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The Value of the Research Doctorate: A Conceptual Examination

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Abstract

This paper addresses the value of doctoral studies as a form of management education. Whilst policy and research attention is paid to the value of undergraduate and taught postgraduate programmes, research degrees have received scant attention. This paper reports an exploratory qualitative study to examine the concept of value in relation to the doctorate as described in doctoral thesis documents and by doctoral supervisors. We develop an initial conceptual model of the value of the doctorate. Our thematic analysis identified similarities in descriptions of the value of the doctorate by doctoral supervisors with descriptions found in doctoral theses. However, analysis of thesis documents shows that students include personal, professional and organizational outcomes in their conceptualization of value but supervisors focus on value associated with methodological and epistemological features of knowledge generation. Business schools and management educators are expected to attend to research impact and applied outcomes. However, this study suggests a lack of equivalence between value attributed to the doctorate by students and the value articulated by supervisors. We contend that current norms in doctoral education privilege the assumptions of the academic community at the expense of the practice community. We argue for a wider conceptual definition of the value of the doctorate is required to recognize the applied personal and organizational outcomes of doctoral programmes in management and business.

Key words: Evaluation, Doctorates, Contribution, Impact, Management education

1. Introduction

Doctorates are identified as important contributors to higher education (HE) and doctoral graduates are often described in policy documents as important for social and economic development (Bansel, 2011) and for the innovative capacity of the global labour market (Walsh, Hargreaves, Hillemann-Delaney, & Li, 2015; Green, 2012; Lee & Danby, 2012; Yang, 2012;). However, in business and management studies, the extent to which doctorates have fulfilled these expectations is unclear. In the USA, starting in the 1950s, PhDs in business and management tended to focus on process and academic underpinning in a bid to add rigour, perhaps at the expense of relevance (Locke & Spender, 2013). This approach became the model for PhD education in business and management that has been copied around the world (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2004). North America became a key destination for doctoral training and established

a bias toward quantitative methods and analysis as signifying a 'gold standard' in this field. However, as doctoral education has increasingly become established as a form of management education, concerns have been expressed in the business and management community that not enough attention is paid to the interaction between the worlds of theory and practice from which problems for research should emerge (Starkey, Hatchuel, & Tempest, 2009; Tranfield & Starkey, 1998). Such concerns, first articulated in the 20th century continue to be expressed in the 21st century. For example, suggestions have been articulated that management scholarship was partly to blame for the 2008 Global Financial Crisis (Currie, Knights, & Starkey, 2010). As a counter-trend, since 2008 there has been more interest in how doctorates might engage with practice (Thorpe & Rawlinson, 2013) and in the potential for more variety in doctoral education provision which gives more attention to applied, innovative and positive change outcomes (AASCB, 2013). Despite these moves, in the United Kingdom (UK) and elsewhere, whilst much is expected of the doctorate, scant attention is paid to its value beyond the extent to which doctoral students contribute to Higher Education Institution's (HEIs) position in competitive ranking processes such as the Research Excellence Framework (REF) assessment. This process focuses attention on measures such as doctoral completion rates and journal publication outcomes of supervisors (Office for Students, 2018; East, Stokes & Walker, 2014; Cunha & Miller, 2014).

Within the field of management education, whilst attention has been paid to examining the value of undergraduate and taught post-graduate level programmes (Mitchell, 2007), research degrees, undertaken as a form of management education, have received less policy or scholarly attention (Kandiko & Mawer, 2013). However, many doctoral graduates in management and business disciplines will educate the

next generation of Masters in Business Administration (MBA) and undergraduate management students thus shaping the direction of management practice and research (Mello, Fleisher & Woehr, 2015). In this context, we direct attention in this paper to the concept of value in relation to the doctorate. Terms such as 'value' and 'contribution' are ubiquitous in the language of the doctorate and the terms are used interchangeably. The justification of the value of the award of the research doctorate commonly accepted throughout the world, for example, focuses on the development of research and employability skills demonstrated through the achievement of an 'original contribution to knowledge' (Kiley, 2009; Quality Assurance Agency for Higher Education [QAA], 2011; Yamamoto, 2008; Lovitts, 2007). Therefore, in this paper, as it relates specifically to doctoral studies, the terms value and contribution are taken to connote the same concept.

However, the concept of value is problematic. Although there is general acceptance that it refers to the 'importance', 'worth' or 'usefulness' of something, such assessments are context-dependent. Different stakeholders in the doctoral education process (for example, supervisors and doctoral students) may have different expectations of the value of both doctoral education processes and outcomes. Therefore, we take a social constructivist stance in this paper arguing that conceptualizations of value are constructed socially and that the meaning of the term reflects social interactions that occur in the specific context and environment in which doctoral studies are undertaken and experienced. To develop understanding of the issue of 'value' in a context where little or no previous research has been undertaken, we report an exploratory study to investigate conceptualizations of the 'value' of the doctorate. The aim of this study therefore is to examine how the value of the doctorate, as a form of management education, is expressed by doctoral

supervisors and doctoral students. We focus on descriptions of value that arise from processes of sense making by two different stakeholder groups in doctoral education. The principal question we address is: how is the value of the doctorate expressed by doctoral supervisors and doctoral students? We address this principal question through two specific research questions:

- How do supervisors describe the value of a doctoral thesis?

- What do claims of a contribution expressed in doctoral theses indicate about the concept of value from students' perspectives?

In addressing these questions this paper makes two contributions. First, it adds to knowledge in the management education field by examining the important concept of the value of the doctorate, from the perspective of those most closely involved in the process; supervisors and students. Our analysis provides evidence of an unresolved value pluralism between the concepts of value as understood by these different stakeholders. Second, from the basis of the exploratory study that we report in this paper, we supply a preliminary conceptual model of value in relation to the doctorate that can provide a foundation from which further research can be undertaken. Therefore, building on the conceptual model our paper concludes with a research agenda to guide further inquiry into this important issue.

In the next section, we discuss the development of the research doctorate and its increasing importance as a form of management education. We then examine and critique current approaches to conceptualizing the value of the doctorate. We outline the exploratory study reported here and discuss the analysis that forms the basis for our conceptual contribution. In the conclusion, we outline research priorities that follow from our conceptual analysis.

2. The value of the research doctorate

In this section, we outline the background of the research doctorate and the changes that have occurred to the provision of doctoral programmes across the world. We then consider literature pertaining to the measurement or assessment of the value of the doctorate and the conceptual assumptions on which they are based. We argue that current policy-driven descriptions of value assume that the purpose of the doctorate is to prepare candidates for a career in academia, something that is at variance with Organization for Economic Cooperation and Development (OECD) data about the career trajectories of doctoral graduates in a knowledge economy context (Neumann & Tan, 2011). We further argue that, in a management education context, where applied impact is important, current policy conceptualizations of the value of the doctorate require further development.

2.1 The research doctorate

The research doctorate is acknowledged across the world as the highest achievable level of academic qualification. The award of the doctorate recognizes advanced study and independent research presented in the form of a doctoral thesis or dissertation. Its origins can be found in the middle ages (Wellington, Bathmaker, Hunt, & McCulloch, 2005). However, what is seen as the 'modern' PhD emerged in Germany, under the influence of Alexander von Humboldt (1769-1859), as a preparation for work in universities and as a process through which scientific curiosity and the disinterested pursuit of knowledge, discovery, originality and rigour within a specific academic discipline could be developed (Clarke, 2013; Green, 2012; QAA, 2011). Once established, doctoral awards spread to other countries with the first award in the US in 1861 and in 1917 in England (QAA, 2011). The Humboldtian tradition established the basis of the doctorate in the form of an apprenticeship for

the training of a small elite group of people who would make their career within the university sector rather than making an impact outside of HE.

However, in the marketized system in which HE now takes place, doctoral education is no longer the province of a small 'academic elite' (Nelson & Strohl, 2014). Chinese universities provided doctoral education sufficient for 117,000 PhD graduations in 2010 and universities in USA awarded over 49,000 doctoral qualifications in 2011 (Group of Eight, 2013). India aims to graduate 20,000 PhDs a year by 2020 and the European Union is working to double its number of PhD registrations over the same period (OECD, 2011). OECD data compiled in 2016 suggests that in more than one-third of countries over one percent of the working age population is qualified to doctoral level, a rate that has been increasing progressively over time (OECD, 2017).

