Review of Professional Doctorates

National Qualifications Authority of Ireland
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Introduction

This review concerns the range and type of Professional Doctorates offered in Ireland and internationally. It looks at their growth, fields of study, structure of programmes and distinctions between them and the PhD. In Ireland, the UK, and Europe there is increased attention given to doctoral education and to addressing issues of funding, supervision, career progression, quality and standards. Traditionally, there were no explicit national standards or guidelines for doctoral education as a whole but this is now changing. Qualifications descriptors are an example of this. Where qualifications descriptors exist, they do not distinguish between different forms of doctoral qualifications.

In general, the Professional Doctorate is treated by universities and governing agencies as a variant of doctoral education but there are some issues that are specific to it, including programme structure, assessment, breadth of learning outcomes, nomenclature, and, in some of the literature, a questioning of the actual level of education involved in some Professional Doctorates.

The issues that arise from the review, some of which go beyond national framework of qualifications issues, are:

1. Distinctions between the Professional Doctorate and the PhD
2. Overarching issues concerning doctorates
3. Qualifications Descriptors
4. Level of study
5. Title of award
6. Entry requirements
7. Recognition by a professional body
6. Structure of the Professional Doctorate

In view of the existence of different types of doctoral programmes and awards and common issues facing all of them, it would appear that, whilst similar in terms of level of learning outcomes, the different characteristics of PhDs and Professional Doctorates need to be taken into account by the relevant institutions of higher education, awarding bodies and other agencies. It would appear from this brief review of international practice that there are important structural and conceptual differences between the Professional Doctorates in the US, on the one hand, and those in Australia, New Zealand, the UK and Ireland (they are relatively unknown in the rest of Europe). The key issues that arise are mainly informed by practice outside the US. Section I of this review concerns international practice covering the United States, Australia, New Zealand and the UK (where Professional Doctorates are well established) and Europe (where they are less well known). This section also includes a discussion of qualifications descriptors of doctorates, where these exist. Section II describes existing Professional Doctorate and related policy in Ireland. A total of 14 programmes are now offered across 8 higher education institutions. Of these, 5 programmes are being offered for the first time in the academic year 2006/07. The most popular fields are clinical psychology and education. Finally, Section III identifies some of the key issues that arise in the literature and from existing practice that may need to be addressed by the relevant bodies involved in the provision, quality and funding of higher education in Ireland, particularly as Professional Doctorates are likely to increase in the future and existing guidelines/codes of

practice address the PhD only. It recommends that guidelines or a code of good practice for Professional Doctorates be explored by the key agencies responsible for policy, quality and funding issues. Their main purpose would be to assure the quality and standing of Professional Doctorates, at the national and international level, so that any potential ambiguity concerning their purpose, level of attainment and overall structure can be avoided.

I International Practice

Background to the Professional Doctorate

Professional Doctorates have their origins in North America. They were initially developed in the field of education with the purpose of enabling teachers and lecturers to further their professional education at the highest level. They emerged more recently in Australia and in the UK. They are found in areas including education, business, law, psychology, health sciences, humanities, design and architecture. Scott, Brown, Lunt and Thorne (2004) link the emergence of the Professional Doctorate to the changing roles of the university and society in the production and use of knowledge, pressures for diversification and more professionally relevant programmes, massification of higher education, demand from some professions and workplace requirements for high level skills and knowledge, the wider acceptance of the concepts of 'evidence-based' practice and the 'reflective practitioner' by professionals and the development of work-based learning. They were also a response to criticisms of the traditional PhD (in terms of its narrow focus, the limited set of skills acquired by PhD candidates and its isolation in general from the work place). They and others (Green, Maxwell and Shanahan, 2001) note the parallel growth in the Professional Doctorate and key shifts in the relationships between universities and the State and new understandings about knowledge (production/creation and form).

The structured PhD programmes which are increasingly a feature of doctoral education in the UK, Ireland and Europe generally respond to criticisms of the traditional PhD programmes and meet new demands. These can blur distinctions between the PhD and the Professional Doctorate. Park (2005) contends that the existing PhD is changing shape and new forms of doctorate such as the Professional Doctorate are appearing in intermediate or transitional shape.

United States

Powell and Long (2005) note that the development of the Professional Doctorate in the US has been somewhat different to its development in the UK and Australia. Traditionally, the Professional Doctorate was a 'pre-service' high-level qualification that served a particular role in preparation for entry into the profession. Programmes of study are offered in professional schools as well as in universities, there is a substantial element of taught coursework, and a tendency towards shorter dissertations and longer periods of supervised professional practice. Most of these awards have been classified as '1st Professional Degrees'. The area or discipline of study is indicated in the degree title (e.g. JD, MD, DVM). In contrast with the US, the term '1st professional degree' is not used in the UK or Ireland The '1st professional degree' is a first degree, not a graduate degree even though it incorporates the word 'doctor' in the title.[1] In the past decade, several new 'doctoral programmes' have emerged, notably in the area of health care. These are often referred to as 'clinical doctorate' or 'Professional Doctorate' but are not the same as the research doctorate (in title or content). There is no consistency amongst them as to length, rigour, content or ultimate utility to the person who achieves them. Some serve as 1st professional degrees, i.e. extend a licence to practice, whilst the newer ones

[1] First professional degrees are classified by the National Centre for Educational Statistics (NCES) as those awarded after completion of academic requirements to begin practice in the following professions: chiropractic (D.C.); dentistry (DDS or DMD); law (LLB or JD); medicine (MD); optometry (OD); osteopathic medicine (DO), pharmacy (Pharm.D); podiatry (DPM,DP,PodD); theology (MDiv, MHL,BD or Ordination) or veterinary medicine DVM). The classification of these kinds of degrees is under review within the NCES. See http://nces.ed.gov/ipeds/trp15a.asp

do not yet do so. In many cases, they are offered outside Graduate Schools and many are offered by institutions that offer few if any other doctoral programmes.[2]

La Belle (2004) points to credential inflation as a factor in the increase in demand for and provision of Professional Doctorates with the result that in some cases, particularly in healthcare, former masters' degree requirements for professional practice are being replaced by the doctoral degree.

The topic of the Professional Doctorate is under discussion in the specialised accrediting agencies, the Council for Higher Education (CHEA),[3] Council of Graduate Schools and the National Centre for Educational Statistics (NCES)[4] in addition to debates about the merits of the Ed.D and the PhD in education. At the same time, there are significant studies underway about the effectiveness of the PhD (commonly referred to in the US as the research doctorate).

In June 2005, the Higher Learning Commission of the North Central Association of Colleges and Schools set up a task force to study the trends and growth in the creation of Professional Doctorates and the responses of graduate schools and universities to these degrees. The Higher Learning Commission, as a regional accreditation organisation, is concerned about how best to respond to these new degrees and the particular challenges of evaluating the necessary institutional context to support them. The Task Force was asked to report on these programmes, identify any hallmarks that are or should be common to Professional Doctorates and propose appropriate strategies for a regional accrediting commission to follow in extending accreditation to include these new doctorates. Working drafts of the Task Force's report were circulated for comment in February and April 2006. The final report was completed in June 2006 and approved by the Commission's Board of Trustees.[5]

The report set out a number of key assumptions about the Professional Doctorate including the following:

> *1. a convincing case can be made that the Professional Doctorate has a clearly defined place in the hierarchy of U.S. higher education degrees, and it should be perceived as different from and not as a substitute for the research doctorate;*
>
> *2. particularly in the health care professions, there is an obvious need to create capacity to educate practitioners and those who will primarily be educating practitioners;*
>
> *3. the Professional Doctorate should be considered as a degree level within the hierarchy of U.S. degrees, thereby falling under substantive change processes in accreditation;*
>
> *4. new Professional Doctorates will mark fields other than those in the health professions;*

[2] The above paragraph draws on the work of the Task Force on the Professional Doctorate, Higher Learning Commission of the North Central Association of Colleges and Schools (June 2006) http://www.ncacihe.org/download/TaskForceProfDocFinal0606.pdf

[3] The CHEA is engaged in conversations with accrediting organisations, especially those in health-related fields, about the Professional Doctorate. Issues being addressed in a number of relevant fora are common definitions, curriculum characteristics and faculty requirements. For the CHEA, the main distinction between the Professional Doctorate and the PhD is that that the former emphasises practice while the latter is the research doctorate and is the basis for most academic appointments (as communicated by CHEA executive, May 2006). Entry requirements for both generally differ with completion of a Masters degree being a pre-requisite for entry to a PhD programme.

