Quality and Standards: the Challenge of the Professional Doctorate

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Introduction

This paper traces the development of professional doctorates within UK higher education and highlights some of the issues relating to quality and standards that have emerged. It is based on a review of the literature in the field, which is limited at present; interviews with a number of programme directors and examiners; and the personal experience of the author as Director of two professional doctorate programmes. It should also be noted that the author has supervised over 20 PhD students and is therefore experienced in both PhD and professional doctorate programmes The paper is not based on an extensive research project; rather it represents a personal reflection by an experienced practitioner in the field.

Background

Through the 1990s and into the present century, UK universities witnessed a steady increase in the number of research students. In the ten years between 1994-95 and 2003-04, the total number of research students increased from 86,960 to 111,435 (28%) (Appendix I). Numbers of both full-time and part-time students increased through this period. At the same time, there were important shifts within the disciplinary mix of research students. Two groups, Physical Sciences and Engineering and Technology, continued to represent significant groups (14% and 16% respectively of the total in 1994-95; 11% and 13% respectively in the total in 2003-04), but the actual numbers of research students in these subject groups remained almost unchanged. Meanwhile, in other disciplines, numbers increased rapidly, notably in Subjects Allied to Medicine, Computer Science, Law, Mass Communications and Documentation, Creative Arts and Design and Education, all of which increased by over 50% within this decade. Other disciplines grew significantly in both numerical and proportionate terms, notably Medicine, Biological Sciences (which overtook the Physical Sciences in size) and Social Studies. Overall, it is clear that the population of research students in the UK was not only growing but it was becoming much more diverse in nature, more diverse by discipline and more diverse by mode of study. Of the six subject areas showing the largest % increase in numbers, five (Subjects Allied to Medicine, Law, Mass Communications and Documentation, Creative Arts and Design and Education) all witnessed very significant growth in part-time numbers. Further, the growing diversity was part of wider changes within the population of postgraduate students, especially the expansion of taught programmes and the expansion of postgraduate activity in the former polytechnics and other new universities (see Taylor (2002 and 2004)).

An important aspect of this increasing diversity of research students was the emergence of professional doctorates. National statistics for research student numbers do not distinguish between “traditional” doctoral degrees (the PhD or DPhil) and professional doctorates. On the basis of published data, it is therefore impossible to say with any statistical certainty how many students are studying for professional doctorates or to what extent these programmes are responsible for the overall growth in doctoral students. However, researchers are clear that there has been a significant increase in the number of professional doctorates in this period. Bourner et al (2001) refer to an approximate increase of 20% in the number of professional doctorate programmes in the 1990s; the UK Council for Graduate Education (UKCGE) identifies 109 programmes in 1998, 128 in 1999 and 153 in 2000 (UKCGE, 2002) and a further survey listed 192 such programmes in 2005 (UKCGE, 2005). Both surveys undertaken by the UKCGE showed a level of non-returns by universities, some of whom are known to have offered professional doctorates at the time of the survey, so the figures quoted are most definitely under-estimates. Nevertheless, they point convincingly to the expansion of professional doctorates. Numbers of students are even more difficult to estimate, but the UKCGE survey in 2005 identified the highest numbers in Education (1864), Clinical Psychology (1775) and Medicine (1395); the next biggest totals were Business Administration (434) and Engineering (301). This survey showed in total 6676 students taking professional doctorates. As stated above, this is certainly an under-estimate. It is reasonable to assume, however, that the number of students studying for professional doctorates represent between 5-10% of the total population of research students, and form a

growing proportion; among part-time research students, those taking professional doctorates may form between 15-20% of the population.

Professional doctorates are found in universities throughout the UK higher education system. In 2002, the UKCGE reported that in the UK Professional Doctorates originated predominantly within the pre-1992 sector, but that much of the growth was in the post-1992 universities (the former polytechnics) (UKCGE, 2002). One interpretation would be that the pre-1992 universities, which tend to have the strongest research base, have placed an emphasis on the traditional research degree (PhD), whilst the newer universities, with their more vocational bias and applied research emphasis, have increasingly emphasised professional doctorates. However, this would be a false interpretation. Not only did professional doctorates originate in the older universities, but much of the growth has also been in this sector. The 2005 UKCGE survey showed that, of 34 pre-1992 universities responding, 28 offered at least one professional doctorate (UKCGE, 2005). Within the Russell Group of 20 leading research-based universities, 16 offered professional doctorates. It is clear, therefore, that not only do the professional doctorates represent a growing contribution to UK postgraduate research, but they are doing so across a wide range of institutions, including most of the UK's strongest research-based universities.

What has prompted this expansion? From the point of view of the universities, there are several, varying motives:

- Professional doctorates have represented a means to increasing the number of research students, by developing new markets, especially in certain subject areas. For older research-based universities, these students form part of the fulfilment of their research mission and help to strengthen the research base in these subject areas. By opening up new sources of potential research students, these universities have used professional doctorates to reinforce their research activity. For new universities, professional doctorates offer a route towards the establishment of a research base within specific subject areas, thereby contributing to the emergence of an institutional research profile. Many professional doctorates exist in subject areas without a long tradition of research activity (for example in many health-related professions, such as Counselling, Nursing or Physiotherapy) and for the universities concerned, these degree programmes can form part of a strategy for developing research in these new and emerging disciplines.

- For the universities, the delivery of professional doctorates helps to consolidate links with key stakeholders and, thus, forms part of developing a wider relationship of value to the University. In many Business Schools, the professional doctorate (DBA) forms a link with key personnel in leading public organisations or private sector companies. These links can result from or lead on to other activities such as research funding, consultancy, access to companies for case studies and projects, and external advice to the Business School and university.

