Reshaping Doctoral Education

International approaches and pedagogies

Edited by
Alison Lee and Susan Danby

Routledge

Reshaping Doctoral Education

The number of doctorates being awarded around the world has almost doubled over the last ten years, propelling it from a small elite enterprise into a large and ever growing international market. Within the context of increasing numbers of doctoral students, this book examines the new doctorate environment and the challenges it is facing. Drawing on research from around the world, the individual authors contribute to a previously under-represented focus of theorising the emerging practices of doctoral education and the shape of change in this arena.

Key aspects, expertly discussed by contributors from the UK, USA, Australia, New Zealand, China, South Africa, Sweden and Denmark, include:

- the changing nature of doctoral education
- the need for systematic and principled accounts of doctoral pedagogies
- the importance of disciplinary specificity
- the relationship between pedagogy and knowledge generation
- issues of transdisciplinarity.

Reshaping Doctoral Education provides rich accounts of traditional and more innovative pedagogical practices within a range of doctoral systems in different disciplines, professional fields and geographical locations, providing the reader with a trustworthy and scholarly platform from which to design the doctoral experience. It will prove an essential resource for anyone involved in doctorate studies, whether as students, supervisors, researchers, administrators, teachers or mentors.

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Susan Danby is a Professor of Education in the Faculty of Education, Queensland University of Technology. She coordinated one of the largest professional doctorates in education in Australia for six years (2001–2007), and taught intensively in the program. As well, she has extensive experience in developing practical pedagogies for doctoral contexts. She has a long-term involvement in the Transcript Analysis Group, a cross-university group of interested researchers and postgraduate students who engage in fine-grained data analysis. Her interests are in examining interactional practices across institutional, educational and social contexts using Ethnomethodology, Conversation Analysis and Membership Categorisation Analysis. She has Australian Research Council funding for cross-disciplinary projects in Education, Linguistics and Psychology, with current projects investigating helpline interactions on a national children and young people's helpline, and young children's information searching online. She has guest edited special issues of *Twin Studies and Human Genetics*, *Child Indicators Research* and *Children and Society*.

Dena Fam is a doctoral candidate and Research Consultant at the Institute of Sustainable Futures, University of Technology, Sydney. Dena's research focuses on potential pathways to sustainable sanitation futures, taking into consideration the complex relationship between material infrastructures, resources, social actors and rules and regulations that determine their operation, with the view of understanding how these systems should be *designed* (in the broadest sense) to contribute to sustainability in wastewater management. Drawing on concepts of transition management, organisation learning and complexity theory, Dena's aim during her candidature is to produce practice-based, industry-relevant research to facilitate greater understanding of how to transition toward more sustainable systems of sanitation through collaborative input from transdisciplinary partners.

Liezel Frick is currently employed as a Senior Lecturer in Higher and Adult Education (Department of Curriculum Studies) at Stellenbosch University, where her research currently focuses on creativity in doctoral education. She has written various scholarly articles and book chapters related to this topic, as well as contributions on continuous professional development, assessment and recognition of prior learning, and improving students' learning outcomes. She is involved in various projects in the academic community related to student learning, continuous ministry development, leadership development, and building research networks.

Barbara Gabrys is Divisional Academic Advisor in the Mathematical, Physical and Life Sciences Division and Academic Visitor in the Department of Materials, University of Oxford. She has substantial experience in exploring different science disciplines via teaching, learning and research activities. Her current teaching duties comprise developing courses for postgraduates and early career academics across the Division, and teaching polymer science to undergraduates at the Department of Materials. She delivers annually a series of seminars on 'Building a successful career in the sciences', accompanied by a book, *How to Succeed as a Scientist: From Postdoc to Professor*, co-authored with Professor Jane Langdale. She is a Fellow of the Institute of Physics (FInstP) and Fellow of the Higher Education Academy (FHEA).

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Foreword

Erica McWilliam

For doctoral education, it is the best of times, it is the worst of times.

