

Thinking bigger: The importance of an ambitious doctoral research project

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Introduction

This is a book about worthwhile doctoral research projects. It is intended for new researchers of all kinds – those completing or thinking about a PhD, and those in their first research appointment. New researchers include Masters' students doing a dissertation, because the same pleas for ambition and clarity in research that are made in this book apply to them as well. We are also addressing doctoral supervisors looking for examples or advice. In fact, the book will be of interest to researchers at all stages, although the main focus, and all of the case study examples, concern doctoral researchers.

We hope that the words of the 17 new researchers in the substantive chapters of this book will be a source of encouragement and motivation for other new researchers. We want to encourage you to be ambitious and realistic, to use multiple approaches, larger datasets, simple analyses, and clear uncluttered reporting, to produce relatively robust findings that have real-world implications.

What is a doctoral degree?

The number of people studying for a doctoral degree (a PhD, DPhil or a professional doctorate like an EdD) is increasing across all disciplines, worldwide. In the UK, doctoral admissions and completions have increased annually for at least ten years. UK universities attract one of the largest proportions of doctoral researchers, locally and from across the globe. In 2019, UK universities awarded 101,885 doctorates. These new researchers can make important contributions to the research environment of UK higher education (HE), and that of their home countries.

The UK Higher Education Statistics Agency states that a PhD (or equivalent doctorate) is the highest level of standard degree offered by a university (Higher Education Statistics Agency HESA, 2018). There are

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many different formats for a research doctorate. They can be full-time (usually three or four years), part-time (usually five to seven years), or a mixture of the two. Some will include compulsory training in research, while others like the professional doctorates may have substantive modules as well, with assignments similar to a Master's degree that have to be completed before beginning the research dissertation. Some actually incorporate a Master's degree, such as an MPhil awarded after one or two years.

In some countries the doctorate is awarded for a thematic collection of new research articles. In the UK, this format of PhD by publication is possible, especially for staff already working in a university. Some doctorates are a combination of coursework and new research. There are also different traditions by subject area or discipline. However, most doctorates involve submitting a long (perhaps 50,000 to 120,000 words) thesis, based on original research, for independent evaluation by a set of examiners. This has been standard for all of our PhD students.

This book focuses on doctorates of this format, which is the most common in the social sciences. However, there is no evidence suggesting that the quality of research undertaken or the training given to new researchers needs to vary because of the precise format of their doctoral studies (Evans et al., 2018; Smaldone et al., 2019). The key to all doctorates, this highest qualification, is generally thought to be the quality of research they report. A successful doctorate should mean that a researcher has met the criteria of submitting an original research piece, examined and passed in a *viva voce* examination led by a selected academic examiner who is independent of the student's institutional affiliation (Quality Assurance Agency QAA, 2020).

The importance of doctoral research

Doing a doctorate by research is expensive, in terms of fees paid to the institution, accommodation and subsistence for three years or more, maybe the cost of books, and fieldwork expenses. There is also the salary foregone, given that you could have had a job instead. Part-time doctorates permit students to hold a full-time job simultaneously, and the longer elapsed time to complete the thesis should permit the student to plan more ambitious longitudinal projects. However, part-time degrees take longer, are somewhat harder work than the full-time doctorate, and are still very expensive.

Therefore, this chance to conduct your own research should not be spurned by doing something mediocre or worse. A doctoral degree such as a PhD is an excellent opportunity to dedicate three or more years to conducting a substantial research project. This is perhaps the only time in people's lives where such an extended period is possible for just one research project, which they can focus on exclusively and write about at comparative

leisure. Academics rarely, if ever, get that experience again. It would be a wasted opportunity for new researchers if this time were not spent in conducting some high quality research, which could make a substantial knowledge contribution, add value to academic practice, and enhance their own skills for further development or a career.

Picking a supervisor

A small part of achieving the above is to pick an appropriate supervisor. The obvious standard advice is to select a supervisor, and a department and university, that match your intended research study in terms of focus and research expertise (Mangematin, 2000). This alignment of your ideas with the ongoing research conducted by a PhD supervisor is considered an important determinant of successful PhD admission and completion (van Rooij et al., 2021). It is certainly how funders like the ESRC begin to judge who to fund (NINEDTP, 2021). We agree. But only up to a point. Beware the expert in your area of interest who will not let you do what you want, or who will stop you moving the field forward in a way that might be seen as undermining their own prior research (or their pet theories!). Some experts are possessive, insistent on you using the same methods approaches as they do, regardless of your research interests. Some will constrain you just because they know little or nothing of methods approaches other than a small sub-set. But in social science research, you have to own the project. The supervisor is there to guide you gently, provide robust critique when needed and, most importantly, to provide craft tips drawn from their own experiences.

