

Reflections, refinements and revisions: Thirteen years experience of a Professional Doctorate in public health

Stuart C. Anderson¹, Caroline O. H. Jones and Sharon R. A. Huttly

London School of Hygiene and Tropical Medicine

Abstract

A Professional Doctorate in Public Health has been offered at a postgraduate medical school in London since 1996. The programme was developed for 'public health practitioners with careers in the operational, management or professional aspects of public health'. Its aim is to equip participants with skills for leadership in public health policy and practice rather than research.

To date 46 students from over 30 countries in Africa, Asia, the Americas and Europe have graduated from the programme. Throughout its history the programme has been subject to a continuous process of development and refinement, although it has retained its three core components of a formal taught element, a professional attachment, and a research thesis.

The paper considers each component in turn. In the professional attachment students spend 3-6 months observing a public health organisation and producing a report. Assessment issues in relation to each component are considered, including the ways in which these have been modified in response to issues raised. The paper then explores the challenges in providing thesis supervision for the DrPH rather than the PhD, and compares the two. The supervisory skills required across the three components in order to ensure that the programme has the same intellectual rigour and standard as a PhD are considered.

¹ Corresponding author. Email: Stuart.Anderson@lshtm.ac.uk

The paper concludes with key lessons learnt, finding that programmes such as the DrPH can make a distinct and valuable contribution to doctoral level training in the field of public health, complementing the research training offered by the PhD.

Keywords: Professional; Doctorate; Public health; PhD; Experience

Introduction

A professional doctorate in public health, the DrPH, has been offered at a postgraduate medical school in London since 1996. The school is both the national school of public health in the UK, and a leading institution with a worldwide reputation for research and postgraduate education in global health. With a long history of offering PhDs, the DrPH programme was developed to address the needs of public health practitioners with careers in the operational, management or professional aspects of public health.

When it was launched the DrPH comprised three main elements: taught courses (two core doctoral level modules and 3 MSc modules), a professional attachment, and a research thesis. Several relatively minor adjustments were made over the following years, and a full review of the programme was undertaken during the 2004-05 session. On that occasion a number of specific recommendations were made, which primarily addressed the management and administration of the degree. These were implemented, and resulted in clearer lines of responsibility and better integration with teaching support, at both school level and in research departments.

It was recognised at that time that the new degree was not widely known. One of the recommendations made therefore related to better promotion of the degree, both internally and externally. Although vigorous efforts were made to achieve this their impact was limited. Despite the wide distribution of information leaflets, as well as the use of a variety of other advertising channels, recruitment patterns did not change significantly. Internally, the degree continued to be poorly understood and was widely perceived as confusing and problematic.

The appointment of a new DrPH Course Director in September 2007, and the departure of staff who taught one of the two core DrPH modules, prompted a more rigorous and

extensive review of the DrPH's objectives, structure and content. A small working group chaired by the Dean of Studies and consisting of the DrPH programme director, the module organisers for the taught elements, the Associate Dean of Studies, the head of the faculty of public health and policy and the head of staff and educational development, was established in May 2008 to review the current situation, and to make any recommendations thought necessary for its effective delivery. Meetings of the group took place over the summer and autumn of 2008; additional meetings were held with current DrPH students, and the group's final report was considered by the school's Research Degrees Committee in February 2009.

The aim of this paper is to present the results of this critical review of the school's experience with the DrPH programme carried out during 2008. In doing so it reflects on the differences between the DrPH and PhD programmes, describes the changes that have been made, and identifies a number of lessons that may be relevant to other professional doctorates. Although all aspects of the programme were considered in the review, three specific issues are addressed more fully here: the taught component, the organisational and policy analysis component together with arrangements for its supervision, and the thesis. But we begin with a brief account of the origins and development of the DrPH programme at the school.

Development of the DrPH programme

In developing its DrPH programme in the mid-1990s the school was cognisant of three key factors: the need for a more practice-orientated research degree in the field of public health; the need for advanced training to fit individuals for future careers in public health; and the need to develop managerial and leadership skills in addition to research skills in senior public health practitioners. Its development took place within a context of emergence of professional doctorates in a number of subject areas. The first professional doctorate programme in the UK, in clinical psychology, was first proposed in 1987 and implemented in 1989 (Scott *et al.*, 2004). Other early professional doctorates were in the fields of education, business and engineering. The evolution of professional doctorates has been reviewed by Maxwell (2003), amongst others. The concept of the practitioner doctorate has subsequently been developed by Lester (2004).