With regard to doctorates in the field of management and business, Higher Education Funding Council for England (HEFCE) estimates in 2011, calculated from Higher Education Statistics Agency (HESA) data for universities in England and Wales recorded between 1996-97 and 2009-10 suggest a 15% year-on-year increase in management and business studies doctorate registrations. The 2009-10 HESA data indicated that in the fields of Business, Management and Law there were 1,755 new student registrations (1220 full-time registrations and 530 part-time registrations) representing 8% of the new entrant doctoral student population (HEFCE 2011). In addition to an increasing number of registrations for doctoral programmes, the doctoral student population has increased in diversity (Massyn, 2018; Kane, Chalcraft, & Volpe, 2014). It includes part-time, work-based and self, employer or foreign government sponsored students representing a range of

different country and work-experience backgrounds (McArdle, Birchley, Bruce, Hurrell, Paterson, & Stephen, 2014; HEFCE, 2011).

As doctoral studies have expanded so considerable national and international variation in the way that the research doctorate is organized has occurred. In North America, for example, a doctorate incorporates a range of coursework assignments for up to two years before commencement of a research–based dissertation. Within Europe, the Bologna Process has promoted a convergence of PhD programmes across different countries, institutions and disciplines to comprise research project undertaken over three to four years within a single scholarly discipline following a Master's degree. At the same time, a proliferation of different educational 'routes' to the doctorate have been devised. These include: the PhD by publication; the continental (or compilation) style PhD; the industrial doctorate and the integrated doctorate (Guerin, Jayatilaka, & Ranasinghe, 2015; Wildy, Peden, & Chan, 2015).The introduction of the Professional Doctorate has further encouraged work-based research undertaken in conjunction with a company or potential employer. This award promotes doctorates grounded in practice-based knowledge, and is evident in countries such as UK, Australia and USA (Louw & Miller, 2014; Lester & Costley, 2010; Lester, 2004). Indeed, the Professional Doctorate in Management, referred to as the Doctorate in Business Administration (DBA), is now an established feature of the doctoral programmes landscape in Management and Business (Jones, 2018). This expansion of doctoral studies provision increases the opportunities for doctoral study to feature as a form of management and professional education and broadens expectations of the purpose of the doctorate (Loxley & Kearns, 2018). Increasingly, graduates expect personal, professional and career benefits, and wider intellectual, and knowledge 'spill-over' benefits are anticipated for employers and

society as a whole resulting from research-oriented employability (Matos, 2013; Kehm, 2006). The extent to which new forms of doctorate have achieved these expectations, however, remains unclear (Loxley & Kearns, 2018).

2.2 *Perspectives of the value of the research doctorate*

As indicated already the concept of value relates to ideas about the 'importance', 'contribution' or 'usefulness' of something. Used as a verb, the term 'to value' connotes assessment processes to determine the contribution or worth of something (Scriven, 1991). Evaluation processes, as a mechanism for the assessment of value, are familiar in the management education field and are enacted to fulfil three interrelated purposes (Edelenbos & van Buuren, 2005). Formative and summative assessments focus attention on individual student's management education outcomes. Other forms of assessment and evaluation are associated with continuous improvement and/or quality assurance of management education programmes. Systemic level judgements are also made about programme level, departmental and institutional achievement against subject-wide or national standards or indicators (Guba & Lincoln, 1989).

These assessments of value, however, are informed by the assumptions and expectations of those responsible for the organization of management education. The perspectives of those most closely involved in enacting both process and delivering outcomes from doctoral education (the supervisor and the doctoral student) have received less attention. Indeed, a search of electronic databases that included: Academic Search Complete (EBSCO); Emerald Group Publishing; JSTOR and Web of Science, revealed that very little attention has been paid in the scholarly literature to procedures that assess the value of the doctorate. As the provision of

research doctorates has expanded across the world, and greater diversity of purpose, motivation and student experience is evident, further assessment of the value of the doctorate from different stakeholder perspectives is necessary. From a systems perspective Urban and Trochim (2009) and Urban, Hargraves and Trochim (2014) propose a process model that incorporates 'activities'; 'outputs'; short-term outcomes; medium-term outcomes and longer-term outcomes. In this model, short-term outcomes are characterized as connected with teaching advances and knowledge dissemination; medium-term outcomes are characterized by measures that represent enhancements to institutional reputation. Long-term outcomes are described as those that result in higher disciplinary reputation and career options for those in the specific field of research. A similar approach is reported by Louw and Miller (2014) who advocate a process model to identify where improvements to doctoral education processes might be made at the institutional level. Thomas and Reeve (2006), in their consideration of specialized doctorates in USA, focus exclusively on the 'input' characteristics associated with doctoral programmes, assessing a range of criteria relating to faculty staff and to student admissions as a basis for the development of a ranking of doctoral programmes in different institutions.

In summary, studies that address the value of the doctorate draw on assumptions that privilege the achievement of institutional policy and educational priorities and assessment processes and performance measures (HEFCE; 2017a; Framework for Higher Education Qualifications [FHEQ], 2014).

At the level of doctoral education policy, Vitae, a UK non-profit organization that supports professional development of researchers, offers an 'Impact Framework' that has relevance to assessments of value (Bromley & Metcalfe, 2012). Derived

from the organizational field of training and development (Kirkpatrick & Kirkpatrick, 2006; Kearns & Miller, 1997; Pawson & Tilley, 1997), this approach proposes five hierarchical points of assessment. The first (foundational) level relates to an examination of the institutional investment in the infrastructure for doctoral education. Subsequent levels are concerned with: the student experience of doctoral training activities; skill acquisition; behaviour change; and, finally, research outcomes that might indicate academic and other impacts. In common with other models, therefore, this approach assumes an institutional perspective. Much of the framework addresses research training 'activities' and limited attention is paid to 'outcomes' and longer-term impact beyond the academy (Louw & Miller, 2014; Bromley & Metcalfe, 2012; Bansel, 2011).

In an HE policy context where concern about research impact is increasingly evident, however, other HE policy directions encourage greater examination of the outcomes of research, which might affect how the value of the doctorate is conceptualized. The UK Research Excellence Framework (REF), for example, requires impact case studies to be submitted by HEIs (HEFCE, 2017b; Economic and Social Research Council (ESRC), 2017a), and 'pathways to impact' statements are expected in UK Research Council funding applications (UK Research and Innovation [UKRI], 2018). Impact and application is a fundamental feature of management education and, as business school accreditation systems become more prevalent, the value of 'relevance' as well as 'rigour' is increasingly emphasized (Anderson, Ellwood & Coleman, 2017; Chia, 2017). The Association to Advance Collegiate Schools of Business (AACSB) (2013) accreditation processes, for example, require assessment of the proportion of academic staff qualified to doctoral level but the AACSB criteria indicate the value of both the Humboldtian

notion of the career path for academe and research resulting in knowledge translation and application.

In summary, in a context where doctoral education in the management and business field continues to expand, and expectations about the practice outcomes from the doctorate are articulated, we contend that closer attention to the concept of the value of the doctorate is needed. We argue that, in place of a focus of attention on the perspectives of institutional level stakeholders, a multi-stakeholder approach is required (Wellington, 2013). Our exploratory study addresses this issue, focusing specifically on the perspective of students and supervisors. It examines the conceptual definition of 'value' in relation to the research doctorate as described by these stakeholder groups.

3 Methodology

Exploratory studies are appropriate in areas where little or no research has previously been undertaken. In the leadership and management field, for example, Watson, S.L., Loizzo, J., Watson, et al., (2016) report an exploratory study of a MOOC programme in a novel context and Dixon, Weeks, Boland, & Perelli, (2017) also conducted an exploratory study focused on leadership 'in extremis'. In our context, with a focus on the value of the doctorate from student and supervisor perspectives, our intention is to establish an initial conceptual foundation from which further inquiry processes can be undertaken.

Our social constructivist understanding of the concept of value informed the research design process. From an interpretivist epistemological position, we sought to analyze subjective descriptions in an 'open ended' and recursive process of inductive conceptual development (Guba & Lincoln, 1989). Our focus was on the meanings and sense making of supervisors and doctoral students in the

management education field assuming multiple, apprehend-able realities in relation to the value of the doctorate (Schwartz-Shea & Yannow, 2012; Schwandt, 1994).