Naturally, potential doctoral researchers can have a wide variety of reasons for choosing to do a PhD (or similar). These may include interest in the topic, career progression, or even putting off paid work! But most are interested, at least partly, in a more advanced level of academic experience (than a Bachelors' or Masters' degree provides), and professional development as a researcher (Skakni, 2018). These motivations mean that the supervisor has to be a successful researcher themselves to perform the supervisory role fully. And the supervisor has to know about and have used a wider range of methods approaches successfully, so that they can help convey the important skills and experiences to their mentees (see Chapter 19). This match-up is reflected in the longstanding evidence that the main contributors to high impact "prestigious" peer-reviewed journals are PhD graduates from "prestigious" universities (Perry, 1994). This is, at least partly, because these universities tend to have more research active staff members available to supervise students in their own mould (although there will be other differences as well, including perhaps more undergraduate workload pressure in less research active universities).



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Nevertheless, all other things being equal, we recommend choosing the most research active supervisory team you can find, almost regardless of institution. New researchers should expect to learn in an active research environment where they can advance their knowledge of conducting research. And such higher level academic participation means that PhD researchers will learn to think bigger in their selection of research topics on social issues, and so design PhD projects with findings that have relevance for policy and practice. Thinking bigger in the conception and design of a project means constructing a feasible, pragmatic research question, designing an innovative research plan, and conducting a robust study with ambitious ideas for marshalling or collecting data. This level of confidence and ambition is contrary to much general advice on “how to do your PhD”.

For at least twenty years in the UK, as elsewhere, there has been an increased focus on the skills of supervisors, and the skills that the supervisors and HE training modules can impart to students (Park, 2005; Roberts Report, 2002). Again, we do not argue with this trend. But the “skills” often referred to are supervisory rather than research ones. There is a danger that all of the training in how to be supervisor, how to record your meetings, and the need for supervisory certification, will tend to de-emphasise the importance of actual research experience. And overshadow the necessity for supervisors able to do high quality research so that they can help their students to do the same.

The official lists of requirements for PhD supervisors tend to be quite long, and being research active appears only once (e.g. Taylor and Clegg, 2021). Of course, no one is born as an experienced supervisor or researcher. This is why we referred to supervisory *teams* above. Most universities now arrange for two (sometimes more) supervisors, and this is a good idea for continuity in the unexpected absence of one of them. It also means that new members of staff can be paired with more experienced ones. As an example, Nadia Siddiqui was once the PhD student of Stephen Gorard. Subsequently, her first supervision of her own doctoral students was with Stephen Gorard. She is now a very experienced and promoted researcher in her own right. She is also in demand as an external examiner for others, worldwide.

The work in this book

This book presents chapters summarising the work of 17 PhD or EdD researchers, supervised by the  of us (sometimes with our valued colleague Professor Beng Huat See). These  took place during our time at Durham University, UK (although some earlier students completed their studies at the University of Birmingham, UK). These examples are just the latest in a

longer line, and a selection from a larger set, stretching back to the late 1990s. Their projects, and others like them, clearly demonstrate that PhD research can be successful. They are based on large-scale rich studies, with suitable research designs, robust findings, and they have made or will make a substantial contribution to knowledge in their field.

The quality of research exemplified here is based on studying real issues, using appropriate research designs, high quality data, the simplest of analyses, and clarity in writing for meaningful and readable research outputs. The findings from these projects also illustrate the benefit of collecting a variety of data including numbers, experiences, perceptions, images, and observations (only some of which are outlined in these brief chapter summaries). Unfortunately, these inclusive characteristics are not always visible in much academic research, let alone in doctoral studies.

There is often too great an emphasis in research methods training, and in materials advising PhD researchers, on the use of grand theoretical conceptions, or on the reflexivity of the researcher. As can be seen, the chapters in this book are genuinely reflective about their PhD journeys, and they evaluate important theoretical ideas such as what “effectiveness” or “fairness” are, or whether resilience or morality are malleable characteristics of people. The studies are both empirically and theoretically strong. But none have wasted time and words discussing paradigm wars, and epistemological and ontological dispositions, or justifying their “positionality” as a researcher of a certain type (see Chapter 19).