- In some subject areas, the professional doctorate has become the accepted, sometimes exclusive, route into a particular profession. Thus, in Clinical Psychology the professional body which regulates the profession decided that the required entrance qualification, previously a Masters programme, should be revised as the Doctorate in Clinical Psychology. In effect, if universities want to deliver a programme in Clinical Psychology for intending professionals, there is no option but to offer a professional doctorate.

- The professional doctorate may be a mark of prestige in particular subject areas. For example, the Doctor of Engineering (EngD) is offered by many of the UK's leading universities with outstanding research strength in this area (such as Cambridge, Edinburgh, Loughborough, Southampton and Warwick). The degree offers a broader research experience, including active interaction with industry, which is regarded as "elite" programme for outstanding students.

- There may be financial incentives towards the delivery of professional doctorates. Commonly, fees are higher than for traditional PhD programmes. Professional doctorates are also delivered on a cohort basis, leading to efficiencies of delivery compared with the PhD. A successful professional doctorate may be financially lucrative. The Programme Director of one programme with about 35 students reported an annual "surplus" in excess of £100,000.

From the student perspective, the professional doctorate has offered new opportunities, especially for part-time study. The key differences between the professional doctorate and the PhD may be summarised as follows:

- The professional doctorate normally combines instructional work with a research project or projects within a structured programme. These programmes tend to have a more formal structure (prescribed elements, prescribed outputs, required periods of attendance, clear deadlines) compared with the relative informality of most PhD programmes. This sense of a planned timetable, with clear milestones *en route* is often attractive to experienced professionals who wish to combine ongoing work commitments with research and high-level study. Many professional doctorates lay out a clear study plan for three or four years, allowing such staff to plan their absences from the workplace and to measure their progress towards completion with some degree of confidence.

- The professional doctorate is normally delivered on a cohort basis to groups of students (commonly groups of 5-20). This provides for networking and the sharing of professional experiences, a feature of most professional doctorates and very attractive to many practicing professionals. The groups structure not only enriches the programme but it also provides peer group support. One programme director told how when one student within a group was struggling with an assignment and was contemplating withdrawal from the programme, all her fellow groups members sent words of encouragement; one student wrote “we are all in this together and we will all get through it together”. Interestingly, this sense of group identity and *camaraderie* seems to apply even with international groups of students who may only see each other for short periods each year, but who maintain regular contact by telephone, email and internet. For many students, this group structure is attractive compared with the perceived isolation of the part-time research student who, whilst supported by a supervisor, tends to be working much more on his or her own.

- The content of a professional doctorate tends to be more “applied” in nature, of direct relevance to the workplace, both in study programmes and research project. The programmes are seen as directly relevant to career development and progression. Many research projects are workplace-based, sometimes involving co-supervision with a representative of the employer. For these reasons, the professional doctorate can be a more attractive option both for students and for their employers. In this sense, the professional doctorate may be seen as part of the emergence of Mode 2 knowledge production (Gibbons et al, 1994), linked more closely with user requirements and often involving interaction with external partners. However, in other respects, some professional doctorates differ from the Mode 2 norm; for example, some programmes, especially those in some health professions, are highly specialised, tied closely to their particular professional discipline.

These are some of the reasons why some students are attracted to professional doctorates. In most cases, these students have not faced a decision between a traditional PhD and a professional doctorate; very few of these students were attracted by the PhD and a very small minority see the doctorate as a route to an ongoing academic career. Significantly, therefore, they are additional students who almost certainly would not have followed a doctorate without the availability of the professional doctorate.

What is the Professional Doctorate?

The Professional Doctorate is a much older form of degree than is often realised, although, to date, it has been concentrated within the Anglo-Saxon higher education systems. The Doctor of Education (EdD) was offered by the University of Toronto in 1894 and EdD programmes were introduced by universities in the USA in the 1920s; in Australia and the UK, EdD programmes and other professional doctorates began to emerge in the 1980s. The professional doctorate is well established today in the United States in many professional disciplines and has recently expanded in Australia; Maxwell writes of a "second generation" of such doctorates in Australia based on flexible modes of delivery, closer integration with the professional workplace and the use of portfolio models of assessment (Allen *et al*, 2002; Bourner *et al*, 2001; Maxwell, 2003; Scott *et al*, 2004).

So, what is the professional doctorate? This is clearly an important question, but, sadly, there is no straightforward answer. One definition used by the UKCGE is as follows:

> "An award at a doctoral level where the field of study is a professional discipline and which is distinguished from the PhD by a title that refers to that profession."

Hence, a range of titles, including Doctor of Education (EdD), Doctor of Engineering (EngD), Doctor of Health Sciences (DHS)), Doctor of Medicine (MD), Doctor of Theology (DD), Doctor of Business Administration (DBA), all of which cover fairly broad professional areas and Doctor of Physiotherapy (DP), Doctor of Clinical Psychology (DClinPsy) and Doctor of Educational Psychology (DEdPsy) all of which are more specialised.

However, this definition says nothing about the nature of the professional doctorate. in practice, the professional doctorate offered in UK universities varies widely. Various typologies may be proposed:

(i) By profession

* Specialist	-	programme directly related to a specialist profession (sometimes a requirement to practice) eg (DClinPsy) for Clinical Psychologists
*Generic	-	programme based more broadly within a particular subject area, often combining more generic material with a specialist research project eg Doctor of Business Administration (DBA) covering a range of Management disciplines.

(ii) By mode of delivery

*Full-time	-	relatively unusual, but available in some of the more specialist programmes
*Part-time	-	the most common mode of delivery, often involving compulsory short periods of attendance and/or elements of distance learning.

(iii) By content

*Extended Masters	-	some professional doctorates include elements of Masters programmes (both specific content and more generic elements);

the extent to which programmes include such material varies widely.

*Dedicated programmes - other professional doctorates include only dedicated material developed specifically for the programme.

