para-professions, has the long term effect of developing the professional knowledge base. In the radiography degree course, as with the degree courses in the chiropody and OT case study schools, there was an emphasis on propositional knowledge and the development of research skills. Radiography degree students, unlike their diploma counterparts, were required to read around the literature and to substantiate their views and opinions by referencing their written work. There was also an emphasis on the development of research skills and the requirement that degree students undertook an empirically based research project for the honours component. Additional factors were the emphasis on the study of disciplines such as sociology and psychology and the relatively high practice component.

Although the practice hours in the degree were less than those in the diploma course they were considerably higher than those for the degree courses in the other two case study schools. It
would appear that although the HEI wanted the practice hours from the diploma course reduced it was happy to accept, in comparison to the other case study schools, a substantially higher number of clinical hours in the degree course. The impact of this reduction was less than it was for the other two para-professions because radiography degree students still spent a considerable amount of their time on clinical placement.

**Staff and students.** Staff were affected by the transition from diploma to degree in a number of ways. They had to become quickly socialised into and adopt the practices, including quality assurance procedures, of the HEI approving the degree. Staff had to gain degree qualifications in order to teach on the degree course. Additionally, after the approval of the degree the school merged with the HEI and staff became employees of the HEI. Both staff and students believed that at least initially few differences would be detected in practice between the diploma and degree students.

**Summary**

There were many differences between the diploma and degree courses in the radiography case study school. Many of these differences were in response to the demands of the HEI approving the degree course. Staff welcomed the end of the College of Radiographers diploma course. However, it would appear that much of the role undertaken by the College was replaced by the HEI. Despite some of the difficulties which arose from the HEI’s newly acquired involvement with the radiography degree course staff believed that it was essential as it led to initial education and training becoming more flexible and responsive to changing needs. They believed that degree courses would develop practitioners who would improve the professional knowledge base and who would improve the scope of practice of radiographers. It was believed that both of these outcomes, combined with the achievement of all-graduate entry, would make a positive contribution to the professional project of radiography and help to reduce their dependence upon the medical profession (see chapter ten).
Chapter Nine

CHANGES TO INITIAL EDUCATION AND TRAINING

Introduction

This chapter uses the findings from chapters four to eight, and in particular six to eight, to explore the nature of and the reasons for changes to the initial education and training of these para-professions as a result of the transition from diplomas to degrees. A comparison of the diploma courses in the case study schools reveals that there were few similarities but many differences between them; these are summarised in Table 9.1. It is suggested that the similarities and differences between the case study schools' diploma courses are representative of similarities and differences between the diploma courses of the three para-professions'. As noted in chapters two and eight the radiography diploma course was a nationally prescribed course. Therefore, it can be concluded that the diploma course in the radiography case study school is representative of diploma courses in other schools of radiography. The Society of Chiropodists’ control and influence over the chiropody diploma course was less than that of the College of Radiographers. However, a comparison of the diploma course in the chiropody case study school with an HMI (1989a) report of another school of chiropody revealed that its diploma course shared most of the features found in the chiropody case study school. Because of the need to prepare chiropody diploma students for nationally set, final written papers it is inevitable that the diploma courses in chiropody shared many similar features. There is a greater likelihood of differences between the OT diploma courses as the COT's diploma '81 initiative gave each OT school the freedom to design and develop their own course. The COT exercised far less control and influence over the OT diploma course than the other two professional bodies. However, despite potential differences between diploma courses within OT it is suggested that the comparative differences between the diploma course in the OT case study and the chiropody and radiography case study schools are representative of the differences between the diploma courses of the three para-professions.
Similarities:

- Accredited solely by the professional body and respective Board of the CPSM.
- Involved classroom and practice based elements
- Entry requirements.
- Involved the study of supporting disciplines to inform the professional knowledge base.

Differences in:

- Aims.
- Course structure.
- Knowledge base.
- Teaching and learning strategies.
- Number of practice hours.
- Assessment strategies.
- Academic standards.
- Level of influence and control exercised by the professional body
- Level of influence and control exercised by the medical profession over the curriculum and assessment of students.
- Location and funding of the schools.

Table 9.1 Similarities and differences between the diploma courses in the three case study schools
The degree courses in all three case study schools, unlike the diploma courses, shared many similar features (see Table 9.2); the few differences between them are summarised in Table 9.2. The presence of so many similarities strengthens the ability to make generalisations from the study findings about the key features of professionally accredited degrees.

As the case study schools were among the last within their respective para-professions to make the transition from diploma to degree it is likely that they were influenced by and replicated the changes other schools had made rather than adopting an innovative and different approach. The need for the case study schools to gain degree status quickly in order to compete successfully with schools who already had gained degree status would probably have prevented them from introducing features into their degree courses that were untypical of degrees in other schools. It is, therefore, suggested that the key features of the professionally accredited degrees in the case study schools are representative of other degrees within their respective para-professions. Furthermore, it is argued that the differences between the diploma and degree courses in the case study schools are representative of differences between diploma and degree courses in their respective para-professions.

**The nature of changes to initial education and training resulting from the transition from diploma to degree.**

It is concluded from the study findings that the transition from diploma to degree led to the following changes to initial education and training:-

- Joint accreditation

- Greater emphasis on the educative aspects of initial professional education and training.

- Reduction in the practice element

- Greater emphasis on propositional knowledge and abstract theories.
Similarities:-

- Joint accreditation by a HEI and the professional body
- Aim to develop reflective and autonomous practitioners who evaluate critically their practices
- Entry requirements
- Reduction in the number of practice hours and a valuing of theory over practice
- Emphasis on student centred learning
- Emphasis on studying research methods and statistics
- Inclusion of an empirically based research project to achieve honours status
- Emphasis on propositional as opposed to other forms of knowledge
- No immediate changes to the professional knowledge bases
- Emphasis on the study of the professional knowledge base rather than the study of supporting disciplines
- Study of the social as well as the natural sciences
- Assessment strategies that emphasise coursework rather than time restrained, unseen, written examinations
- Minimal use of medical practitioners to teach and assess students

Differences in:-

- Syllabi
- Structure of the courses
- Duration of the courses
- Number of practice hours
- Funding and location of schools

Table 9.2 Similarities and differences between the degree courses in the three case study schools.
- Inclusion of the study of research methods and a requirement that honours degree students undertake an empirical piece of research

Each of the above are discussed in turn below.

**Joint accreditation.** It was noted in chapter two that the professional bodies had considerable but not sole control over the diploma courses. They did not have sole control because the respective Boards of the CPSM, established for each para-profession under the PSM Act (1960), required that there were medical representatives plus representatives from government departments and the HE sector on each Board. However, despite the presence of these external representatives each para-profession could, if they so wished, exercise considerable control and influence over the diploma courses because, for all three para-professions, the Boards delegated much of the day to day management to the respective professional body (chapter two). The professional bodies chose to exercise this influence and control differently; with the COT exercising least control and the College of Radiographers the most control. It is suggested that the assessment strategies prescribed by the College of Radiographers and the Society of Chiropodists influenced considerably the syllabus, teaching and learning strategies and aims of their respective diploma courses. The prescribed nature of the assessment strategy in the radiography diploma course impeded changes to the syllabus and the teaching and learning strategies (see chapter eight). Likewise, although chiropody schools had greater latitude than their counterparts in radiography they were still affected by the need to prepare diploma students for nationally set, unseen, time restrained, final papers. By contrast, schools of OT were not confined by the requirements of nationally set examinations and were, therefore, able to introduce educational practices into their diploma courses such as the summative assessment of coursework and student centred learning and were able to update on a regular basis the syllabus so that the course reflected the current OT practice.

Two factors are believed to be responsible for the introduction of the COT's diploma '81 initiative (see chapter two). Firstly, a desire by the COT to adopt the practices of the CNAA so that the OT diploma course shared many of the features of the CNAA degrees. The COT believed that this would help to improve their prospects of gaining all-graduate entry.
Secondly, a recognition by the COT that their current nationally prescribed diploma course was not achieving the type of practitioner they wanted. They believed that giving individual schools the freedom to design their own diploma courses would enable them to develop courses which would help to prepare practitioners who could respond appropriately to changes in practice. However, the Society of Chiropodists and the College of Radiographers did not copy the action taken by the COT. Two reasons are suggested for this. Firstly, a belief that maintaining control over the syllabus and the assessment process enabled the professional bodies to argue that they were safeguarding national standards. Nationally set syllabi and examinations have historically been used by professional bodies for this purpose. Secondly, it is suggested that the Society of Chiropodists and the College of Radiographers, in conjunction with their respective Boards, would have experienced considerable government opposition to any plans to make changes to their diploma course during the mid to late 1980s. In 1987 the Privy Council turned down a proposal from the Physiotherapy Board to introduce a similar initiative to the COT’s diploma ’81 initiative. The Privy Council stated it was not possible to approve such changes under section 4 of the PSM Act (1960) (Wilson 1987). This section of the PSM Act (1960) also applied to occupational therapy yet it had not prevented the Privy Council giving its approval to the COT’s initiative in 1981. It has been suggested that when OT, a much smaller profession than physiotherapy, approached the Privy Council in 1981 the political climate was different, the acquisition of degree status was not a major issue and the Department of Health (DOH) had no reason to believe that the COT’s diploma ’81 initiative could be seen as a potential route to degree status (Wilson 1987). As a result the government, via the Privy Council, gave its approval. However, by 1987 the political climate was very different, there was considerable lobbying for pre-registration degrees and considerable government opposition to them (see chapter four). There is evidence to support the belief that, during the latter part of the 1980s, the government via the Privy Council would have thwarted any changes to the radiography and chiropody diploma courses (key informant from the professional body).