[4] The NCES classifies doctoral degrees as the highest award a student can earn for graduate study. The classification includes such degrees as Doctor of Education, Doctor of Juridical Science, Doctor of Public Health and Doctor of Philosophy degree in any field. The National Science Foundation's list of approved degree designations in its Survey of Earned Doctorates is based on research doctorates only and includes some 40 titles other than that of PhD (for details see http://www.norc.uchicago.edu/issues/docdata.htm)

[5] Final report, 16 June 2006, is posted on the HLC website at http://www.ncacihe.org/download/TaskForceProfDocFinal0606.pdf

5. higher education and the professions would benefit from quality assurance of Professional Doctorates validating that through them students acquire professional competencies they would not otherwise gain in existing degree programs within a given profession

6. the Commission can facilitate, experiment, and lead by example but it cannot alone respond to the need for national consistency in defining and evaluating professional doctorates

The report unambiguously concludes that the Professional Doctorate is not equal to the research doctorate (PhD) but that it constitutes a new level in the U.S. hierarchy of degrees. The distinction appears to hinge on the nature of research involved in both. It also notes the considerable variation in type of Professional Doctorate in terms of the application of knowledge, production of knowledge and entry routes (in some cases, four year professional doctoral programmes build on two years foundation study i.e. study that is completed before completion of the baccalaureate).

The Higher Learning Commission concurred with the report's finding that the Commission alone cannot respond to the need for national consistency in defining and evaluating Professional Doctorates (its primary role concerns the evaluation of institutional capacity). It finds that there is an obvious need for capacity to educate practitioners and those who primarily educate practitioners in the health care field. One of the recommendations in the report is that institutional accreditation bodies should work together (and with the relevant professions) to establish the 'core characteristics' of acceptable Professional Doctorate programmes.[6] In conclusion, the report illustrates some of the main arguments about professional doctorates in the U.S. and suggests that they are a specific kind of degree which is not comparable to the PhD.

Australia

The number of professional doctoral programmes has increased significantly in Australia since the 1990s. A total of 105 professional doctoral programmes were offered in Australia in 2000 (an increase from 48 in 1996). Significant growth was registered in the areas of health, psychology and administration. Enrolments increased from about 937 to 1 659 over the period 1996-2000 (Maxwell and Shanahan, 2000). This growth has in part been attributed to a demand for flexibility of delivery, pressure for greater diversity in the tertiary sector and changes in the overall relationship between universities, the state and industry. There has been considerable literature and debate in Australia about the Professional Doctorate – from specific issues of its status vis-à-vis the PhD, nature, design, assessment, research rigour and its contribution to improving doctoral education (Maxwell and Shanahan, 2000 and Department of Education, Science and Training, 2002).

Maxwell (2003) identifies the emergence of a 'second generation' of Professional Doctorates in Australia. The 'first generation' were characterised as being only structurally different from PhDs because they entailed coursework. They also privileged academic over professional knowledge and outputs. The 'second generation' are characterised by increased flexibility of delivery, more integration with the professional workplace and more widespread use of a portfolio model of assessment rather than coursework plus dissertation. There is a shift in the relationship between the university and the workplace with a greater emphasis on partnership

[6] The Task Force identified the distinguishing characteristics of the Professional Doctorate as: amount and type of research training, amount and type of applied practice, stated competencies for research and practice, research utilization vs. research production, practitioners/providers for clinical experience and type of supervision of doctoral students.

and a broader and more complex understanding of the production of new knowledge. Both generations of doctorate now co-exist in Australia.

Guidelines for best practice in Australia

In March 2005, the Council of Deans and Directors of Graduate Studies in Australia adopted a framework for best practice in doctoral education in Australia (http://www.ddogs.edu.au/cgi-bin/index.pl). These revised the existing 1998 guidelines on Professional Doctorates. They are intended to inform the development of university policy on doctoral education as a whole. The guidelines address outcomes, entry requirements, programme duration, nature of doctoral programme and progamme components (research and scholarship, coursework and generic skills, advanced standing, and supervision). These guidelines build on guidelines developed by others, including the Australian Qualifications Framework. The guidelines for Doctoral degrees for the Australian Qualifications Framework (http://www.aqf.edu.au/doctor.htm) include the Professional Doctorate (see annex 1 for details).

New Zealand

The Professional Doctorate has expanded in New Zealand since the 1990s. The Committee on University Academic Programmes (CUAP) of the New Zealand Vice Chancellors Committee, which approves and accredits new programmes and qualifications in the universities, has guidelines for doctoral qualifications. These include the PhD/DPhil, higher doctorates, honorary doctorates and, more recently, discipline specific doctoral qualifications that include a significant component of coursework (named doctorates). The latter are Professional Doctorates. In addition to meeting the CUAP requirements, qualifications must also meet the requirements for inclusion in the New Zealand Register of Quality Assured Qualifications which is operated by the New Zealand Qualifications Authority (www.kiwiquals.govt.nz). Both sets of requirements are quite similar (see Annex 1).

The CUAP principles (2006)[7] governing the award of a doctorate address the status of the doctorate, university staff and resource requirements and the nature of original research. All doctorates must fulfil the criteria concerning programme coherence, regular reporting on candidate's progress, appropriate and fair assessment.

United Kingdom

In the UK, professional doctoral programmes have increased from 109 in 1998 to 153 in 2000 and 192 in 2004 (UK Council for Graduate Education (UKCGE). The UKCGE survey indicated that the expansion of Professional Doctorates was most likely to be in the areas of health, social care and health sciences, and biomedical sciences in particular. The three main areas in the United Kingdom in which Professional Doctorates emerged were engineering, education and clinical psychology. The study by Scott et al (2004) of Professional Doctorates in these three fields demonstrates the different models of university-industry/professional-state collaboration in each field. The EngD was initiated by the Physical Sciences Research Council (EPSRC) in 1992 as a 'radical alternative to the traditional PhD, being better suited to the needs of industry, and providing a more vocationally oriented doctorate in engineering' (Scott et al 2004:33). It is offered in specially designated 'academic centres' involving universities and participating companies.[8] Other fields that have emerged since are nursing

[7] These are contained in the CUAP handbook at www.nzvcc.ac.nz/files/cuap/FANDP05.pdf

[8] It is geared to 'provide ambitious and able graduates (called "Research Engineers – REs") with the ability to innovate and implement new ideas in practice, and enable them to reach senior positions in industry early in their careers'. See best practice guidelines at http://www.epsrc.ac.uk/CMSWeb/Downloads/Other/EngDGoodPracticeGuidelines.doc#

and business administration. The UKCGE survey of 2004 identified an expansion in the fields in which such awards are made. Of a total of 192 programmes, 62% concerned the awards of EdD, DClinPsy, MD, DBA and EngD. The remaining 23% are spread thinly across other areas. The broad area of 'health, social care and health science' shows the greatest proliferation of profession specific titles. The survey concludes that it is not clear whether this represents a differentiation within broad professional areas or acknowledgement that new areas have become amenable to doctoral level study.

Scott (et al) identify 5 different types of Doctoral Degrees awarded in the UK. These are:

1. The traditional PhD.
2. The practice-based Doctorate (e.g. in creative and performing arts)
3. Professional Doctorate
4. New route PhD (modelled on the North American doctoral model with taught elements, smaller thesis and shorter timeframe for completion)
5. PhD by publication (rather than a thesis).

The increase in structured PhD programmes, demands from the workplace and funding council requirements to develop generic and transferable skills are leading to the integration of certain elements of Professional Doctorates into traditional PhDs. For example, the Joint Statement of the Research Councils'/AHRB'S Skills Training Requirements for Research Students (2002) sets out minimum threshold standards for arrangements to support students in explicit research and generic skills training.[9] The revised section (1) of the Quality Assurance Agency (QAA) Code of Practice (2004) sets out standards for post-graduate programmes including Professional Doctorates.[10] The funding councils expect institutions to adhere to these standards.

Lester (2004) points to the emergence of the 'practitioner doctorate' as a new form of Professional Doctorate which focuses on 'generating practical action which also represents high-level professional scholarship'. He gives as an example the Middlesex DProf (Doctor of Professional Studies or Professional Practice) which is 'geared specifically to addressing complex professional and organisational and social issues'.[11] The emphasis is, to some extent, more on practice rather than on knowledge per se or research methodology (which, he argues, makes it different to Maxwell's 'first generation' and 'second generation' Professional Doctorates). This doctorate, unlike the Professional Doctorate, is not discipline-based, not is it specific to a profession. It is cohort-based, involves seminars, coursework and professional project work. He raises (but does not discuss) the question of whether qualifications frameworks and descriptors adequately address the practice element of the practitioner doctorate.

Qualification Descriptors

The Quality Assurance Agency places the PhD and 'other doctorates' at level 5 in the Higher Education Qualifications Framework. It has established a common qualification descriptor for

[9] See Arts and Humanities Research Board (AHRB), http://www.ahrc.ac.uk/files/university_staff_files/postgraduate/joint_statement_on_skills_training_for_research_students.asp

[10] http://www.qaa.ac.uk/academicinfrastructure/codeOfPractice/. See also http://www.hefce.ac.uk/research/postgrad/standards.htm

[11] The programme is offered as a generic framework which enables a wide range of professionals from the public, private and voluntary sectors to gain a qualification which is customised to the needs of their own professions and organizations (www.mdx.ac.uk/subjects/wbl/mprofdprofps.htm) as well as specialist pathways for those working in the areas of health and/or environment (www.mdx.ac.uk/risk/resdegrees/mprof.htm)

the Doctorate (annex 1). The Scottish Credit and Qualifications Framework also treats all doctoral degrees as being at the same level and sharing the same set of characteristics as those defined by the QAA (annex 1). The qualifications descriptors provide an impetus to both define the outcomes of Doctoral study and to make them professionally relevant.