All of these researchers have completed their thesis in around three years (or equivalent for part-time), or are well on track to do so. A few completed in substantially less time, and a few went slightly into a fourth year. These emerging researchers mostly had no research funding for fieldwork expenses or similar, and many had to complete their studies during the COVID-19 worldwide lockdown. They certainly did not have it easy. Several chapters explain how the authors overcame challenges such as limited resources and barriers to data access. For example, everyone doing fieldwork, or using secondary data, in England had to pass a disclosure and barring service (DBS) check. Those using sensitive data had to take official training and pass a test to use the ONS Secure Research Service.

In general though, our experience of supervision and mentoring suggests that high quality studies like these examples are the actually easiest to complete, because they generate substantial content for the write up. The new researchers who struggle the most to write up their studies are generally the ones who have the least to say. This leads to the deplorable habit, widespread among academics, of filling their writing spaces with what read like pompous and verbose utterances instead. And which are not really research at all. This is what we want to help others to avoid.

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The book contains research from educational contexts in China, England, Finland, Hungary, Lebanon, the Maldives, the Netherlands, Turkey and Thailand, and work by authors from India, and Saudi Arabia (courageously researching in the educational context of the UK). It is impressive that the international scholars have written their theses in English, and we have preserved as far as possible their sometimes unique form of expression, even though this means that the writing style is not always strictly consistent with English academic writing practices. Several students were awarded scholarships from their home countries, and most of these were bonded to return home and use their new skills there. Some others, who were self-funding, received help with research costs from their colleges at Durham University. If you do not ask you will not get! The researchers from England were funded by the Economic and Social Research Council (ESRC). This prestigious funding covers the fees, some expenses, and usually pays a stipend, all of which are invaluable.

Most of the authors here have published from their PhD research, some before their *viva*, and others soon after. A few have already produced a book or research monograph based on their doctorate, and others are arranging to do so at present. They have also presented at national and international conferences, written blogs, sent evidence to government committees, and talked in teacher forums. Some have had their research featured in the press or on TV and radio. These are all excellent things to do to engage with the widest possible academic and user audience. As supervisors, we helped them in all of these endeavours, reading drafts, editing texts, suggesting outlets, and offering strong reassurance when some early versions were rejected or ignored. The latter happens to all of us.

However, none of these often very prestigious publications names either of us as authors. Our contributions were as supervisors, which is what we are employed for (and what the students paid their fees for). We are aware that traditions vary by discipline, but we generally abhor the practice of supervisors muscling in on their students' (Masters' or doctoral) own publications just because they helped with the research or the writing (Krauth et al., 2017; Xu, 2020). We think more should be made of ethical concerns about this intellectual piracy (Kwok, 2005; Macfarlane, 2017). One piece of practical advice for potential research students – find a supervisor who will not be desperate to use your outputs in order to shore up their own CV.

The structure of the book

Following the introduction chapter, this book is divided into three parts, each containing relevant chapters on linked educational themes. The book ends with a chapter in which we offer advice on what we have learnt from

supervising these excellent doctoral projects. We present the implications for new researchers, emphasising the feasibility of high quality ambitious PhD studies that can make real-life knowledge contributions, and play an important role in the academic development of early career researchers. This book is a very welcome opportunity for us to present and acknowledge the work of our excellent PhD researchers, many of whom are now our academic colleagues around the world.

The three main parts of this book cover a wide range of projects. Part I consists of doctoral projects which investigated educational effectiveness by evaluating policies, analysing administrative data, and reassessing the value of statistical techniques.

Part I – All of the chapters in this section of the book concern how we assess the effectiveness of schools, teachers, and school leaders.