3.1 Data collection methods

Recognizing that the concept of 'value' or 'contribution' may be challenging for both students and supervisors (Wellington et al., 2005) we adopted different approaches to data gathering for the two different stakeholder groups. For the supervisors of doctoral students, we adapted and piloted a novel, reflective approach to data gathering. Drawing on the insights of Thorpe, Gold, Holt and Clarke (2006), Cox (2005), and Mezirow (2000), we developed a reflective e-postcard method to collect data that encouraged supervisors to make explicit their processes of sense making; and 'framing' their taken-for-granted assumptions about the concept of value. In addition to capturing 'demographic' information, respondents were invited to reflect on their most recent supervision experience. Questions probed into three areas. First, the assumptions about 'contribution' their doctoral student initially brought to their supervisory meetings were examined. Second, we asked what words and meanings the supervisor had used to communicate their understanding of the meaning of the term 'contribution'. Third, respondents were invited to reflect on the ways in which the language of the student-supervisor discussions changed over time as they defined and articulated the nature of the value of their research.

Existing studies of doctoral education that feature student-generated data tend to reflect experiences and perceptions gathered during the period of doctoral study itself (cf. Backlund, 2017; Lindsay, 2015). However, students' perspectives about the value of their doctorate is partial until the award of the doctorate has been made. Therefore, for this exploratory study we adopted a textual analysis method and examined the 'outcome product' of students' doctoral studies: their doctoral thesis

documents. Two reasons were important in making this decision. First, before the award of a doctorate can be made, examiners are required to satisfy themselves that the output is the work of the student. Second, in the construction of the doctoral thesis students engage in an extended process of reflection and revision in which they iteratively and recursively articulate their perspective of the value their contribution of their doctoral process and outcome.

3.2 Sample selection

The samples for both parts of this exploratory study were purposive. Our inclusion criterion was doctoral research undertaken in UK universities connected with management learning and education. To access our sample of doctoral supervisors we approached 'gatekeepers' to doctoral supervisors in five universities from different regions of UK. Our specific inclusion criterion for supervisor respondents was: successful supervision of at least two doctoral theses in UK that had been undertaken as a form of management education. To elucidate this we specified that the research need not have occurred in a specific school or department of management and business but should have included some form of learning, training, development, or management education in the aims, principal questions or hypotheses. The gatekeepers were provided with an invitation email to distribute appropriately that contained a URL link to the on-line e-postcard using Google forms. All responses were completed on an anonymous basis. Although gatekeepers indicated that they had distributed the invitation email to at least five supervisors in each institution (n=25) only eight usable responses were achieved completed by supervisors from a mix of types of university in terms of research intensity, applied focus and history. Half of the students about whom the supervisors were reflecting were registered as part-time and half were full-time; two were

registered for Professional Doctorates (for example DBA) and the remaining six were registered for traditional PhD awards.

The criteria used to select the sample of doctoral theses were that they should have been successfully examined and have completed all rounds of revisions in the period of 2010-15. To access our thesis data, we used a range of electronic tools including the institutional electronic repository of doctoral theses of the four HEIs with whom the authors had links and the British Library's EThoS database (ETHoS, n.d.). Mello, et al. (2015), in their quantitative study of doctoral students reported in this journal, restricted their sample frame to students undertaking a doctorate in industrial and organizational psychology. For this study, our inclusion criteria were broader – including doctoral theses from a wider range of fields that are associated with management education, using the criteria that the doctorate included some form of learning, training, development, or management education in the aims, principal questions or hypotheses. We sought to achieve maximum variation in terms of thesis authors' gender, ethnicity, nationality, professional / academic background, and previous work experience. To select theses, we scanned each document to identify these characteristics. This also enabled us to include theses submitted by full-time students in receipt of sponsorship funding and those of part-time and/or self-funded students. In addition, we selected theses submitted following a doctoral programme undertaken 'on-campus' and 'off-campus'. Our final sample comprised 15 theses submitted to ten different institutions reflecting a mix of types of university in terms of research intensity and history. It included at least five part-time doctoral theses (three of which were Professional Doctorates) although the mode of study was not declared in all cases. Although the theses were submitted for doctorates from UK HEIs, the authors represented a range of different national backgrounds.

3.3. Data analysis

In both phases of the exploratory study we adopted an inductive thematic analysis process following the six-step schema outlined in Braun and Clarke (2012) seeking to achieve a recursive analytical process which took seriously the differing contextual factors from which the data forms were generated. In our analytical process, we sought to treat the two different data sets 'in their own terms' to identify the way that the concepts of value and contribution in relation to the doctorate are articulated by students and supervisors.

Following data familiarization with thesis texts and with the e-postcard responses, the data were coded using general labels. For the thesis data, three researchers were independently involved in initial open coding from which 63 initial codes were identified. For the supervisory data, two researchers independently undertook an open coding process on the reflective statements on the e-postcards that resulted in the identification and refinement of 39 codes. Throughout these processes, the authors engaged in analytical conversations, looking for conceptual descriptions that addressed the research questions. Third, incorporating Braun and Clarke stages three to five, the codes were developed and organized into themes that represented the different subthemes and the interconnectedness between them. For the supervisor data, this led to the identification of eight over-arching themes. For example, the overarching theme 'personal challenge' emerged from a grouping of units of text labelled as: "advancement of a Master's level degree", "research based on his earlier academic experiences" whereas text within codes that related to "person development"; "rewarding and interesting" were added to the theme of 'career / personal progression'. For the thesis data, the analytical process led to the identification of ten over-arching themes, for example items coded as "reputation",

"professional status" and "knowledge and experience" were brought into the overarching theme of 'personal motivation'.

3.4 Data validity

As this paper reports an exploratory study that utilizes novel data forms, the issue of methodological integrity, and specifically fidelity to the subject matter and utility in achieving the research goals, are important (Levitt, et al., 2018). Key issues, we argue, are: perspective management; data adequacy; and 'groundedness'. With regard to perspective management, the viewpoints expressed in thesis documents and by supervisors offer a valid account of the perspective of the student after the conclusion of the doctoral study period. From the perspective of 'groundedness', data gathered directly from (ex)-students, gathered at a time point after the award may be regarded as having greater validity. However, access to (ex)-students whose programme has been undertaken part-time or who worked in professions outside of academia is problematic and presents a risk of bias within the sample towards those engaged in an academic career trajectory. Access to thesis documents is, therefore, preferable. In addition, the criterion of data adequacy is met by the use of thesis documents that, as noted already, are the product of extensive reflection and revision by students during the thesis writing process (Lindsay, 2015). A further objection may be that different theses may have been written to align with guidance from different universities about how value and/ or contribution should be expressed. We argue that such prescriptions are unlikely at the level of the doctorate and selection of theses across a range of universities is relevant to consideration of external validity. Therefore, we contend that the thesis as a data source represents a rich source of credible information about the student perspective of value and contribution of the doctorate.

In relation to these validity criteria, we further argue that the reflective e-postcard approach, used to explore how supervisors describe the value of the doctoral process, meet criteria of perspective management and groundedness. These reflections focus on supervisors' sense making and 'framing' in relation to the change over time regarding the value and contribution of the doctoral process. The number of responses reported in this paper is low, perhaps reflecting a lack of confidence in supervisors when asked to articulate the concept of value and contribution. However, we contend that, as a means to generate initial data into the supervisory perspective, the data is sufficient for an exploratory study. Thus, we argue here that both forms of data reported in this study offer an appropriate and novel insight into the value of doctoral education with the potential to take into account both the outcome and the process.

3.5 Ethics and positionality

In designing this exploratory study, advice was sought from expert researchers with a track record in undertaking research amongst the research supervisor and student population. An institutional ethical review process was also undertaken that provided a process of both considering ethical risks and considerations but also providing a further opportunity for research design refinement. We acknowledge our own positionality: we were once doctoral students; we are currently involved in doctoral supervision in management learning and education; and we have experience of examining doctorates in different university settings. The ethical review process enabled us to consider this standpoint and the possible effect on the research process and outcomes (Anderson, 2017).

Findings

In this section, we outline the supervisors' data first, followed by the data from the

research theses.

4.1 The concept of value: the supervisors' perspective

Table 1 summarizes the over-arching themes identified from the e-postcard

responses.

Over-arching theme	Stage of doctorate	Illustrative quotations	References	No of responses (supervisors)
Personal challenge	Initial	"Student expects research process and results would be similar to those typically experienced on Masters level inquiries but larger in scale"	4	3
Assumption awareness	Initial	"Displaying a critical and evaluative attitude"	9	8
Knowledge/ data acquisition	Initial	"Generating important results that are 'unique', 'distinctive', 'creative'"	7	7
Focus	Continuous	"Achievement of a set of sharply focused specific research questions"	4	3
Knowledge delivery	Later	"Generate knowledge of relevance and utility in the world of practice"	3	2
Knowledge advancement	Later	"Putting another brick on the wall of knowledge in an academic and theoretical sense"	6	4
Career / personal progression	Later	"Enhancement to the student's career prospects"	3	3
Scholarly progression	Later	"Be beyond what I think I know"	3	3

Table 1: Summary of supervisor themes identified

This summary indicates the emphasis placed by supervisors on issues such as

'assumption awareness'. Illustrative examples of these descriptions include "*He*

assumed that contribution meant something quite large. He started with considerable

positivist assumptions about research based on his earlier academic experiences",

and the expectation that *"they would establish some truth to their question. And that*

this truth would have universal application in all contexts. So, a key assumption was

that the contribution had to be generalizable across time and space".