Europe

The Professional Doctorate is not generally known in Europe, outside of the UK and Ireland. 'Industrial PhDs' are offered in Scandinavia (in particular, Denmark[12] and Sweden). These may be similar in objective and organisation to the Professional Doctorate but are a variant of the PhD. A survey of the main challenges, trends and needs in the development of doctoral programmes, completed by UNESCO-CEPES in 2004, reports little evidence of Professional Doctorates outside the US and the UK. It notes, in respect of Austria, that a particular research doctorate, *Doktorandenkolleg Organisationsentwicklung* at the IFF (University of Klagenfurt) has a strong professional orientation and 'might be considered as a pilot project intended to establish a professional Doctorate'.[13] The European University Association completed a major research project on 'Doctoral programmes for the European knowledge society' in 2004-05.[14] This examined key issues concerning the structure and organisation, financing, quality and innovative practice in doctoral programmes across Europe. It involved six networks comprising forty-eight universities from twenty-two countries. Of the programmes analysed, the Professional Doctorate was offered in only the UK. It found considerable diversity in the types of doctoral degrees offered - research, professional and industrial. It is understood that considerable scepticism and lack of understanding about the Professional Doctorate was voiced in the course of the project.

Structured PhD programmes are increasingly common across Europe as are Graduate Schools and collaboration between institutes of higher education and research institutes in doctoral training. A number of countries are also re-structuring higher education including at the doctoral level, in the context of the Bologna process. Some of the main developments and strands of the debate as they concern professional doctorates are discussed below.

Netherlands[15]

There is an on-going debate in the Netherlands about the introduction of Professional Doctorates. In 2005 the Association of Dutch Universities, VSNU, at the request of the

[12] See Ministry of Science, Technology and Innovation, Industrial PhD Initiative, http://www.erhvervsphd.dk/visArtikel.asp?artikelID=510, Danish Industrial PhD Fellowship programme administered by the Committee on Industrial PhD fellowships under the Danish Academy of Technical Sciences (ATV) at www.atv.dk. For Sweden, see example of www.chalmers.se/en/sections/education/doctoral_programmes/industrial_doctoral

[13] 'Although it is a research Doctorate, according to the general regulations prevailing in Austria, the programme is, more than others, tailored to the needs of professional adults, both in terms of organization (teaching in blocks) and of content (students are encouraged to conduct research on projects focused on their daily practice). The programme is peculiar in that it admits only students who already have professional experience. Students who want to enroll immediately after the award of their Master's degree are not accepted. The reason is that the Doctoral programme is organized as a theoretical reflection of professional experience. Students not having this experience simply cannot participate' (UNESCO/CEPES (2004) 'Doctoral Studies and Qualifications in Europe and the United States: Status and Prospects', edited by Jan Sadlak, p.34) See http://www.iff.ac.at/oe/content.php?lang=de&p=6

[14] http://www.eua.be/eua/jsp/en/upload/Doctoral_Programmes_Project_Report.1129278878120.pdf See European University Association for follow-up to this in the context of Bologna process, http://www.eua.be/eua/en/Doctoral_Programmes.jspx

[15] This note is based on personal communication with VSNU executive, August-September 2006.

Minister for Education, set up a task force to look at the issue.[16] Emerging from this, in June 2005, VSNU recommended that they be introduced subject to an investigation of demand for it. In September 2006, a working group involving the Institutes of Professional Higher Education and the universities has been set up to focus on programmes offered in the Third Cycle, including the option of a Professional Doctorate. The debate centres around whether the professional doctorate should be introduced, in what fields or areas and by what institutions. In addition, the questions of its relationship to the PhD and its location within the Bologna third cycle are being addressed. [17] It is of note that the Professional Doctorate under discussion in the Netherlands could see it as being part of the Third Cycle but not equivalent to the PhD. The distinction would centre around purpose and emphasis. In Dutch higher education, the PhD is a four-year programme, leading to a qualification as an academic researcher. The Professional Doctorate is envisaged as a mainly three-year programme that aims at research in a professional or workplace setting. The former emphasises scientific training and methodology whereas the latter emphasises the professional dimension.

As a result of this distinction, a further dimension of the discussions in the Netherlands concerns qualifications descriptors for the PhD and for the Professional Doctorate. It is possible that distinct descriptors may be developed which would relate to the third cycle descriptor for the Framework for Qualifications of the European Higher Education Area.

Bologna Third Cycle

The issue of doctoral studies is under discussion in the Bologna process. The Bergen communiqué, June 2005, called for the 'further development of the basic principles for doctoral progammes, to be presented to Ministers in 2007'.[18] The Bologna seminar on 'Doctoral programmes for the European knowledge society' already took steps in this direction in that it reached agreement on ten basic principles that 'should underpin further considerations of the key role of doctoral programmes and research training in the Bologna process'.[19] The Bergen communiqué also states that 'doctoral level qualifications need to be fully aligned with the EHEA overarching framework for qualifications using the outcomes-based approach'. A declaration on professional higher education was made by rectors' conferences and associations representing higher education institutions outside the university sector to the Bergen Ministerial meeting (2005). This emphasised the importance of this strand of higher education and of the professional doctorates.[20]

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[16] VSNU's earlier report, 2004, Hore Est! Reforming the research training system focused on the PhD but regarded the professional doctorate as a relevant development and advised the Executive Board of VSNU to produce a separate report on their characteristics and requirements (p.11), at www.vsnu.nl

[17] Since 2004, against the background of the introduction of the Bologna cycles in the Netherlands, candidates who successfully complete the two-year post-masters Master of Technological Design (MTD) were entitled to the Professional Doctorate in Engineering (PDEng). This is offered by three technical universities: Delft University of Technology, Twente University and Technische Universiteit Eindhoven. It is designed to meet the needs of a specific professional group as post-Masters level that is distinct from the 'more fundamental, research-oriented PhD studies' and is certified by the Dutch Certification Committee for Courses to Technological Designer (CCTO) (see http://www.tnw.tudelft.nl/live/pagina.jsp?id=f5882f50-0c6d-4c44-b704-5c37086fc2be&lang=en and www.ust.tm.tue.nl/brief.asp for details).

[18] http://www.bologna-bergen2005.no/Docs/00-Main_doc/050520_Bergen_Communique.pdf

[19] Salzburg report, February 2005, at http://www.bologna-bergen2005.no/

[20] http://www.bologna-bergen2005.no/Docs/03-Pos_pap-05/050408_declaration_on_professional_education.pdf This declaration was endorsed by the (Irish) Council of Directors of Institutes of Technology. The declaration notes that *'Within the third cycle (doctorate level), professional streams can be distinguished as well. Institutions within the UK, and in some countries outside Europe, offer professional doctorate programmes where research work is carried out in close co-operation with the particular sector in the labour market, to which the programme is directed. Some of the European schools of arts also offer doctoral degrees with artistic and*

Dublin Descriptor and the Framework for Qualifications of the European Higher Education Area

In October 2004, the Joint Quality Initiative agreed a shared 'Dublin' descriptor for qualifications awarded on completion of the third cycle which was subsequently adopted as part of the Framework for Qualifications of the European Higher Education Area. In developing the descriptor, amongst other issues, the concept of the professional doctorate was discussed and the descriptor was designed to include this kind of doctorate. The understanding of research used in the descriptor makes this clear: 'research' 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 and is not restricted or related solely to a traditional 'scientific method'.[21]

Dublin Descriptor – third cycle

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.

As the on-going debate in the Netherlands shows, the development of doctoral education in the context of the Framework for Qualifications for the European Higher Education Area and the Bologna process may give rise to more transparency and discussion of how individual countries perceive the PhD and other forms of Doctoral education, including the Professional Doctorate. Also, the recently launched UNESCO-CEPES international project on *'Form follows function- comparing forms of doctoral training in Europe and North America'* could

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research options. The artistic options are clearly professional, albeit representing a highly specialised kind of profession. We believe it is important to work on an improvement of the stream of professionally oriented higher education for all three cycles, also taking into account the link with the sector of vocational education and training. Professionally oriented higher education is not only intended to deliver highly skilled labourers, but also acts as an important player for the advancement of the professions themselves, innovating the labour market and updating skills and competences.' In its recommendations to Ministers, it called for an analysis of professional doctorates being implemented or planned in order to find their proper place in the higher education system.

[21] 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'. From Dublin descriptors, 18 October 2004, http://www.jointquality.com/

also indicate trends and developments in relation to the Professional Doctorate.[22] This project will examine the organization of doctoral schools, relationship between doctoral education and the labour market and traditional and emerging types of doctoral programmes.

[22] http://www.cepes.ro/hed/policy/Doctoral_Frankfurt.pdf Institutional case studies will be presented to an international workshop in November 2006.