Chapter 2. Tom Perry's chapter presents a wide-ranging analysis of value-added estimates of school effectiveness. The focus is the use of Progress 8 scores in England, the official measure of school performance, and its forerunners. However, the implications are important for all systems using value-added scores. Value-added "progress" measures were introduced for all English schools in 2016 as measures of school performance despite prior research highlighting high levels of instability in value-added measures and concerns about the omission of contextual variables. This work uses the National Pupil Database to assess the impact of disregarding contextual factors, the stability of school scores across time and the consistency of value-added performance for different cohorts within schools at a given point in time. The analyses confirm concerns about intake biases, showing that value-added measures exhibit worrying levels of instability. The analysis goes further by examining whether instability across time stems from differences between cohorts and whether measures based on a single cohort can reflect whole school performance now or in the future. In combination, these analyses suggest a general problem of imprecision within value-added estimates and that the current policy use of value-added scores is unjustified. Published school performance measures are likely to be profoundly misleading. This project has had an impact on the field of school effectiveness more widely. This chapter discusses how the study idea was conceived and executed, and contributed to establishing the author in an academic career.

Chapter 3. This topic is continued in the chapter by Mark Ledger, on his ESRC-funded PhD, examining whether Progress 8 as an example of value-added measures is appropriate for use in judging schools by government, school inspectors, or parents. Schools' Progress 8 scores matter, and people's lives are affected by the results. The research gathers detailed information from schools on their characteristics and the kinds of factors that educational effectiveness is usually attributed to. It then uses this information to

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predict changes in schools' value-added scores over time, and asks school leaders to do the same. The scores are very volatile and whilst this could theoretically be explained by genuine changes in school performance, the evidence suggests that this is not the case. School-related factors (on teaching for example) account for a surprisingly low percentage of the variation in value-added scores. There is also evidence to suggest that errors in students' prior-attainment have the potential to impact upon schools' ratings. Of greater concern is the impact that school intakes have upon schools' ratings. Differences between students' socio-economic status have close associations with school "performance" figures that effectively punish schools with educationally disadvantaged cohorts. These characteristics of students are not under the control of schools. The chapter therefore concludes that Progress 8 does not provide a valid or trustworthy measure of school performance.

Chapter 4. The study by Ismail Aslantas is about one of the most controversial and important matters in current education policy worldwide: teacher performance evaluation. Teachers are widely considered one of the most significant school-related factors in enhancing students' academic achievement. One of the key concerns of decision-makers is to ensure that effective teachers are hired in classrooms and parents also want their children to be taught by good teachers. However, measuring the quality of teachers is a complex and not easily achievable task. While it is widely agreed that evaluating teacher performance is beneficial in enhancing teacher development and student outcomes, there is no single agreed method to do so. Teacher effectiveness can be measured in a range of ways, including classroom observation, survey, self-evaluation, portfolio, and student achievement growth analysis. In recent years, academics and decision-makers have focused on value-added modelling, attributing differences in student scores to the actions of the teacher. This study presents a large-scale systematic review of the evidence on teacher effectiveness, and an analysis of the stability of value-added estimates using a longitudinal administrative data set extending over three school years, 2014–2017, from secondary schools in Turkey. The findings suggest that teacher accountability policies based on value-added models are misguided and unfair. Some of the stability analysis results have been published in a peer-reviewed journal.

Chapter 5. Binwei Lu evaluated the effectiveness of Grammar schools in England. Previous research evaluating grammar school effectiveness has generally relied on snapshot or longitudinal regression models to deal with pre-existing differences between grammar school pupils and those in non-selective schools. Such designs are only based on correlations, and cannot demonstrate clear positive causal relationships between grammar school attendance and subsequent attainment. After accounting for the

variables available for the analysis, pupils in different schools might still have distinct and unmeasured characteristics which threaten the validity of any conclusions drawn. This study addresses the limitations of previous research, by demonstrating the feasibility of a regression discontinuity design (RDD) approach. This is the first use of RDD to make a robust causal inference about the effectiveness of grammar schools in one local authority in England. Conducting this design with national data on grammar school selection would create the most powerful evidence available so far. To promote an effective and equitable education system for generations to come, those advocating the expansion of grammar schools should make the responsible decision to disclose all grammar school selection data for the purposes of research. The chapter includes sections on the important stages of data access and analysis that led to publication in some of the most prestigious academic journals, and assisted the author in gaining a post at one of China's top universities.