The range of subject areas where professional doctorates are being offered is growing year by year. Increasingly existing ones are being subjected to extensive reflection and review, and it is important that key lessons are learned. The changing nature of professional doctorates has been described by several authors, including Evans (1997) and Park (2005). One of the earlier professional doctorates to appear, the doctorate in education, was comprehensively examined in 1997 (Maxwell and Shanahan, 1997), and the doctorate in business administration was extensively critiqued by Neumann and Goldstein (2002). A more recent critical review has been carried out on professional doctorates in business (Gill and Hoppe, 2009).

In the health sphere, professional doctorates now exist in a wide range of activities, including occupational therapy (Pierce and Peyton, 1999), health administration (White and Zoller, 2007), and nursing, where a second generation of professional doctorates has recently been introduced (Rolfe and Davies, 2009). The growing literature in this area has been of considerable assistance to the review team by providing a sound theoretical foundation, identifying key issues, and suggesting possible solutions to them.

The DrPH programme was designed to provide both the practical skills needed for managers and leaders in public health, and an understanding of and experience in research. The objectives originally set to provide a multidisciplinary professional training in the skills crucial for leadership roles in public health; and to prepare participants for the effective conduct of supervision, research and the integration of new knowledge into community and public health practice. In designing the programme account was taken of the development of health care professional doctorates in the United States, although these tend to have rather different aims and structures to those subsequently used (White and Zoller, 2007).

It was recognised from the beginning that the original three components of the programme constituted a substantial workload for the students. The taught component consisted of a minimum of six modules: three compulsory core modules and at least three additional modules from MSc options. The professional attachment (PA) involved a three to six month workplace-based project, followed by an analytical report with a 12,000 word limit. And finally the thesis, the end-result of high quality research on a

policy relevant topic, consisted of a report with a 50,000 word limit, and needed to include an integrating statement of 1,500 words.

The original time frame envisaged for the programme extended over three years, when undertaken on a full time basis. The three core modules were taken in term 1 of the first year. The three additional modules selected from MSc options were taken in terms 2 and 3 of this year; however, in addition preparation for both the PA and the thesis was undertaken during this period. In the second year the key activity was undertaking the PA, over a three to six month period; in addition students made further preparations for their thesis research, undertaking a research review, and starting their data collection. In the third year they continued data collection, and carried out data analysis and thesis writing.

Students regularly expressed their concerns about the heavy workload. The working group reviewing the programme therefore recognised that both the overall workload of the programme and the balance between the various components needed attention. We now consider each of the components in turn, and describe the revisions made.

The taught component

The core modules in the first term covered two subject areas; leadership, management and development (LMD), and evidence-based public health practice (EBPHP). The LMD course consisted of a 5 week module, and it had three main objectives; to explore management and leadership theory relating to organisational behaviour; to consider the application of these theories in public health organisations and practice; and to develop understanding by participants of themselves as leaders and managers in public health. The EBPHP course involved a 10 week module, designed to enable students to locate, assess, synthesise, present and use research-based information to improve public health in a range of settings.

The review resulted in a number of critical reflections about the taught component of the programme. Largely as a result of the length of time spent on the taught element, students found it difficult to fit all the elements of the programme into a three year timeframe. The value of the three compulsory additional MSc modules was questioned;

and there were difficulties in identifying appropriate staff to teach the LMD module (this is in fact an on-going issue). It was found that most students entering the programme had little previous knowledge or experience of organisational management theory. A new way of thinking about the programme was therefore required.