It is apparent that the transition from diplomas to degrees had the effect of reducing the control and influence of the professional bodies over initial professional education and training. The extent to which their influence was reduced was proportionally related to the level of influence and control they exercised over their respective diploma courses. By contrast, the HEIs gained considerable influence and control over the degree curriculum. Staff believed that they had to
comply with the values and practices of their approving HEIs in order to gain degree status. For example, all HEIs required that the practice hours in the degree courses were reduced, that there was an emphasis on student centred learning and that teaching staff were degree qualified. Additionally, individual HEIs influenced the design of their degree courses in specific ways. For example, the HEI approving the radiography case study degree course exercised considerable influence and control. It required that the radiography degree was modular based, that the anatomy syllabus was reduced considerably, that the physiology and social science syllabi were increased significantly and that elements of the course were taught by staff from the HEI and not by staff from the radiography school. Jowett et al (1994) noted that were differences in the extent to which individual HEIs influenced the curricula for the new Project 2000 courses in nursing. Staff believed that the HEIs had greater control and influence over the degree courses than the professional bodies. The professional bodies appear to have played a minimal role in the accreditation process for the degrees. They neither imposed specific professional requirements nor played a significant role in the validation process (see chapters six-eight).

A major impact of gaining degree accreditation was the merger of non-HE based schools with their approving HEIs. With one or two exceptions (e.g. the chiropody case study school) those schools, which were not based in HE prior to the transition from diploma to degree, merged with their approving HEI either at the time of approval or subsequent to it. This had a major impact on the management of these schools and the employment rights of their staff. By the mid 1990s most schools were no longer independent monotechnics but part of large higher education institutions.

As this study focused on the period of time from the qualification of the last cohort of diploma students and the first cohort of the degree students the data from this study cannot be used to assess the long term impact of joint accreditation and subsequent merger with the HEIs on initial education and training. It is suggested that unless the professional bodies take a more pro-active role and impose their own requirements the HEIs will continue to exercise the greater influence and control. There is evidence that the professional bodies are now playing a more pro-active role. All three professional bodies have produced guidance to schools with respect to the design and delivery of their degree courses. For example, in 1997 the Society of
Chiropodists in conjunction with the Chiropodist Board issued a requirement that all schools of chiropody should ensure that degree students undertake a minimum of 1,000 practice hours (Chiropodist Board 1997). It would appear that the professional bodies are now making far greater use of their joint accreditation powers and are beginning to ensure that their professional requirements influence the design of the curriculum. It is suggested that their relatively passive role during the transition from diploma to degree was due to the speed of the transition process as well as a reluctance to appear to enforce requirements that may have antagonised the HEIs and delayed the approval of the degree courses. However, despite the professional bodies taking a more pro-active role it is unlikely that they will acquire the same level of influence and control that they were able to exercise over the diploma courses. This is not only because of the newly acquired influence of the HEIs but also that of the newly formed NHS Education and Training Consortia (see chapter ten) who, as purchasers of initial professional education and training, are also able to influence the design and delivery of the degree courses. Additionally, the current review of the PSM Act (1960) may have implications for and indeed reduce further the role of the professional bodies in initial education and training (J M Consulting 1997).

Greater emphasis on the educative aspects of initial professional education and training. The aims of all three diploma courses appear to have focused historically on 'training' as opposed to 'education' (see chapter one). Diploma students were given little opportunity to question, challenge or evaluate their practice. The emphasis was on the need to learn and reproduce, in unseen, time restrained examinations, large amounts of factual information rather than on the development of higher level thinking skills. A primarily instrumental approach to initial education and training appears to have been adopted in chiropody and radiography until the transition from diploma to degree. Only in OT was there a move from an instrumental towards a more educative approach prior to the advent of degree courses. OT diploma students were encouraged to question their para-profession's knowledge base and practices and to develop evaluative and problem solving skills. This appears to have been a direct consequence of the introduction of the COT's diploma '81 initiative. Schools of chiropody and radiography may well have wanted to introduce similar changes to those in OT but were prevented from doing so because of the need to adhere to the syllabus set by the professional body and meet the requirements of nationally set examinations.
By contrast, all the degree courses focused on the 'educative element' within initial professional education and training rather than the instrumental and competency based aims which have been associated with training (see chapter one). The aims of the degree courses have much in common with the aims of degree level education discussed in chapter one. The focus of all three degrees was on developing autonomous practitioners who would be life long learners and who had the skills to undertake research, problem solve and to evaluate critically. Changes were made to the diploma course so that these aims could be achieved; these included an emphasis on student centred learning and changes to the assessment strategies.

A didactic approach to teaching and learning had historically been used in all three case study schools. As a result of this style of delivery it would appear that the diploma students were passive recipients rather than active participants in the learning process. Only in OT, apparently due to the introduction of the COT's diploma '81 initiative, had there been a move away from this approach towards a more student centred approach. In radiography and chiropody the teaching and learning strategies continued to centre around a didactic approach. The radiography staff believed that they had to adopt a didactic approach in order to cover the prescribed syllabus and prepare students for the nationally set examinations. In both chiropody and radiography the teaching staff appear to have been the custodians of the professional knowledge base, their role being to transmit this knowledge to students. Again this approach may be explained, at least in part, by the emphasis within both diploma courses on preparing students for nationally set examinations. Staff from all three case study schools believed that degree students, in comparison to their diploma counterparts, should spend less time in classroom based sessions and more time undertaking self-directed study. Staff believed that student centred learning was a key feature of degree courses as it would enable students to develop independent learning skills, encourage them to read around the literature and foster life-long learning skills. The teaching and learning strategies for all three degree courses were characterised by an andragogical (student centred) as opposed to pedagogical approach. There was an emphasis on students taking responsibility for their own learning. Less time was spent on formal lectures and more time on seminars and tutorials and student centred study. However, the extent to which each of the case study schools changed from a didactic to a student centred approach varied. The reasons for this were multi-factorial (see chapters six and eight) and indicate that some staff in the chiropody and radiography case study schools were ill-
prepared for and remained unconvinced that major changes to their teaching and learning strategies were necessary.

The introduction of the degree courses resulted in the professional bodies no longer being in a position to dictate the assessment of students. The teaching staff and the approving HEI, not the respective professional bodies, were responsible in conjunction with the external examiner(s) for how the decision to award the degree and state registration was made. In all three case study schools staff believed that coursework provided students with an opportunity to demonstrate skills that could not be tested in unseen, time-restrained, written examinations. They believed that assessment strategies other than this type of written examination were more appropriate for assessing students higher level thinking skills. As a result the final mark of all the degree courses was calculated from students’ performance in coursework and written examinations (Table 9.3). However, the ratio between examinations and coursework varied between the schools. This appears to be the direct consequence of the differing approaches adopted by individual HEIs. Additionally there were also differences between the degree courses in the extent to which the assessment of practice was allowed to contribute to the final award (see Table 9.3). These differences also appear to be due to the influences of the approving HEI.

**Reduction in the practice element.** A comparison of the case study schools reveals that there were differences in the number of hours diploma students spent in practice (Table 9.4). Since the introduction of the three year full-time diploma course there had been no change to the number of hours radiography students spent in practice. By contrast, there had been a reduction in the number of practice hours in OT and chiropody. The COT reduced its minimum requirement from 2,000 hrs in the 1950s to 1,200 hrs in 1981. In chiropody the number of practice hours had been reduced significantly since the introduction of the three year diploma course in 1953 (see chapters two and six). The Chiropodist Board removed its requirement for a minimum number of practice hours in 1988 (see chapter two). As a result individual schools of chiropody decided how many practice hours to include in their diploma courses. It is suggested that there were considerable variations between schools of chiropody but that very few in the latter part of the 1980s timetabled students for more than 1,000 hours in practice (Comments from heads of schools of chiropody meeting attended by the researcher).
<table>
<thead>
<tr>
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<th>COURSEWORK</th>
<th>WRITTEN EXAMINATION</th>
<th>PRACTICAL</th>
</tr>
</thead>
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<td>27.9%</td>
<td>32.1%</td>
</tr>
<tr>
<td>OCCUPATIONAL THERAPY</td>
<td>50%</td>
<td>50%</td>
<td>pass all elements</td>
</tr>
<tr>
<td>RADIOGRAPHY</td>
<td>64%</td>
<td>36%</td>
<td>pass all elements</td>
</tr>
</tbody>
</table>

Table 9.3  Comparison of the assessment strategies of the degree courses in the case study schools. (source degree course documents)
The scale of the decrease in the number of hours degree students, in comparison to their diploma counterparts, spent on the practice element of their course was between 20% and 30% (see Table 9.4). Historically, when solely professionally accredited courses gained degree status the duration of the course was extended to meet the requirements for professional practice as well as degree study (see chapter one). It is suggested that economic constraints prevented these three para-professions from increasing their courses from three to four years. All three case study schools had to achieve the professional and academic needs of their degree courses in three years. In order to achieve this it is suggested that the HEIs required that the number of practice hours be reduced. Additionally, it is apparent from the study findings that all the HEIs valued theory over practice and believed that too much time on the diploma courses was spent in practice and that the practice element needed to be reduced if the course was to achieve degree worthiness.

It can be seen from Table 9.4 there were considerable differences in the practice hours between the three degree courses. Radiography degree students spent approximately 360% more time than their chiropody counterparts and 275% more time than their OT counterparts in practice. It is suggested that the number of practice hours in the professionally accredited degree courses were informed by historical practices and not by an objective calculation of the number of practice hours required to prepare for professional practice. There appears to be no accepted formula for the minimum or maximum amount of time which should be spent on the practice in professionally based degree courses. Furthermore, it is suggested that the HEIs were more concerned that there was a reduction in practice hours than with asking what was the purpose of the practice hours.