Chapter 6. Ismail Shafeeu's PhD study is a study on the effectiveness of school leadership in the Republic of Maldives. A recent policy in the Maldives insisted on a 60% pass rate for students in the secondary school completion examination. As an essential part of this policy, the Ministry of Education developed an action plan, in which principal leadership was claimed to be one of the key factors contributing to pupils' academic attainment. This new study looked at the impact of leadership on attainment, based on the full national population of teachers working in all public secondary schools in the Maldives ($N = 6,047$). A survey questionnaire, based on the Principal Instructional Management Scale was administered to gather data on principals' instructional leadership. This data was combined with documentary and population census data to assess the combination of school leadership to the pass rate. The chapter describes the adventure of conducting a national teacher survey, and extending the study by linking the primary survey data with existing official data. The study led to publications in prestigious US journals, and assisted the author in becoming a Dean of Research in his home university.

Part II – The chapters in the second section of the book illustrate different approaches to improving student outcomes at school or university, either in terms of attainment or wider outcomes such as critical thinking or mindfulness.

Chapter 7. Phanatdao Chantarasiri was concerned with improving outcomes for English language learners at universities in Thailand. In tertiary English classes in Thailand, every undergraduate student is required to take two to four Basic to Advanced English classes. This study focuses on Thai instructors of English for Academic Purposes and English-major student teachers who study three and a half years in a faculty of Education, with the

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hope that they will be the future of English teachers in Thailand. This chapter presents the findings from a randomised controlled trial of co-operative learning. Co-operative learning requires students working together in a small group to help support each other in order to maximise their own learning as well as the others to accomplish a shared goal. The design is a large-scale experimental trial (with a wait-list), and standardised testing of student progress. There is also a full parallel process evaluation that covers the fidelity of arrangements from initial training of teaching staff through implementation of an intervention to subsequent testing.

Chapter 8. Meechai Wongdaeng addressed the same challenge with a different intervention. This chapter discusses the challenges faced by the higher education system in Thailand where a recent policy was introduced, requiring all students to reach a pass level in an international standardised test of English language. The study included a systematic review of intervention effectiveness on meta-cognition (learning to learn), and an experimental evaluation of an intervention based on meta-cognition. The trial outcomes have been assessed for immediate and long-term impact. The chapter discusses the stages of developing the experimental design and conducting the study with a large number of students in universities in Thailand, and the problems and facilitators encountered.

Chapter 9. Caiwei Wu was concerned with improving critical thinking for secondary school students in China. Due to the perceived shortcomings of the exam-oriented education, more educators are paying attention to student-centred teaching methods, and students' reasoning ability, including critical thinking. This new study included a systematic review of dialogic teaching approaches, and followed this with a randomised control trial of Philosophy for Children in Chinese secondary schools. Philosophy for Children (P4C) is an educational approach that helps children question, reason, construct arguments, and collaborate with others. Previous research suggests that it might improve children's thinking, at least at primary schools in Anglophone countries. This approach to teaching is new to Chinese teachers and students who have traditionally relied on rote learning and dissemination of knowledge. Independent thinking and questioning are rarely encouraged. The chapter presents impact findings and describes how teachers received P4C training, how P4C classes were conducted, and some reflections on the PhD experience.

Chapter 10. Nada El-Soufi's PhD project conducted a systematic review of critical thinking intervention followed by a large-scale randomised control trial of an intervention assessing the impact on English learning outcomes in the University of Lebanon.

Chapter 11. Sophie Anderson combined several systematic reviews, analyses of longitudinal data, and a planned mindfulness intervention to

assess whether pupils' academic buoyancy (everyday resilience) in education is a malleable trait. The chapter considers whether an intervention can make a difference to pupils' ability to bounce back after a setback, so making a difference in their educational outcomes. This ESRC-funded PhD research project is a successful example of combining different research designs and innovative datasets, and so generating robust findings that contribute practical knowledge in the field of education.

Chapter 12. The PhD by Pian Shi is a comparative study of primary school pupils in China and England, assessing differences in pupil's attitudes and learning towards morality, social action, and citizenship. The study has an experimental design involving a large number of schools and children in both countries, assessing similarities and differences in pupil's attitudes towards issues like honesty, fairness, and responsibility. The study has used innovative techniques, such as games playing and vignettes, in judging these wider outcomes of family and schooling. The chapter discusses how the project was conceived, designed and scaled up for large-scale recruitment in two very different countries.

Part III – The chapters in the final substantive section of the book all concern education policies and their evaluation.