As a result, a number of substantial revisions were made to the taught component of the programme. The requirement for the three additional MSc modules was removed. This gave students additional flexibility, and put the DrPH students in an equivalent position to PhD students, who are able to register for specific MSc modules which are relevant to their research project. In addition it was agreed that the LMD module should be extended to a ten week course; this would involve additional learning time without significantly increasing the content of the module. One further refinement was that the title of the module should be changed to leadership management and professional development (LMPD) to avoid the possibility of confusion with economic development. The LMPD module now has a notional learning time of 150 hours, equivalent to one MSc module (fifteen credits of 10 hours). The EBPHP continues to be offered as a single module of 150 hours over a ten week period. Both staff and students requested additional learning time for the LMPD module to allow for more in-depth coverage of the key material presented in the course. In addition, since the EBPHP and LMPD modules contribute equally to the subsequent phase of the programme (the OPA project) it was considered appropriate that equal weight should be given to these core taught components in term 1. The module learning objectives and outline remain unchanged, but the additional learning time contributes to maintaining academic standards in both the module assessment exercises and the subsequent OPA project.

The LMPD module retains an additional three day personal development retreat (held half way through term 1) as an integral component of the course. The change in title has been accompanied by an update in the description of the project, which now includes a more detailed explanation of what is expected in the OPA report.

The organisational and policy analysis (OPA) component:

The review group confirmed the view that successful leadership in public health requires a wide range of technical skills in assessing needs, in setting priorities, in

organisational and financial management, and in communication and influencing. It also requires a good understanding of the ways in which the organisation and management of public health institutions can support or constrain the development of effective public health policy and practice. This was the original aim of including a professional attachment (PA) in the programme.

The PA has been a source of considerable debate between the programme team and external examiners during the lifetime of the DrPH programme. This element has evolved incrementally into its current form in response to external constraints. For example, challenges were encountered in determining the direction and emphasis of the report in serving both academic needs and those of the host organisation. Although such challenges are now more widely recognised, when the DrPH was launched there was limited experience to draw on at doctoral level. Our experience has led to a more explicit statement of intent so that students, examiners and the host organisation are all aware of the purpose of the OPA and the output produced.

The OPA project now involves participants observing closely the operation of a public health organisation. Students focus on how it endeavours to fulfil one aspect of its mandate, and from this they develop a better understanding of how effective public health organisations act in the relevant policy environment. The primary purpose of the OPA is to contribute to the student's educational development. The student's focus therefore needs to be on the opportunities the OPA project provides to observe and analyse how public health organisations achieve their public health goals. The aims and objectives of the OPA are summarised in Box 1.

Box 1: Aims and objectives of the organisational and policy analysis (OPA) assignment

Aim

To understand how public health organisations function to influence public health policy and/or deliver public health goals.

Objectives

1. To outline the context and key influences on policy in relation to the specific public health issue chosen for the project;
2. To describe and analyse the structure, management and leadership of the organisation, and its relationship with the external environment (i.e. how the organisation endeavours to exert influence in the relevant policy community and/or how it relates to other stakeholders) relevant to the specific question chosen for the project;
3. To assess the extent to which organisational factors and/or external relationships constrain or enhance the organisation's ability to deliver its mandate;
4. To develop clear, actionable policy or practical recommendations to increase the effectiveness of the organisation in influencing or delivering its public health goals;
5. To gain experience in applying policy science and/or organisational management theories to the critical analysis of a real world organisational case study.

The specific objectives of the individual project are agreed with the supervisor and the host organisation in writing prior to commencing the OPA. A mentor from the host institution is identified to monitor and assist the student, particularly in gaining access to individuals, groups and documents. Ethics approval must be obtained from the school's Research Ethics Committee before beginning the project. The experience usually reveals both positive and negative features of the organisation and its relationships with other policy actors. The student is expected to provide a constructive critique of the way in which the organisation operates in relation to the wider context.