(iv) By character

*Predominantly taught - mainly taught programmes (sometimes including periods of professional practice), normally with a range of assignments followed by a research project (which may or may not be examined by an individually appointed external examiner); in this case, the programme is shaped by a preconceived set of desired learning outcomes.

*Predominantly research - with an emphasis on research, including some taught material and other study formats, but with research methods training and concentrating on research-led assignments and a major research project (examined by an individually appointed external examiner with similar expectations for the PhD); in this case, the programme is less prescribed and reflects more of the unpredictability of the research process.

(v) By professional status

*Pre-service - a high-level entrance qualification, often for graduates from other disciplines such as Educational Psychology or Clinical Psychology

*Post-service - an award for experienced professionals wishing to develop their careers in new directions or to acquire additional skills and knowledge

(vi) By method of assessment

*Coursework and dissertation - normally by assignments (but also by short projects, group projects, presentations and formal examinations) followed by a dissertation (showing an awareness of current research and possibly an addition to knowledge)

*Portfolio assessment - a range of assignments, often of varying length, which may or may not be based around a common theme (but without a formal dissertation or with a much reduced dissertation) and which show an awareness of research and possibly an addition to knowledge.

*Coursework and thesis - relatively short assignments, followed by a major research project and thesis (normally requiring an addition to knowledge and the potential for publication).

Such diversity inevitably causes confusion in the eyes of universities, academic staff, university managers, students and employers. Herein lies the origin of many of the issues relating to quality and standards, which will be the focus for the rest of this paper.

Questions of Quality and Standards

Inevitably, a relatively new degree format, especially one as diverse as the professional doctorate, will give rise to many different arguments and interpretations as far as quality and standards are concerned. Equally inevitable are the further comparisons drawn with the PhD. In the eyes of many academic staff and some employers, the PhD represents "the gold standard" and that any other form of doctorate is, at best, an inferior award, but, at worst, jeopardises the whole meaning and understanding of "a doctorate". Such views are deeply rooted and are prevalent both within the UK and outside. One UK programme director referred to a Portuguese student who moved from DBA to PhD because the DBA was not recognised in her home country and an Australian student who had received criticism for electing to do a DBA since this was a "second rate degree". However, it can also be argued that the professional doctorate and the PhD are actually different routes to the same endpoint (the doctorate) which might suit the different circumstances of individual students. By this interpretation, the professional doctorate is awarded for work of an equal standard as the PhD. A further dimension in this debate is the requirement in some professional doctorates to demonstrate not only a contribution to knowledge but a contribution to professional practice. This is a very blurred distinction, since in many cases, especially where workplace-based or action research projects are undertaken, it is certainly possible, indeed desirable, to achieve both objectives at the same time.

The debate may be illustrated by a fascinating exchange of views from the University of Cambridge in 2005 on the matter of the EngD. The arguments are quoted verbatim because they are such a perfect representation of the UK debate and, as will be seen below, of the wider European discussions.

SPEAKER A

"Deputy Vice-Chancellor, first they came for the polytechnics, to turn them into universities; but we were not a polytechnic, so we did not speak up.

Then they came for all the universities, to make them fulfil the function that the former polytechnics had; and we found that we were very sorry that we hadn't spoken up, because not only was there no one left to speak up for us, but anyone who might otherwise have done so was convulsed in their own *schadenfreude.*

In some ways I am in two minds about this proposal. It is true that, if the country is to have any hope of recovering a manufacturing base, there need to be people well trained to work in industry. But do they need a doctoral degree (particularly one carrying a title that could easily be confused by laymen as conferring a higher doctorate) from the University of Cambridge?

We are, I think, at a watershed. Are we to accept that some of our Schools, Faculties, and Departments are glorified technical colleges? I have heard people expressing the opinion that they should be; it could, on the other hand, be considered to be submitting to the will of the Government were we to provide these vocational doctorates, which are very much a step down that path.

This entire issue is hugely political, and is a small brick in the wall of the enormous edifice that will dictate the future of higher education over the next twenty years. It should not be hidden away in the seemingly trivial issue of whether to permit people to study for the degree of Eng.D. It is a much wider, and more serious, debate that that; decisions taken

now will necessarily influence future policy-making. Is all of modern academia to roll over and accede to the whims of those currently in power in Westminster?

The founders of this nearly 800-year-old University would no doubt be appalled were we so to do. I have to admit to having considerable sympathy with their pioneering spirit."

SPEAKER B

"Mr deputy Vice-Chancellor, the question here is whether we wish to introduce taught doctorates in the University of Cambridge. I am not clear about the answer myself but I should have been grateful to have had this big policy question put to us frankly. Eng.D. Degrees will be the first of many 'professional doctorates' in Cambridge if we begin down this road.

There are going to be tricky academic questions about the doctoral equivalency when it comes to competition between these 'doctors' and Doctors of Philosophy for postgraduate positions.

I see that no cherry-coloured silk facings are planned this time. They were far too contentious on the last occasion on which they were proposed, perhaps. But what is the implication of the proposed Eng.D. gowns and hoods about equivalency with research doctorates?

There are significant resource implications, surely, in the provision of teaching for these courses on top of that for the proliferating M.Phil. Degrees and for our continuing undergraduate courses.

The main argument advanced here, behind the obfuscation about exactly what these 'doctorates' are, seems to be that there is more money to be had that way, for prospective students and for the University. Is that really the basis on which we wish to make our policy decisions?"

SPEAKER C

Mr deputy Vice-Chancellor, 'At that Discussion [on the Vet.M.D.] one speaker expressed disquiet at the prospect of the University 'embarking on a whole new family of degrees'. In their response the central bodies gave an assurance that there was no such intention. However, …. if the University is unable to offer the Eng.D. Degree, it will be seriously disadvantaged by its inability to participate in … a large part of its [that is, The Engineering and Physical Sciences Research Council (EPSRC)] research student funding.' So the primary impetus for this substantial policy shift is unashamedly money, and where this is involved we must be prepared to treat the assurances of the central bodies like those of politicians.