Greater emphasis on propositional knowledge. In the chiropody and radiography case study schools diploma students were not required to undertake background reading nor were they required to reference their work and substantiate their opinions. The emphasis was on gaining craft and procedural knowledge (see chapter one). Only in the OT case study school were diploma students required to undertake background reading and to reference their work. This was a relatively recent requirement and appears to have been influenced by the staffs’ experiences of studying for their own degrees. By contrast, in all three degree courses there was an emphasis on propositional knowledge. Degree students were required to read around the
<table>
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<th>Degree Course</th>
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<tr>
<td>RADIOGRAPHY</td>
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<td>2,479 Hrs</td>
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</table>

* No documentation of actual hours, approximation based on comments from staff in the case study schools

Table 9.4 Comparison of the number of practice hours in the diploma and degree courses in the case study schools

Source: - Diploma and degree course documents.
literature and substantiate their views and opinions by using references. Additionally, there was a greater emphasis on abstract knowledge than procedural knowledge. This was particularly evident in the OT case study school. However, in all three degree courses there was an emphasis on the study of the principles underpinning practice rather than the learning of specific procedures and routines.

There were inevitably differences between the diploma courses' syllabi. The chiropody and radiography diploma courses were based on the study of the natural sciences whereas OT was based on the social as well as the natural sciences. In all three case study schools changes were made to the study of the disciplines which supported the professional knowledge base. The study of the basic sciences was deleted in the chiropody case study school, the biological science and medicine syllabi were reduced in the OT case study school and the physics syllabus was reduced in the radiography case study school. In each of the case study schools the rationale for these changes was a belief that it was no longer necessary to study these subjects in the detail that they had been studied in the past. As a result, in all three case study schools there was less reliance on studying the natural sciences in the degree courses. By contrast, greater emphasis was placed on the study of the social sciences. The emphasis on the social sciences appears to have been partly driven by a desire in chiropody and radiography to broaden the students' knowledge base and to explore how the social sciences inform practice. It would also appear, particularly in the radiography case study school, that it was influenced by the host HEI and the expertise of its staff.

**Inclusion of the study of research methods and the requirement of a dissertation.** In all three case study schools the study of research methods and statistics was included in the degree syllabi. These subjects had not been addressed in the diploma courses. Staff believed that it was the inclusion of these subjects which differentiated degrees from diplomas. They believed it was essential that students studied these subjects for two reasons. Firstly, because it would encourage them to adopt a questioning approach and facilitate the development of problem solving and critical evaluation skills. Secondly, because it was essential that graduates were equipped with the skills to undertake research so that they could inform their respective para-professions' knowledge base.
The emphasis given to research in the case study schools differed. In the OT and radiography case study schools degree students were required to undertake an empirically based piece of research. By contrast, degree students in the chiropody case study school were not. This was probably because the chiropody degree was initially unclassified. However, when the unclassified chiropody degree was replaced with an honours degree the requirement for an empirically based piece of research was added. This suggests that the difference between unclassified and honours degrees lay in the requirement for an empirically based piece of research. Staff associated honours degrees with an undergraduate research project because of their own experiences of studying for a degree and also because the CNAA had required that the post-registration 'top up' degrees which it approved from 1986 should involve 'a substantial, supervised research project which would be supported by the study of methods of enquiry' (CNAA 1986).

It is evident that there were a number of changes to the initial education and training of these para-professions as a result of the transition from diploma to degree. However, the study findings indicate that the majority of diploma and degree students did not believe there would be noticeable differences between diplomates and graduates on qualification. This is in contrast to the findings of Jowett et al (1994) which indicated that the majority of Project 2000 students believed there would be differences between them and their non-diploma colleagues. Project 2000 students believed that they would be less willing to perpetuate routines without a rationale and that they would be far more questioning. The apparent differences between the beliefs of the Project 2000 students compared to the degree students from the case study schools suggests that the introduction of the Project 2000 course had a clearer rationale than the changes to the diploma courses for chiropody, OT and radiography and that this rationale was understood by those concerned. This may be because the introduction of Project 2000 was the topic of wide debate and discussion unlike the introduction of degrees for the three para-professions. It is suggested that far more public consideration had been given to the rationale for and the implementation of changes to the initial education and training of nursing compared to that for the three para-professions who are the topic of this study.

The degree students' experiences of their courses were influenced by the level of contact that they had with the HEI which approved their degrees. The chiropody degree students, because
of the geographical distance between their school and the accrediting HEI, had no contact with the approving HEI. By contrast, the OT and the radiography degree students were taught for part of their course by staff from the HEI. For these students the existence of two distinct cultures, that of the school and that of the HEI was very apparent. Both sets of students commented on differences between the lectures from the HEI staff compared to the staff from their respective schools. They believed that the HEI lecturers had a better grasp of their subject area and were able to draw upon a depth of knowledge that was not evident in the professionally qualified staff. Additionally, the radiography degree students were taught on the site of the HEI for part of the week. They commented on the differences in the manner in which they were treated on the HEI site. When they were in the HEI they believed they were treated as adults whereas in the school of radiography they likened their experiences to being treated as schoolchildren. Differences between the ethos of the HEIs and the professional schools were also noted by Project 2000 students. They believed that there were major differences in the ethos and teaching styles of their colleges of nursing compared to the HEI accrediting their course (Jowett et al 1994).

Staff from all three case study schools were ambivalent about the impact of degree status on students. On the one hand they believed that on graduation the degree students' knowledge of professional practice would be very similar to that of the diploma students. This was primarily because there had been no major changes to the professional knowledge base during the transition from diploma to degree. On the other hand, they believed that there were differences in how degree students used this knowledge because of the manner in which they had been taught and assessed. They believed that degree students would be able to articulate a rationale and justification for their practices, be able to practice independently and autonomously and display the attributes of lifelong learning. As previously noted these differences were not articulated by the diploma and degree students. It is beyond the remit of this study and also probably too early to assess whether degree students would display these attributes. Additionally, staff were uncertain whether graduates would be able to use the skills which the degree course supposedly developed. They believed that the high proportion of diplomates compared to graduates in the workplace and the current working practices in the NHS would provide little opportunity for graduates to utilise their higher level thinking skills. Similar
reservations have been expressed about the ability of Project 2000 nurses to utilise their newly found skills and make changes in practice (Hewison and Wildman 1996).

While staff believed that degree students would have the skills of reflection and would have the potential to practice autonomously they were concerned that the degree students found it difficult to relate theory to their practice. Additionally, staff in the OT and chiropody case study schools were particularly concerned that graduates were less practically able than their diploma counterparts. The valuing of theory over practice in the degree courses, especially in chiropody and radiography, appears to have initially, at least, had a deleterious effect on the degree students' abilities to relate theory to practice. In all the degree courses the emphasis was on the principles underpinning practice rather than the procedural and craft knowledge which has historically been associated with initial education and training. Squires (1990 p94) commented that 'many professional fields seem to have got more 'theoretical' over time ... This kind of academic-theoretical drift can yield benefits in terms of knowledge and academic status but it can also produce a reaction which attacks the increasing irrelevance or distortion of such studies'. It has been suggested that this academic drift steers students away from the more determined world of answers which are necessary for practice towards a greater understanding of the essentially questioning nature of knowledge (Bines 1992a). The latter, while valued by HE and by para-professions aspiring to improve their professional status, are of little value to the practitioner grappling with the realities of practice. There was also less time in the degree courses, especially for the chiropody and OT degree students, to practise skills and acquire the tacit knowledge associated with practice. It is suggested that degree students may experience considerable differences between the realities of practice and what they have learnt during their initial education and training. However, it is beyond the remit of this study to assess the impact of degree status on practice.

The only quantitative indicator of differences between diploma and degree students are the findings from the ELI which are presented in Table 9.5. The relatively small sample size from each of the three case study schools prevents statistical inferences being drawn from these results (see chapter three). Additionally, measuring differences between the last cohort of the diploma and the first cohort of the degree course may lead to spurious results. For a more meaningful analysis it would be better to sample students from a number of cohorts. However,
<table>
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<td></td>
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<td>Deg.-23.30</td>
</tr>
</tbody>
</table>

Table 9.5 Comparison of the scores from the Entwistle Learning Inventory for the diploma and the degree students in the three case study schools

* Mean score from Entwistle's research (Entwistle 1981)

** Standard deviation in brackets. Mean scores of less or more than half a standard deviation indicate a difference

**Bold type indicates a difference of more than half a standard deviation from the average (see chapter three)**

**Italic type indicates a difference of less than half a standard deviation from the average (see chapter three)**
the differences in ELI scores are worthy of comment. These scores can be explored not only for differences between diploma and degree students within each case study school (see discussion in chapters six to eight) but for similarities and differences between case study schools. It is of particular note that the differences between OT diploma and degree students were less than the differences between the chiropody and radiography diploma and degree students. This finding supports the conclusion that there were fewer changes to initial education and training in the OT case study school compared to the other two schools. The extent of the differences between the diplomas and degrees in chiropody and radiography suggest that there should have been differences between the ELI scores of the diploma and degree students.

