

## **12 Tips for Studying Medical Education at Doctoral Level**

### **Authors**

Dr. Deborah Gill MBBS, MRCP, MMed, FHEA<sup>1</sup>

Senior Lecturer in Medical Education

Dr Ann Griffin MBBS, MMed, FHEA<sup>2</sup>

Senior Lecturer in Community-Based Medical Education and Honorary Consultant  
Enfield Primary Care Trust

Dr Katherine Woolf BSc, PhD<sup>1</sup>

Non-clinical Research Associate

Dr Judith Cave MRCP, MD, FHEA<sup>1</sup>

Specialist Registrar in Medical Oncology

### **Institutions**

1. Academic Centre for Medical Education (ACME)

UCL Division of Medical Education

4<sup>th</sup> Floor Holborn Union Building

UCL Archway Campus

Highgate Hill

London

N19 5LW

2. Barts and the London School of Medicine and Dentistry

Academic Unit for Community Based Medical Education

Centre for Health Sciences

Old Medical College Building

Turner Street

Whitechapel

London

E1 2AD

### **Corresponding author**

#### **Deborah Gill**

Senior Lecturer and Director, Academic Centre for Medical Education (ACME)

UCL Division of Medical Education

4<sup>th</sup> Floor Holborn Union Building

UCL Archway Campus

Highgate Hill

London

N19 5LW

0207 288 3316

d.gill@medsch.ucl.ac.uk

## **Abstract**

### ***Background***

Medical educators increasingly need to develop their research skills to produce robust medical education research, resulting in publication. This need has fuelled rising enrolment of medical educators on doctoral programmes and the proliferation of courses, each with its own strengths and weaknesses which need to be considered before making a commitment to a long period of study.

### ***Aims***

We aimed to provide advice about the important steps in studying for a doctorate in medical education, from the decision to undertake the doctorate, through the practicalities of engaging supervisors and choosing research questions, to what to do after the doctorate is completed.

### ***Method***

Critical reflection upon our experiences of studying for each type of medical education doctorate (the PhD, the MD and the EdD), combined with evidence from the literature where available.

### ***Results and conclusions***

The journey to achieving a doctorate in medical education can be long and bumpy with periods of disbelief and despondency. By being realistic and honest with oneself at the outset, analysing one's motivations, deciding which of the different types of doctorate best suits one's needs, finding an appropriate supervisor, creating a researchable question and getting the right support both from one's supervisor and your peers, the journey can be made manageable and even enjoyable.

## **Introduction**

The field of medical education has undergone a rapid period of professionalisation in recent times (Petersen 1999, Purcell & Lloyd-Jones, 2003). A significant aspect marking this change has been an increased focus on the generation of robust research in the field of medical education (Davis & Ponnampereuma 2006) and, more recently, the beginnings of formal career pathways in medical education (Walsh 2006). Academics involved in medical education are increasingly expected to have education research expertise and produce high quality research in their field and therefore many consider doctoral level study to support their scholarship and development. There are a range of pathways to

take: a traditional PhD, one of the growing numbers of Professional Doctorates in education (EdD) and for clinicians, there is also the MD pathway to consider. The sources of information about such research degrees are sparse (Allery *et al*, 2006) and it is clear that learners have different experiences and outcomes dependant on the path they choose (Pugsley *et al* 2008).

The authors of this paper are all actively involved in medical education and have completed or are near completion of doctoral level programmes. In our roles as faculty developers and senior departmental members, and whilst carrying out appraisals, we are frequently asked for advice from medical educators who are considering pursuing an advanced qualification in medical education either to improve their education research skills or credentials and employability. We would like to offer a number of reflections that have grown out of our experience of the pursuit of doctorates over recent years that may help medical educators make informed decisions about their own choices at doctoral level studies.

### ***Tip 1***

#### ***Consider your purpose***

Examine your reasons for wanting to gain a doctorate: you need to consider your motivation and goals before you take on what will be a lengthy and challenging endeavour. People embark on doctoral level studies for all kinds of reasons. Do you need a doctorate for promotion or for credibility in your academic community? Do you want to carry out original research and develop an understanding of research methods? Do you need publications on your CV? Do you have a burning desire to investigate a particular question? You may have a number of goals but it is likely you have certain priorities. Once you have considered what these priorities are, perhaps with the help of your supervisor or appraiser, you can begin to consider the type of course, programme or degree that is best for you own needs, or indeed, whether a research degree is in fact the right path for you.