II Ireland

There is increased attention given by third level institutions, government agencies and research councils to research and training at doctoral level and the development of graduate schools in the context of developing a knowledge society. The Irish Universities framework proposal for the *'Reform of 3rd Level and Creation of 4th Level Ireland'* (2005) emphasises the need for new types of graduates at the 4th level.[23] It illustrates this with reference to the need for a new model of structured PhD programmes with taught courses, training and formalised career development. These would be characterised by flexibility, responsiveness and inter-institutional and stakeholder collaboration. These proposals do not specifically address the Professional Doctorate but address the need for 'radical modernisation of PhD and post-doctoral training' to meet the needs of the knowledge society. These proposals also foresee direct pathways of progression from Masters to Doctoral level study. These demands and the growth of Graduate Schools could see more structured PhD programmes and more Professional Doctorates in the future.[24] To date, the specific issue of Professional Doctorates has received little explicit attention in policy debates and reviews of doctoral education.

The number of Professional Doctorates on offer in Irish institutions is small and it is generally accepted that they are equivalent in level to PhDs. They are generally understood to be new, practice-oriented and aimed towards individuals with substantial professional experience. In 2002-04, The Irish Universities Quality Board carried out a research project on Good Practice in the Organisation of PhD programmes in Irish universities. The aim of the project was to improve the organisation and efficiency of PhD programmes in all Irish universities. At the outset of the project, it was decided to exclude non-PhDs and higher doctorates from the project.[25] The project led to the development of *'Guidelines for Good Practice in the organisation of PhD programmes in Irish universities'* in 2004. These address themes including administration, supervision, research project, induction and professional development, dissertation and examination. The Higher Education and Training Awards Council (HETAC), in 2003, issued similar guidelines for post-graduate research, which included doctorates.[26]

Overview of national practice

Data returns made by the universities to the Higher Education Authority do not distinguish between different types or titles of doctoral programmes.[27] The data collected here on Professional Doctoral programmes concerns those currently offered and that lead to awards that are made by higher education institutions and universities in Ireland. The Dublin Institute of Technology and the Institutes of Technology do not currently offer Professional Doctoral programmes. The identification of doctoral programmes as 'Professional Doctorate' in this review of its incidence in Ireland is based on a) designation as 'professional' or 'practitioner'

[23] http://www.iua.ie/documents/ReformofThirdLevelandCreationofFourthLevelIrelandProposal-IUAOctober2005_000.pdf

[24] See also 'Graduate Education Reform – Guiding Principles', March 2006, which emerged from a graduate education forum, hosted by the HEA in partnership with the IRCHSS and IRCSET (www.hea.ie). These are broadly based on the principles which emerged from the Salzburg Seminar, February 2005.

[25] In the interim report on the project, a workshop report from Trinity College Dublin noted the on-going debate about the two 'non-standard' doctorates then offered (the four-year Doctorate in Political Science and the three-year Doctorate in Clinical Psychology) and the relationship between teaching, research and practice at doctoral level. It noted that there was interest in developing Professional Doctorates in education, neuroscience and dentistry (the one in education has since been developed). Interim report available at www.iuqb.ie

[26] http://www.hetac.ie/docs/PG_Accreditation_Final.pdf Additional guidelines are found in its accreditation policies and criteria for research programme (2005).

[27] This is similar to the situation in the UK where the Higher Education Statistics Agency does not distinguish between doctoral programmes (www.hesa.ac.uk).

by the institution/faculty/department concerned; b) a distinct orientation of the programme towards professionals and c) use of name other than PhD in the title of the award.[28] It should be noted that a number of institutions offer structured PhD programmes with substantial taught elements (e.g. PhD programme in Biomedical Sciences, Royal College of Surgeons of Ireland (RCSI)) and in some cases, leading to named doctorates. The Doctor of Medicine (MD), particular to medicine and offered at doctoral level in a number of higher education institutions, and the Doctoral Degree in Divinity (DD), offered by the Pontifical University, are not considered to fall within the category of Professional Doctorates here (see below for discussion in the UK of the MD as a professional doctorate).

The overview below is based on information received from a variety of sources, including programme directors, offices of Deans of Post-Graduate Study or their equivalents and programme material available to the public. There may be some gaps in the material as, in some cases, detailed information is only available from Faculties, Departments or Centres which operate programmes or is contained in course approval documentation which is not widely available. The overview does not include programmes that are only *offered* by institutions in Ireland but which lead to awards made by institutions outside the jurisdiction e.g. the DGov which is offered by the Institute of Public Administration with the award made by Queen's University Belfast and the EdD offered by the Dublin Institute of Technology with the award made by the University of Sheffield. This information is summarised in tables in Annex 3.

Institutions, programmes and fields of study

In total, 8 institutions offer Professional Doctorates, of which 7 are universities[29]. In Northern Ireland, 7 Professional Doctoral programmes are offered by the University of Ulster and 4 by Queen's University Belfast. A total of 14 programmes are offered in Ireland (five of which are due to come on stream in academic year 2006/07). The dominant fields are clinical psychology (4) and education (4). In addition, Professional Doctorates are offered in clinical dentistry, occupational therapy, social science, business (2) and ministry. In one case, a core of taught elements is common to candidates on programmes leading to the Doctor of Business and the Doctor of Educational Leadership. The main features of these 14 programmes are described below. A number of other schools/departments and institutions are also developing Professional Doctorates, some of which are likely to be in new areas.

The extent to which the Professional Doctorates are addressed by institution-wide regulations was difficult to ascertain in this review. It would appear that, in some cases, there are specific regulations for Professional Doctorates (either for them as a group or for individual programmes) on issues such as assessment and grading, while institution-wide policies on, for example, ethical practice and plagiarism also apply to Professional Doctorates. More detailed investigation would be needed to ascertain practice across all institutions.

Structure of Professional Doctorate

The structure of Professional Doctorates varies significantly depending on the discipline and/or professional field relevant to the programme. In general terms, programmes include substantial taught elements (in some cases, with some overlap with Masters programmes)

[28] The titles concern doctorates other than the NUI's doctorates which are awarded on the basis of published work only: Doctor of Celtic Studies DLittCelt; Doctor of Economic Science DEconSc; Doctor of Laws LLD; Doctor of Literature DLitt ; Doctor of Medicine MD; Doctor of Music DMus; Doctor of Philosophy PhD; Doctor of Science DSc.

[29] The Milltown Institute offers a Professional Doctorate in Ministry. It is a recognised college of the National University of Ireland (NUI), which makes this award.

which can be transdisciplinary as well as disciplinary, project work and a thesis. They are designed to allow for flexible, part-time delivery and a mix of taught, research and thesis components. They aim to meet the needs of professionals, to focus on practice and offer an alternative to the traditional PhD. The Professional Doctorates in clinical psychology are a specific case or type of Professional Doctorate in that they are designed to lead to effective practice and clinical competence and are recognised by the relevant professional body. Placements and assessment of competence are a core part of programmes in this area.

There is variation in the number of taught modules and project work involved and in their share of the overall doctoral programme. Taught modules are generally delivered over short intensive periods. Coursework and a thesis form part of every programme. The weight (measured in terms of credit, duration, length) attached to the thesis caries from case to case but is less than the thesis required for the award of PhD. In some cases, the final award may be made solely on the basis of the thesis although other elements must be successfully completed (and can feed into the thesis) before students can progress to complete it. Further detailed investigation of programmes would be needed to ascertain the precise location of learning, breadth of studies and research, and nature of involvement of professional organisations, if any, in professional doctoral programmes offered in Ireland

Entry requirements

There is some consistency in entry requirements for Professional Doctorate programmes. These usually include specific performance in a Masters degree and professional practice 'at an appropriate level' as determined by the institution offering the programme. For entry to some programmes, professional practice may not be required but can be taken into account. The academic qualifications required vary from 2nd class honours to masters. In the case of Doctorates in Clinical Psychology however, the typical entry requirement is a second class honours primary degree and not a Masters. In exceptional cases, candidates who have not met all the relevant criteria may be accepted onto some programmes.

Assessment

A Professional Doctorate is usually made on the basis of successful achievement of a portfolio (e.g. comprising projects, reports, essays, case studies and thesis) involving a broader range of assessment methods than the traditional PhD. The doctorate is awarded on the basis of successful completion of a number of programme elements including a thesis. Details regarding assessment methods and who is responsible for assessment are not stated in all of the programme material. There appears to be consistency in assessment methods for similar programmes e.g. in clinical psychology, candidates are assessed on placement performance, essays/reports and thesis (additional assessments may be part of some programmes).

Credit rating

There are a number of differences with respect to credit. Firstly, not all programmes are modularised and therefore are not credit-based. Secondly, where credit-ratings are specified, they differ between institutions (from 120 – 270 credit points for the award) and do not generally indicate whether all the credit is at doctoral level.