"Knowledge/data acquisition' was another prominent theme. One supervisor

reflected *"the issue of contribution to knowledge included explanations such as adding new and significant knowledge to the field of study; advancing extant research; developing a new model, theory and/or discovering important findings"*. Another described value as *"like researching into something identified as a silence in the literature, presenting new empirical data on a known problem"*.

The e-postcard response form also encouraged supervisors to reflect on changes to the understanding of value that occurred over time. The data suggest that conceptualizations of value may change over the duration of the supervision process. One supervisor commented, *"I suppose it became more academic as time went by"*. At the start of the doctoral process supervisors highlighted their experiences of discussing with their student *"the distinction between the expectations of a Master's level degree compared with the expectations of 'what is a PhD'"*. Technical and methodological issues were also prevalent in the earlier conceptualization of value, for example, *"address a research deficit of the particular … sector"*, and communicating to students that: *"a theoretical model would need to be generated"*.

Responses that addressed how the conceptualization of value changed over time also highlighted how: *"a 'light bulb' moment [occurred] after final drafting of the literature review chapter… that their doctorate research has to advance upon extant research through new research findings; methodology or theory building"*. Another supervisor reflected that: *"he started to become more phenomenological in his approach, more questioning and critical. He was clearer about what his contribution was becoming (it was in fact quite significant)"*. One supervisor described how *"it became more esoteric and sophisticated as the student's understanding was developed and deepened"*. Career progression and scholarly progression were

further themes that emerged from this data set, although less prominently. In relation to scholarly progression one of the supervisors reflected that *"I think of changes over time as those in relationship, and therefore presumably in language too, from say 'expert/novice' to 'adviser/researcher'. On the contribution to knowledge and as the research progresses, I am asking questions to understand the work, which may by now be beyond what I think I know, and the style of language is more of reflective observer or even shadow consultant rather than guide"*. In relation to career and personal development, another supervisor described a discussion about the value of the doctorate that reflected how *"the research would be rewarding and interesting"* but also that *"achieving a PhD would enhance the student's career prospects"*.

4.2 Doctoral thesis data

In analyzing the thesis data set, we were conscious that these documents provide evidence of student's understandings and descriptions of value that had been articulated at the latter stage of the doctoral process as thesis documents are often revised following the viva voce examination. Taken as a whole, the analysis of the sample of doctoral theses suggest that, although issues of contribution feature prominently in the assessment criteria of the doctorate (QAA, 2011; 2014) this term is used sparingly in the doctoral theses; indeed, in one of the theses the term 'contribution' was not used at all.

The thesis documents also provided a listing of the dissemination and publication achievements that were associated with the doctorate, something that is required in the examination regulations of most UK universities. In relation to the understanding of value, we noted, in addition to dissemination through academic outlets such as academic conference presentations, journal articles or book chapters, that thesis authors (both Professional Doctorate and PhD) referred to dissemination about their research through practice-oriented media and provided listings of presentations to

practitioner conferences. In the thesis documents themselves, however, there was no reflection about the extent to which such dissemination processes were associated with the concept of value.

Table 2 summarizes the over-arching themes identified from the inductive thematic analysis of the thesis documents. These data suggest that students like supervisors, associated value with knowledge generation; data acquisition; and extending theory, concepts or knowledge. In one thesis, value was linked to the aim to *"address some identified gaps in [specific] research"*. Another thesis author referred to: *"adding to known theoretical and practical knowledge by filling a gap in the evidence base".* A further area highlighted was the value of undertaking research in *"an area where few studies have been conducted into the dynamics which take place".*

Personal development and career progression also featured in the description of value and contribution described in the thesis documents.

Over-arching theme	Illustrative example from thesis document	References (n=15)
Meet identified gaps	"The programme of research …addresses some of the gaps in current knowledge and provides an insight into the …social environment valued by ..."	9
Organization directed contribution	"Provides empirical evidence of the association between HCD investment and the financial benefits of doing so"	9
Value beyond the organization: social, community or regional	"Provides empirical evidence of the long-term impact on …manufacturing through investment in HRD"	9
Development of new practice	"Fill the gap between HR practices and individual capacity building activities to enhance local government capacity in a … context".	7
Extension of existing theory, concepts or knowledge	"To structure some of the vaguer concepts and intangible resources prevalent in the resource based view"	7
Development of a new tool, framework or model	"This framework will help decision-makers to set up effective policies for future economic zones and to focus resources on key factors to accelerate the development of local human capital which is vital for the emirate's economic growth".	6
Policy contribution	"Allow policy makers to focus on the appropriate vehicles to achieve desired growth".	6

Integration of previously unintegrated concepts	"Integrating two important areas in the literature: the micro foundations of the RBV/HRD interface as well as managerial capabilities".	4
Personal motivation	"A personal interest emerged……from thirty years working as a practitioner"	4
Challenge existing thinking	"This … challenges assumptions underlying much of the leadership development literature that development programmes work".	2

Table 2: Summary of thesis data themes identified

Thesis authors, for example, referred to: *"being seconded to a more senior professional role"* as a result of their engagement with the doctoral research process and *"being recognized as a national expert in the field"* which was reported in the thesis document as "*extremely satisfying and is hoped will lead to the Regional Director's role"*. Another student wrote in their thesis of their desire to develop and maintain a reputation *"with high professional status"* and that *"this also underpinned the motivation for this research".*

Data from the thesis documents also identified a further description of value in terms of application and contribution at an organizational level or with a wider societal benefit. These data describe an applied value, and expressions included: *"introducing new tools for programme planning*"; *"informing future delivery"; "these two outcomes could be developed further for use in other organizations or situations where…."* and *"advantages such as the enhancement of patient care through the reduction of ….have resulted from this programme of research. These may be transferable to other similar professions"*. The value of the doctorate was also described in relation to policy change, for example to: "*policies for accelerated recruitment"; "training policies;* and "*in relation to policy, new management structures".* Another thesis referred to their contribution in relation to *"the development of a new [organizational] Global learning policy".*

Surprisingly, we found no discernible difference between thesis documents written by Professional Doctorate and PhD students in relation to descriptions of

value in terms of application and contribution at an organizational level or with a wider societal benefit. Professional Doctorate programmes feature work-based research grounded in practice based knowledge with a contribution to practice as well as to theory (Lester & Costley, 2010; Lester, 2004). Therefore, authors of Professional Doctorate theses might be expected to make more reference to practical value than PhD students. However, our data show references to organizationally directed contribution, value beyond the organization, and the development of new practices, tools, models and frameworks made by both PhD and Professional Doctorate theses. It is possible that further reflection on practical and professional value features in separate assessment artefacts submitted as a feature of Professional Doctorate programmes (and not collected for analysis in this study). However, it is noteworthy that the thesis documents of PhD students also highlight these features of value.

In summary, whilst issues of personal change and motivation as well as knowledge generation feature in descriptions of value, the thesis documents describe additional features of value associated with practice-related outcomes.

4 Discussion: The concept of value in relation to the research doctorate

The aim of this exploratory study is to examine how the value of the doctorate, as a form of management education, is expressed by doctoral supervisors and doctoral students. To initiate our interpretation of the findings we begin with a comparison of the descriptions of the concept of the value of the doctorate offered by supervisors and students and we propose an exploratory conceptual model of the value of the doctorate to provide a basis for future research studies.

An initial comparison of the themes identified from the inductive analysis of both data sets is summarized in Table 3.

Supervisors	Theses
Knowledge advancement	Extension of existing theory, concepts or knowledge
Knowledge/ data acquisition	Meet identified gaps
Knowledge delivery	Development of new practice
Assumption awareness	Challenge existing thinking
Focus	Integration of previously unintegrated concepts
Scholarly progression	Development of a new tool, framework or model
Career / personal progression	Personal motivation
Personal challenge	Personal motivation
	Organization directed contribution
	Policy contribution
	Value beyond the organization: social, community or regional

Table 3: Comparison of themes from supervisor data and thesis documents.