### ***Tip 2***

#### ***Carefully weigh up the right kind of pathway to a doctorate for you***

Deciding on the type of doctorate is a key step and is best considered once you have examined your purpose for embarking on doctoral level studies. There are a range of

pathways varying in the end product: not just in the qualification awarded (MD, PhD, EdD), but in the competencies you may have by the end of your period of study. EdDs, or professional doctorates, are designed for professionals in work to allow them to reflect on practice, to develop their research skills and carry out a substantial body of research relevant to their professional context (Burgess, *et al* 2006). They are usually based in departments of education and so have a strong social science flavour. The output may be a portfolio of a number of smaller yet thorough pieces of research. A PhD is designed for those with a primarily academic and somewhat philosophical interest in a subject, hence the 'Ph' for Philosophy. Typically PhD students will investigate their subject using a number of different research methods, and/or from a number of different angles culminating in a thesis which tells the "story" of the PhD research in up to 100,000 words. An MD is available exclusively to medical doctors. The main differences between PhDs and MDs are that MDs are shorter (usually 2 years full time study and a 50-60,000 word limit), with more emphasis on clinical practice and less emphasis on critical and philosophical analyses.

There may be an unwritten hierarchy in your field, profession or institution about the value of different awards: some groups or organisations value the PhD over all other awards; those working within medical rather than educational fields may be less familiar with the EdD compared to the MD or PhD; others consider the taught nature of the EdD more suitable for a career in medical education. Ensure your choice fits in with what you hope to gain personally, what your institution or organisation is happiest to support, and how much time, funding and supervision is likely to be available. The best way to do this is to talk: to your boss, to any potential supervisors, to those with doctorates in the field, to students, alumni and staff at institutions supporting medical education research.

### ***Tip 3***

#### ***Be realistic about the degree of commitment***

Doctoral level studies involve an enormous commitment of time, energy and money. They are not to be undertaken lightly. The period of study is significant: a recent HEFCE report (2007) found that 57% of full-time PhD students in the UK completed within five years and 34% of part-time students completed within seven years. You will need to build the study time into your life, your home and your work commitments; this may

involve taking time out to study or reducing your work commitments. If significant changes like babies, house moves and job changes are likely, you may need to consider a programme of study that is flexible. The modular format of some EdDs may be ideal, preferably those with recognition of partial course completion and opportunities for brief interruption of studies. The financial commitment is not insignificant. It is worthwhile discussing assistance with fees and research expenses. Possible sources of funding include the institution running the programme, your own institution, charitable foundations including hospital trustees and disease-specific organisations, and any postgraduate links you may have.

#### ***Tip 4***

#### ***Plan your trajectory to completion from the outset; expect things to be demanding***

When you embark on doctoral level research you will have great intentions to complete on time. However, despite all good intentions drop out rates are very high, between 30% and 50% (McAlpine et al 2006). There are a range of different factors such as levels of engagement, external pressures, the content of the programme, and projected utility or application to future work, which are thought to account for this. So what can you do to stop being a ‘drop out’? Think at an early stage about the factors that are likely to help you succeed and those which may impede your progress. A key factor to success is the right supervisor, i.e. someone who will be supportive and available for advice, but does not micro-manage and will not tolerate missed deadlines or stagnation. Key impediments are unrealistic expectations, inappropriate motivation, and changing personal circumstances (see the previous four tips). If you are overstretching yourself then it is by definition going to be an uphill battle. If your motivation is part of some existential mid-life crisis, trying to address that by making yourself grossly overworked and adding pressing deadlines is probably not a good way of solving the crisis and may make things worse!

#### ***Tip 5***

#### ***Consider how you like your learning structured and supported***

An EdD may be the best environment for those that welcome the opportunity to work partly in a group where they can discuss ideas and share and compare experiences, receive structured teaching, regular assignments and feedback on their progress.

Professional doctorates are designed to fit in with full time jobs but you will need to plan to protect your time to ensure you keep up with the deadlines, which can be demanding. A PhD or MD can be isolating for some; the lack of a cohort or peer group and infrequent supervision meetings may leave people feeling unsupported. The metaphorical analogy of the loneliness of the long distance runner can typify the experiences of many students. Try to develop a peer group or at least a 'buddy' in your organisation studying at doctoral level. You do not necessarily need to meet in person very often – it may be possible to share experiences by phone, or using the internet. The flexibility of the PhD or MD over taught programmes has its advantages however, and being given the responsibility to run your own project over several years is invaluable training for running subsequent research projects and suits those who work well independently.