Specification of learning outcomes

The extent to which learning outcomes are specified or made explicit in programme material is mixed (it is possible that these are made more explicit in internal course approval/validation documentation or are inferred from programme aims and objectives). In some cases, they are clearly stated and published but in the majority of cases, this is not so. In some cases, learning

outcomes are specified for modules only. The degree to which learning outcomes are specified appears to relate to the field of study/profession and general institutional practice. It would appear from the material available that the learning outcomes are at the same level as those specified in the descriptor for the Doctorate at level 10 in the national framework of qualifications.

Nomenclature

The nomenclature used for Professional Doctorates is not standardised. Programme material indicates that the title of Professional Doctorate is specific to each programme. However, there is some variation in practice across institutions e.g. the abbreviations DEd and EdD are used for Doctor of Education and there is a similar variation in the abbreviations used for Doctors of Clinical Psychology. In some cases, the specialism of the doctorate will also be indicated in brackets after the abbreviated title.

Professional recognition

The Doctor of Clinical Psychology is in all cases recognised/accredited by the Psychological Society of Ireland (and in one case, it is also stated to meet accreditation requirements of the British Psychological Society). The Doctor of Clinical Dentistry, likewise, is recognised by the Dental Council of Ireland. In other cases, there is no equivalent professional body for the discipline in question e.g. education, social research, occupational therapy, business administration. Professional doctorates in the healthcare sector are generally delivered in partnership with health service agencies.

III Issues concerning the Professional Doctorate

1. Distinctions between the Professional Doctorate and the PhD

In the first instance, the review of international practice finds that there is an important difference in the concept of the Professional Doctorate offered in the US and elsewhere. Those offered in the US, as found by the Task Force of the Higher Learning Commission (2006), appear have a distinct place in the U.S. hierarchy of degrees.[30] In general, the Professional Doctorate in the US is not at an equivalent level to doctoral programmes. It would appear from the brief review of awards offered elsewhere and in Ireland that the Professional Doctorates are at doctoral level. In many cases, award-type descriptors and guidelines for best practice in doctoral education address all doctorates including Professional ones.

Defining the Professional Doctorate

There is no single widely used definition of the Professional Doctorate in the literature or in practice. The UK Council for Graduate Education Report (2002) suggests that it is:

> "a further development of the taught Doctorate but the field of study is a professional discipline, rather than academic inquiry and scholarship… most Professional Doctorates are designed to meet a particular professional need… the research element of a Professional Doctorate is focused on professional practice… it is possible for the work to make an original contribution to the way in which theory is applied, or to the nature of practice within a profession (2002, 7)

Powell and Long (2005) describe the Professional Doctorate as an award

> "where the field of study is a professional discipline and which is distinguished from the PhD by a title that refers to that profession" (2005, 8)

The Council of Australian Deans and Directors of Graduate Studies, in 1998, in developing guidelines for the Professional Doctorate, defined it as

> ' a program of research and advanced study, which enables the candidate to make a significant contribution to knowledge and practice in their professional context. In so doing, the candidate may also contribute more generally to scholarship within a discipline or field of study' (1999,1)

The Council subsequently revised its guidelines and developed a framework for best practice in doctoral education (i.e. it treated Professional Doctorates as a variant of the doctorate). These emphasise that research is the fundamental component of doctoral education and that this involves a significant and original contribution to knowledge (for the discipline or a profession/professional practice) (2005).

[30] Whilst this was not a national task force, the work can be taken to indicate generally held understandings of the Professional Doctorate in the US. The Task Force identified the distinguishing characteristics of the Professional Doctorate as: amount and type of research training; amount and type of applied practice; stated competencies for research and practice; research utilization vs. research production; practitioners/providers for clinical experience and type of supervision of doctoral students. It attempted to map out different kinds of professional degrees but found that there was little to be gained (in its work) from trying to further differentiate doctoral education beyond the 'professional doctorate' title.

Of the universities and institutions offering the Professional Doctorate in Ireland and Northern Ireland, only the University of Ulster has a definition of the Professional Doctorate. It is defined as:

> 'a programme of advanced study and research which, whilst satisfying the University criteria for the award of doctorate, is designed to meet the specific research needs of a professional group, and which develops the capability of individuals to integrate research practice within a professional context' (Research Studies Handbook, 2005,43)

The UKCGE survey, 2004, reports that there is some confusion about the definition and perception of a Professional Doctorate in universities. They suggest that while there may be a general common understanding of what a Professional Doctorate is, a precise definition acceptable by all is harder to achieve because of differences across higher education in terms of how the award is organised and delivered. This concerns *inter-alia* the balance between taught and research components and the assessment of candidates. This leads to different understandings about the criteria for the award.

It is clear from the brief review of Professional Doctorates offered in Ireland and from the international literature that there is no single category of 'Professional Doctorates' or single grouping of 'alternative PhDs'. Different kinds of PhDs and doctorates (e.g. the MD, DD) have existed for some time and continues to grow. A commonly understood definition of the Professional Doctorate might address the concerns raised in some of the literature where, for some Professional Doctorates at least, there is ambiguity over their precise status and relationship to doctorates (DEST, 2002 and Maxwell and Shanahan, 2001). In addition, in some jurisdictions, the question of whether a distinct Professional Doctorate is considered to be a 'research doctorate' or not can have implications for funding (in for example, Australia, scholarship funding is available for research doctorates and some professional doctorates are not deemed to be research doctorates).

Key features of the Professional Doctorate
Scott et al., (2004) identify the following defining features of the Professional Doctorate:

1. A focus on professional work
2. A focus on the development of the individual in relation to their professional work
3. A significant taught element
4. The specification of learning outcomes
5. Cohort-based pedagogies (in general, UK CGE 2004 survey finds this is not universal)[31]
6. A shorter length of thesis than that for the PhD, but with the same requirement for originality
7. The Professional Doctorate is closely related to the development of practice within the profession concerned and may be accredited by a professional body and result in a professional qualification.
8. reference to profession or professional is usually made in the title of the Professional Doctorate award

A number of new PhD programmes share some of these features.

Distinctions between the PhD and the Professional Doctorate

[31] The UKCGE survey 2004 reports that some programmes are not universally cohort-based.

The main area of distinction between the PhD and the Professional Doctorate appears to concern both overall degree of emphasis placed on research and the nature of research. Outside of Ireland, in for example, the Australian Department of Education, Science and Technology report (2002) found that 61% of Professional Doctoral programmes fell within the classification of 'research' higher degrees.[32] The PhD demands that the student has made a substantial and original contribution to knowledge and has the ability to make a continuing contribution at this level. In general, it appears that the Professional Doctorate makes similar demands in relation to research that concerns professional practice. The PhD is usually made solely on the basis of a substantial written piece of work (the thesis). A Professional Doctorate is usually made on the basis of a portfolio involving a broader range of assessed objects. In some disciplines, professional bodies and professionals have a strong role in programme development and delivery e.g. engineering and clinical psychology. As the UK CGE survey suggests, 'a distinction between the two awards may become apparent in the way in which the criteria for the respective awards are framed – contribution to knowledge on the one hand and achievement of set learning outcomes (as evidenced in a portfolio) on the other' (2004:15).

Overall, the literature suggests that a central issue in the debate about doctoral education and the development of Professional Doctorates is the understanding of knowledge (nature, production or creation and use of) and the role of higher education institutions in knowledge creation (Scott et al 2004). As the situation in the US and the debate in the Netherlands indicates, different concepts of Professional Doctorates may develop in the future (also in Ireland) which could see some of them at doctoral level but not equivalent to PhDs.

As indicated above, there is a wide variation on course structure and delivery, learning methods, credit rating and assessment across professional doctorate programmes.[33] In Australia, not all are classified as being research programmes. They are considered to be so in Ireland. The classification has funding implications (this is raised in the literature on Professional Doctorates in New Zealand and Australia).

The distinctiveness between the PhD and the Professional Doctorate may be challenged by more recent changes in PhD programmes. The increase in structured programmes, which include substantial taught elements, and measures to develop generic and transferable skills (a requirement of funding councils in the UK) are, arguably, bringing PhDs more in line with core features of the Professional Doctorate. As Scott suggests, 'the PhD is now seen as a qualification which is required to develop clearly defined and marketable skills' (2004:19).

One of the major distinctions of the Professional Doctorates is the use of the professional field as part of the nomenclature. This stands in contrast to most PhDs where no such qualifier is used. The nomenclature of Professional Doctoral awards is not routinely standardised.