The results of the chiropody and radiography diploma and degree students on the reproducing score are entirely expected. Given the likely effect of nationally set examinations on student learning it is not surprising that the diploma students scored higher on this scale than degree students. However, what is surprising and unexpected is that the chiropody and radiography diploma students scored higher on the meaning and versatile scores than their degree counterparts. Because of the emphasis on student centred learning and changes to assessment strategies in the degree course one would have expected the reverse. The chiropody and radiography degree students' scores on the meaning and versatile scales of the ELI suggest that they were less likely to look for meaning in what they were taught, were less motivated by an interest in the topics they were studying and were less likely to relate what they were learning to real life. In the chiropody case study school this may be the consequence of changes to the structure of the course (modularity), the study of so many small modules (31 in total) and the reduction of time spent in practice. In the radiography case study school it is probable that the changes to the content of the degree course (greater emphasis on physiology than anatomy and inclusion of sociology and psychology) plus changes to the way in which the practice element of the degree course was organised (blocks as opposed to two weeks in practice and one week in classroom) accounted for the findings.
Reasons for the changes to initial education and training as a result of the transition from diploma to degree

The prime reason that these para-professions achieved all-graduate entry was because individual HEIs were prepared to approve their courses of initial education and training as suitable for the award of a degree. The sole powers of the universities (and the CNAA until it was disbanded) to approve degree courses meant that the universities were the arbiters of what was and what was not a suitable course of study for the award of a degree. It has been suggested that the reasons why the HEIs were prepared to approve degrees for these para-professions were multi-factorial and that political and economic factors were the prime motivators. The HEIs were motivated by a desire to increase their number of degree students in response to the then government’s desire to expand the HE sector and by the introduction of a quasi-market into the HE and the NHS (see chapter four). It is concluded that without these factors the HEIs may not have been so willing to approve degrees for these para-professions.

While the motivator for the achievement of all-graduate entry for these para-professions was not educationally based it is evident from the study findings that educational changes were made to the initial education and training of these para-professions. The three para-professions adopted many of the characteristics associated with degree education into their degree courses. It would appear that these changes such as the emphasis on reflection and abstract knowledge were sufficient to convince HEIs that these courses satisfied their ill-defined criteria for degree accreditation. As noted in chapter one there is confusion about what distinguishes degree education from other forms of education. Despite this confusion it is evident that the para-professions, in particular chiropody and radiography, were aware that they had to include features into their degree courses which reflected current beliefs about the nature of degree education. There are many examples from the study findings which support this conclusion, for example, the reduction in the practice element, the valuing of theory over practice, the emphasis on propositional knowledge. It is suggested that the para-professions were assisted in their endeavours to gain approval from HEIs for their degree courses by the lack of clarity over just what it is that is distinctive about degree education in comparison to other forms of education. The extent to which the changes which were made led to fundamental as opposed to cosmetic changes to initial education and training is beyond the remit of this study.
Individual schools were facilitated in making changes to their initial education and training by the reduction in the control and influence of the professional bodies. For the chiropody and radiography professional bodies there was a considerable reduction in their influence and control over initial education and training. As previously noted joint accreditation led to the HEIs having far greater influence over the design and delivery of the degree courses than the professional bodies. However, it is argued that the changes to initial education and training, resulting from the transition from diploma to degree, were not solely the consequence of the newly acquired influence and control of the HEIs over the initial education and training of new recruits to these para-professions. It is suggested that many of the changes that were made to the diploma courses would have eventually been made in response to the professional agendas of these para-professions. This is because the para-professions believed that many of the changes that they made to their diploma courses as a result of the transition from diploma to degree would contribute to the professionalisation of their respective para-professions (see chapter ten). It should be noted that just prior to the transition from diploma to degree the chiropody and radiography professional bodies were both involved with a review of their diploma courses. The outcomes of these reviews were superseded by the speedy advent of degree status. It is suggested that if these two para-professions had not achieved approval of their degrees between 1989-1992, changes akin to those made by the COT would have resulted eventually. It is argued that the achievement of all-graduate entry served to speed-up these changes.

Many of the changes to the initial education and training of these para-professions were welcomed by rather than imposed on the staff of the case study schools. Staff believed that the development of autonomous and reflective practitioners, the emphasis on propositional knowledge, the inclusion of the study of research methods and the requirement that students undertake an empirically based piece of research were necessary if their respective para-profession was to improve its professional status. Additionally, staff wanted the freedom to incorporate the use of assessment strategies other than written examinations and to make changes to the syllabus as and when they believed necessary. They believed that this would enable them to make changes to their degree courses in response to external factors that influenced their respective para-professions. Staff believed that the potential benefits of the changes to initial education and training, as a result of the transition from diploma to degree, outweighed any disadvantages such as the reduction in the practice element of the course.
Chapter ten discusses the potential impact of these changes to initial education and training on the professionalisation of these para-professions.

A comparison of concurrent changes to the initial education and training of nurses and midwives shows that chiropody, OT and radiography were not alone in making changes to their initial education and training during the late 1980s. Project 2000 is the term commonly used to describe the change in nursing and midwifery education from a solely professionally accredited course to a Diploma in Higher Education which also led to registration as a nurse. The changes to initial education and training ensuing from the change in status to the qualification necessary for entry to nursing and midwifery have been well documented (Jowett et al 1994, Leonard & Jowett 1990). The changes to the initial education and training of nurses share many similarities with the changes to the initial education and training of chiropodists, OTs and radiographers. For example, as a result of the achievement of a diploma qualification in nursing there was a far greater emphasis on student centred learning and the adoption of assessment strategies other than written examinations (Jowett et al 1994). Of particular interest are the aims of the new professionally accredited diploma in higher education qualifications for nurses and midwives (Table 9.6). The following words and phrases repeatedly appear in the documentation pertaining to these courses: 'critically evaluate', 'student centred', 'explain and justify', 'practice autonomously' (Jowett et al 1994). The aims of the Diploma in Higher Education for nursing and midwifery appear to have a lot in common with the aims of the degree courses for the three para-professions. This suggests that other para-professions (nurses and midwives) were also looking to develop autonomous, reflective practitioner.

It is of note that although there were many similarities in the changes to the initial education and training of nurses with those to the initial education and training of chiropodists, OTs and radiographers the Diploma in Higher Education in Nursing and Midwifery is academically equivalent to two thirds of a degree. This suggests that the changes were not directly associated with the academic level of the qualifying award. It is concluded that irrespective of the level of the academic award the para-professions believed that future practitioners needed to be equipped with the skills to question and evaluate their practices and inform and enhance their professional knowledge base rather than just being competent to undertake duties under
1. critically analyse and synthesise material and engage in cogent argument.

2. understand the research process and be critical of research methodology and findings that may be applied in practice.

3. explain and justify practice that is based on a thorough theoretical grounding and the application of research, to their peers and a multi disciplinary team.

4. practice autonomously.

5. demonstrate professional accountability and commitment to continuing professional education and development.

6. give safe, compassionate, competent nursing care which acknowledges the individuality, stage of development and rights of the adult and is based on a model of nursing.

7. demonstrate confidence and competence in communication and teaching of adults, families and colleagues.

8. assign appropriate work to helpers and provide supervision and monitoring of assigned work.

Table 9.6  Aims of the Diplomas in Higher Education/Registered Nurse Qualification

Source:- Jowett at al 1994
instruction or according to agreed procedures. This suggests that the changes to initial professional education and training were predicated as much by professional needs as the need to satisfy HEIs that the initial education and training of these para-professions was worthy of a degree credential.

Conclusion

Despite the many differences between the diploma courses there were considerable similarities between the degree courses. The greater the central control exercised by the professional body over their diploma courses the greater the differences between their diploma and degree courses. The achievement of all-graduate entry in radiography and chiropody had a considerable impact on the design and delivery of their initial education and training. By contrast, there were comparatively few differences between the OT diploma and degree courses because of the effect of the COT's diploma '81 initiative.

The key features of the professionally accredited degree courses were aims that reflected the 'educative element' of initial professional education and training; the desire to develop reflective autonomous learners, a greater emphasis on 'theory' as opposed to practice, the valuing of abstract and propositional knowledge over other forms of knowledge, emphasis on developing research skills and undertaking empirical research, emphasis on student centred learning and developing life-long learning skills and the introduction of assessment strategies which facilitated the achievement of the aims of the courses. It is suggested that these key features were representative of all degree courses for these para-professions.

The HEIs were motivated to approve degrees for these para-professions because of their need to increase their student numbers in response to the political and economic consequences of the action of the then government to expand the HE sector. Two factors were responsible for the differences between the diploma and degree courses. Firstly, the para-professions incorporated features into their initial education and training which they believed (rightly so) would satisfy HEIs that their initial education and training justified degree accreditation. The para-professions were assisted in this endeavour by the lack of clarity about what is distinctive about degree education and what distinguishes it from other forms of education. Additionally, the reduction
in the influence and control of the professional bodies, as a result of joint accreditation, made it easier for individual schools to make these changes. Secondly, the para-professions believed that it was essential that they should develop an autonomous and reflective practitioner and used the vehicle of the transition from diploma to degree to achieve this aim. They believed that the development of autonomous, reflective practitioners would contribute to the professionalisation of their respective para-profession (see chapter ten).
Chapter Ten

CHANGING BY DEGREES

Introduction

The purpose of this chapter is to explore whether the achievement of all-graduate entry contributed to their professionalisation of these para-professions. The chapter concludes with an overview of the main study findings.

It is suggested that the following outcomes of the achievement of all-graduate entry may influence the professionalisation of these para-professions. This chapter explores each of these outcomes in turn and assesses whether they have the potential to affect the social status and/or market monopoly (professional project) of these para-professions:

- the achievement of a professionally accredited degree credential
- the reduction in the influence and control of the professional bodies over initial education and training
- the reduction in the influence and control of the medical profession over initial education and training
- the desire to develop reflective and autonomous practitioners
- the desire to enhance the professional knowledge base

The achievement of a professionally accredited degree credential. Credentials create market signals and provide information about the capacity and skills of occupations offering their services in the marketplace (Spence 1974). A degree credential has been associated with professions who have a high social status (Cook 1973). It is evident from the study findings that
these three para-professions believed that a degree credential, especially an honours degree, held a greater symbolic value and thus social status than a diploma qualification. However, it is evident from the study findings that the para-professions also wanted a degree credential in order to maintain relative parity with other occupations and professions and to achieve intra-professional parity within their respective para-professions.