### ***Tip 6***

#### ***Consider your training needs in research methodology***

Your ability in research methodology may make or break your studies. The Roberts Review (2002) highlighted the need to provide formal training in research skills for postgraduate students, and many institutions and/or funding bodies require doctoral students to undertake a certain amount of training each year. Ask yourself: are you experienced and well versed in a wide range of research approaches; or are you coming straight from a master's degree with little experience of conducting research? Even if you have experience in research, has all of it been in the traditional scientific paradigm with an emphasis on quantitative methods? Social science research, and thus education research is quite different in both its world view and methodologies and welcomes the contributions made by other disciplines like sociology, psychology, linguistics and philosophy to expand theoretical perspectives (Bleakley, 2005). Either choose a programme that matches your needs, or supplement your studies with appropriate research methodologies courses. Taught doctorates usually incorporate a compulsory research methodology component. As a traditional PhD or MD student however, you will generally have to select (or even seek out) your own research methods training.

### ***Tip 7 Consider your research question, or lack of, carefully***

What is your research question? Do you actually have one? are you waiting for more inspiration once you have started to do field work and gather data? do you have one thing you wish to pursue or are you a bit eclectic? With the modular framework of the

EdD there is a great opportunity to explore more than one line of enquiry, depending on your interest and the potential to develop a researchable question some time into the programme. The PhD/MD usually requires a well thought-out and cohesive research question from the start and a predetermined methodological approach, although some changes along the way are expected. Make sure you spend enough time thinking about your research question, preferably before you write your application and definitely before you start collecting data: read the literature, seek advice from potential supervisors and from people working in the field you are looking to research. Your question needs to be clearly defined and articulated, compact enough to be feasible in your timeframe, but not so narrow as to be stultifying boring (Dunleavy, 2003). Consider the option of joining an established group of researchers and studying a question which arises from their ongoing work – you will automatically receive a lot of support this way, and avoid wasting time researching a ‘dead-end’ question.

***Tip 8 Be open minded about epistemologies and research methodologies***

Many education researchers come from the social sciences and once you start reading around your subject and meeting with your supervisor you will come across words such as ‘affordances’ and ‘agency’. Don’t be embarrassed to ask about meanings; for those with a science background, at first reading texts may seem alien and impenetrable but it doesn’t take too long to begin to grasp the educational discourse. It may also be worth keeping a glossary handy at first to avoid mixing up you hegemony with your heuristics! In your work you may be asked to declare your world view, position yourself within your empirical field and build this into your research writings. Practises that are usually taboo in more scientific research become commonplace. Suggested methodologies may sound exotic and unfathomable initially but remain openminded: it won’t be long before you see how they can offer exciting opportunities to researching your field.

***Tip 9 “Publish or perish”***

Don’t think of your doctoral studies output as a ‘big bang’ at the end; much of what you write can be suitable for publication with only minor changes. As soon as possible, you should submit your work for peer review. This can be done in ‘piecemeal’ fashion, for example by writing up your literature review or methodology, or submitting abstracts to conferences. If your abstracts are accepted for a poster or oral presentation, you will be able to attend conferences, receive informed feedback on your work and meet like-

mindful researchers, potentially leading to fruitful collaboration. Ideally you then convert every accepted poster or talk into a manuscript and submit for publication in a peer-reviewed journal. When you finally submit your thesis, it will be greatly strengthened by a 'bibliography' of published work: it will be harder for examiners to criticise work that has been previously peer-reviewed and is in the public domain.

***Tip 10***

***Build and maintain a healthy relationship with your supervisor***

Supervision is a complex issue but the role of the supervisor is to provide guidance, monitor student progress, help with problems and to advise on students training needs. It is a good idea to discuss your needs with your supervisor at the start of the project. Your relationship needs to be built on clear expectations on both sides (Delamont *et al* 1997). Discuss the frequency of your meetings, methods of sharing information and giving feedback, levels of dependency/support etc. You will both need to work on maintaining a healthy and fruitful relationship. The type of doctorate you pursue will affect how many people supervise various aspects of your work and for how long; typically EdD students will have more opportunity to engage with different academic mentors.

The pool of potential doctorate supervisors with education expertise is still relatively small in medical institutions and if you are a clinician you may need to look outside the medical world to get the sort of supervision you need (Pugsley *et al* 2008). You need to consider carefully who has the right qualifications, interest and expertise and availability and willingness to be your supervisor.

***Tip 11***

***Be prepared for a bumpy ride to get there; there will be 'many a slip twixt cup and lip'***

Be prepared for periods of despondency when you question your research focus, your data and your ability. Towards the end, things get particularly tough: your supervisor may seem never satisfied or may point out a number of areas that need more work even though you feel you have finished. The standard of work required to successfully gain your award will not be obvious, particularly for newer awards such as EdDs. Try to get



hold of theses in your area of interest and read them thoroughly. If possible, talk to the author(s) about what sort of work went into the study and the write up: they are likely to be flattered that someone other than their supervisor has read their thesis and may become a good source of support. It has been said that you don't ever finish a PhD thesis, you just abandon it so be prepared for the going to get tough. When you finish a part of the study or write up a chapter there may be no-one except you and your supervisor to acknowledge this achievement. You should try to inform people involved in your appraisal and promotion about your progress and accomplishments along the way and try to present your work regularly to department members or members of your peer group.