Chapter 13. Rebecca Morris based her PhD research on a multi-method approach, including parent questionnaires and interviews and documentary analysis of admissions criteria, in the context of Free Schools in England. The Free Schools policy in England led to the opening of new autonomous state-funded schools. This study used national data from the Schools Census to present the proportions of socio-economically disadvantaged children attending the first three waves of these schools. The analysis compares the Free School intakes with other local schools and local authority data to establish whether the schools are taking an equal share of disadvantaged children in relation to their nearby competitors. Differences emerge between the different waves of schools with those that opened in 2011 generally underrepresenting disadvantaged children. In the second and third waves the picture is more mixed. New schools have diverse admissions criteria, which they can set themselves. The majority of secondary Free Schools appear to be adhering to the 2012 Admissions Code legislation. However, Free Schools with a faith designation or an alternative or specialist curriculum appear particularly likely to have proportionally fewer disadvantaged children than might be expected based on their location. This chapter discusses how the study was conceived and executed, and how it led to government and media concern, and assisted entry to an academic career.

Chapter 14. Haifaa Alabbad analysed the patterns of attendance and exclusion in schools in England using the National Pupil Database. The Department for Education have taken schools and parents to court for not

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enforcing complete attendance at school, saying that absence must not be condoned, and pointing out the damage it causes to later attainment and participation. The issue is a worldwide one. Based on a large systematic review of interventions to reduce absence, interviews with schools and families, and an analysis of absences, exclusions and attainment for all pupils in England, this study provides a caution against over-interpreting the correlation between pupil absence from school and subsequent lower attainment. The best predictor of pupil absence in any key stage is not their background characteristics, their school, or their prior pattern of absence. It is their prior attainment. Put simply, pupils who are already doing badly at school may be simply withdrawing further, so producing more missed sessions, rather than the missed sessions causing the later lower attainment. The DfE also conflates very different types of absence. There are pupils who have chronic illness. Long-term absence from school for them could easily lead to lower qualifications in future years, but the pupils are not to be blamed for this. There are pupils whose home life means that school is not the highest priority every morning – such as those with a caring role for younger siblings, for example. Then there are pupils who are suspended or excluded from school, those “bunking off”, and those who usually attend regularly but have taken a holiday in term-time. None of these situations is desirable, but each has different practical solutions.

Chapter 15. Pallavi Banerjee’s chapter describes an evaluation of Science, technology, engineering, and mathematics (STEM) widening participation interventions, and their impact on the attainment and participation of disadvantaged pupils in schools. STEM skills are considered valuable for economic growth. However, the number of young people pursuing STEM trajectories has long been a cause for concern in the UK and elsewhere. Many STEM enrichment and enhancement activities have been funded by the UK government, and private and charitable organisations, to raise pupils’ interest in these subjects. This study measured the impact of these activities in supporting pupil understanding of maths by tracking the proportion of young people obtaining a “good” grade in standardised national tests such as GCSEs. Attainment is of course only one possible outcome of education but certainly a very important one because students are more likely to continue studying subjects in which they score higher. This makes maths attainment even more important as it is a pre-requisite for admission to STEM degree courses. This longitudinal, quasi-experimental design makes use of the National Pupil Database to assess the impact of these schemes on the maths attainment of participating schools. Following up 300 intervention schools for five years the study shows the intervention group did not do any better than the comparator. The chapter suggests directions for research and recommendations for practice, and the lessons learned on this journey.

Chapter 16. Yiyi Tan conducted an evaluation of the contextual indicators used in the selection process for highly competitive Chinese universities. The PhD is based on multiple existing large-scale datasets of HE, population and attainment figures. The study evaluates the usefulness of these datasets for assessing inequalities in education, and looks in particular at the geographic stratification of admission to highly selective universities, ethnic disparities and provincial differences in HE participation, and what can be done about these. The chapter illustrates the power of existing data even when working in countries not renowned for the completeness of or ease of access to their official data. Disadvantaged groups need their situation explored and exposed using the new political arithmetic (a technique common to so many of the accounts in this book).

Chapter 17. Rita Hordosy studied large-scale datasets on school leavers and graduates in Europe, which are intended for use in educational policy planning, institutional decision-making and informing students. Many current national and institutional education policies address the issue of raising participation amongst young people and enhancing employability after leaving school or university, but what sort of information are these policies built on? This study compares national information systems from the last three decades across Europe that gather information on school leavers' and graduates' pathways after compulsory education. Using documentary data collected systematically the study describes the main focus, the research design and the sampling frame of the school leavers' and graduates' information systems, arriving at several different typologies. It then compares how stakeholders in England, Finland, and the Netherlands know what happens to the leavers from schools and universities. The research provides insight into the discrepancies of data production and its use, with recommendations for improvements. The chapter also presents accounts of the PhD journey from Hungary which led to successful career development in the UK.