Box 2: Contents of the organisational and policy analysis (OPA) report

Contents
<ul style="list-style-type: none">• A clear statement of the aim and objectives of the study and/or the questions to be addressed in relation to the organisation and/or its involvement in the policy process in its field of endeavour;• A description of the data collection methods and theoretical framework(s) used in the analysis and interpretation of the data;• A description of the policy context (in relation to the selected public health issue or question), the key influences on policy on this issue and consideration of the host organisation's position in this context;• A brief description of the host organisation (e.g. origins, history, rationale/mission, current/specific objectives, powers/areas of responsibility, partners, resources, sources of funding, main ways of working), and an analysis of those aspects of its structure and management relevant to the selected public health issue or question;• Using the data gathered during the study, a critical assessment of the organisation's ability to influence public health policy and/or its ability to deliver its goals;• A critical discussion of the strengths and weaknesses of the methods of information gathering and analysis used in the OPA research/analysis, including some reflection on the student's location and role in the organisation during the period of the project (i.e. 'stance' or 'position' of the reporter/analyst);• Clear, practical recommendations as to what needs to change to improve the effectiveness of the organisation (e.g. its structure, skills, facilities, governance, management, organisational culture, accountability, incentives, external relations, etc.). These recommendations may be directed beyond the host organisation.

OPA projects may be undertaken in public, non-profit or private institutions that are engaged in public health practice. They typically last between three and six months and can be undertaken inside or outside the student's normal place of work. The student may be formally employed by the organisation or may be present as a researcher for an agreed time whilst they undertake the project. Whichever option (or mix of options) is

employed, the required output of the OPA project is a written report of no more than 12,000 words analysing an aspect of the work of the organisation. The contents expected to be included in the final report are summarised in Box 2.

The report is intended to be practical and to provide advice to the organisation, in the manner of a management consultant's report. It must also be soundly informed by theory and evidence. The student should use theoretical and analytical frameworks from the fields of management (such as organisational behaviour theories or management accounting procedures) and/or policy analysis or policy science (for example, in order to analyse a public health policy process that the organisation is involved in). In gathering the information necessary for the analysis, students are expected to use a variety of methods including observation, interviews, focus groups, surveys and documentary review.

Supervising the OPA

The issue of supervision of professional doctorate students in health presents a number of challenges, and has been discussed by a number of authors (see for example Leggat and Martinez 2008). Our initial approach to the recruitment of supervisors for the OPA was to match DrPH students and supervisors according to their research interests, as is done for PhD students. Although this served the research component well, difficulties sometimes emerged with supervision of the other components. Both the OPA process and the output were a challenge for many academic staff, even those with considerable experience of research student supervision.

One of the constraints to recruitment of students to the DrPH programme is the availability of staff willing to supervise DrPH (as opposed to PhD) students. A key factor in the reluctance of staff to supervise DrPH students is their concern regarding supervising and providing support to students as they take on the core taught elements of the programme and, more significantly, the OPA. Many staff are of the opinion that these components of the programme fall outside their area of expertise and, as such, they do not have the skills required to provide adequate support and supervision to students undertaking the OPA.

There is provision within the existing guidelines for research degree students for the appointment of an associate supervisor, and one of the criteria for the approval of such an appointment is “the need for significant supervision in a field outside the main supervisor's area of expertise.” This particular criterion often applies to DrPH students in relation to the supervision of the OPA project. However, the option of appointing an associate supervisor to provide the specific supervisory inputs required for the OPA project was until recently rarely (if ever) employed.

Box 3: The appointment of associate supervisors

Appointment criteria

- The appointment of an associate supervisor should normally be proposed by the main supervisor, and should always be jointly approved by the main supervisor and Departmental Research Degrees Director.
- For DrPH students, where the requirements of the Organisation and Policy Analysis project fall outside the main supervisor’s expertise then it is strongly recommended that an associate supervisor is appointed for supervision of the Organisation and Policy Analysis project component of the programme.
- The DrPH Programme Director and/or Term 1 core module organisers will assist in the identification of an associate supervisor if required.
- It is the responsibility of the main supervisor to inform Registry of the appointment of an associate supervisor, and any subsequent change.

Our approach now is to appoint associate supervisors with expertise in that field for the OPA component, including staff from outside the school. The appointment criteria for associate supervisors are presented in Box 3. The DrPH programme director, together with the core module organisers, are establishing a panel of potential associate supervisors with the requisite expertise to provide supervision for OPA projects. This panel now consists of school based staff as well as staff based in public health organisations who hold honorary positions at the school.