### ***Tip 12***

#### ***Rejoining the rest of civilisation***

It is difficult to define the 'end' of a period of doctoral study. There are various moments of triumph: handing in your softbound draft; getting through the viva; holding the actual blue book in your hand; attending the degree ceremony. It is likely that at least some of these will occur after you have started your post-doctoral career. You will need to maintain the momentum of your research, particularly with respect to publications and presentations. Surprisingly soon you will become acknowledged as an expert in your field, and you will be asked for advice and supervision. You may also be invited to review the written work of other researchers and some journals will automatically select you as a reviewer from their list of authors. Be ready to accept that you are now a relative expert and you do have something to contribute to the medical education community. Be prepared also to 'mourn' the end of the period of study. There is something deeply satisfying and immensely rewarding about your doctoral years and you will need to endeavour to build on your collaborations and maintain your outputs.

### **Conclusion**

An increasing number of medical educators are pursuing their studies at doctoral level as part of an ever growing emphasis on scholarship and professionalism in the field. However, drop out rates are high, and even for those who persevere to the end, the journey is long and bumpy with periods of disbelief and despondency. By being realistic and honest with yourself at the outset, by analysing your motivations, deciding which of the different types of doctorate best suits your needs, finding an appropriate supervisor,

creating a researchable question and getting the right support both from your supervisor and your peers, the journey can be made manageable and even enjoyable.

### **Recommended reading:**

Allery, L., Brigley, S., MacDonald, J. & Pugsley, L. (2006), "Degrees of Difference: an Investigation of Masters and Doctorate Programmes in Medical Education". Edinburgh: *Association for the Study of Medical Education*.

Burgess, H., Sieminski, S. & Arthur, L. (2006), *Achieving your Doctorate in Education* London: Sage Publications.

Dunleavy, P. (2003), *Authoring a PhD: How to plan, draft, write and finish a doctoral thesis or dissertation*. Hampshire: Palgrave, Macmillan.

[www.theses.com](http://www.theses.com) – a comprehensive listing of theses with abstracts accepted for higher degrees by universities in Great Britain and Ireland since 1716.

### **REFERENCES**

Allery, L., Brigley, S., MacDonald, J. & Pugsley, L. (2006), "Degrees of Difference: an Investigation of Masters and Doctorate Programmes in Medical Education". Edinburgh: *Association for the Study of Medical Education*.

Bleakley, A.. (2005), "Stories as data, data as stories: making sense of narrative inquiry in clinical education", *Medical Education*, vol. 39, pp. 534-540.

Burgess, H., Sieminski, S. & Arthur, L. (2006), *Achieving your Doctorate in Education* London: Sage Publications.

Davis, M.H., & Ponnampereuma, G.G. (2006), "Medical education research at the crossroads". *The Lancet*, vol. 367, pp. 377–8.

Delamont, S., Atkinson, P. & Odette, P. (1997), *Supervising the PhD: a Guide to Success*. Buckingham and Bristol: SRHE & Open University Press.

Dunleavy, P. (2003), *Authoring a PhD: How to plan, draft, write and finish a doctoral thesis or dissertation*. Hampshire: Palgrave, Macmillan.

HEFCE (2007), PhD research degrees: update. HEFCE Issues Paper 2007/28.

McAlpine, L. and Norton, J. (2006), "Reframing our approach to doctoral programs: an integrative framework for action and research", *Higher Education Research & Development*, Vol. 25, no.1, pp.3 – 17.

Petersen, S. (1999), "Time for evidence based medical education. Tomorrow's doctors need informed educators not amateur tutors". *British Medical Journal*, vol. 318, pp.1223-1224.

Pugsley, L., Brigley, S., Allery, L. & MacDonald, J. (2008), "Making a difference: researching masters and doctoral research programmes in medical education". *Medical Education* 42: 157–163.

Purcell, N. and Lloyd-Jones, G. (2003), Standards for medical educators. *Medical Education*. 37(2): 149-154.

Roberts, G. (2002), *Set for Success: the supply of people with science, technology, engineering and mathematics skills*. London: HM Treasury.

Walsh, K. (2007), An academy for medical educators? *Education for Primary Care*, vol.18, pp. 133–5.