It is the best of times, because a doctoral qualification is never more desirable than in an uncertain socio-economic climate, such as we are currently experiencing worldwide, when competition for well-paid, professional employment is fierce inside and outside academe, and when the habits of deep and sustained engagement in learning (and unlearning) are so crucial to full participation in a complex and fast-changing social world. Yet it is also the worst of times for doctoral education, with many higher and further education courses and programs now suspect for over-promising and under-delivering on quality, rigour and relevance.

Because doctoral education promises so much and yet remains so vulnerable, the forensic work done in the chapters of this book is very timely indeed, engaged as it is with the pragmatics of bringing into being a next generation of robust and rigorous doctoral pedagogies. What the various authors have produced, through this collection, is a trustworthy, scholarly platform from which to design the doctoral experience, speaking as they do from a wealth of experience of traditional and innovative pedagogies and a breadth of disciplinary and geographical locations. I want to underline, by way of this Foreword, the conditions of possibility – encouraging and problematic – for doctoral education in the second decade of this century and, in so doing, to press home the timeliness of this collection for all those who are engaged with the many forms of doctoral study, whether as students, supervisors, researchers, administrators, teachers or mentors. In so doing, I am hopeful that the reader will be moved to read the chapters that follow as both refusals to 'dumb down' the doctorate, and invitations to deliver what it promises at its best.

It is a strength of this collection that the authors reject the widespread trend in education to prioritise the most 'efficient' programmatic options in terms of cost and time, notwithstanding the constraints of cash-strapped universities and the burgeoning market for 'quick fix', high-status credentials. Even a cursory reading of this collection makes it evident that the authors explicitly refuse to skirt epistemological and methodological complexity, and this runs against any imperative to keep the doctoral 'market' serviced by lowering programmatic expectations and retreating from theoretical rigour. Michael Foley's recent book *The Age of*

Absurdity (2010) draws attention to the retreat from rigour as a widespread and disturbing tendency of our times. In his chapter, 'The Rejection of Difficulty and Understanding', he sums up the trend to 'low challenge' living, learning and earning thus:

> Difficulty has become repugnant because it denies entitlement, disenchants potential, limits mobility and flexibility, delays gratification, distracts from distraction and demands responsibility, commitment, attention and thought.
>
> (Foley, 2010: 113)

While it might well be thought that the rejection of difficulty would be an unlikely threat to the doctoral domain (in other words, that *easy doctorate* is an oxymoron), there is always a powerful press on the most valued credentials to be made available quickly, cheaply and without the pain of effort, editing and error. This is a particular problem if and when the notion of 'servicing the client' becomes equated with 'keeping the customer happy'. In the context of resource shrinkage, the imperative to formula-driven pedagogical design is as compelling as it is problematic. This is equally true when it comes to issues of research methodology. 'Quick fixes' can too easily reduce systematic inquiry to various forms of data vacuum cleaning, using simplistic (and thus seductive) templates for collecting and analysing and reporting what is presumed to be neatly lying out there waiting to be found.

The imperative to stick to short-term programs and simple methodological and pedagogical options is made more compelling by the *speed* with which activity options can and do get picked up and dropped in a digital environment. Moreover, digital technologies make it possible to choose 'alternatives' to the educational mainstream that previous generations never had, and this can be seen as both a threat and an opportunity for doctoral design. It is a threat to formal programs of learning if, as argued by 'gamer' researchers John Beck and Mitchell Wade, many in the present generation of young people are now 'grow[ing] up playing games of chance … [and] are twice as likely as boomers to believe that success in life is due to luck' rather than intellectual engagement and civic participation (Beck and Wade, 2006: xiv). However, digital times also herald new pedagogical opportunities, as many of these authors demonstrate. While a new generation of learners is much more likely than their baby boomer predecessors to jump over preambles and introductions and much less anxious in the absence of top-down rules, they nevertheless bring a freshness to learning in more formal environments, with 'systematically different ways of working … systematically different skills to learn, and different ways to learn them' (Beck and Wade, 2006: 2). Digital tools make it possible to use meta-maps or to operate without one, and this means that the present generation of candidates can be better equipped than former generations to engage deeply in learning without intensive instruction 'from above'.