A fundamental fact of professional life is inter- and intra-professional competition (Abbott 1988). It was important that these para-professions gained a degree credential in order to compete successfully for suitable recruits with those para- and semi-professions who had either already or were in the process of achieving all-graduate entry, for example, teachers, dieticians and physiotherapists. Additionally, it was important that these three para-professions maintained their relative social status vis a vis other professional groups. In particular they wanted to maintain the differential in credentials between them and other professional groups whose qualifying credential had historically held a lower social status. These three para-professions were concerned that, if they did not gain all graduate entry, nurses would receive a diploma credential (diploma in higher education) that had a symbolic value which was the same as the diplomas in chiropody, OT and radiography (see chapters six to eight). This possibility would threaten the existing difference in symbolic value and hence social status between the nursing credential and the credentials of the three para-professions.

The need to maintain intra-professional parity was as important to individual schools as the para-professions’ desire to maintain inter-professional parity. Within each para-profession once one school gained approval for a pre-registration degree the other schools followed. Additionally, once one of the schools gained approval for a three year honours degree the rest followed. As a result all-graduate entry at honours level quickly followed (see chapter five). Educational arguments why three year, pre-registration degrees for these para-professions should be at unclassified level and why honours degrees should be of four years duration rather than three years were secondary to the need to maintain parity with and compete with those schools which had already gained approval for three year honours degree courses (see chapter five). HEIs appear to have conspired with individual schools by processing the approval of honours degrees in a short period of time.
While a robust case can be made that the achievement of a degree credential helped to maintain inter- and intra-professional parity it is debatable whether it has or will in the future improve the social status of these para-professions. The expansion of the HE sector, in particular during the latter part of the 1980s, increased access to degree credentials including professionally accredited degree credentials (see chapter one). It is suggested that this had the effect of reducing the symbolic value and hence social status of a degree credential. By the late 1980s a professionally accredited degree credential was not the scarce resource that it was in the early part of the twentieth century or for that matter pre-1960s. If these para-professions had achieved all-graduate entry prior to the 1960s it is suggested that the symbolic value and the social status that ensued would have been far greater.

The achievement of a professionally accredited degree credential for these para-professions may have received greater symbolic value and hence social status if it had been accompanied by higher entry requirements and/or a longer period of initial education and training. Both these factors would have meant that it was harder for new recruits to access these para-professions. Long periods of initial education and training and high entry requirements have historically been associated with professions who have a high social status (Hugman 1991). It is not the actual duration of the initial education and training or the level of the entry requirements that is important but the comparative differences with other professions. Those professions with the longest periods of initial education and training, such as medicine and law, have been seen as having a higher social status than those whose initial education and training takes a shorter period of time. Additionally, professions which require entry qualifications which are much higher than other professions have been associated historically with having a high social status (Macdonald 1995). The achievement of a degree credential for these three para-professions did not result in either an increase in the entry requirements (except for OT) or to the duration of the courses. The entry requirements (at least for the first few years) and the duration of the courses were the same for both the diplomas and the degrees. The entry requirements for OT were increased as a result of all-graduate entry (see chapter seven). However, these entry requirements were not as high as for example, medicine or dentistry. Additionally, the entry requirements were not increased in order to attract better qualified new recruits but as a means of reducing the number of applicants to be considered for a place on the course (see chapter seven).
It is concluded that the achievement of a degree credential for these para-professions did not lead to improvements to the social status or market monopoly of these para-professions. However, it is suggested that if these para-professions had not achieved a degree credential their social status would have deteriorated in relation to other similar professions who had gained all-graduate entry.

**Reduction in the influence and control of the professional bodies over initial education and training.** Self-regulation over initial education and training has been seen as a key trait of established professions (see Table 1.3). Professions have historically taken all or at least some responsibility for accrediting initial professional education and training and for ensuring the expectations (standards) of society and those of the profession are met (Watson 1992). This is because initial professional education and training, in England, was established as separate and distinct from other forms of education, in particular HE (see chapter one). Self-regulation over initial education and training means that professions exercise control over who accesses the profession, the duration and content of the course and the assessment of students. Professions who have a monopoly over the initial education and training of new recruits can lay claim to ownership over and standardisation of the production of new recruits. This supports a profession's argument for greater market monopoly over their knowledge base services. Professions argue that control over initial education and training means that only they have the ability to determine access to their knowledge base.

The achievement of all-graduate entry resulted in the professional bodies having to share control over initial education and training with HEIs. As a result their influence over initial education and training was reduced (see chapter nine). The professional bodies exercised minimal control and influence over the content, delivery and assessment of the degree courses. Instead individual HEIs became the arbiters of the content, delivery and assessment of the degree courses. Since the establishment of all-graduate entry the professional bodies have endeavoured to exercise greater control and influence. They have all produced guidance to HEIs on their requirements for the practice based element, delivery and assessment of the professionally accredited degree courses (see chapter nine). However, as concluded in chapter nine, it is highly
unlikely that the professional bodies will ever be in a position to exercise the level of control and influence that they had over the diploma courses.

It is too early to predict the long term impact of the HEIs influence and control over the initial education and training of these para-professions. Since the data collection phase of this study another body with a vested interest in the initial education and training of these para-professions has been established. From 1990, Regional Health Authorities and subsequently NHS Management Executives were responsible for purchasing initial education and training for OTs and radiographers (see chapter four). In 1996 NHS Management Executives relinquished this role to NHS Education Consortia. In September 1998 the responsibility for purchasing initial education and training for chiropodists will pass from the Higher Education Funding Council to these NHS Education Consortia. It is not clear what the future impact of this arrangement will be on the initial education and training of these para-professions. However, it is probable that the NHS Education Consortia will exercise considerable influence and control over access to and the content and assessment of the initial education and training of these para-professions. It can be concluded that as a result of the approval of degree courses by HEIs and the establishment of NHS Education and Training Consortia the professional bodies have far less autonomy over the initial education and training of degree students than they had with diploma students. This loss of autonomy over the production of new recruits weakens the professional bodies’ argument for greater monopoly over their knowledge base services. If the para-professions do not have sole control or at least a major influence over access to and the content of initial education and training their argument that they are the gatekeepers of the professional knowledge base, and therefore should have the powers of self-regulation and monopoly, are diluted.

Reduced influence and control of the medical profession over the initial education and training of new recruits Historically, all three para-professions were reliant on the medical profession to support their professional development (see chapters one and two). Members of the medical profession were influential in helping to establish each of the three professional bodies as well as the initial education and training of their new recruits. The medical profession has been able historically to directly exercise influence and control the preparation of new
recruits to these para-professions and have used this, alongside other means, to maintain them in a subordinate position to medicine (Witz 1992).

Prior to the advent of the degree courses the involvement of the medical profession in the teaching and assessment of diploma students had declined in the OT and radiography case study schools but not in the chiropody case study. Once the degree courses were approved all of the case study schools made minimal use of medically qualified practitioners to teach degree students. Additionally, none of the case study schools used medically qualified practitioners to assess degree students. Without the benefits of a survey of all schools it is difficult to know whether this finding was representative of all schools. However, the researcher is aware of many degree courses for these para-professions and believes that the involvement of medically qualified personnel in assessing students decreased with the advent of degree courses, not least because HEIs do not like to pay the British Medical Association rates for part-time lectures.

A reduction in the influence of the medical profession over the initial education and training of these para-professions could be seen as a welcome consequence of the transition from the diplomas to degrees. The professional project of these three para-professions has been adversely affected by their dependence upon the medical profession (see chapters one and two). However, it is argued, that any benefits from a reduction in the influence of the medical profession were negated by the newly acquired influence of the HEIs and latterly the NHS Education Consortia over the initial education and training of these para-professions. The study findings indicate that HEIs were encouraging the use of non-medically qualified lecturers to complement and support the teaching provided by the professionally qualified staff. This was particularly evident in the OT and radiography case study schools where use was made of lecturers who were qualified to teach the supporting disciplines but did not have a medical or para-profession qualification. It is suggested that these subject based HE lecturers were replacing the influence that medically qualified practitioners previously exercised over the diploma courses. For example, in the radiography case study school the physiologists directly influenced the content of the anatomy and physiology syllabus.

It is concluded that these para-professions are less dependent upon the medical profession for achieving legitimacy and recognition for the initial education and training of their new recruits.
However, this has not led to greater autonomy for these para-professions. Instead the HEIs have replaced the medical profession’s influence and control over initial education and training. It is suggested that the HEIs, and latterly the NHS Education Consortia, have the potential to exercise far greater control and influence over the initial education and training of these para-professions than that exercised by the medical profession. Additionally, the reduction in the medical profession’s influence and control over initial education and training has not reduced the medical profession’s influence and control over the practice of these para-professions.

The desire to develop reflective and autonomous practitioners. Professions in order to survive and improve their social status and gain market monopoly have to develop their practices and respond appropriately to a range of external influences such as technological developments and changes in public expectations (Abbott 1988). Professions who do not adapt and adjust to these situations may find their market position is adversely affected. Therefore, professions in order to maintain their market position and where possible enhance it require practitioners who have the ability to make creative and unique responses to situations as they arise rather than patterned and stereotypical responses from the past (Jarvis 1983). In order to do this it is important that these practitioners have at their disposal a wide range of conceptual and action-based resources (Barnett 1997).