It may be that these are very good courses to fund. It may be that the nation needs more such graduates, as it needs more plumbers. It is not clear that the central bodies have made anything of a case that Cambridge is the right place for the one rather than the other, or that the title of doctor is more appropriate to the one that to the other. If we should be offering these students the equivalent of a taught Master's and a Ph.D. Degree, why do we not do that instead and at least retain our honesty? If 'the nature of graduate education, particularly research training, is changing considerably' should the central bodies not initiate debate here on how Cambridge should Formulate its policies in the light of such changes, rather than presenting piecemeal changes which inevitably affect our policies but without the necessary discussion? Or do we simply wait for the day when it becomes common in English universities, as in some transatlantic ones, to

sell a degree title for ready cash and then discuss joining this band-wagon too? Of course the Council will respond that I am being foolish, that there is no such intention. But then, that is what they said last time."

SPEAKER D

"Mr deputy Vice-Chancellor, I would like to respond, very briefly, to the comments that have been made already this afternoon. It was asked, 'do employers need engineering doctorates?' The answer is yes, because they are in high demand. It was also asked, 'do we need taught doctorates?' This is not a taught doctorate. In addition, there was mention of 'selling a degree for cash'. This will be a hard four-year degree course, which will be on the level of a Ph.D. Degree.

I speak as Chairman of the Faculty Board of Physics and Chemistry, and an Investigator on a major Eng.D. grant to Cambridge from the EPSRC, co-ordinated by Birmingham University, and I welcome the proposal to introduce an Eng.D. Degree at Cambridge.

Let me start by addressing an important question raised on the University website about the Eng.D. Speaker B asks: 'Do we want taught doctorates?' My answer is an emphatic 'No', but the Eng.D. Degree is not a taught doctorate. It is a four-year degree, the first year of which consists mainly of taught courses; the following three years consist of research. It should be remembered that at the present time, all science and engineering Ph.D. students in Cambridge receive taught courses in their first year. The level and quantity of taught courses for an Eng.D. is greater than that for a Cambridge Ph.D., but still less than that for a Ph.D. in Engineering from MIT or Stanford University, for example, where two years of taught courses are the norm. Ph.D. Degrees from MIT and Stanford are, of course, amongst the finest in the world. The important point to remember is that an Eng.D. is a four-year doctorate with one year of taught courses and three years of research.

The EPSRC's Engineering Doctorate (Eng.D.) is not a new UK degree: it is now ten years old and going from strength to strength. In January 2003 there were Eng.D. centres in fifteen UK universities, many of these centres being consortia involving a number of universities. The EPSRC is currently calling for another round of bids from universities to be an Eng.D. centre. Each centre is allocated up to £3.5 million of funding. Cambridge is not eligible to apply for such funding because it does not yet offer an Eng.D. Degree. Indeed, Cambridge has already lost millions of pounds of potential funding by not being an Eng.D. centre. Other major UK universities such as Oxford, UCL, Manchester, Birmingham, Southampton, and so on, have already approved the Eng.D. Degree.

Since April 2001, the University of Cambridge has been a member of an Eng.D. consortium co-ordinated by the University of Birmingham. However, because Cambridge does not currently offer the Eng.D. Degree, an Eng.D. student allocated to Cambridge with a University of Cambridge supervisor, and with fees paid to Cambridge, has to receive his/her Eng.D. Degree from the University of Birmingham. This is clearly a nonsense, and in order to resolve the anomaly the Cambridge Eng.D. Degree needs to be approved as soon as possible.

In the field of Engineering, broadly defined to include Materials Science, for example, the EPSRC is increasingly transferring money from its Ph.D. studentships into Eng.D. studentships because they are so successful. The EPSRC is currently putting about £40 million into Eng.D. studentships. Engineering at Cambridge is currently losing these students, and this funding, to other universities. If this continues it will inevitably seriously weaken Engineering at Cambridge.

On behalf of the Faculty Board of Physics and Chemistry, I strongly support this proposal for Cambridge to introduce the Eng.D.

SPEAKER E

Mr deputy Vice-Chancellor, as Deputy Head of the Department of Engineering with responsibility for graduate studies, and also as Chairman of the Degree Committee for Engineering, I welcome these proposals. As the Report makes clear, the Eng.D. differs significantly from the Ph.D. Degree, being intended for students with different career aims, who will carry out different types of research. Much of the research undertaken within the Department of Engineering has links with industry, and the opportunities offered by the proposed Eng.D. Degree will enrich those links. There are potential benefits to the students who may register for the degree, in terms not only of their own education but of future employment; to the Department in terms of enhanced collaboration with industry; and to the wider University through participation in a nationally recognised and growing route to high-level professional education which receives significant support from the EPSRC. Of the nineteen universities in the Russell Group, [now 20] nine already participate in engineering doctorate centres, and Oxford is currently introducing the degree. Cambridge should also do so. The Department of Engineering supports the proposals warmly." (Cambridge 2005)

A fascinating exchange of views that says much about the differing views in the UK regarding the development of the professional doctorate!

Significantly, the Quality Assurance Agency (QAA) which overseas the framework for higher education qualifications in the UK does not distinguish between the PhD and professional doctorates. In January 2001, the framework was introduced to reinforce public confidence in academic standards by setting benchmarks for the achievements associated with particular qualifications. The main purposes of the framework were:

- to enable employers, schools, parents, prospective students and others to understand the achievements and attributes represented by the main qualification titles;
- to maintain international comparability of standards, especially in the European context, to ensure international competitiveness, and to facilitate student and graduate mobility;
- to assist learners to identify potential progression routes, particularly in the context of lifelong learning;
- to assist higher education institutions, their External Examiners, and the Agency's reviewers, by providing important points of reference for setting and assessing standards.