This initial comparison of the themes from these differently derived and separately analyzed data sets indicates many areas of consistency between the supervisor's descriptions of the value of the doctorate with those that were articulated in the sample of thesis documents. This consistency aligns with existing literature about doctoral processes which highlights the important role of supervisors in a process of extended and iterative scholarly 'enculturation' of doctoral students (Sambrook, Stewart, & Roberts, 2008; Holligan, 2005). The areas of some commonality focus on the value of knowledge acquisition and the extension of theory, concepts or knowledge. These features reflect the emphasis in doctoral studies on generic researcher training activities and doctoral 'processes' which promote the benefits of research-related skills development, the extension of knowledge, and conceptual or theory developments as a basis for a contribution (Kiley, 2009). Table 3 also indicates features of personal motivation, challenge and focus in the descriptions of the concept of value that found in both the supervisors' reflections and the thesis documents themselves. Doctoral study programmes are

lengthy and will inevitably challenge students at a meta-cognitive level (Cantwell, Bourke, Scevak, Holbrook, & Budd, 2015). Studies of doctoral programmes that form part of management education in fields such as in educational leadership (Ivankova & Stick, 2007) and nursing (Cohen, 2011) have also identified the value of personal motivation and challenge as a feature of the doctorate. Although the nature of intrinsic factors such as these may change over the duration of the programme (Hodgson, 2017), it is not surprising that they are included in descriptions of the value of the doctorate as expressed by both students and supervisors.

However, the comparison between the different descriptions of the value of the doctorate also indicates some difference between the conceptualization found in the two data sources. Data from the thesis documents written by doctoral students include features of value associated with the 'outcome' of the research once the thesis is produced and assessed (Wellington, 2013), something that is not evident in the supervisors' reflections. In the management and business field, this is an important issue given enduring concerns about the extent to which research programmes value scholarship, at the expense of application in organizational and policy contexts (Rennstam & Svensson, 2017; Thorpe & Rawlinson, 2013; Chia & Holt, 2008; Tranfield & Starkey 1998). The data from this exploratory study suggest that thesis authors recognize the value of applied outcomes at organizational, policy or societal levels that can occur from the development of new tools, frameworks and models. Whilst the value to non-academic settings is articulated in thesis documents, there was no evidence of this in the reflections of our sample of supervisors.

Our interpretation here is that supervisors, unlike thesis authors, define and recognize value associated with 'rigour' rather than 'relevance' (Lariviere, 2012). An emphasis on theory over practice was also found in research into PhD programmes

in Management in USA (Mello et al., 2015). We argue that this is problematic in management education contexts (and in other fields) where a career as an academic can no longer be assumed to follow from the achievement of the doctorate.

Three contextual factors may account for this difference. First, the career trajectory of members of supervisory teams requires that they facilitate the completion 'on time' of their doctoral students, whilst simultaneously taking responsibility for advice to doctoral students about the contribution that may be claimed (Green & Bowden, 2012). Doctoral supervision occurs as a feature of an academic career trajectory. Therefore, it is unsurprising that supervisors' descriptions of the concept of value relate more to 'technical' characteristics of doctoral work focused on methodological and epistemological development and knowledge generation. Second, many 'how to supervise' texts draw on a 'process focus' featuring normative prescriptions about 'input related' tasks associated with doctoral supervision (Hodgson, 2017; McCulloch, Kumar, van Schalkwyk, & Wisker, 2016) rather than output-related issues. Such prescriptive approaches may explain why conceptual descriptions of value by supervisors relate principally with methodology, epistemology and scholarly progression and why supervisors may overlook issues of the outcome and applied value. In a context where doctoral students undertaking their research as a form of management education are not young, novice academics with ambitions for a traditional research or academic career (OECD, 2013; Costley & Lester, 2012; Kot & Hendel, 2012) it is significant that supervisory definitions of the concept of value seem to overlook this important issue. Third, doctoral students are perhaps more aware than their supervisors that career options following the award of the doctorate are more likely to be found outside of the university sector. As a result, employability attributes such as career

management, continuing professional development, responsiveness to opportunities, networking and building reputation and esteem (Vitae, 2019) which may feature as part of the formal educational processes required to support doctoral students may influence the way that they make sense of the potential and actual value of the research programme that they are undertaking.
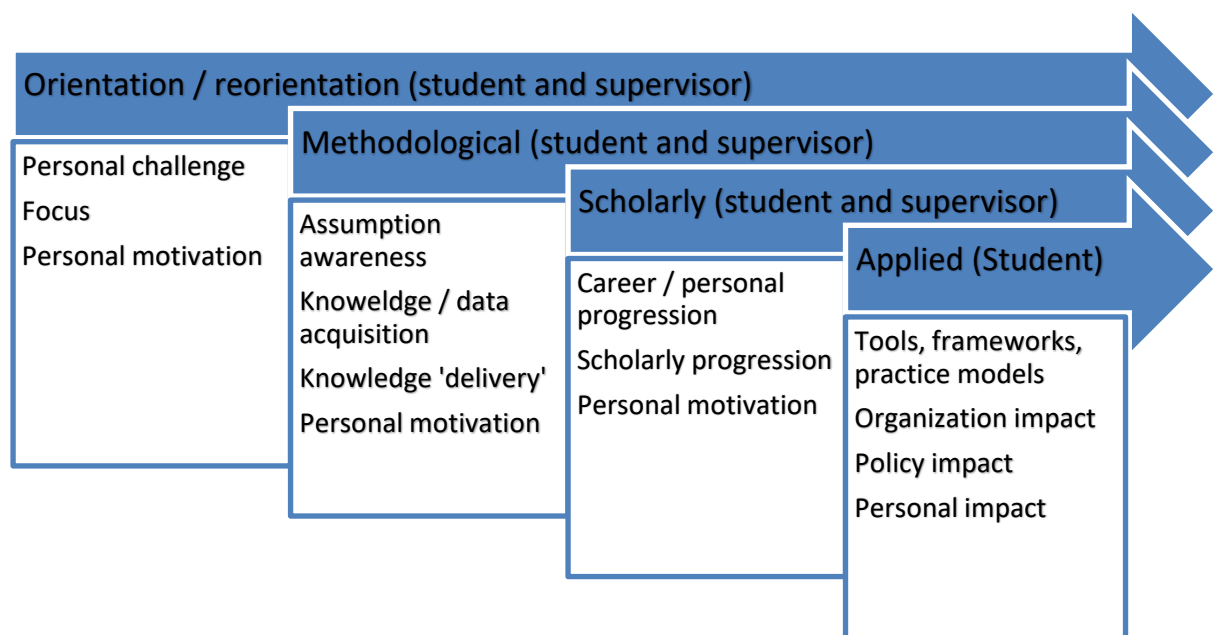
In relation to change over the duration of the doctoral programme, the data from this exploratory study suggest that supervisors identify a change in emphasis from an early focus on value as described as knowledge delivery and the challenge to existing thinking, to a later acknowledgement of the value of the doctorate through scholarly and career progression. This aligns with the concept of value in relation to the doctorate implicit in the UK REF process that suggests that career progression of doctoral graduates signifies a contribution to the wider research environment of the university. However, we found no evidence in our study of value defined in either thesis documents or supervisors' reflections in terms of institutional measures such as enhancements to university reputation, publication outcomes or research quality measures. The data also enable us to consider the extent to which the Humboltian assumption of the purpose of the doctorate as a preparation for a career in academia features in the conceptualization of value in the management education field. Within the thesis documents and the supervisors' reflections, our data show little evidence for a concern for the Humboldtian notion of a career path serving as an apprenticeship to join ranks of academe as a feature of the concept of value.

In summary, drawing on this analysis we contend that future-orientated, practice based applied outcomes are identified as indicators of the value of the doctorate in thesis documents but they are underrepresented in the conceptualization of the value as articulated by doctoral supervisors. Our analysis suggests that data from

thesis documents would support a provisional revision to the process-dominated conceptualization of value to acknowledge the worth of applied outcomes in addition to the technical and knowledge-related features of doctoral studies. However, the analysis indicates that supervisors may overlook this feature.