2. Overarching issues concerning doctorates

The EUA report on doctoral programmes for the knowledge society (2005)[34] identifies a number of overall issues concerning all types of doctoral education. It notes that there is an increased tendency towards structured programmes with doctoral students grouped in

[32] See executive summary at http://www.dest.gov.au/archive/highered/eippubs/eip02_8/

[33] As with some PhD programmes, a part of the Doctoral programme may entail research or taught elements that are at Masters level. In some cases, programmes are structured to lead on from Masters level or to provide an exit as Masters level. The question of appropriate balance between the doctoral and Masters level components may arise

[34] http://www.eua.be/eua/en/Doctoral_Programmes.jspx

research/graduate schools. In some countries, there is close cooperation between universities and research institutes. These developments, the report notes, should be firmly embedded in institutional practice and policies. Each university should take responsibility for the further development of its policies and regulations governing quality, assessment, supervision etc.. It found that more structured programmes were required to prepare researchers for increasingly specialised fields, coupled with transferable skill training for a wider range of careers. The report notes that countries are also at different stages in the reform of doctoral training. The key component of the doctorate - research – as well as disciplinary differences in conducting research and the individual character of doctoral education pose complications for reaching the same degree of common understanding about the Third Cycle as has been achieved for the First and Second Cycles (Bologna).[35] As indicated in Section II, best practice guidelines for doctoral education have been developed in respect of organisation, structure, funding and other issues related to doctoral education. In the UK, the Research Councils and the QAA in general, work with similar guidelines for all doctoral programmes (specific guidelines exist for engineering doctorates).[36] Existing guidelines in Ireland address the PhD in particular.

3 Qualifications Descriptors

A common qualification descriptor applies to doctorates in qualifications frameworks (the HEQF and SCQF, the AQF, New Zealand Qualifications Framework and the National Framework of Qualifications (Ireland). The Dublin descriptor also addresses all qualifications in the third cycle without distinction. There are differences in the wording of these descriptors and in their degree of specificity.

It would appear that the existing award-type descriptor for the doctoral degree in the National Qualifications Framework (Ireland) is sufficient for framework purposes.

4 Level of study

The question of level of particular professional doctoral programmes has been raised in some studies in the UK and the US. The UKCGE report (2004) suggests that equivalence of level of study between the Professional Doctorate and the PhD cannot be assumed in all cases. The UKCGE (2004) report notes the particular issue of whether the MD is treated as being equivalent in level to the PhD. In its 2004 survey, four of the 23 institutions that offered the MD queried its status. Some treated it as being of Masters' level. The survey also indicated some confusion about whether some Higher Doctorates could also be considered to be 'Professional Doctorates'[37] The higher doctorate typically indicates 'command over a field of

[35] The Bergen Communiqué (2005), states that doctoral level qualifications need to be fully aligned with the Framework for Qualifications for the European Higher Education Area using the outcomes-based approach. The EUA was invited to prepare a report, under the responsibility of the Follow-up Group, on the further development of the basic principles for doctoral programmes, to be presented to Ministers in 2007. This will draw upon the existing EUA report and the existing 10 Salzburg basic principles. See http://www.eua.be/eua/jsp/en/upload/Salzburg_Report_final.1129817011146.pdf . These include the principles that the core component of doctoral training is the advancement of knowledge through original research and that at the same time doctoral training must increasingly meet the needs of an employment market that is wider than academia. The report also indicates that there should be 'only one doctorate and one diploma signed by the Rector that is common for all faculties/institutes of the university'. It also notes the need for institutional rules on key aspects of doctoral training including supervision, entry and assessment.

[36] www.epsrc.ac.uk/CMSWeb/Downloads/Guidance/Engineering%20Doctorate%20Best%20Practice%20Guidelines.pdf

[37] The higher doctorates referred d to in the survey are: Dental Surgery (DDS), Veterinary Medicine (DVM); Divinity (DD); Law (LLD), Music (DMus), Science (DSc), 'Letters' (DLitt), Engineering (DEng) and Medicine (MD). (Higher doctorates are conferred by the National University of Ireland in DLitt, DLittCelt, DEconSc, DSc, DMus and LLD; Trinity College Dublin awards the following higher doctorates: DD, LL.D, Mus.D, ScD and DLitt. It agreed a descriptor for the Higher

study and a contribution to understanding within that field sustained over a period of years' (2004:22). Higher doctorates are seen by some to indicate a significant contribution to the professional field (or have a specific professional orientation) and thus to qualify as 'Professional Doctorates'. It emerges from the survey that the nomenclature used for the Higher Doctorate and Professional Doctorate can cause confusion about the level of the award in question.

More generally, the different purposes and structure of Professional Doctorates can make it difficult to directly compare levels of study or learning across them and between them and the PhD. A closer investigation of the programmes that are offered for Ireland above would be needed to elucidate the issues.

5. Entry requirements

It is noted in the literature that there has been some discussion about the minimum entry requirements for professional doctoral programmes. Scott et al (2004) find that entry requirements for the programmes they examined in the UK matched those for PhDs and in most cases exceeded them. This would also appear to be the case for Professional Doctorates in Ireland although a more detailed look at requirements and practice for all Doctorates would be necessary to confirm this. The entry requirements can potentially impact on the standard and status (actual or perceived) of the Professional Doctorate. Appropriate professional experience is a requirement for most but not all programmes. In some cases, Professional Doctorates are designed as a progression from relevant Masters' programmes.

6. Nomenclature

The UKCGE study finds that there are varied practices concerning the nomenclature of Professional Doctorates.[38] There is also a trend towards an increase in the number of titles used for these qualifications. This is of interest to professionals who generally want differentiation by title, and to institutions who may use titles as a marketing tool. Some institutions consider that this causes confusion for both students and employers (e.g. the UKGCE survey, 2004, found that the engineering Professional Doctorate can be titled EngD or DEng). There is a tension between the needs and usefulness of increased specificity and the confusion caused by a proliferation of titles and/or abbreviations of titles. As professions become more sub-divided or more differentiated, the titles of Professional Doctorate may become more differentiated.

It appears clear from a review of international practice that the title alone does not give a clear indication of the nature of a Professional Doctorate – indeed, some PhDs have a 'professional' or 'practice' orientation which is not apparent from the title and share some structural characteristics with Professional Doctorates.

7. Recognition by a professional body

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doctorate in March 2006. In 2004, a descriptor for the Higher Doctorate in the National Framework of Qualifications was agreed (www.nqai.ie/en/FrameworkDevelopment/FrameworkDevelopment/)

[38] The report notes that the titling conventions for Professional Doctorates in the UK are:

- specific mention of professional area in the title
- inclusion of the word 'professional' in the programme descriptor and award title
- PDrof of ProfD

The study by Scott et al (2004) sets out the different ways in which professional bodies are involved in Professional Doctorates in engineering, education and business administration. In engineering, the EPSRC was the main driver for professional doctorates (the professional body would also appear to have been a key driver in respect of Professional Doctorates in clinical psychology). Completion of a Professional Doctorate may confer a particular status or right to practice in specialised areas. In such cases, the involvement of the professional body in the design, delivery and assessment of the award may be significant. The question of the extent to which higher education institutions have full ownership and responsibility for quality and standards may arise. The need to maintain the confidence of both the profession and the academy in the associated award is important. The higher education institutions and the professions may have different views on core characteristics of professional doctorates and in how these are achieved. The evaluation and quality assurance of institutional requirements/settings for professional doctoral programmes can pose particular challenges.

Recommendation
It would seem from the above that there are strong arguments for distinguishing between the Professional Doctorate and the PhD in terms of programme, assessment and research particularly as these have implications for evaluating the necessary support structures for quality and standards. Attention also needs to be paid to how Professional Doctorates are perceived and treated at both the national and international levels, including by funding agencies. While the review of Professional Doctorates offered in Ireland did not explore these issues in depth, international practice and the debates about doctoral education in the European context in particular suggest that they may arise in the future in Ireland. Moreover, existing best practice guidelines in Ireland address PhDs only. This could have the effect of creating some ambiguity about the level and status of Professional (and indeed other) Doctorates.

It is proposed that the usefulness of developing guidelines for Professional Doctorates be explored by the relevant bodies. In this regard, the specification of learning outcomes in line with the award-type descriptor for the doctorate in the National Framework of Qualifications would clearly demonstrate that such qualifications are at level 10 in the National Framework of Qualifications and fall within the overall Doctoral degree award-type.

Annex 1

Qualifications Descriptors and Best Practice Guidelines

1. Australian Qualifications Framework - Guidelines for Doctoral degrees

2. New Zealand Register of Quality-Assured Qualifications and Committee on University Academic Programmes (New Zealand) *Principles for named doctorates*

3. Higher Education Qualifications Framework for England, Wales and Northern Ireland – Qualification Descriptor for Doctorate

4. Scottish Qualifications and Credit Framework – Qualification Descriptor

5. Dublin Descriptor – third cycle awards (Framework for Qualifications of the European Higher Education Area)

6. National Framework of Qualifications (Ireland) Award-type Descriptor (Doctoral Degree)

1. Australian Qualifications Framework - Guidelines for Doctoral degrees

Characteristics of Doctoral Degrees

The Doctoral degree recognises a substantial original contribution to knowledge in the form of new knowledge or significant and original adaptation, application and interpretation of existing knowledge.

This substantial and original contribution to knowledge may take the form of:

- a comprehensive and searching review of the literature;
- experimentation;
- creative work with exegesis;
- other systematic approaches; or
- advanced, searching and expansive critical reflection on professional theory and practice

A graduate of a Doctoral degree program is able to:

- carry out an original research project, or a project(s) addressing a matter of substance concerning practice in a profession at a high level of originality and quality; and

- present a substantial and well ordered dissertation, non-print thesis or portfolio, for submission to external examination against international standards.'