Students retain a primary supervisor throughout their studies, however, to help ensure oversight of the whole doctoral experience. The appointment of associate supervisors has several objectives; it is hoped that the additional support proposed for this phase of the DrPH programme will encourage supervisors to recruit more DrPH students, whilst at the same time enhancing the academic quality of the OPA project and the overall programme.

As a result of the review, guidelines for the OPA were re-written. The roles and responsibilities of an associate supervisor as currently defined in the research degrees handbook apply equally to associate supervisors appointed to assist in the supervision of a DrPH student's OPA project as to those appointed to assist a PhD student. However, the review group recommended that the guidelines for associate supervisors be amended to make specific reference to this role. They considered that this would greatly assist in raising awareness amongst primary supervisors of the option to appoint an associate supervisor for the OPA project.

Thesis

Reflections on the thesis identified that this was often problematic for supervisors and examiners, both internal and external, almost all of whom had PhDs rather than DrPHs. There were concerns about how to differentiate the thesis component of the DrPH from a PhD thesis. For the DrPH thesis the research was carried out over a maximum of eighteen months when done on a full-time basis, yet the research needed to retain originality and scientific rigour. This requirement has been a central concern of all those involved with professional doctorates, and several authors have explored it in depth. For example, key differences between professional doctorates and PhDs have been reviewed by Neumann (2005). The contribution that professional doctorate theses can make to professional management development has been explored by Zuber-Skerritt (2007). The review group identified a need to provide guidance explaining the difference between the DrPH and the PhD, and this guidance is now given to all DrPH thesis examiners.

Key differences between DrPH and PhD

The purpose of the DrPH research project and resulting thesis is to help the student to learn about the role of research in public health practice. Like a PhD thesis, the DrPH thesis must be a high quality piece of research. However, the volume of work required for the DrPH thesis is about one-third that of a PhD thesis. This is because DrPH candidates complete two other required components (the compulsory taught modules and the OPA project) before moving on to their thesis research. A full-time DrPH candidate can be expected to spend between 1 year and 18 months on the thesis component of the degree programme, while PhD candidates normally spend about 3 years on the thesis. The DrPH thesis also has a word limit of 50,000 words, making it shorter than most if not all PhD theses.

Although the duration of the research and the length of the thesis are both shorter for the DrPH than the PhD, the process is the same. For the thesis component of the degree, DrPH students will have conducted a literature review, prepared a research protocol and plan, and received approval of their plan from a review committee (the equivalent of a PhD upgrading committee). Following the committee's approval they will have conducted data collection, carried out field work, or undertaken laboratory work, analysed their results, and prepared the thesis. As with PhD students, DrPH students have a supervisor and an advisory committee.

As a result of the shorter time allocated to the thesis research and the word limit, a DrPH thesis will necessarily be both shorter in length and more limited in scope than a PhD thesis. The DrPH thesis can be seen as having the same conceptual 'depth' as a PhD but a smaller 'breadth'. In practical terms, if a PhD typically needs to contain three substantial results chapters, a DrPH requires only one such chapter, but with the same amount of critical analysis applied to selecting and refining the questions or topic, analysing the literature and critically analysing and justifying the choice of methods.

The revised guidance provided to supervisors and examiners on the thesis component emphasises that this should represent approximately one third the volume of a PhD thesis, which continues to be accompanied by a 1,500 word integrating statement.

Other questions which arose related to the appropriate criteria for its assessment, and how the integrating statement should be assessed. These were important questions that required further consideration. A key issue with professional doctorates is the maintenance of appropriate quality and standards, and particularly how they are assessed. These issues have been reviewed by Taylor (2008). The review group reflected at some length on the assessment of the different components of the programme, and the extent to which these are drawn together. Such reflections raised fundamental questions about the level at which each component is assessed. This was a particular problem when considering the OPA and thesis components.

Another key challenge was how to address the issue of ‘partial completion’ or ‘failure’ in the final component. Unlike the PhD programme where there is the option of considering an MPhil exit option, no such exit strategy currently exists for the DrPH. A review of what other Higher Education Institutions do indicated that a wide range of practices exist. The issue of alternative exit options (i.e. an MPhil equivalent) for students who do not pass all components of the DrPH Programme currently remains under review.