We do know that long-term continuous engagement in study or work is becoming a thing of the past for many young people, and this has implications

for pedagogical design at all levels of educational provision, from daycare to the doctorate. The trend to 'early departure' has been noted as a feature of much of undergraduate education, with many more students opting out or delaying entry than in previous times. This is evidenced by the fact that 75 per cent of American undergraduates are categorised by the US National Centre for Educational Statistics as 'non-traditional'. To be categorised as non-traditional, undergraduates have delayed enrolment, or attend part time, or work full time while enrolled, or are financially independent, or have dependants, or are single parents, or lack a high school diploma (Oblinger and Oblinger, 2005: 2.8). In other words, being non-traditional – taking multiple pathways and opting out of linear continuity – is becoming the norm. Once again, this is a threat and an opportunity for doctoral design, as the imperative to engage 'just in time, just enough and just down the hall' comes together with a less certain future and a more powerful sense of why one might choose to engage in doctoral study rather than simply seeing it as the end of a predictable linear-cumulative life pathway for 'bright' students.

Just as non-traditional life choices offer threats and opportunities for the design of doctorates, so too do the investigative affordances of the Internet. The Net, according to Nicholas Carr in his recent book *The Shallows* (2010), offers much to the ruthlessly curious, while at the same time working as an ecology of disruption and distraction, changing what counts as intellectual work and, indeed, what is coming to count as cognitive capacity. Carr sees the sort of deep and sustained thinking that we have associated with intellectual achievement as being problematically undermined by the Net's invitation to 'the permanent state of distraction that defines the on-line life' (p. 112). His concern is that the 'buzzing mind' is an effect of the Net's capacity to 'seize our attention only to scatter it' (p. 118). While Carr acknowledges the unique contribution of digital tools to an expanding social universe, he worries about the emergent character of a Net-based social and intellectual world:

> The Net's interactivity gives us powerful new tools for finding information, expressing ourselves, and conversing with others. It also turns us into lab rats constantly pressing levers to get tiny pellets of social or intellectual nourishment.
>
> (Carr, 2010: 117)

Of course, there are those who would dismiss both Carr and the aforementioned Michael Foley as curmudgeons generating moral panic out of their own personal discomfort with the digital age. Whether or not we agree with Foley's thesis that the retreat from difficulty is a problematic symptom of an increasingly narcissistic society, or Carr's thesis that thinking itself is being re-shaped by a digital environment of 'cursory reading, hurried and distracted thinking and superficial learning' (Carr, 2010: 116), there is little doubt that twenty-first-century living, learning and earning is replete with complexity and becoming more so. Earning a living in a highly competitive global marketplace demands engagement with more

technology-enhanced processes, more complex design problems, more speedy non-routine transactions, more scrutiny of individual, team and organisational performance, and less certainty of tenure and less career linearity, particularly in high-tech industries and those most exposed to frequent market fluctuations. So too, civic participation in debates about global futures demands higher levels of scientific and systems literacy. Put another way, while there is no doubting the boon that the Internet has been to all higher degree students and researchers as a 'go anywhere, find anything' archive and social hub, the idea that scholarly investigation begins and ends with a Google search is one that ill-serves rigorous knowledge work.

The call to transdisciplinarity represents a further set of possibilities and problems for the doctoral landscape, inviting new forms of knowledge production and new ways of dissolving discipline boundaries within the humanities and social sciences, and across these, to engage the natural and physical sciences. At the same time, institutional organisation within most universities makes it very difficult to connect these knowledge domains both within academia and across university/government and public/private sectors. As is evidenced in contemporary policy debates, higher education in general has a major role to play in preparing the sort of highly educated and flexible workforce necessary to economic, social and cultural endeavour in this century. This work cannot be done solely through the transmission of traditional disciplinary knowledge and the requirement that it be reproduced in traditional forms of evaluation and assessment, including the 'thesis-as-tome'. The advent of the 'creative industries' as a new node for re-organising knowledge is one of a number of examples of transdisciplinary re-shaping within the university sector, with the creative industries exploiting symbolic knowledge and skills by combining commercial knowledge and application with aesthetic modes of knowing and doing. Yet for the student genuinely seeking to work across disciplinary domains, it can still be a daunting task, given the fact that administrative and disciplinary inflexibility is still the norm. Put bluntly, faculty/disciplinary boundaries are still proving to be relatively impenetrable in many universities, and so the invitation to transdisciplinary knowledge building is not as easy to take up as it is to make as a rhetorical flourish in marketing materials.