As part of this exercise, a series of qualifications descriptors was developed, including a statement of outcomes, achievement of which a student should be able to demonstrate for the award of the qualifications, and a statement of the wider abilities that a typical student could be expected to have developed. For qualifications at doctorate level, the description is as follows:

Doctorates are awarded to students who have demonstrated:

i) the creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication;

ii) a systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice;

iii) the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and to adjust the project design in the light of unforeseen problems;

iv) a detailed understanding of applicable techniques for research and advanced academic enquiry.

Typically, holders of the qualification will be able to:

a) make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences;

b) continue to undertake pure and/or applied research and development at an advanced level, contributing substantially to the development of new techniques, ideas, or approaches;

and will have:

c) the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent environments.

This descriptor is intended to cover all forms of doctorate, including both professional doctorates and the PhD. There are several significant points:

- There is a clear commitment to the idea that a doctorate should add to knowledge and should extend the bounds of a particular discipline, to a level which justifies wider dissemination.
- The idea of developing a project which leads to the generation of additional knowledge, including the initiation and management of the project, is also maintained; the significance of research methodologies is clear.
- There is an emphasis on criticality, especially in the use of information (which may include literature as well as the results of research).
- The importance of generic skills relevant to future employment is also emphasised, especially the sense of independence in thought and practice.

A programme that satisfies these guidelines will clearly have a strong research content, including both research methods training and the development of new knowledge, based on empirical research and/or achieved scholarship. The inclusion of some element of Masters study within the programme is not necessarily inconsistent with this objective (although the extent to which such material is used without compromising the research emphasis must be a matter of judgement and discretion); similarly, such objectives can be achieved by either full-time or part-time study, and may be undertaken at any point within a professional career (although it might be argued that some of these objectives

may be enhanced by some level of professional experience). However, it is much less clear that some programmes linked intimately with professional training, where the emphasis is on acquiring a body of knowledge and experience rather than the pursuit of research, justify the title of "doctorate".

The Debate in Europe

The debates within the UK have been echoed within other European countries where the idea of the professional (or practitioner) doctorate is still evolving. In 1998 the Sorbonne Declaration began moves towards a harmonisation of degree programmes and structures across Europe by developing the concept of two cycles of higher education. This was subsequently developed further by the Bologna Declaration in 1999. Neither of these documents gave detailed consideration to doctoral education. However, in September 2003, the Berlin Communiqué added a third cycle to the Bologna process to include doctoral education and to promote links between the European Research Area (ERA) and the European Higher Education Area (EHEA). The Action Line to the Bologna process entitled "European Higher Education Area and European Research Area – two pillars of the knowledge based society" stressed the key role of doctoral programmes and research training:

> "Conscious of the need to promote closer links between the EHEA and the ERA in a Europe of Knowledge, and of the importance of research as an integral part of higher education across Europe, Ministers consider it necessary to go beyond the present focus on two main cycles of higher education to include the doctoral level as the third cycle in the Bologna Process. They emphasise the importance of research and research training and the promotion of interdisciplinarity in maintaining and improving the quality of higher education and in enhancing the competitiveness of European higher education more generally. Ministers call for increased mobility at the doctoral and postdoctoral levels and encourage the institutions concerned to increase their co-operation in doctoral studies and the training of young researchers."

The Communiqué also called for the development of a framework of qualifications for use within the European Higher Education Area. This was the background to the meeting of a Joint Quality Initiative (JQI) informal group in March 2004 and the promulgation of the so-called "Dublin Descriptors". The Dublin discussions effectively built on a long running debate on the nature of the PhD embodied in a series of OECD and European Commission reports. These reports address issues such as the extent of specialisation, interdisciplinary training, supervision, employability and the development of genuine skills, but are primarily concerned with the "traditional" PhD (see OECD, 1987, 1991, 1995, European Commission 2002:2003 and European University Association, 2005 a/b; see also Huisman and Naidoo, 2006).

The JQI group agreed that a shared doctorate description should encompass the outcomes of research-based and professional doctorates, but that it should not refer to particular forms of study. The description for doctorate degrees was as follows:

Doctoral degrees

Qualifications that signify completion of the third cycle are awarded to students who:

- *have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;*
- *have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity;*
- *have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication;*
- *are capable of critical analysis, evaluation and synthesis of new and complex ideas;*
- *can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise;*
- *can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge-based society.*

Glossary

The word 'professional'** is used in the descriptors in its broadest sense, relating to those attributes relevant to undertaking work or a vocation and that involves the application of some aspects of advanced learning. It is not used with regard to those specific requirements relating to regulated professions. The latter may be identified with the profile/specification.*

***The word **'research'** is used to cover a wide variety of activities, with the context often related to a field of study; the term is used here to represent a careful study or investigation based on a systematic understanding and critical awareness of knowledge. The word is used in an inclusive way to accommodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to a traditional 'scientific method'.*

The emphasis on research is again clear, covering research methods, project design and development, and dissemination through refereed publications. The inclusion of taught material is not inconsistent with these objectives, but must be kept in proportion given the need to meet the research objectives. Interestingly, the reference to "a substantial body of work" can apply to different formats including portfolios, dissertations and theses, provided that the research content is satisfied.

Thus, both the QAA and Dublin descriptors offer a baseline for the professional doctorate, confirming a view that the professional doctorate and the PhD are of equivalent status which may be reached by different routes; both degrees emphasise the extension of knowledge through a rigorous research process and the wider relevance of such research within professional and academic contexts and within wider society. Equally, it is apparent that these objectives can be achieved in different ways. The balance between taught material and research may vary; and the experience of participants may vary. In this way, the idea of the professional doctorate as a means to open up new markets for research degrees and to provide new opportunities for interested research students is strongly reinforced. At the same time, it is by no means clear that all professional doctorates, especially those linked to specific professional pathways, meet these guidelines.