Box 4: Assessment of the Organisational and Policy Analysis (OPA) project

Assessment of the Organisational and Policy Analysis (OPA) project

The assessors should assign one of the following five grades:

- Pass;
- Pass subject to minor amendments and/or corrections to be completed and checked by one or both markers, normally within three months of the student receiving the examiner’s report and decision;
- Not passed, but the candidate is allowed to rewrite the report and resubmit within six months;
- Fail – need to conduct additional fieldwork and/or analysis, and submit a substantially rewritten report;
- Outright fail – this will only occur if the candidate has failed once, undertaken additional fieldwork and/or analysis, submitted a rewritten report and is again awarded a fail.

For the assessment of the OPA project it was agreed that the previous numerical grade system should be replaced with the system used for the thesis component of the DrPH, but without an oral examination except in exceptional circumstances. The possible outcomes are listed in Box 4.

Overall, assessment procedures for the DPH have been significantly rationalised. Refinements to date include the removal of the MSc module requirement; the revision of the OPA guidelines and the OPA marking scheme; and the revision of the thesis guidelines to emphasise that the research needs to be of the same depth but smaller breadth than a PhD. These proposals were approved by the DrPH Board of Examiners at their meeting in October 2008, and subsequently ratified by the Research Degrees Committee and the school's Senate.

Further refinements to assessment are under consideration; these include consideration of submission of complete portfolio of assessed work to the examiners to set the context; consideration of diploma options for partial completion; and reconsideration of the value and utility of the integrating statement.

The student body

The DrPH Programme continues to attract a relatively steady number of new entrants each year, making up about ten per cent of the research degree student population at the school. There are currently forty-one students enrolled on the programme (twenty-seven part-time and twenty-four full-time): eleven are from the UK, six from the rest of Europe, seven from the USA and Canada; six are from Africa, three from the West Indies, two from Japan, and one each from El Salvador, Bangladesh, India, Singapore, Cambodia, China. The students come from a variety of backgrounds, including District Health Management, Ministries of Health and Non-Governmental Organisations. They also have a variety of disciplinary and professional backgrounds; these include medical qualified doctors, epidemiologists, social scientists and parasitologists.

To date forty-six DrPH students have graduated from the programme. Most have been from outside the UK, with over thirty countries represented, from Africa, Asia, the Americas and Europe. The opportunities available to the graduates once they obtain

their doctorate are wide ranging: graduates from the DrPH Programme now hold positions in national and international institutions around the world.

The views of students have been canvassed at regular intervals during the life of the programme, throughout the student life-cycle. Reasons given for choosing the programme included comments such as: ‘chosen because practical, dynamic and strengthens links between research and practice;’ and ‘versatile, flexible and broad with focus on practice’. These are not dissimilar to comments made by students recruited to other professional doctorate programmes. The reasons given by students for choosing a range of professional doctorate programmes have been considered by Wellington and Sikes (2006).

Student surveys have drawn attention to many of the concerns and problems that have been discussed in this paper. They have also provided rich and incisive insights into the strength and weaknesses of the programme. By the end of the programme many DrPH students reported that attending it had increased their confidence and helped them with their career progression. When a recent cohort of twenty-one students were asked whether on reflection they had made a wise choice in taking a DrPH rather than a PhD, fourteen out of the twenty-one reported that they were happy that they chose the DrPH in preference to the PhD, five of the twenty-one felt they had made a wrong choice, and two of the twenty-one were not sure.

The views of staff involved with the programme have been no less robust or helpful. Supervisors’ views informed the review in a number of important ways and helped to clarify the thinking of the review group. According to one supervisor the DrPH programme offers “rigorous training and experience relevant to public health leadership—no less and in some ways more challenging than the research based PhD, but over a wider range of skills and competencies.” Another supervisor noted that “the DrPH involves changing the world, the PhD in analysing it.”

Lessons learnt from running a DrPH programme

From our review we have drawn a number of important lessons from running the DrPH programme. Firstly, there is considerable added value that can be gained from running

case-study style structured learning courses for doctoral students. Both EBPHP and LMPD contain significant amounts of case-study work and this facilitates the development of critical analytical skills among students. It allows for the development of a degree of reflexivity about their research and their actions that can be harder to develop among PhD students working alone on their own projects.