In summary, a 'higher' education is more important and less relevant than ever. It is more important because of the weight of evidence that the highest qualification means more opportunities to live, learn and earn well. Yet the risky learning challenges in the twenty-first century demand more than traditional disciplinary knowledge and high levels of literacy and numeracy. This century asks of graduates that they demonstrate an ability to select, re-shuffle, combine or synthesise already existing facts, ideas, faculties and skills in original ways. Meanwhile, the hegemony of Western knowledge systems is being challenged on many fronts through the increasing influence of Asia in world affairs, the resurgent interest in Indigenous and community knowledges and through the competing perspectives of multiple modernities. No educational project, and certainly not the doctorate,

can claim exemption from this set of new learning challenges, given the explosion of knowledge being incorporated from such a diverse set of sources into our increasingly complex systems of economic and social management.

The good news is that, enabled by carefully crafted pedagogical designs, a new cross-generational cohort of candidates can come to see the world otherwise, with all the fascination and surprise that this brings to the labour of knowledge building. To insist on 'giving access' by way of theoretical and methodological rigour, as these authors do, is to enable present and future doctoral candidates to engage with the world, in Donna Haraway's (1991) terms, not as ripe for formulaic coding, but as a *coding trickster* with whom we must constantly learn to converse. Such a disposition to scepticism about the very tools we use to understand all phenomena, including the human condition, makes it possible to welcome the instructive complications of unfamiliar and/or transdisciplinary thinking and doing. In methodological terms, it makes for a doctoral experience that surpasses the translation of our social world into a *mere problem of coding* 'in which all resistance to instrumental control disappears and all heterogeneity can be submitted to disassembly, re-assembly, investment and exchange' (Haraway, 1991: 164). In short, it allows us to *think about thinking about* our knowledge projects in ways that make for more explanatory power than simple formulae or routine thinking can do.

Proposed as 'a series of situated, practice-led conversations', the editors of this collection set out to challenge much of the traditional literature that informs and reflects on the doctoral experience. They understand that it is one thing to speak of 'conversations' in some flabby romantic way, but quite another to optimise the usefulness of conversation in terms of contemporary knowledge production. When the rubber of cultural nuance meets the road of doctoral engagement, the journey can be much more demanding than any starry-eyed rendering of an East-meets-West, quant-meets-qual, young-meets-old, pedagogical narrative might suggest. The potential riches of cross-cultural endeavours can too easily collapse into a push and pull around research trajectory and methodology (with traditional winners and losers) or, conversely, they can build capacity for greater epistemological agility. The latter is exemplified in a cross-cultural conversation documented in a paper by John Elliott and Ching-tien Tsai (2008), which explores and exploits concepts of education and learning emanating from Confucian scholarship and from recent Western thinking such as that of Lawrence Stenhouse. In line with the cultural and methodological breadth of this collection, Elliott and Ching argue the importance of 'more dialogue with east Asian educators who are engaged with versions of educational action research that have been shaped by Confucian culture' (p. 569) in the development of new paradigms of educational inquiry, the sort of conversational activity that is more fully aligned with the challenge of producing new knowledge for new times.

What all this means for doctoral education is that it is *ripe for re-shaping*. The overwhelming trajectory of the chapters that make up this collection is to design pedagogies that give genuine access to complex ways of thinking and doing to all

who seek to engage with doctoral demands, especially to those who have been historically marginalised in the academy and outside it, as well as to those with non-linear educational histories. In other words, the imperative is to introduce new generations to the pleasure of the rigour of twenty-first-century doctoral engagement.