One of the most notable findings of this study was the belief, among the staff in the case study schools, that degrees would develop autonomous, reflective practitioners. This belief has been endorsed by others. For example, Ellis (1995) believed that degrees for these para-professions would: ‘produce reflective practitioners who can question orthodoxy, develop and evaluate new approaches... Degree educated practitioners are thought better equipped to provide a cost effective quality service and more able to cope with rapid technical, social and professional change than their diploma predecessors’. It is evident from the study findings that the diploma courses have historically been associated with developing practitioners who could undertake procedures and respond in a stereotypical way to situations. By contrast, the emphasis in the degree courses was on developing ‘autonomous, reflective practitioner’ which have the:

- skills to question and critically evaluate practice
- ability to provide a rationale and justification for their practices
• skills to undertake life-long learning
• ability to adapt and change to prevailing circumstances
• ability to practice independently

The para-professions’ motivations to develop autonomous, reflective practitioners were complex. The desire for autonomous practitioners as expressed in the Next Decade (CPSM 1979) was most likely motivated by a desire to reduce the influence of the medical profession over these para-professions and as a strategy for the para-professions to improve their professional status and in turn improve their market position. It is suggested that these reasons were still relevant at the time of the transition from diploma to degree. However, it is apparent from the study findings that staff also believed that these skills were essential if the para-professions were to respond to the consequences of the introduction of an internal market and general management into the NHS. During the 1980s the then conservative government implemented a number of policy changes into the NHS (Elston 1991). These policies were aimed at controlling public expenditure (Harrison & Pollitt 1994). When financial constraints are introduced into the public sector they are inevitably accompanied by the introduction of a deluge of accountability measures (Eraut 1994). The then conservative government’s aim was to ensure that the NHS provided value for money resulted in the introduction of the internal market and general management (Harrison & Pollitt 1994). These measures led to the health professions coming under increasing pressure to justify their role and contribution to the health of the nation (Harrison & Pollitt). Additionally, the replacement of functional management (whereby each para-profession was managed by someone from that para-profession) with general management (whereby para-professions may be managed by someone not from their para-profession) meant that the para-professions were often having to make their case to managers who were not health professionals or who belonged to another health profession. The net result was that the ability of para-professions to practice in the NHS with minimal interference to their professional judgement was being threatened.

It is unlikely that the major policy changes implemented in the NHS during the latter part of the 1980s had even been envisaged at the time of publication of the Next Decade (CPSM 1979). It is suggested that the desire to develop autonomous, reflective practitioners to respond to policy changes in the NHS was relatively recent. Furthermore, it is concluded that the reasons why the
para-professions wanted all-graduate entry changed over the years in response to prevailing political, social and economic changes. This would explain why there was confusion among staff in the case study schools about the need for degree status (see chapter five). The arguments for degree status were evolving and changing during the period of time that the para-professions were attempting to achieve all-graduate entry. It is beyond the remit of this study to evaluate whether the degree courses have developed autonomous, reflective practitioners and whether graduate practitioners differ from diplomate practitioners.

It is not clear how the development of autonomous, reflective practitioners will improve the professional project of these para-professions. It is suggested that such practitioners might secure a greater role in determining their daily practices and the organisational policies which affect them. The emphasis on the development of autonomous, reflective practitioners implies that there has been a change in emphasis from self-regulation by the professional body to individual members of a profession acquiring control over their everyday practices. It is suggested that as it is was highly unlikely that these para-professions would gain licensure and self-regulation these para-professions were focusing on the ability of the individual to control and influence their practice. If the para-professions were unable to gain market monopoly individual practitioners may be able to gain some form of market monopoly over their everyday practices.

The desire to enhance the professional knowledge base. It has been suggested that professions use improvements to their knowledge base to claim greater social and economic status (Culmer 1992). *Professions with a more substantive body of knowledge behind them are better able to convince society of the need for their services* (Elliot 1990). This knowledge has to be specialised and not available to the majority of society, in other words ownership of the knowledge gives the profession power over others (Hugman 1991, Tostendahl 1994). One of the means by which professions achieve this, other than by legislation, is by using a discourse which is peculiar to that profession and by controlling access to and the content of initial education and training (Eraut 1994). It is believed that only a profession whose knowledge system is governed by abstractions can redefine its problems and tasks, defend them from interlopers and seize new problems. Abstraction enables survival in the competitive system of professions (Abbott 1988).
It is evident from the study findings that the para-professions made the following changes to their professional knowledge base:-

- Greater emphasis on abstract and propositional as opposed to tacit knowledge.
- Valuing of theory over practice.
- Greater diversity in syllabus content.
- Use of research to inform the professional knowledge base.

The potential impact of each of the above on the professional knowledge base together with their potential to affect the social status and market position of these para-professions is discussed below.

The initial education and training of professions with a high social status places greater emphasis on the acquisition of detailed and extensive knowledge rather than on the contribution which this knowledge makes to informing practice and problem solving (Schon 1987). It has been suggested that the symbolic value of a profession's knowledge base is of as great if not greater importance than the direct applicability of that knowledge base to practice (Becher 1989). Additionally, in some professions a far greater emphasis has been placed on 'education' than preparation for practice (Barnett et al 1989). Professions whose initial education and training has a high practical component often have a lower status than those who do not (Engel 1983). The para-professions have attempted to achieve the above features by placing greater emphasis on abstract and propositional knowledge and by reducing the practice element of their initial education and training. It was suggested that these changes were intentionally made in order to satisfy the HEIs that the courses were worthy of a degree credential. The extent to which these para-professions consciously made these changes in order to enhance their social status and market position are less clear. For example, many of the staff from the case study schools were opposed to a reduction in the practice element of their courses. However, they believed that they had to implement this change in order to gain degree accreditation (see chapters six to eight). It is suggested that probably only a few within each para-profession appreciated how some of the less popular changes, such as the reduction in the practice element
of the courses, could be used to argue for greater social status and improvements to their market position.

Professions who can lay claim to a very specialised body of knowledge which they own and which they are continually developing by research usually have a higher social status than those who cannot lay claim to these attributes (Larson 1977). It is, therefore, important to professions who wish to improve their social status and market monopoly that they are continually enhancing and developing new knowledge via research. Prior to the advent of all-graduate entry these three para-professions had a minimal research base. The transition from diplomas to degrees resulted in a far greater emphasis on research. The intention was for all three para-professions to become research based professions. However, it is debatable the extent to which the para-professions can develop their knowledge base via undergraduate research. The requirement for small-scale empirical research projects may have been necessary in order to make a case for honours degrees. However, this type of research activity will not, on its own, contribute to improving the knowledge base of these para-professions. Unless the para-professions invest in large scale research projects and develop a corps of PhD students it is unlikely that research will inform and enhance their knowledge base. Without these developments it is unlikely that the para-professions will be able to enhance their professional knowledge base and use this improvement to argue for greater social status and market monopoly.

As a result of the lack of national guidance from the respective professional bodies there was greater opportunity for diversity in the degree syllabi between schools from each of the para-professions. The UKCC provided a rather vague outline regarding the structure and content of the knowledge that Project 2000 students should follow. This resulted in a diversity of courses which reflected the varied values and beliefs of those involved in planning and implementing the diplomas (Jowett et al 1994). It is suggested that the transition from diplomas to degrees had a similar outcome for these para-professions. HEIs were able to impose their own distinctive values and beliefs upon the curriculum of these professional based courses. The net result was that the boundaries of the professional knowledge base were far more fluid than they were in the diploma course. This may, in time, lead to improvements in the knowledge base because particular developments in one or more schools might be copied by other schools. By
contrast, especially because of the influence of individual HEIs, it may lead to a broadening and fragmentation of the professional knowledge that makes it difficult for each para-profession to claim its own peculiar and distinctive knowledge base. Additionally, it is too early to evaluate what effect if any changes to the study of the supporting disciplines will have to the professional knowledge base.

It is too early to assess whether the transition from diplomas to degrees will improve the para-professions’ knowledge base and whether these improvements could be used to contribute to improving the social status and market position of these para-professions. However, it is believed that the radical democratisation of knowledge and skills within society plus the para-professions’ dependence on the medical profession’s knowledge base make it unlikely that they will ever achieve a monopoly over their knowledge base.

Discussion

At the heart of this chapter has been the issue of whether the achievement of all-graduate entry will contribute to the professionalisation of the three para-professions. Professions operate in a social and political market which involves norms, role, power relations and hierarchy more than price (see chapter one). The professional project is defined as the efforts professions make within this market to improve their market position and thus achieve monopoly over their knowledge based services, high social status and respectability (Larson 1977). The ultimate achievement of the professional project is social closure whereby a profession monopolises available opportunities and excludes ineligibles (Macdonald 1995). In their endeavours to improve their social status and market monopoly professions have to take into account the influences of prevailing social, political and economic factors and the actions of other occupations and professions. The professional market, therefore, embodies the Weberian notion of conflict and competition (see chapter one). It was suggested in chapter one that these para-professions are unlikely to achieve the type of licensure and self-regulation which was achieved over a century ago by medicine and law and which has been successfully maintained and enhanced over the years by these professions. Because of this it was argued that these para-professions are more dependent upon other means, such as improvements to their initial education and training, to improve their market position. However, it would appear from the
preceding evaluation of the outcomes of the transition from diploma to degree that it is highly unlikely that the achievement of all-graduate entry will enhance either the social status or market position of these para-professions.