A further contribution to the ongoing European debate was launched in 2004 by the European Universities Association (EUA) in the form of an EU Socrates funded Doctorate

Programmes Project, intended to analyse key issues relating to the structure and organisation, financing, quality and innovative practice in doctorate programmes. Forty-nine universities from twenty-five countries were involved, leading to a pivotal meeting in Salzburg in February 2005 which established the ten Salzburg principles:

i) ***The core component of doctorate training is the advancement of knowledge through original research.*** *At the same time it is recognised that doctorate training must increasingly meet the needs of an employment market that is wider than academia.*

ii) ***Embedding in institutional strategies and policies:*** *universities as institutions need to assume responsibility for ensuring that the doctoral programmes and research training they offer are designed to meet new challenges and include appropriate professional career development opportunities.*

iii) ***The importance of diversity:*** *the rich diversity of doctorate programmes in Europe – including joint doctorates – is a strength, which has to be underpinned by quality and sound practice.*

iv) ***Doctoral candidates as early stage researchers:*** *should be recognised as professionals – with commensurate rights – who make a key contribution to the creation of new knowledge.*

v) ***The crucial role of supervision and assessment:*** *in respect of individual doctorate candidates, arrangements for supervision and assessment should be based on a transparent contractual framework of shared responsibilities between doctorate candidates, supervisors and the institution (and where appropriate including other partners).*

vi) ***Achieving critical mass:*** *Doctoral programmes should seek to achieve critical mass and should draw on different types of innovative practice being introduced in universities across Europe, bearing in mind that different solutions may be appropriate to different contexts and in particular across larger and smaller European countries. These range from graduate schools in major universities to international, national and regional collaboration between universities.*

vii) ***Duration:*** *doctoral programmes should operate within an appropriate time duration (three to four years full-time as a rule).*

viii) ***The promotion of innovative structures:*** *to meet the challenge of interdisciplinary and intersectoral mobility and international collaboration within an integrated framework of co-operation between universities and other partners.*

ix) ***Ensuring appropriate funding:*** *the development of quality doctoral programmes and the successful completion by doctoral candidates requires appropriate and sustainable funding.*

Although the Dublin Descriptors and the Salzburg Principles have helped to address questions about comparability of quality and standards in doctoral education in Europe, it is clear that much uncertainty remains. The Bergen Communiqué, issued in May 2005 following a review of progress made in the Bologna process, offered very little further guidance:

> "Considering the need for structural doctoral programmes and the need for transparent supervision and assessment, we note that the normal workload of the

> third cycle would correspond to 3-4 years full-time. We urge universities to ensure that their doctoral programmes promote interdisciplinary training and the development of transferable skills, bhus meeting the needs of the wider employment market. We need to achieve an overall increase in the numbers of doctoral candidates taking up research careers within the EHEA". (Bergen Communiqué, 2005, p4)

Given the need to increase the number of doctoral students as stressed by the Bergen Communiqué and bearing in mind UK experience, the need to promote the professional doctorate elsewhere in Europe was apparent.

Following the Bergen meeting, the EUA was asked to co-ordinate with other interested parties the development of basic principles for doctoral qualifications ahead of the ministerial summit in London in 2007. The work of the EUA reached a climax in a seminar held in Nice in December 2006. Issues of quality figured prominently in the final conclusions. By now, the existence of a range of doctoral programmes was well established and the emphasis was on more practical issues of delivery and ensuring the maintenance of a common set of core characteristics, which defined the doctorate. At each stage, however, the existence and desirability of diversity was underlined. This is well illustrated by the following extract from the final conclusions:

> "Accepting responsibility for the provisions of high quality doctoral programmes involves introducing the appropriate structures within institutions, in particular seeking to:
>
> - counteract the isolation of the early stage researcher, from other disciplines, or from the larger peer group, or the larger scientific community.
> - establish transparency of expectations, quality and assessment standards (supervision etc)
> - create synergies regarding transferable skills development (at institutional or at inter-institutional level).
>
> Different solutions may be appropriate to different contexts and the choice of structure is a matter for each institution, based upon the specific institutional aims which these structures are supposed to meet."

Two possible models were advanced: structures including masters and doctoral students and providing crosscutting administrative, training and development support or structures including only doctoral students based around a particular research theme or interdisciplinary area, and possibly involving other institutions.

The EUA specifically addressed perceived quality issues arising from the emergence of diverse routes to the doctorate, including the professional doctorate:

> "All awards described as Doctorates should (no matter what their type or form) be based on a core of processes and outcomes. Original research has to remain the main component of all doctorates. There should be no doctorate without original research.
>
> Core processes and outcomes should include the completion of an individual thesis (based upon an original contribution to knowledge or original application of knowledge) that passes evaluation by an expert university committee with external representation.

Professional Doctorates

So-called "professional" doctorates are doctorates that focus on embedding research in a reflective manner into another professional practice. They must meet the same core standards as "traditional" doctorates in order to ensure the same high level of quality. It may be appropriate to consider using different titles to distinguish between this type of professional doctorates and PhDs.

In order to ensure a broad discussion on this topic, it will be important to ensure the dissemination of information on the rapidly growing number of professional doctorates – particularly in the UK but also in other countries – across the entire European higher education sector."

A wide range of practical guidelines relevant to quality in all forms of doctorate are also outlined by the EUA, notably issues relating to the quality of supervision, encouragement for multiple supervision, methods of assessment and development of transferable skills to meet the needs of prospective employers, both in academia and in the broader labour market.