A second lesson from the DrPH for public health research, where much of the research is of an applied nature, is that the DrPH programme offers the benefit of developing an awareness of the importance of considering the context within which public health research outputs will be implemented. By the time DrPH students reach the thesis component of their programme (having completed the taught course and OPA components) they will have had the opportunity to critically reflect on how research findings do (or do not) get taken up into policy and practice.

Thirdly, experience of running professional doctorate programmes can contribute to the enhancement of PhD programmes. One aspect of the DrPH programme that is relevant to the further development of the PhD programme is the greater attention given in the DrPH to structured learning, and the sharing of experiences among a student cohort. Specifically, some of the skills acquired during the EBPHP modules are relevant to all further degree students.

Fourthly, one of the strengths of a component programme such as the DrPH which is now much better appreciated is the fact that it enables more formal assessment checks on student progression than does a PhD. Whilst the PhD has a single key intermediate milestone in the form of the upgrading process from MPhil to PhD, the DrPH has more milestones both at earlier and later stages. This provides a number of separate opportunities in which to review progress with students and decide whether further progression is appropriate.

Finally, it is clear that very few guidelines for PhD examination actually exist. When we were trying to develop the guidelines for the DrPH thesis we accessed many PhD thesis examination regulations and guidelines and found that in most cases they were extremely general and of the 'contributing new knowledge' variety, rather than containing specific details. That is, most PhD thesis examiners have 'learnt by doing' -

they have done a PhD themselves, have supervised PhD students and, somewhere along the way have started examining PhDs themselves. Often the examination is subjective with few 'objective' criteria developed for guidance.

Consequently, for the DrPH this causes a problem, as so few people have, to date, completed a DrPH thesis and so the examiners do not have a frame of reference to work from. The provision of written guidelines for examiners has been an important development.

Conclusions

Overall, the review group concluded that there remains a real need for a degree such as the DrPH, and that it should continue to be a core part of the school's programme. Greater emphasis is however now being placed on one of its key strengths, the application of theory in practice, enabling a more practical slant to some elements of the DrPH programme. The school is also clear that it should not attempt to replicate what is already well catered for in business schools and elsewhere. More needs to be done to explain the nature of the DrPH. Professional doctorates are more prevalent now than when the DrPH was first launched, but they remain poorly understood outside the higher education sector.

The revised time line for full time students involves them undertaking the two core modules during the first four months; carrying out preparations for the OPA and thesis during months 5 to 9; undertaking and writing up the OPA during months 10 to 16; preparing for the thesis research and undertaking a research review during months 17 to 20; and data collection, analysis and thesis writing during months 21 to 36. The revised structure means that the training can be more tailored to individual needs, and helps keep the time required for the degree to three years, if done on a full time basis. It has now been consolidated in the form of a programme specification, and this can be accessed at <http://www.lshtm.ac.uk/tpd/qmt/programmespecifications.htm>

Future plans for the DrPH programme include expanding student numbers, and particularly to attract more UK students. We intend to increase the options available for the OPA, and to extend curriculum options. We also have plans to develop

collaborations and links with UK and international institutions, which may include developing a distance learning professional doctorate, although this brings with it substantial additional challenges (Butcher and Sieminski, 2006). Collaborative activities will include increased advocacy for DrPH programmes.

Programmes such as the DrPH make a distinct and valuable contribution to the school's doctoral level programme. Our experience has enabled us to more clearly articulate both the differences and similarities in the expectations of both staff and students about the DrPH and PhD programmes. We believe that there is now less need to justify the DrPH's approaches in comparison to the PhD, and moreover that there are aspects of the professional doctorate which might inform further development of the PhD.

We believe that our review also has wider implications beyond a Doctorate in Public Health. It is clear that although there are enormous differences in the objectives, content and structure of different professional doctorate programmes, there are also considerable similarities and common themes. By sharing our experience of both the challenges and opportunities presented by a professional doctorate in public health we trust that others will find useful parallels and insights that resonate with their own experience, and that these can contribute to the enhancement of the professional doctorate as a widely recognised and valued qualification.

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