The key traits of initial education and training associated with established professions were considered in chapter one and listed in Table 1.3. Table 10.1 compares these traits with the features of the degree courses for the para-professions. It can be seen from Table 10.1 that the degree courses for the para-professions shared some, but not all, of the key traits associated with established professions. The following traits were shared; the achievement of a degree credential, a university based education and a greater emphasis on theory as opposed to practice. As already noted it is too early to evaluate whether changes to the professional knowledge bases will result in the para-professions achieving the following traits: a body of abstract knowledge, a monopoly over their knowledge base, a special discourse which belongs to the profession and a research base which informs and enhances the professional knowledge base. Although, the study findings suggest that all three para-professions are working towards the achievement of these outcomes it is debatable whether these changes will achieve the desired traits. It is evident from table 10.1 that the transition from diplomas to degrees made little contribution to achieving the other traits associated with the initial education and training of established professions. The achievement of all-graduate entry did not result in an increase to the duration of initial education and training nor, with the exception of OT, to an increase in the entry requirements. Additionally, the achievement of all-graduate entry rather than enhancing the role of the professional bodies actually led to a reduction in their ability to regulate and control entry to and prescribe the content of initial education and training. As a result of the transition from diplomas to degrees the professional bodies influence over the entry of new recruits to their respective para-profession was reduced.

It is concluded that the achievement of all-graduate entry and the changes to initial education and training resulting from the transition from diplomas to degrees served to maintain rather than enhance the market position of these para-professions. There is little evidence to indicate that the achievement of all-graduate entry will enhance the professional status of these para-professions. Not only did the para-professions fail to achieve all the key traits associated with
<table>
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<tr>
<th>Features of initial education and training which have been associated with occupations' attempts to improve their professional project</th>
<th>Outcomes of the transition from diploma to degree</th>
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<tr>
<td>(i) Certified and credential knowledge. It is suggested that only those with certified knowledge can define what are valid subjects of knowledge and valid criteria of pertinence and truth (Macdonald 1995)</td>
<td>(i) achievement of a professionally accredited degree credential</td>
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<td>(ii) a body of abstract knowledge. Abbott (1988 p9) suggests that only a profession whose knowledge system is governed by abstractions can redefine its problems and tasks, defend them from interlopers, and seize new problems. Abstraction enables survival in the competitive system of professions. It would appear that the need for this body of knowledge to inform and improve practice was of less importance</td>
<td>(ii) attempts to enhance the theoretical base. Emphasis on propositional as opposed to tacit knowledge. Theory does not always inform practice. Evidence that theoretical base may become divorced from practice</td>
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<td>(iii) long duration of initial education and training (Hugman 1991)</td>
<td>(iii) no change in the duration of initial education and training</td>
</tr>
<tr>
<td>(iv) university based, degree level education (Cook 1973)</td>
<td>(iv) achieved university based, degree level education</td>
</tr>
<tr>
<td>(v) ability of the professional body to regulate and control entry to, the content of and the assessment of students undertaking initial education and training (Macdonald 1995)</td>
<td>(v) the influence and control of the professional body reduced. Professional body has to share influence and control with the HEI who approves the degree</td>
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<td>(vi) high entry requirements (Cook 1973)</td>
<td>(vi) no immediate change to the entry requirements</td>
</tr>
<tr>
<td>(vii) importance of ensuring that body of knowledge is conserved for and owned by the profession. This is achieved via credentials and by a special discourse which only those belonging to the profession understand (Macdonald 1995)</td>
<td>(vii) attempts to enhance the professional knowledge and develop special discourse. No means of conserving the professional knowledge base for the respective para-professions</td>
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<td>(viii) suggestion that the body of knowledge would be dangerous in the hands of the untrained and unqualified (Torstendahl 1990)</td>
<td>(viii) no direct reference to this in the study findings</td>
</tr>
<tr>
<td>(ix) continued efforts by the profession to develop and enhance its knowledge base, usually through research (Macdonald 1995)</td>
<td>(ix) evidence that all three para-professions were attempting to develop their knowledge and research base</td>
</tr>
<tr>
<td>(x) a greater emphasis on theory as opposed to practice (Macdonald 1995)</td>
<td>(x) evidence that greater emphasis was placed on theory than practice in the degree courses</td>
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</table>

Table 10.1 A comparison between the key features of initial education and training associated with established professions with the outcomes of the transition from diploma to degree for the case study schools
the initial education and training of established professions, their attempts to enhance their professional status were impeded by the following:-

(i) their continuing dependence on the medical profession

(ii) their employment within the public sector, primarily the NHS

(iii) their inability to gain licensure and statutory regulation over their work

(i) The transition from diplomas to degrees was used as a vehicle to reduce the influence and control of the medical profession over the initial education and training of these para-professions. Additionally, there were endeavours to develop autonomous, reflective practitioners with a specialised theoretical knowledge base and discourse peculiar to the para-profession and distinctive from medicine. However, it is suggested that even if these endeavours are successful it is likely that these para-professions will continue to be subordinate to the medical profession because their practice is influenced by and dependent upon the practice of medicine. The medical profession have historically been in a position to influence the practices of these para-professions by acting as gate-keepers to their services (Larkins 1983). The reduction in the medical profession’s influence and control over the initial education and training of these para-professions has not reduced this role. In practice the medical profession continue to exercise considerable control and influence over the practices of these para-professions (Saks 1998).

It is believed that the way in which these para-professions emerged as occupational groups will always stifle their desire to gain true independence from the medical profession (Johnson 1972). The establishment of these para-professions is believed to be due to the power of physicians to delegate as opposed to the power of the these para-professions to establish themselves as separate professions (Johnson 1972). The medical profession continue to exercise considerable influence and control over the practices of these para-professions not least because of their role as gate-keeper to their services (in particular radiography and OT services) and to resources. Although the achievement of all-graduate entry may have reduced the influence and control of the medical profession over initial education and training it is unlikely that this will reduce the
medical profession's influence and control over their everyday practices. It has been suggested that as long as the practices of the para-professions are dependent upon the medical profession they will be unable to achieve market monopoly over their services (Freidson 1970, Larkin 1983). Additionally, while the medical profession recruits students with higher entry requirements and requires students to undertake a longer period of initial education and training it is likely that these para-professions will continue to be perceived as having a lower professional status.

(ii) The effects of the employment of professions by industry, commerce and the public sector were discussed in chapter one. It is suggested that the employment of these para-professions within the NHS will prevent them from improving their economic position, social status and market monopoly despite improvements to their initial education and training. It is believed that professions use the achievement of a degree credential to argue for greater economic rewards for their knowledge based services (Atkinson 1989). By 1997 none of these three para-professions had achieved substantial increases to their NHS salaries which had only increased in response to inflation. As noted in chapters one and two the majority of these three para-professions are employed by and were, therefore, affected by the policies of the NHS. As previously noted during the period of time that these three para-professions made the transition from diplomas to degrees the NHS was undergoing major organisational and economic changes that prevented large pay increases (chapter nine). More importantly, during this period of time the then government was attempting to reduce the power of the professions within the NHS and improve skills mix (Harrison & Pollitt 1994). It is suggested that any arguments put forward by these para-professions that they should receive a pay increase because they were an all-graduate profession were negated by the prevailing economic and political policies affecting the NHS. Additionally, these para-professions were inevitably affected by the current policies and resource distribution in the NHS. As noted earlier in this chapter they found that they were having to provide a rationale for and justification for their services in the internal market of the NHS. However, the medical profession do not appear to have been as effected by these policy initiatives, furthermore their authority over other health professions does not appear to have been directly reduced (Elston 1991). It is concluded that these factors negate any potential for these para-professions to argue for improvements to their social status and market position.
It is suggested that any improvements that professions make to their initial education and training have less value if they cannot use these improvements to gain legislation to protect their professional and clinical autonomy. The medical profession, in England, have been particularly successful in gaining legislation to protect their activities and thus achieve market monopoly (Macdonald 1995). It is unlikely, within the current political climate, that these three para-professions will achieve statutory safeguards for access to and use of their knowledge based services. As a result it is harder for these para-professions to claim a market monopoly. Without legislation the knowledge base of these three para-professions is in the public realm and may be challenged, compared or linked up with knowledge that is in the realm of other professions, sciences or specialisms and universities.

Study Conclusions

The aims of this study have been twofold. Firstly, to explore the nature of and the reasons for changes to initial professional education and training. Secondly, to explore the potential impact of the achievement of all-graduate entry on the professionalisation of these para-professions. The study adopted a three stage approach. The first stage involved a historical review aimed at identifying how and why these three para-professions wanted to achieve all-graduate entry. For the second stage a quasi-experimental design based on case studies was used. The case studies, one school from each of the three para-professions, explored the factors which led to the achievement of all-graduate entry, the reasons why the three para-professions wanted degrees and the differences between the diploma and degree courses. The final stage of the study compared the findings from the case study schools to identify similarities and differences between the diploma and degree courses of these para-professions.

It is clear from the findings of this study that the achievement of all-graduate entry for these para-professions was due to the effects of the expansion of the HE sector and the introduction, by the then government, of a quasi-market into the HE and NHS sectors (see chapter four). The introduction of this quasi-market created a ‘window of opportunity’ for these para-professions and allowed them to gain their goal of all-graduate entry. It also predisposed HEIs to approve degree courses for these para-professions. However, the achievement of all-
graduate entry was not a matter of HEIs approving the existing diploma courses, all three para-professions made changes to their diploma courses in order to gain a degree credential. The extent of the changes made by each para-profession differed because of variations in the level of influence and control exercised by the respective professional bodies over their diploma courses and the nature of the diploma courses themselves.