These issues were fed into a meeting of European ministers in London in May 2007. The subsequent London Communiqué included the following comments on doctoral candidates:

"Doctoral candidates

"Closer alignment of the EHEA with the European Research Area (ERA) remains an important objective. We recognise the value of developing and maintaining a wide variety of doctoral programmes linked to an overarching qualifications framework for the EHEA, whilst avoiding over-regulation. At the same time, we appreciate that enhancing provision in the third cycle and improving the status, career prospects and funding for early stage researchers are essential preconditions for meeting Europe's objectives of strengthening research capacity and improving the quality and competitiveness of European higher education.

We therefore invite our HEIs to reinforce their efforts to embed doctoral programmes in institutional strategies and policies, and to develop appropriate career paths and opportunities for doctoral candidates and early stage researchers.

We invite EUA to continue to support the sharing of experience among HEIs on the range of innovative doctoral programmes that are emerging across Europe as well as on other crucial issues such as transparent access arrangements, supervision and assessment procedures, the development of transferable skills and ways of enhancing employability. We will look for appropriate opportunities to encourage greater exchange of information on funding and other issues between our ~Governments as well as with other research funding bodies.

Quality in practice

The emergence of professional doctorates has stimulated a broad policy debate on the meanings and requirements of the "doctorate". However, these programmes have also

prompted discussion within universities on a range of more practical issues related to content, quality and standards:

- **Recruitment and admissions**
  For many professional doctorates, there are issues regarding professional experience as a pre-requisite for admission. As has been demonstrated, this is not required by qualification frameworks, but it is a normal requirement for most professional doctorates and therefore influences the nature of the student group; a requirement for 5-10 years professional experience is common. In practice, universities often exercise considerable discretion in deciding precisely who is admitted to these programmes. Another question is whether students should have a Masters degree before entry to a professional doctorate in the same way as in some subject areas a Masters degree is required before admission to PhD study; similarly, there can be questions about prior experience (for example, should a student studying for a DBA already have an MBA?) In most cases, programmes do not prescribe a Masters degree as a requirement, in order to maximise the pool of applicants, and place a greater emphasis on relevant experience.

- **Student support**
  A professional doctorate depends critically on the quality of ongoing student support. Most programmes involve part-time study with periods of residential study or required attendance at prescribed course units. Many of the issues arising, such as access to facilities and access to academic staff are familiar within part-time programmes at other levels, but the professional doctorate often prompts particular issues about access to research facilities and interaction between study and the workplace. In particular, the use of modern technology to stimulate ongoing interaction within the student group and between students and staff is critical. This may extend to the use of distance learning modules for some programme elements.

- **Programme content**
  Many students are senior, experienced professionals, who may be particularly demanding in terms of their expectations. For academic staff, programme delivery can be especially challenging; by definition, the students will be senior, knowledgeable professionals who have much to offer but who can be threatening to some academic staff. Striking the appropriate balance between theory and practice is a further issue.

- **Programme structure**
  Most programme directors responsible for professional doctorates emphasise the importance of clear target dates for completion of different elements. In this sense, “part-time” does not necessarily mean that students can work completely at their own self-determined pace; most programmes impose strict time limits and maximum periods of study. Similarly, many programmes have a hurdle at some point which students must pass in order to move on towards completion of the final degree.

- **Research methods and research training**
  Experience from many professional doctorates underlines the importance of a strong component of research methods and research training. This is vital for any research degree. However, students taking a professional doctorate may have some particular needs caused partly by their part-time status and partly by the

need to define projects within a professional context. An experienced examiner of EdD programmes commented that the biggest single problem causing students to be referred or even to fail was inadequate preparation in terms of research methods.

Some views and experiences

In order to consider some of these issues further, six professional doctorates in six different UK universities were examined in detail, involving a survey and interviews with the course directors:

Programme A	Doctor of Business Administration (DBA)
Programme B	Doctor of Business Administration (DBA)
Programme C	Doctor of Health Studies (DH)
Programme D	Doctor of Education (EdD)
Programme E	Doctor of Education (EdD)
Programme F	Doctor of Clinical Psychology (DClinPsy)

Some of the survey results were as follows:

	University					
	A	B	C	D	E	F
Programme definition						
Mainly research	x					
Mainly teaching						
Mainly professional training						x
Balance of research and teaching		x	x	x	x	
Balance of research and training						
Balance of teaching and training						
Proportion of taught material						
Less than 15%						
15-30%	x					
31-70%		x	x		x	
51-70%				x		
over 70%						x

Programmes A, B, C and D all reported that most taught material was drawn from other MSc or MA programmes; programme A and E used mainly purpose designed material; and programme F used exclusively material developed for the programme.

	University					
	A	B	C	D	E	F
Method of assessment						
Research thesis						
Research thesis and assignments	x	x	x	x	x	
Research thesis and examinations						
Assignments and examinations						x
Assignments						
Examinations						
Training in research methods						
Very significant	x			x	x	
Significant		x	x			
Some						x
None						

Individual viva voce examination						
Yes for all students	x	x	x	x	x	
Yes for some students						
No						x
Individually appointed external examiner						
Yes	x	x	x	x	x	
No						x

The sample of programmes examined is very small and it is dangerous to reach clear conclusions, but the impression created is that in broad terms five of the six programmes meet the core expectations of a doctorate. On the basis of this short and small study, the clear outlier is programme F which differs very significantly from all the other programmes.

It is apparent that the professional doctorate is a significant addition to the range of research degrees offered by UK universities. However, many academic staff remain to be convinced about the value of these programmes. Doubts persist about the relative standing of the professional doctorate and the PhD whilst other staff view these programmes as labour-intensive; there is also a perception that dropout rates are high and disproportional for the staff effort required. This is an area which requires more formal research.