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Preface

Alison Lee and Susan Danby

This collection has arisen out of many years of collaborative work on designing doctoral programs. Each of us, in our respective universities, has been involved with developing and coordinating programs for doctoral education, in an environment where individualised supervision was still the norm and policies for research training were just beginning to dawn over the horizon. In the 1990s, particularly in Australia and the UK, new kinds of doctorate were being developed: professional and practice-based doctorates, joining a somewhat longer tradition of creative arts doctorates. These new doctorates introduced practical imperatives for considering a range of different kinds of purposes for doctoral research education and different kinds of 'knowledge objects' (Green, 2009) as outcomes of the doctorate. Chris Park's (2007) report to the Higher Education Academy in the UK, titled *Redefining the Doctorate*, can be seen as a watershed in bringing these different developments together into a persuasive account of change.

Professional doctorates in particular, during the past two decades, have challenged the pre-eminence of the 'solo journey' modes of humanities doctoral work, and the 'extra pair of hands' practices that marked the more laissez-faire modes of on-the-job training through participation in the laboratory sciences. While extreme images, perhaps caricatures, these metaphors articulate the cultural norms against which explicit attention to skill and knowledge development, increasingly required by governments and universities, were positioned. Once understood as only needed for 'under-prepared' students from non-traditional academic backgrounds, the emergence of explicit pedagogical work over the past decade and a half has involved a borrowing from the 'different' doctorates – particularly professional doctorates – together with a kind of envious, albeit ambivalent, look over the shoulder at the so-called 'American model' of doctorate by advanced coursework and dissertation. What we often found, in our own practices, was that students from more traditional PhD supervision environments asked to participate in the more systematic and explicit forms of educational work characterising the cohort models of professional doctorates. The resulting changes have continued to raise important issues of knowledge, pedagogy and research practice that, until recently, remained hidden and implicit.

Our work in designing, coordinating and teaching in professional doctorate programs prepared us well to participate in what began to emerge during the first decade of this century: a generalised requirement to grow numbers of enrolments and completions, enrol increasing numbers of students from other cultural and linguistic environments, build flexibility into enrolment patterns and, above all, to address an increasing range of 'generic' skills and knowledges into mainstream doctoral programs. In line with human capital conceptions of the doctorate, which harnessed it increasingly strongly to rhetorics of a globalising knowledge economy, forms of education were required that could make explicit what doctoral graduates knew and could do, as well as what they could produce by way of original research after an increasingly tightly regulated period of candidature. Such forms also opened up spaces, though there were no guarantees, for debating the forms of identity being imagined and projected by these changing dynamics of candidature, and how these impacted on older, more traditional forms of disciplinary–academic identity.

Collaborating during this time involved us persuading our respective universities to support us to undergo what we called a 'process benchmarking' (Achtemeier and Simpson, 2005) of our programs. This entailed travelling to Sydney, or Brisbane, to teach in each other's programs and to become involved in articulating what often remained local, implicit and largely undocumented practices. Early collaborations also involved conference presentations (e.g. the 2006 Australian Association for Research in Education (AARE) conference) as we continued our discussions on how to construct 'conversation-rich, information-rich and structure-rich' (McWilliam and Taylor, 2001) doctoral learning environments. Our shared practice – in teaching, working with students and articulating and debating questions of program design – formed a ground where we realised the need to draw on particular forms of theorising to consider matters of pedagogy within the current policy environment that had intensified to attend to industry-relevance and to build sustainable research partnerships beyond the university. Out of these experiences has grown the conceptual work on design and pedagogy-in-action that provide the framing and conceptual underpinning to this book.

The focus of this book

Debates about the diversification of doctoral provision to include more structured forms of activity often remain at high levels of abstraction within universities, or as very local developments, not well theorised or connected to broader questions of what these new practices might produce. We argue, following Green (2009), that an examination of the practices and relationships of doctoral provision is the next challenge for doctoral education. This point relates to the broader argument that pedagogical practices in higher education remain 'extraordinarily – even "shockingly" – undocumented' (Lee and Green, 1997).

In this book, we take up the challenge of contributing to a documentation of practices and dynamics of doctoral pedagogies, understood and framed as forms of