All three para-professions incorporated features into their degree courses which have been associated historically with degree education and also with the 'educative' element of initial education and training. As discussed in chapter one it is very difficult to identify what, other than a HEI's sole role in approving degrees, distinguishes degree education from other forms of education. It is concluded that the para-professions intentionally made changes to their initial education and training which they believed would satisfy the HEIs that their initial education and training courses were worthy of a degree credential. It suggested that in doing this they exploited the lack of clarity over what is distinctive about degree education. For example, they cited a desire to develop reflective and autonomous practitioners and included features such as research and forms of seemingly abstract, theoretical knowledge into their degree courses. However, it is questionable whether these features are what makes a degree different from other forms of education. Firstly, as discussed in chapter one, there is little evidence to indicate that these features are characteristic of all degree courses or that they are the preserve of degree courses. Secondly, it is not clear the extent to which these features are or will in the future be realised in the degree courses for these para-professions. For example, all the degree courses emphasised the importance of research. However, the research base of these para-professions was negligible and according to Ellis (1995) insufficient to support degree level education. It is argued that it will take some time for these para-professions to develop a research base which will inform a body of abstract theoretical knowledge. Yet these courses have already been approved as being of degree standard. The findings from this study support the conclusion that degree education is a contested concept and is dependent upon whether a HEI can be persuaded that a course satisfies their requirements for degree accreditation. It is evident from the study findings that the HEIs' decision to approve degrees for these para-professions was influenced by political and economic factors (such as the government's decision to engineer an expansion of the HE sector) more than educational factors.
It is evident that all three para-professions incorporated features into their degree courses that they believed would satisfy HEIs that their courses were worthy of degree accreditation. However, nursing and midwifery were also making changes to their initial education and training around the same time. There were considerable similarities between the aims of the degrees for these para-professions with those of the diplomas for nurses and midwives despite the differences in the academic level of the qualifying credential. This finding together with the reasons given by the para-professions for the need for all-graduate entry (see chapter five) support the conclusion that changes to initial education and training were also motivated by professional agenda as well as the desire to satisfy HEIs that the initial education and training of these para-professions was worthy of a degree credential. The similarities between the aims of diploma level initial education and training for nurses and midwives and the aims of the degrees for these para-professions supports the conclusion that degree education is a contested concept and suggest that it is difficult to distinguish between degree education and other forms of education.

The professional reasons which motivated the changes to initial education and training for these para-professions were four-fold; to improve their social status via the achievement of a degree credential, to develop autonomous, reflective practitioners, to enhance the professional knowledge base and to reduce the dependence of these para-professions on the medical profession. However, as discussed in this chapter it is debatable whether the changes to initial education and training will achieve any of these. It is concluded that that the changes to initial education and training were necessary to maintain the market position of these para-professions but that they made minimal contribution to their professional project. This conclusion is based on four factors. Firstly, the influences of the market in which professions operate. Secondly, the dependence of these para-professions on the medical profession. Thirdly, the employment of the majority of these para-profession within the public sector. Fourthly, the inability of these para-professions to gain legislation to protect their knowledge based services.

Professions operate in a market where they vie with each other for social status (see chapter one). They have to continually monitor the social and economic position of other occupations
and professions and take appropriate actions to maintain and where possible enhance their market position. Unfortunately by the time these three para-professions gained all-graduate entry the symbolic value of a degree credential was insufficient to lead to improved social status. Additionally, the achievement of a degree credential for these para-professions was not accompanied by tighter restrictions (higher entry requirements) on who could access the para-professions nor did it mean that potential recruits would have to undertake a longer period of initial professional education and training. All of these factors were essential if the para-professions were to claim greater social status for their initial education and training in comparison to other professions.

The dependence of these para-professions on the medical profession has been discussed in this and previous chapters. The achievement of all-graduate entry led to the influence of the medical profession over initial education and training being replaced by the HEIs and latterly the NHS Education and Training Consortia. The reduced influence of the medical profession did not, therefore, lead to the para-professions achieving control over the production and standardisation of new recruits. Additionally, although the medical profession’s influence and control over initial education and training was reduced they still exercised considerable influence and control over the practices of these para-professions. The para-professions continue to be dependent upon the medical profession for their practice. In view of this the para-professions are in a weak position to argue for market monopoly over their work.

The position of professions who are employed in the public sector or industry was discussed in this chapter and chapter one. As a result of changes in employment and political, social and economic changes during the latter half of the twentieth century it is very difficult to see how occupational groups which did not achieve licensure in the nineteenth century or the early part of the twentieth century will achieve social closure as we near the end of the twentieth century. It was suggested in chapter one that occupational groups and professions which have not achieved licensure have to look to alternative means of improving their market position and social status such as improvements to their initial education and training (see chapter one). However, for these para-professions it appears that the achievement of all-graduate entry will have a minimal impact on improving their market position or social status.
It is concluded that a concatenation of factors motivated and led to the achievement of all-graduate entry for these para-professions. To suggest that these para-professions intentionally set out to achieve all-graduate entry in order to improve their social status and market monopoly would be wrong. These para-professions had no choice, when the opportunity arose, but to enter the HE sector and gain a degree credential for their initial education and training. This was because of the growth of the HE sector, the resultant increased access to degree credentials and in particular professionally accredited degree credentials and the need to maintain inter- and intra-professional parity. Although, the para-professions may have believed that gaining a degree credential would improve their professional project it primarily served to maintain their current social status and market position. It is concluded that in the market in which professions operate professions have to adapt to and make changes in response to prevailing, social and economic factors as much, if not more so, to maintain their market position as to enhance it.
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ANNEX A

List of schools who made the transition from diploma to degree in each para-profession
## SCHOOLS OF PODIATRY IN ENGLAND

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>INSTITUTION</th>
<th>START DATE OF DEGREE</th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>TOTAL NOS OF STUDENTS</th>
<th>INTAKE 1992</th>
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<td>BIRMINGHAM</td>
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ANNEX B

Entwistle Learning Inventory
**Short inventory of approaches to studying**

Please answer every item quickly by giving your immediate response. Circle the appropriate code number to show your general approaches to studying.

4 (VV) means Definitely agree  
3 (V) means Agree with reservations  
1 (x) means Disagree with reservations  
0 (xx) means Definitely disagree  
2 (?) is only to be used if the item doesn’t apply to you or if you find it impossible to give a definite answer

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<td><strong>1. I find it easy to organise my study time effectively.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
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<tr>
<td><strong>2. I try to relate ideas in one subject to others, whenever possible.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>3. Although I have a fairly good general idea of many things, my knowledge of the details is rather weak.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>4. I like to be told precisely what to do in essays or other set work.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>5. The best way for me to understand what technical terms mean is to remember the textbook definitions.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>6. It’s important to me to do really well in the courses here.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>7. I usually set out to understand thoroughly the meaning of what I am asked to read.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>8. When I’m doing a piece of work, I try to bear in mind exactly what that particular teacher/lecturer seems to want.</strong></td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>
9. I am usually cautious in drawing conclusions unless they are well supported by evidence.

10. My main reason for being here is so that I can learn more about the subjects which really interest me.

11. In trying to understand new ideas, I often try to relate them to real life situations to which they might apply.

12. I suppose I am more interested in the qualifications I’ll get than in the courses I’m taking.

13. I’m usually prompt at starting work in the evenings.

14. Although I generally remember facts and details, I find it difficult to fit them together into an overall picture.

15. I generally put a lot of effort into trying to understand things which initially seem difficult.

16. I often get criticised for introducing irrelevant ideas into essays or discussions.

17. Often I find I have to read things without having a chance to really understand them.

18. If conditions aren’t right for me to study, I generally manage to do something to change them.

19. Puzzles or problems fascinate me, particularly where you have to work through the material to reach a logical conclusion.
20. I often find myself questioning things that I hear in lessons/lectures or read in books. 4 3 1 0 2

21. I find it helpful to ‘map out’ a new topic for myself by seeing how the ideas fit together. 4 3 1 0 2

22. I tend to read very little beyond what’s required for completing assignments. 4 3 1 0 2

23. It is important to me to do things better than my friends, if I possibly can. 4 3 1 0 2

24. Tutors/teachers seem to want me to be more adventurous in making use of my own ideas. 4 3 1 0 2

25. I spend a good deal of my spare time in finding out more about interesting topics which have been discussed in classes. 4 3 1 0 2

26. I seem to be a bit too ready to jump to conclusions without waiting for all the evidence. 4 3 1 0 2

27. I find academic topics so interesting, I should like to continue with them after I finish this course. 4 3 1 0 2

28. I think it is important to look at problems rationally and logically without making intuitive jumps. 4 3 1 0 2

29. I find I have to concentrate on memorising a good deal of what we have to learn. 4 3 1 0 2
ANNEX C

Scoring Instructions for the Inventory
Scoring Instructions for the Inventory

The letters in the extreme right column of the inventory (Appendix A) indicate the scale to which the item belongs. Write down each of the letters across a page as follows:

A   B   C   D   E   F   G

Under the appropriate letter write down the code number of each answer you gave. You should finish up with six code numbers for scales A B D and three code numbers for C E F G. Add up each set of code numbers to give a score on each scale.

The A scale gives a score out of 24 on the ‘achieving’ orientation which indicates well-organised study methods, competitiveness and hope for success.

The B scale is also out of 24, but describes the ‘reproducing’ orientation of surface approaches to learning, extrinsic motivation and syllabus-boundness.

The D scale, again out of 24, is a measure of the ‘meaning’ dimension of deep approaches to learning, intrinsic and academic motivation.

The remaining scales are formed by adding together various totals.

Combining C and G scores gives an indication of tendency towards a comprehension learning style (out of 24).

Combining E and F scores gives a measure of the operation learning style (out of 24).

An index of a versatile approach to learning is provided by adding together D + C + E (out of 48).

An index of pathological symptoms in learning is given by combining B + F + G (out of 48).

The best prediction of overall academic success is likely to be produced by calculating the following

\[ A + D + C + E + (48 - B - F - G) \] (out of 120)

which combines the versatile approach with organised study methods and a lack of pathological symptoms.