In fact, student retention was a critical issue raised by all the programme directors. Not surprisingly, each course director defended the quality of their programme, but all reported high rates of non-completion; the only exception was the DClinPsy which reported almost 100% completion. In the survey, the position was reported as follows:

	University					
	A	B	C	D	E	F
% normally completing in 5 years						
Over 80%						x
60-80%						
40-59%						
20-39%	x		x			
Less than 20%``		x		x	x	
Percentage usually completing in 7 years						
Over 80%						x
60-80%						
40-59%	x	x	x		x	
20-39%				x		
Less than 20%						

The numbers failing to complete are alarming, especially bearing in mind the fees expended by many students, and may even cast doubt over the value of the professional doctorate. There is a curious paradox, with growing interest in such programmes compared with the traditional PhD, yet relatively small numbers see the programme through to completion.

It must be emphasised that this data from a small sample in no sense represents a rigorous or definitive study. It is included here merely to raise some further issues which merit full investigation across a range of programmes and over time.

Most interesting are the factors which have contributed to the successful completion of students on the programme:

i) **Motivation –** By far the most important factor has been the motivation of the students concerned. A professional doctorate is very demanding, especially combined with high-level professional commitments. Those students completing are mostly younger candidates who see the degree as a stepping-stone towards career progression.

ii) **Support –** Those candidates successfully completing the programme have all received strong support from their employers (including time off to pursue their studies) and from their families and friends.

iii) **Focus** – The students that have completed have tended to pursue a more focused programme, with assignments and dissertation/thesis clustered within a particular subject area.

iv) **Previous study –** There is evidence that the longer the period that has elapsed since the last formal period of study, the more difficult students find it in adjusting to the demands of a professional doctorate.

v) **Pressure of employment –** All students on these programmes draw attention to the difficulties of combining study with professional work. This is a familiar issue for all part-time students. However, the length of a professional doctorate and the seniority of the staff concerned are particular difficulties; it is apparent that employers may be supportive for the first year or two, but as the programme develops employers are looking for a reduced study commitment (often at the time when a research project is actually increasing the study commitment required).

Conclusions

This paper has highlighted the emergence of professional doctorates as an important element within doctoral studies within the UK and as a significant factor in the recent expansion of numbers of doctoral students across all types of university. The paper has also examined the relationship of the professional doctorate relative to the PhD, especially in the context of national and emerging international frameworks for degree qualifications. In particular, the importance of the professional doctorate in contributing to the extension of knowledge has been emphasised, based on rigorous research methods and with an expectation of dissemination through subsequent publications. Finally, some practical issues impacting upon the quality of programmes have been highlighted. The importance of good course design and student support is apparent, but it is also clear that student motivation is a significant factor influencing student progression and completion.

References

Bourner T, Bowden R and Laing, S (2001) Professional Doctorates in England, Studies in Higher Education, 26, (1), pp 65-83

Cambridge (2005), Report of discussions in the Senate House, http://www.admin.cam.ac.uk/reporter/2004-05/weekly/5991/17.html

Green H G and Powell S D (2005) Doctoral Study in Contemporary Higher Education, Buckingham, Open University Press

Huisman J and Naidoo R (2006) The Professional Doctorate: From Anglo-Saxon to European Challenges, Higher Education Management and Policy, 18, 1, pp57-69

Maxwell T W (2003) From first to second generation professional doctorate, Studies in Higher Education, 28, (3), pp 279-91

Scott D, Brown A, Lunt I and Thorne L (2004) Professional Doctorates : integrating professional and academic knowledge, Buckingham, Open University Press

Taylor, J (2002) Changes in Teaching and Learning in the period to 2005: the case of postgraduate higher education in the UK, Journal of Higher Education Policy and Management, 24, 1, pp53-73

Taylor J (2004) The United Kingdom in Doctoral Studies and Qualifications in Europe and the United States ed Sadlak, J, pp 231-58, Bucharest: UNESCO-CEPES

Changes in the number of postgraduate research students in the UK

	1994-95			2003-04			% Change		
	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time	total
Medicine and Dentistry	2,355	3,850	6,205	3,855	5,180	9,035	64	35	46
Subjects allied to Medicine	1,940	1,805	3,745	2,785	3,530	6,315	44	96	69
Biological Sciences	5,850	4,295	10,145	7,920	5,420	13,340	35	26	31
Veterinary Science	270	200	470	260	230	490	(4)	15	4
Agriculture and related subjects	1,010	690	1,700	705	555	1,260	(30)	(20)	(26)
Physical Sciences	8,175	4,120	12,295	8,205	4,005	12,210	0	(3)	(1)
Mathematical Sciences	1,490	675	2,165	1,710	765	2,475	15	13	14
Computer Science	1,560	1,365	2,925	2,795	1,985	4,780	79	45	63
Engineering and Technology	7,830	5,775	13,605	8,905	5,715	14,620	14	(1)	7
Architecture, Building and Planning	600	770	1,370	1,010	945	1,955	68	23	43
Social Studies	3,755	4,360	8,115	5,130	5,260	10,390	37	21	28
Law	730	645	1,375	1,055	1,675	2,730	45	160	99
Business and Admin Studies	1,405	2,385	3,790	2,335	3,065	5,400	66	29	43
Mass Communications and Documentation	175	235	410	400	485	885	129	106	116
Languages	2,575	2,675	5,250	3,475	3,600	7,075	35	35	35
Humanities	2,695	3,135	5,830	3,545	4,800	8,345	32	53	43
Creative Arts and Design	555	845	1,400	1,230	1,875	3,105	122	122	122
Education	870	3,145	4,015	1,295	5,595	6,890	49	78	72
Combined	900	1,250	2,150	35	100	135	(96)	(92)	(94)
TOTAL	44,740	42,220	86,960	56,650	54,785	111,435	27	30	28

Source: HESA (adapted by author)