A summary of the analysis is provided in Figure 1 that recognizes that conceptual descriptions of value may change as a result of intersecting and progressive processes that occur through the duration of the doctoral programme. Figure 1 depicts how descriptions of value are initially derived from processes associated with establishing focused research questions and challenging existing 'assumption awareness' before attending to epistemological features of the concept of value associated with the technical 'implementation' of research design and procedures to enable 'delivery' of findings. Figure 1 further acknowledges value related with 'extending knowledge' to achieve 'advancement' in the field, something that is important for examination and assessment processes. Figure 1 also indicates that personal motivation is an important component of descriptions of the value of the doctorate throughout the process. However, the nature of this component in value appreciation may change as a result of different experiences of these intersecting stages of the doctoral programme. Although our exploratory study suggests that supervisors are unlikely to conceptualize value as associated with 'future orientated' applied outcomes through the application of new tools, frameworks or policy revisions, our analysis of the thesis documents suggests that doctoral students recognize value in an anticipatory way. This may align with their personal and professional contexts and career opportunities in applied, organizationally based contexts. The production and use of tools, frameworks, practice and models in personal, policy and organizational contexts are components of 'value' described in

the thesis documents but are not acknowledged in the supervisory reflections gathered for this exploratory study. In a context where students in the management education field achieve professional development and advancement in careers outside academia (Costley & Lester 2012; Kot & Hendel 2012; Neumann & Tan, 2011) this is an important feature of the concept of the value of the doctorate.

Orientation / reorientation (student and supervisor)			
Personal challenge Focus Personal motivation	Methodological (student and supervisor)		
	Assumption awareness Knoweldge / data acquisition Knowledge 'delivery' Personal motivation	Scholarly (student and supervisor)	
		Career / personal progression Scholarly progression Personal motivation	Applied (Student)
			Tools, frameworks, practice models Organization impact Policy impact Personal impact

Figure 1: Characteristics of value in relation to the document

5   Conclusion

The value of doctoral education is an important issue for HE policy makers, HEIs, doctoral students and doctoral supervisors. Most descriptions of value draw on institutional policy assumptions and priorities relating to quality assessment of 'input processes' and sector or academic discipline-wide outcomes such as institutional reputation. The work of doctoral supervision a priority for academic professional and career development (Subbaye & Vithal, 2017; Dobele & Rundle-Theile, 2015) but the doctorate as a form of management education involves a commitment to doctoral

study motivated by career progression in a wider sphere of management or professional practice. When discussing the lack of attention to the concept of value in relation to the doctorate Wellington (2013: 1491) observes that "reminiscent of the early Wittgenstein's advice [1981, section 7], 'of that we cannot speak thereof we must remain silent' is helpful to no one: student, supervisor, examiner, fellow professionals or employers". Our exploratory study responds to this challenge and contributes an initial conceptualization of the value of the doctorate as expressed by doctoral supervisors and doctoral students.

Although it is no longer taken for granted that the sole purpose of doctoral programmes in the business and management field is to produce future successful academic researchers or educators, the findings of our exploratory study reveal an interesting contrast between the concept of value described by supervisors and by students in their thesis documents. Supervisors' conceptualization of the value of the doctorate is limited to features that privilege additions to, and generation of, knowledge, 'as an end in itself'. Doctoral thesis authors, by contrast, describe additional features of value that relate to applied outcomes such as professional development or organizational impact.

In such circumstances, the different concepts of value held by students and supervisors represent an unresolved 'value pluralism'. This has implications for both management education and for wider debates in the HE sector about rigour and relevance in doctoral studies and in relation to the wider issues of research impact (ESRC, 2017b; RCUK, 2015). Research impact and business school accreditation (for example, AACSB criteria) are increasing important in the management and business field. This exploratory study draws attention to a possible lack of equivalence between value described in relation to the career path of an academic

and value understood to be appropriate to the career path of a professional manager (AACSB, 2013).

6.1 Limitations

As an exploratory study, the small scale, 'one point in time' and single country location of our study is an important limitation and conclusive and generalizable findings are not feasible. However, the research design we have adopted is appropriate to a situation where little or no research into the issues has yet been undertaken. Our decision to analyze thesis documents to represent management education doctoral student perspectives may also be challenged. Nevertheless, our data gathering procedures are consistent with other studies in management education that acknowledge students' assignments to be a valid source of rich data about student perspectives and experiences (c.f. Ronnie, 2017). We contend that the doctoral thesis represents the product of extensive reflection by students and represents a rich and credible source of information about the student perspective in relation to value of the doctorate.

6.2 Implications

By attending to the concept of value as understood by those most closely involved in the process (supervisors and students) the initial conceptualization we have developed provides a basis for the formulation of a practice-relevant research agenda focused on the value of the doctorate. Further research, to refine the initial conceptualization we present here and examine the implications for doctoral education will provide a further basis for theory and practice development in this important area. Longitudinal and case study research, drawing on wider and more international 'matched' samples incorporating doctoral thesis documents, members of the supervision team for that doctorate, policy guidance from the institution

granting the doctorate, examiners involved in the assessment process and employers of doctoral graduates is now required.

Our assessment suggests four areas for further research. First, further research into the definition of value assumed by stakeholders such as HE policy-makers, examiners and employers is needed. Second, further research to examine and explain how and why different conceptualizations are maintained and / or develop over time is necessary. For example, although the analysis of thesis documents indicates the importance of applied outcomes expressed in the final written form of the thesis, research to establish the extent to which such applied outcomes are associated with value over the life cycle of the doctorate process is required. In addition, our analysis of thesis documents found no reference to career outcomes in academia and so further research to identify longer-term outcomes, which may include academic career options associated with management education, is required. A third research area is to examine assumptions about the value of the doctorate as a form of management education in different regions of the world and in different disciplinary specialisms such as accountancy and finance, marketing, and general management. Fourth, research to examine whether practitioner or organizational involvement or engagement in the early stages of the doctoral 'life-cycle' affects subsequent conceptual understanding of value by the different stakeholders involved would be beneficial.

Specific research questions identified from the conceptual revisions suggested by this study that are particularly important include the following:

- What applied outcomes from doctoral research are achieved in practice, over what period are they achieved, and to what extent are they recognized as having value?

- To what extent does employer engagement and commitment to shared co-creation of knowledge outcomes result in different understandings of value when compared with a traditional process that anticipates initial knowledge generation by the university and subsequent dissemination for possible application?

- How do professional and management networks and business school innovation and knowledge transfer processes influence perceptions of value in relation to the doctorate?

- How do policy interventions and strategies, such as the UK REF and the UK Knowledge Exchange Framework (KEF) influence conceptualization of the value of the doctorate?

In summary, doctoral education is an important but overlooked feature of management education. In our examination of different understandings of the concept of value in relation to the doctorate, our paper addresses the problematic 'disconnect' between theory, research and practice that has been raised in the management education literature. Our assessment provides a basis for further research into the value of the doctorate. It makes a conceptual contribution to important debates about the purpose of research and pedagogy associated with the doctorate as a form of management education. We identify an unresolved value pluralism between the importance and contribution of the doctorate as understood by students and as articulated by supervisors. Our exploratory study indicates a need for further research to examine the extent to which management education, as an applied field of study, continues to privilege the assumptions of the academic community at the expense of the practice community.

References

Anderson, L., Ellwood, P., & Coleman, C. (2017). The impactful academic: Relational management education as an intervention for impact. British Journal of Management, *28,* 14-28. doi.org/10.1111/1467-8551.12202

Association to Advance Collegiate Schools of Business (AACSB). (2013). The promise of business doctoral education. Tampa, FL: Association to Advance Collegiate Schools of Business.

Backlund, F. (2017). A project perspective on doctoral studies – a student point of view, International Journal of Educational Management, 31, 908-921. doi.org/10.1108/IJEM-04-2016-0075

Bansel, P. (2011). Becoming academic: a reflection on doctoral candidacy, Studies in Higher Education, *36*, 543–556. doi.org/10.1080/03075079.2011.594592.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology, Qualitative Research in Psychology, 3, 77-101. doi: 10.1191/1478088706qp063oa

Bromley, T. & Metcalfe, J. (2012). The impact framework 2012: revisiting the Rugby Team Impact Framework*,* Vitae Impact and Evaluation Group. Retrieved 18 March 2018 from https://www.vitae.ac.uk/vitae-publications/reports/ieg-report-2012.pdf. .

Cantwell, R,H., Bourke, S.F., Scevak, J.J,, Holbrook, A.P., & Budd, J. (2015). Doctoral candidates as learners: a study of individual differences in responses to learning and its management, Studies in Higher Education, 42, 47-64. doi:10.1080/03075079.2015.1034263.

Chia, R. (2017). Reflections on the distinctiveness of European management scholarship. In R. Chia (Ed.) Management Research (pp. 11-25). London: Routledge.