Pathways guideline

Candidates typically hold a Masters degree or a Bachelor Honours degree (First or Second Class, upper division) or equivalent and are expected to demonstrate potential to undertake work at this level in the proposed field of study. In some institutions, candidates may upgrade an in-progress Masters degree to a Doctoral degree where they have not yet taken out the Masters degree. For some doctoral programs, substantial professional experience will be an integral requirement.

There is a range of doctoral programs, in varying combinations of research and coursework and professional orientation, as follows:

- the *research doctorate* is usually entered from a research or part-research Masters degree or a Bachelor Honours degree (First or Second Class, upper division) and, is primarily achieved through supervised research;
- the *Professional Doctorate* is usually entered from a combined research and coursework Masters degree, a Bachelor Honours degree (First or Second Class, upper division) or equivalent and requires significant professional practice either prior to and/or as part of the program, which may be undertaken through varying combinations of coursework and research.

Because candidates hold a range of relevant skills and knowledge, the duration of programs varies. A typical research or professional doctoral program would be expected to require the equivalent of three to four years of full-time work.

There is a further type of doctoral degree, the *higher doctorate*, which is awarded to candidates usually possessing a doctoral degree on the basis of an internationally-recognised original contribution to knowledge rather than supervised candidature, often in the context of a substantial association with the conferring institution.

Souce: http://www.aqf.edu.au/doctor.htm

2. New Zealand Register of Quality-Assured Qualifications

Definition of doctoral degrees

With the exception of the honorary doctorate, the doctorate is a research degree that is at a significantly higher level and of significantly higher status than a Masterate. It is normally the culmination of a structured sequence of instruction at educational institutions that begins at the Bachelor level and reaches a stage beyond the Masterate when the student becomes an increasingly independent scholar and makes a substantial and original contribution to knowledge.

For the PhD/DPhil and the named doctorate this development takes place under the guidance of recognised experts in the field of study and under circumstances that allow the student access to appropriate research resources.

The doctorate is awarded on the basis of an original and substantial contribution to knowledge as judged by independent experts applying contemporary international standards. The hallmark will be the candidate's capacity for substantial independent research or creative activity as attested (for the PhD/DPhil and the named doctorate) by his/her educational institution and/or as demonstrated by submitted work.

With the exception of the honorary doctorate the major component of all doctorates is original research. The body of work that leads to the award of a doctorate will be one of the following:

- a thesis (the PhD/DPhil)
- creative work in the visual or performing arts (the PhD/DPhil)
- a thesis or equivalent creative work in combination with coursework (the named doctorate)
- a thesis in combination with a creative work in the visual or performing arts (the named doctorate)
- published work (the higher doctorate)
- exceptional contribution to society (the honorary doctorate).

A doctorate requires at least 240 credits worth of advanced research at level 10.

The following types of doctoral degree are recognised:

Doctorate of Philosophy (PhD/DPhil)

The thesis constitutes the entire body of work on which the award of the qualification will be judged. Coursework may also be prescribed for the student but this will only contribute to the preparation for research and acceptance into the doctoral programme. Students in the visual or performing arts may present a creative work in the place of the thesis.

Doctorate in a specified field or discipline - the named doctorate (e.g. EdD or the DMus)

For a doctorate in a specified field, coursework may contribute to the assessed programme of study but research and its associated thesis must occupy at least two full-time academic years and contribute not less than two-thirds of the overall credit for the degree. The coursework, which is to be at a standard in advance of that expected for a masterate paper, must be part of a coherent programme with the research work and should normally cover no more than one full-time academic year. A candidate for a named doctorate must gain a passing grade in both the coursework and the thesis or its creative work equivalent.

Source: www.kiwiquals.govt.nz/about/definitions/doctoraldegree.html

Committee on University Academic Programmes (New Zealand)

Principles for named doctorates

- coursework may contribute to the assessed programme of study but the work contributing to the thesis must engage the candidate for a minimum of two full-time academic years and contribute not less than two-thirds of the overall credit for the degree.
- the coursework component may include papers, practicums or any other appropriate piece of work, providing that the coursework is at a level in advance of masters level and that taken together with the research work it provides a coherent programme.
- the coursework should normally engage the candidate for no more than one full-time academic year.
- a candidate must obtain a passing grade in each component of coursework and for the thesis or its equivalent.
- the proposed nomenclature must be simple, accurate, informative, and succinct and have wide international currency and provide a link to a recognised professional field.

3. Higher Education Qualifications Framework for England, Wales and Northern Ireland – Qualification Descriptor for Doctorate

Doctoral level

Doctorates are awarded for the creation and interpretation of knowledge, which extends the forefront of a discipline, usually through original research. Holders of doctorates will be able to conceptualise, design and implement projects for the generation of significant new knowledge and/or understanding.

Holders of doctorates will have the qualities needed for employment requiring the ability to make informed judgements on complex issues in specialist fields, and innovation in tackling and solving problems.

The titles PhD and DPhil are commonly used for doctorates awarded on the basis of original research. Doctoral programmes, that may include a research component, but which have a substantial taught element lead usually to awards that include the name of the discipline in their title (e.g. EdD for Doctor of Education). A doctorate normally requires the equivalent of three years' full-time study.

Descriptor for qualifications at Doctoral (D) level: Doctoral degree

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.

Qualifications Nomenclature – guidelines specific to doctorates

- The titles 'Honours', 'Master' and 'Doctor' should be used only for qualifications that meet in full the expectations of the qualification descriptors at H, M and D levels respectively.
- Use of the abbreviated titles 'PhD' and 'DPhil' should be restricted to qualifications where assessment is solely by a final thesis or published work; or by artefact or performance that is accompanied by a written commentary placing it in its academic context.
- Titles used for doctoral qualifications awarded after programmes that include a substantial taught element should normally include the name of the discipline in the title (eg EdD for Doctor of Education).

Source: http://www.qaa.ac.uk/academicinfrastructure/FHEQ/EWNI/default.asp#annex1

4. Scottish Qualifications and Credit Framework – Qualification Descriptor

The SQCF treats all doctoral degrees as being at the same level and sharing the same characteristic outcomes as those set out in the Higher Education Qualifications Framework above. It describes doctoral degrees as follows: the Doctoral degrees are available through several different routes. The PhD is normally awarded following successful completion of a thesis which requires the equivalent of a minimum of three years' full-time research and study to complete. Professional Doctorates also require the equivalent of three years' full-time research and study to complete and will frequently involve work-based as well as HEI-based research and study. Doctoral degrees reflect specialised, advanced knowledge, understanding and practice at the frontiers of the subject or professional area.

5. Dublin Descriptor – third cycle awards (Framework for Qualifications of the European Higher Education Area)

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;

6. National Framework of Qualifications (Ireland) Award-type Descriptor (Doctoral Degree)

Title	Doctoral Degree
Purpose	This is a multi-purpose award-type. The knowledge, skill and competence acquired are relevant to personal development, participation in society and community, employment, and access to additional education and training.
Level	10
Volume	Large
Knowledge - breadth	A systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of a field of learning
Knowledge – kind	The creation and interpretation of new knowledge, through original research, or other advanced scholarship, of a quality to satisfy review by peers
Know-how and skill – range	Demonstrate a significant range of the principal skills, techniques, tools, practices and/or materials which are associated with a field of learning; develop new skills, techniques, tools, practices and/or materials
Know-how and skill - selectivity	Respond to abstract problems that expand and redefine existing procedural knowledge
Competence - context	Exercise personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent contexts
Competence – role	Communicate results of research and innovation to peers; engage in critical dialogue; lead and originate complex social processes
Competence – learning to learn	Learn to critique the broader implications of applying knowledge to particular contexts
Competence - insight	Scrutinise and reflect on social norms and relationships and lead action to change them
Progression & Transfer	
Articulation	

Annex 2 Information on Professional Doctoral Programmes on offer in institutions in Ireland and Northern Ireland

Table 1

Fields of Learning in which Professional Doctoral Programmes are offered (2006/07)

Subject Areas	Number of Programmes	
	Ireland	Northern Ireland
Psychology		
Doctor of Clinical Psychology	3	1
Doctor of Educational, Child and Adolescent Psychology	0	1
Doctor of Psychological Science in Clinical Psychology (to be offered in 2006/07)	1	0
Education		
Doctor of Education (one of these to be offered in 2006/07)	3	2
Doctor of Educational Leadership (to be offered in 2006/07)	1	0
Engineering		
Doctor of Technology	0	1
Doctor of Engineering	0	1
Doctor of Informatics	0	1
Health		
Doctor of Occupational Therapy (to be offered in 2006/07)	1	0
Doctor of Clinical Dentistry	1	0
Doctor of Nursing Science	0	1
Science		
Doctor of Environmental Science	0	1
Doctor of Biological Science	0	1
Other		
Doctor of Ministry (to be offered academic year 2006/07)	1	0
Doctor of Social Science	1	0
Doctor of Governance	0	1
Doctor of Business Economics	1	0
Doctor of Business(to be offered in 2006/07)	1	0
TOTAL	**14**	**11**