Chapter 18. Caner Erkan took on the topical worldwide issue of how research evidence is, or is not, used in practice. This PhD involves a large-scale systematic review on the use of evidence by teachers, and how best to route new evidence into use. One of the most promising approaches was then trialled in a pilot trial to assess changes in teachers' attitudes to and use of evidence after participating in a tailored workshop, with support, to promote teachers understanding of research knowledge. Making evidence available is of no consequence in itself, and merely providing workshops or training is little better. To get widespread uptake of research evidence requires follow up and audit of the potential users. The chapter includes details on conducting a PhD project on an issue of such topical relevance in education policy worldwide, using multiple research designs.

References

- Evans, S., Amaro, C., Herbert, R., Blossom, J., and Roberts, M. (2018). "Are you gonna publish that?" Peer-reviewed publication outcomes of doctoral dissertations in psychology. *PLoS One*, 13(2), p. e0192219.
- Higher Education Statistics Agency (HESA). (2018/19). Student numbers and characteristics. <https://www.hesa.ac.uk/news/16-01-2020/sb255-higher-education-student-statistics/numbers>
- Krauth, N., Bowman, C., and Fraser, Z. (2017). The exegesis and co-authorship: Collaboration between supervisors and research students. *TEXT*, 21(Special 44), pp. 1–14.
- Kwok, L. (2005). The white bull effect: Abusive co-authorship and publication parasitism. *Journal of Medical Ethics*, 31, pp. 554–556. doi: 10.1136/jme.2004.010553
- Macfarlane, B. (2017). The ethics of multiple authorship: Power, performativity and the gift economy. *Studies in Higher Education*, 42(7), pp. 1194–1210.
- Mangematin, V. (2000). PhD job market: Professional trajectories and incentives during the PhD. *Research Policy*, 29(6), pp. 741–756.
- NINEDTP. (2021). Supervision responsibility web pages. Available at <https://www.ninedtp.ac.uk/supervisor-home/>
- Park, C. (2005). New variant PhD: The changing nature of the doctorate in the UK. *Journal of Higher Education Policy and Management*, 27(2), pp. 189–207.
- Perry, G. (1994). Ranking MS and Ph.D. graduate programs in agricultural economics. *Applied Economic Perspectives and Policy*, 16(2), pp. 333–340.
- Quality Assurance Agency QAA. (2020). Characteristics statement: Doctoral degree. <https://www.qaa.ac.uk/docs/qaa/quality-code/doctoral-degree-characteristics-statement-2020.pdf>
- Roberts Report. (2002). *Set for success: The supply of people with science, engineering and technology skills*. London: UK Government Department of Trade and Industry and Department of Education and Skills
- Skakni, I. (2018). Reasons, motives and motivations for completing a PhD: A typology of doctoral studies as a quest. *Studies in Graduate and Postdoctoral Education*, 9(2), pp. 197–212. doi: 10.1108/SGPE-D-18-00004
- Smaldone, A., Heitkemper, E., Jackman, K., Joanne Woo, K., and Kelson, J. (2019). Dissemination of PhD dissertation research by dissertation format: A retrospective cohort study. *Journal of Nursing Scholarship*, 51(5), pp. 599–607.
- Taylor, S., and Clegg, K. (2021). Towards a framework for the recognition of good supervisory practice. In *The Future of Doctoral Research* (pp. 224–238). Abingdon: Routledge.
- Universities UK. (2019). *Higher Education facts and figures 2019*. Universities UK. <https://www.universitiesuk.ac.uk/facts-and-stats/data-and-analysis/Documents/higher-education-facts-and-figures-2019.pdf>

- van Rooij, E., Fokkens-Bruinsma, M., and Jansen, E. (2021). Factors that influence PhD candidates' success: The importance of PhD project characteristics. *Studies in Continuing Education*, 43(1), pp. 48–67.
- Xu, L. (2020). Moving between fantasies, fallacies and realities: Students' perceptions of supervisors' roles in doctoral publishing. *Teaching in Higher Education*, pp. 1–15. doi: 0.1080/13562517.2020.1832065.

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