Chia, R. & Holt, R. (2008). The nature of knowledge in business schools, Academy of Management Learning and Education, 7, 471-496. doi/10.5465/amle.2008.35882188.

Clarke, G. (2013). Developments in doctoral assessment in the UK. In M. Kompf & P.M. Denicolo (Eds.), Critical issues in higher education (pp. 23-36). Rotterdam: Sense Publishers.

Cohen, S. M. (2011). Doctoral persistence and doctoral program completion among nurses. Nursing Forum*,* 46, 2, 64-70. doi: 10.1111/j.1744-6198.2011.00212.x.

Costley, C., & Lester, S. (2012) Work-based doctorates: professional extension at the highest levels, Studies in Higher Education, 37, 257-269, doi: 10.1080/03075079.2010.503344.

Cox, E. (2005). Adult learners learning from experience: using a reflective practice model to support work-based learning, Reflective Practice, *6*, 459–472. doi.org/10.1080/14623940500300517

Cunha, J. M., & Miller, T. (2014). Measuring value-added in higher education: Possibilities and limitations in the use of administrative data. Economics of Education Review, 42, 64–77. doi.org/10.1016/J.ECONEDUREV.2014.06.001

Currie, G., Knights, D., & Starkey, K. (2010). Introduction: a post-crisis critical reflection on business schools. British Journal of Managemen*t,* 21: S1–S5. doi.org/10.1111/j.1467-8551.2009.00677.x

Dixon, D. P., Weeks, M., Boland, R., & Perelli, S. (2017). Making sense when it matters most: An exploratory study of leadership In Extremis, Journal of Leadership & Organizational Studies, *24,* 294 -317. https://doi.org/10.1177/1548051816679356

Dobele, A. R. & Rundle-Theile, S. (2015). Progression through academic ranks: A longitudinal examination of internal promotion drivers, Higher Education Quarterly, 69, 410-429, doi.org/10.1111/hequ.12081.

East, L., Stokes, R., & Walker, M. (2014). Universities, the public good and professional education in the UK. Studies in Higher Education, 39, 1617-1633. doi:10.1080/03075079.2013.801421.

Economic and Social Research Council (ESRC). (2017a). ESRC research funding guide. London: Economic and Social Research Council.

Economic and Social Research Council (ESRC). (2017b). Research performance and economic impact report 2015-16. London: Economic and Social Research Council.

Edelenbos, J. & van Buuren, R. (2005). The learning evaluation : A theoretical and empirical exploration, Evaluation Review, 29, 591-612. doi.org/10.1177/0193841X05276126.

[dataset] Electronic Theses On-Line Service (ETHoS). http://ethos.bl.uk/Home.do;jsessionid=FE0FBB4A134BCCC45B6C2A59CEE8A616

Gasson, S. (2015). Supporting quality timely PhD completions: delivering research outcomes, Quality in Higher Education, 21, 79-88, doi:10.1080/13538322.2015.1049438

Green, B. (2012). Addressing the curriculum problem in doctoral education. Australian Universities' Review, 54, 10-18. Retrieved 19 March 2018 from https://search.informit.com.au/documentSummary;dn=424280997754224;res=IELAPA,.

Green, P., & Bowden, J. (2012). Completion mindsets and contexts in doctoral supervision, Quality Assurance in Education, 20, 66-80, doi.org/10.1108/09684881211198257.

Group of Eight. 2013. The changing PhD: A discussion paper. Canberra. Retrieved 19 March 2018 from https://go8.edu.au/publication/discussion-paper-changing-phd.

Guba, E.G. & Lincoln, Y.S. (1989). Fourth generation evaluation. Newbury Park, CA: Sage.

Guerin, C., Jayatilaka, A., & Ranasinghe, D. (2015). Why start a higher degree by research? An exploratory factor analysis of motivations to undertake doctoral studies. Higher Education Research & Development, 34, 89–104. doi.org/10.1080/07294360.2014.934663.

Higher Education Funding Council for England (HEFCE). (2011). PhD study trends and profiles,1996-97 – 2009-10. HEFCE Issues Paper 2011/33.

Higher Education Funding Council for England (HEFCE). (2017a). Initial decisions on the research excellence framework 2021. http://www.ref.ac.uk/media/ref,2021/downloads/REF2017_01.pdf. Retrieved 15 March 2018.

Higher Education Funding Council for England (HEFCE). (2017b). Funding bodies confirm shape of REF 2021. Retrieved 10 July 2018 from http://www.hefce.ac.uk/news/newsarchive/2017/Name,116247,en.html.

Hodgson, D. (2017). Helping doctoral students understand PhD thesis examination expectations: A framework and a tool for supervision. Active Learning in Higher Education, doi:org/10.1177/1469787417742020

Holligan, C., (2005). Fact and fiction: A case history of doctoral supervision. Educational Research, 47: 3, 267–278, doi.org/10.1080/00131880500287179.

Ivankova, N. V., & Stick, S. L. (2007). Students' persistence in a distributed doctoral program in educational leadership in higher education: A mixed methods study. Research in Higher Education, *48,* 93-135. doi.org/10.1007/s11162-006-9025-4.

Jones, M. (2018). Contemporary trends in professional doctorates, Studies in Higher Education, 43, 814-825, doi: 10.1080/03075079.2018.1438095.

Kandiko, C. B. & Mawer, M. (2013). Student expectations and perceptions of higher education. London: King's Learning Institute. Retrieved 19 July 2018 from https://www.kcl.ac.uk/study/learningteaching/kli/People/Research/DL/QAAReport.pdf

Kane, S., Chalcraft, D., & Volpe, G. (2014). Notions of belonging: First year, first semester higher education students enrolled on business or economics degree programmes, The International Journal of Management Education, 12, 193–201. doi: org/10.1016/j.ijme.2014.04.001.

Kearns, P., & Miller, T. (1997). Measuring the impact of training and development on the bottom line. London: Pitman Publishing

Kehm, B.M. (2006). Doctoral education in Europe and North America. A comparative analysis. In U. Teichler (Ed.), The formative years of scholars (pp. 67-78). London: Portland Press.

Kiley, M. (2009). Rethinking the Australian doctoral examination process, Australian Universities Review*,* 51, 2, 32-41. Retrieved on 8 July 2018 from https://files.eric.ed.gov/fulltext/EJ864031.pdf

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). Evaluating training programmes. London: Berrett-Koehler.

Kot, F.C. & Hendel, D.D. (2012). Emergence and growth of professional doctorates in the US, UK, Canada and Australia, Studies in Higher Education, 37, 345-364. doi:10.1080/03075079.2010.516356.

Lariviere, V. (2012). On the shoulders of students? The contribution of PhD students to the advancement of knowledge, Sociometrics, 90, 463-81, doi:arxiv.org/abs/1108.5648v1.

Lee, A., & Danby, S. (2012). Framing doctoral pedagogy as design and action. In A. Lee and S. Danby (Eds.), Reshaping doctoral education: International approaches and pedagogies (pp.1-12). London: Routledge.

Leonard, D., Becker, R., & Coate, K. (2007). To prove myself at the highest level: The benefits of doctoral study, Higher Education Research & Development, 24, 135-149. doi: 10.1080/07294360500062904

Lester, S. 2004. Conceptualising the practitioner doctorate, Studies in Higher Education, 29, 757–70. doi:10.1080/0307507042000287249

Lester. S. & Costley. C. (2010). Work-based learning at higher education level: Value, practice and critique, Studies in Higher Education, 35, 561-575. doi:10.1080/03075070903216635

Lindsay, S. (2015). What works for doctoral students in completing their thesis? Teaching in Higher Education, 20, 183-196. doi:10.1080/13562517.2014.974025

Locke, R.R.& Spender, J.C. (2011). Confronting managerialism: How the business elite and their schools threw our Lives out of balance. London: Zed Books

Louw, J. & Miller, J. (2014). A literature review on models of the PhD. Connecticut Higher Education Trust (CHET) Retreived 3 July 2018 from: https://www.idea-phd.net/images/doc-pdf/Louw_and_Muller_2014_Literature_Review_on_Models_of_the_PhD.pdf

Lovitts, B. (2007). Making the implicit explicit: Creating performance expectations for the dissertation. Sterling, VA: Stylus.

Loxley, A. & Kearns, M. (2018). Finding a purpose for the doctorate? A view from the supervisors, Studies in Higher Education, 43, 826-840. doi: 10.1080/03075079.2018.1438096

Massyn, L. (2018). Enhancing completion rates of mini-dissertations for a professional master's degree: An integrated approach, The International Journal of Management Education, 16, 114–120. doi:org/10.1016/j.ijme.2018.01.002.