Table 2 **Programmes and award titles**
(Titles are as indicated in programme material)

Trinity College Dublin

Doctor of Education *(DEd)*

Doctor in Clinical Psychology *(DClinPsych)*

University College Dublin

Doctor of Clinical Psychology *(DPsychSc)*

Dublin City University

Doctor in Education *(EdD)*

Doctor of Education Leadership *(to be offered 2006/07)*

Doctor of Business *(to be offered 2006/07)*

University College Cork

Doctor of Business Economics *(DBA*)

Doctor of Clinical Dentistry *(DClinDent)*

Doctor of Occupational Therapy *(DOccT) (to be offered in 2006/07)*

Doctor of Social Science *(DSocSc)*

National University of Ireland, Galway

Doctor of Psychological Science in Clinical Psychology *(DPsychSc)*

University of Limerick

Doctor of Clinical Psychology *(DClinPsych)*

National University of Ireland, Maynooth

Doctor of Education *(Ed.D) (to be offered in 2006/07)*

Milltown Institute (recognised college of National University of Ireland)

Doctor of Ministry *(DMin) (to be offered 2006/07)*

Northern Ireland

University of Ulster

Doctor of Environmental Science *(DEnvSc)*

Doctor of Biological Science

Doctor of Nursing Science

Doctor of Technology/Engineering *(DTech/Deng)*

Doctor of Informatics *(DInf)*

Doctor of Education *(EdD)*

Doctor of Medical Science *(DMedSci)*

Queen's University of Belfast

Doctor of Clinical Psychology *(DClinPsych)*

Doctor of Governance *(DGov)*

Doctor of Education *(EdD)*

Doctor of Educational, Child and Adolescent Psychology (*to be offered 2006/07)*

Table 3 Summary information on Professional Doctoral Programmes, Ireland

Programme Title	Abbrev	Institution	Duration	Entry requirements	Learning Outcomes	Assessment	Credits Required to Obtain Award
Doctor of Clinical Psychology	DClinPsych	University of Limerick	f/t 3 yrs	2:1 Honours degree in Psychology and one year of work experience	n/s	Mixture of methods 920-40 credits thesis – uni regs)	Maximum of 120 credits
Doctor of Clinical Psychology	D.Clin.Psych.	Trinity College Dublin		Upper 2nd class honours primary degree in Psychology	n/s	Mixture of methods	Not credit based
Doctor of Clinical Psychology	D Psych Sc	University College Dublin	f/t 3 yrs	2.1 honours degree in psychology or an honours diploma in psychology and have relevant experience in clinical practice and/or clinical research.	n/s	Mixture of methods (Thesis 32 000 words)	Not credit based
Doctor of Psychological Science in Clinical Psychology	D.Psych.Sc.	National University of Ireland, Galway	3 yrs	Degree in psychology (or postgraduate diploma) of at least upper 2nd class honours level	n/s	Mixture of methods (Thesis 30 000 words)	270 ECTS
Doctor of Education	D.Ed.	Trinity College Dublin	4-5 yrs part-time	Master's level qualification & at least min 3 yrs experience	n/s	Mixture of methods (Thesis 80 0000)	Not credit based
Doctor of Education	Ed.D	National University of Ireland, Maynooth	3 yrs	Masters degree or equivalent in education or adult education and substantial experience of 5 yrs duration at senior level in education or adult education	n/s	Mixture of methods (Thesis of approx 50 000 words)	Not credit-based
Doctor of Education	EdD	Dublin City University (St. Patrick's College, Drumcondra)	Recommended that the course is completed in 4 yrs	Good hons masters degree and substantial experience	n/s	Mixture of methods (Thesis 50000)	Not credit based
Doctor of Educational Leadership		Dublin City University	4-6 years part-time	1st or 2nd class hons masters degree and have experience working in a leadership role.	n/s	Mixture of methods (Thesis 40000)	not credit based

Note: In some cases where learning outcomes are not specified they can be inferred. For some programmes, especially those in the field of Clinical Psychology, detailed content and objectives are set out for different elements of programmes. The information above is based on what was made available by the institutions concerned in publicly available course material. In the case of some new programmes, detailed programme material is not yet available (for these and others, additional information may be available in internal course approval documents).

Table 3 contd.

Programme Title	Abbrev	Institution	Duration	Entry requirements	Learning Outcomes	Assessment	Credits Required to Obtain Award
Doctor of Clinical Dentistry	DClinDent	University College Cork	3 yrs	Primary Dental degree, min 2 yrs experience and possess a Membership or Fellowship diploma from one of the Royal Colleges of Surgeons	n/s	Mixture of methods (thesis 90 credits)	250 credits
Doctor of Occupational Therapy	D.Occ.T.	University College Cork	4-5 yrs	Professional qualification in Occupational Therapy from WFOT and post-professional Masters Degree or a 1st class Hons degree in the professionally qualifying degree in Occupational Therapy, & min of 5 yrs professional practice	n/s	Mixture of methods (Thesis 40000)	240 credits
Doctor of Social Science	DSocSc	University College Cork	4 yrs	Masters degree and at least 5 yrs relevant postgraduate, professional experience	Specified	Mixture of methods (Thesis 40000 words)	240 credits
Doctor of Business Economics	DBA	University College Cork	4 yrs p/t	2nd class hons in a Masters' level degree & be expected to demonstrate evidence of at least 5 yrs work experience	Specified	Mixture of methods (Thesis 50000 words)	Programme not modularised and therefore not credit based
Doctor of Business		Dublin City University	4 yrs p/t	2nd class masters degree and 4 yrs managerial experience	Specified	Mixture of methods (Thesis 40000)	Not credit based
Doctor of Ministry	DMin	Milltown Institute (recognised college of National University of Ireland)	5 yrs	Honours Masters' degree or equivalent in theology, ministry or spirituality and at least 3 yrs full-time professional ministry	n/s	Mixture of methods (Thesis 50 000-60 000 words)	Not credit based

Table 4 Summary information on Professional Doctoral programmes, Northern Ireland

Programme Title	Abbrev	Institution	Duration	Entry requirements	Learning Outcomes*	Assessment	Credits Required to Obtain Award
Doctor of Clinical Psychology	DClinPsych	Queen's University of Belfast	Min 3 yrs Max 4 yrs	2nd class honours degree	Specified	Mixture of methods 2 research projects worth 110 credit points	540 credits level
Doctor of Educational, Child & Adolescent Psychology		Queen's University of Belfast	3 yrs	2:1	n/s	n/s	360 credits
Doctor of Education	EdD	Queen's University of Belfast	3 yrs	Primary degree and at least 5 yrs f/t professional experience at a senior level in a field of work related education	Specified	Mixture of methods (Thesis not more than 40000 words)	540 credits at doctoral level
Doctor of Education	EdD	University of Ulster	3 yrs full-time, 4 yrs part-time	Appropriate professional qualification, a Masters degree in Education or related subject with an overall assessment mark of more than 60% & normally, more than 3 yrs' experience.	n/s	n/s	n/s
Doctor of Technology/ Engineering	DTech/ DEng	University of Ulster	2 yrs f/t 4 yrs p/t	Masters degree with 60% mark or over in an appropriate discipline & 3 yrs experience	n/s	Thesis	n/s
Doctor of Informatics	DInf	University of Ulster	2 yrs f/t 4 yrs p/t	Masters degree with 60% mark or over in an approp discipline & 3 yrs experience	n/s	Thesis	n/s
Doctor of Nursing Science		University of Ulster	4 yrs min 6 yrs max (p/t)	Masters Degree in Nursing or a cognate discipline and 2 yrs clinical experience	n/s	n/s	n/s
Doctor of Environmental Science	DEnvSc	University of Ulster	4 yrs min 6 yrs max (p/t)	Masters degree with mark of not less than 60% and at least 3 yrs experience	n/s	Mixture of methods	
Doctor of Medical Science	DMedSci	University of Ulster	4 yrs min 6 yrs max (p/t)	Masters degree with mark of at least 60% and at least 3 yrs experience	n/s**	Thesis (mix of methods (from Oct.07)	360
Doctor of Biological Science	DBiolSci	University of Ulster	4 yrs min 6 yrs max (p/t)	Masters degree with mark of not less than 60% and at least 3 yrs experience	n/s**	Thesis	360
Doctor of Governance	DGov	Queen's University Belfast (Offered jointly with IPA)	4 yrs (p/t)	2:1 & 5 yrs f/t experience		Mixture of methods (Thesis 50000 words)	540 credits at doctoral level

* This refers to explicit and easily available statements about learning outcomes. In some cases, programmes pre-date the use of learning outcomes or these are indicated in internal validation/accreditation documents only.

** It is planned to re-validate the DMedSci in 2006/07 and at that time to have clearly identified learning outcomes and a more structured learning programme

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Note: Information on doctoral programmes offered in Ireland and Northern Ireland drawn from institution/school/departmental websites and communication with course directors and/or Offices of Deans of Graduate Studies or their equivalents.