Matos, F. (2013). PhD and the manager's dream: professionalising the students, the degree and the supervisors? Journal of Higher Education Policy and Management, *35,* 626–638. doi:org/10.1080/1360080X.2013.844667M.

McArdle, K., Birchley, J., Bruce, J., Hurrell, A., Paterson, S., & Stephen, M. (2014). When practice takes precedence: conceptions of inquiry and the link to ethical posture. Educational Action Research, 792, 1–17. doi:org/10.1080/09650792.2014.887026.

McCulloch, A., Kumar, V., van Schalkwyk, S., & Wisker, G. (2016). Excellence in doctoral supervision: an examination of authoritative sources across four countries in search of performance higher than competence, Quality in Higher Education, 22, 64-77, doi:10.1080/13538322.2016.1144904

Mello, A.L., Fleisher, M.S., & Woehr, D.J. (2015). Varieties of research experience: Doctoral student perceptions of preparedness for future success, International Journal of Management Education*,* 13, 128-140. doi:org/10.1016/j.ijme.2015.01.007.

Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in progress.* San Francisco: Jossey Bass.

Mitchell, T. R. (2007). The academic life: realistic changes needed for business school students and faculty. Academy of Management Learning & Education, 6, 236-251, doi.org/10.5465/AMLE.2007.25223462.

Nelson, A.R. & Strohl, N.M. (2014). Universities 2030: Learning from the past to anticipate the future. Global Higher Education and Research (GHEAR) project, Worldwide Universities Network. Retrieved 31 October 2018 from https://www.insidehighered.com/blogs/globalhighered/universities-2030-learning-past-anticipate-future

Neumann, R. & Tan, K.K. (2011). From PhD to Initial Employment: The Doctorate in a Knowledge Economy. Studies in Higher Education*,* 36, 601-614. doi:org/10.1080/03075079.2011.594596.

Office for Students. (2018). What is Learning Gain? Retrieved 3 April 2018 from https://www.officeforstudents.org.uk/advice-and-guidance/teaching/learning-gain/

Organization for Economic Co-operation and Development (OECD). (2011). Science, technology and industry scoreboard 2011: Innovation and growth in knowledge economies. Retrieved 19 March 2018 from https://www.oecd.org/science/sci-tech/48712591.pdf.

Organization for Economic Co-operation and Development (OECD). (2017). Science, technology and industry scoreboard 2017: The digital transformation. Paris: OECD Publishing,. Retrieved 19 March 2018 from http://dx.doi.org/10.1787/9789264268821-en.

Pawson, R., & Tilley, N. (1997). Realistic evaluation. London: Sage.

Quality Assurance Agency for Higher Education (QAA). (2011). Doctoral degree characteristics: Retrieved 19 March 2018 from http://www.qaa.ac.uk/en/Publications/Documents/Doctoral_Characteristics.pdf

Quality Assurance Agency for Higher Education (QAA) (2014) UK quality code for Higher Education: The frameworks for higher education qualifications of UK degree-awarding bodies. Retrieved 17 March 2018 from http://www.qaa.ac.uk/en/Publications/Documents/qualifications-frameworks.pdf.

Rennstam, J. & Svensson, P. (2017) The rise and fall of a management education programme: The tension between academic and vocational education in business schools" in T. Huzzard, T., M. Benner, & D. Karreman, (Eds.) The corporatization of the business school: Minerva meets the market.(pp.165-181). Oxon: Routledge.

Research Councils United Kingdom (RCUK). (2015). The impact of research 2014. Swindon: Research Councils.

Ronnie, L. (2017). Dyadic processes in postgraduate education: Insights from MBA student experiences. The International Journal of Management Education, 15, 513-519. doi:10.1016/j.ijme.2017.09.002.

Sambrook, S., J. Stewart, & Roberts, C. (2008). Doctoral supervision… a view from above, below and the middle!, Journal of Further and Higher Education, 32, 71-84. doi:org/10.1080/03098770701781473

Schwandt, T. A. (1994). Constructivist, interpretivist approaches to human inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp. 118–137). Thousand Oaks, CA: Sage.

Schwartz-Shea, P. & D. Yannow. (2012). Interpretive Research Design. New York: Routledge.

Scriven, M. (1991) Evaluation Thesaurus. Thousand Oaks: Sage.

Subbaye, R., & Vithal, R. (2017). Teaching criteria that matter in university academic promotions. Assessment & Evaluation in Higher Education, *42*, 37–60. doi:org/10.1080/02602938.2015.1082533

Starkey, K., Hatchuel, A., &Tempest, S. (2009). Management research and the new logics of discovery and engagement, Journal of Management Studies, 46: 547-558. doi:10.1111/j.1467-6486.2009.00833.x.

Thomas, J.R. & Reeve, T.G. (2006). A review and evaluation of doctoral programs 2000-2004 by the American Academy of Kinesiology and Physical Education, *Quest*, 58, 176-196. doi.org/10.1080/00336297.2006.10491878

Thorpe, R., Gold, J., Holt, R., & Clarke, J. (2006). Immaturity: The constraining of entrepreneurship. International Small Business Journal, *24*, 232–250. doi:org/10.1177/0266242606063431

Thorpe, R. & Rawlinson, R. (2013). The Role of UK Business Schools in Driving Innovation and Growth in the Domestic Economy. London: Association of Business Schools (ABS).

Tranfield, D. & Starkey, K. (1998). The nature of social organisation and promotion of management research: towards policy, British Journal of Management, 9, 341-53. doi.org/10.1111/1467-8551.00103

UK Research and Innovation (UKRI). (2018). Excellence with impact. Retrieved on 5 July 2018 from https://www.ukri.org/innovation/excellence-with-impact/

UNESCO. (2004). Doctoral Studies and Qualifications in Europe and the United States: Status and Prospects. Paris: UNESCO.

Urban, J.B., Hargraves, M., & Trochim, W. M. (2014). Evolutionary evaluation: Implications for evaluators, researchers, practitioners, funders and the evidence-based program mandate, Evaluation and Program Planning, 45: 127-139. doi:org/10.1016/j.evalprogplan.2014.03.011.

Urban, J.B. & Trochim, W. (2009). The role of evaluation in research–practice integration: Working toward the ''Golden Spike'', *American Journal of Evaluation.* 30, 538-553. doi:10.1177/1098214009348327

Vitae. (2016). Supervising and Managing Researchers. Retrieved 19 March 2018 from https://www.vitae.ac.uk/spotlight/supervising-and-managing-researchers-1

Vitae. (2019). About the Vitae Researcher Development Framework. Retrieved 14 March 2019 from https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework

Walsh, E., Hargreaves, C., Hillemann-Delaney, U., & Li, J. (2015). Doctoral researchers' views on entrepreneurship: ranging from "a responsibility to improve the future" to "a dirty word," Studies in Higher Education, 40, 775–790. doi:org/10.1080/03075079.2013.842219

Watson, S.L., Loizzo, J., Watson, W.R., Mueller, C., Lim, J., & Ertmer, P.A. (2016). Instructional design, facilitation, and perceived learning outcomes: an exploratory case study of a human trafficking MOOC for attitudinal change, Education Technology Research and Development, 64, 1273. doi.org/10.1007/s11423-016-9457-2.

Wellington, J. (2013). Searching for 'doctorateness', Studies in Higher Education, 38, 1490-1503. doi:10.1080/03075079.2011.634901

Wellington, J.J., Bathmaker, A.M., Hunt, C., McCulloch, G., & Sikes, P. (2005). Succeeding with your doctorate. London: Sage.

Wildy, H., Peden, S., & Chan, K. (2015). The rise of professional doctorates: case studies of the Doctorate in Education in China, Iceland and Australia. Studies in Higher Education, 40, 761–774. doi:org/10.1080/03075079.2013.842968.

Wittgenstein, L. (1981). *Tractatus Logico-Philosophicus.* (Trans. D. Pears & B. McGuiness). London: Routledge.

Yamamoto, S. (2008). Japan, in M. Nerad & M. Heggelund (Eds.), Toward a global PhD? Forces and forms in doctoral education worldwide (pp. 204-220). Seattle: University of Washington.

Yang, R. (2012). Up and coming? Doctoral education in China [online]. Australian Universities' Review, 54, 1, 64-71. Retrieved 19 March 2018 from https://search.informit.com.au/documentSummary;dn=425194013345876;res=IELAPA