Doctoral publishing as professional development for an academic career in higher education

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ABSTRACT
The aim of this research is to discover the views, practices and advice of experienced doctoral educators on how doctoral students in the fields of business and management may be encouraged and supported to write for publication, in order to promote their development as future academics. The data used in the study came from an online questionnaire survey completed by 54 individuals worldwide, who teach and/or supervise on doctoral business/management programmes. The job titles of the survey participants include dean, director of doctoral programmes, full/titled/chaired professor, and associate professor. Our survey participants unanimously agree that it is imperative for doctoral students who intend to pursue an academic career in higher education to achieve publications before they graduate, and that institutions and supervisors should share the responsibility to equip students with the knowledge and skills that will enable them to become effective and successful academic authors. The paper concludes with recommendations for students, institutions and supervisors/advisors. To our knowledge, this is the first international study that has explored the attitudes and practices of experienced doctoral educators to doctoral publishing, in the contexts of student development for an academic career, and doctoral supervisors acting as career mentors alongside their supervisory role.

1. Introduction

It has always been an expectation that academic staff in universities conduct and publish research. For example, over thirty years ago, Noble (1989) declared that the necessity to publish was a professional reality for academics employed in higher education. Nowadays, peer-reviewed publications are a key indicator of scholarly success, which demonstrate a researcher's excellence and competence (Bartkowski, Deem, & Ellison, 2015). Unless employed in a teaching-only institution or on a teaching only contract, the phrase 'publish or perish' is known and heeded by most academics in higher education. In recent years, the expectation of publishing has extended to many doctoral students (Lee & Kamler, 2008; Mello, Fleisher, & Woehr, 2015). Driven partly by institutional expectations and personal career ambitions, some students have also recognised that active engagement in the publishing process represents an important element of the learning that occurs through doctoral study. Doctoral publishing may be regarded by both students and academic staff as professional development for an academic career in higher education, where the

term 'professional development' refers to individuals improving their professional knowledge, skills, competence, and job effectiveness.

Higher education may be regarded as an organisational field in which substantial isomorphism is evident, particularly in the areas of research and publishing. Doctoral students who intend to pursue an academic career and work at a leading university – read as 'high ranked research-intensive university' – will need to eventually achieve regular publications in the 'A' journals. While there exists consensus on the 'end game' for academics, i.e. achieving publications in the 'A' journals, there may be less consensus on the optimal publishing strategy for doctoral students. For example, students may not know at what stage in the doctoral process to start publishing and what status (rank) of journal they should initially aim for. To answer these questions, we sought the advice of experienced doctoral educators employed in 'leading' universities worldwide, i.e. universities that appear in the top 500 of global rankings published by Quacquarelli Symonds (QS) and/or Times Higher Education (THE). These academics have already made it, or are close to making it, to the pinnacle of their careers, and therefore they possess the knowledge and experience which enables them to offer constructive advice and guidance to newcomers in the higher education organisational field.

Our research questions have not previously been discussed in the literature, and the answers to our questions may not be as obvious as first assumed. It should be noted that various micro and macro issues may influence the attitudes and advice of doctoral supervisors and programme managers. We know that it is generally in the interests of would-be academics to publish as much as possible, but the high volume of research output globally is putting immense pressure on the peer review system. Given that the work of doctoral students typically makes only a small incremental contribution to knowledge, Altbach and De Wit (2019) question whether doctoral students should be publishing, as doing so contributes to the over-supply of scholarly output. Funding and workload issues at the macro level may also impact upon the motivation and ability of doctoral supervisors to support students in publishing. Using an international survey of experienced doctoral educators, this research discovers the extent to which, and how, doctoral students are, in practice, encouraged and supported to publish, in order to promote their development as future academics.

2. Purpose of research and research questions

Higher education institutions have a responsibility to ensure that their programmes facilitate students' career development and employability (Okolie et al., 2020). An international survey by Dinham and Scott (2001) concluded that doctoral students at higher education institutions with a coherent policy on student publishing, and students who receive assistance from supervisors – known as advisors in the United States (US) – are more likely to publish. However, previous research has found that many doctoral students receive no, little or inadequate support and guidance on academic publishing (Lei & Hu, 2015; Mizzi, 2014). Thus, students may not know what to publish, when to publish, or where to publish their research. A student may become even more confused when they receive conflicting advice from different academic staff. For example, different supervisors may have different views on whether to publish earlier or later in the doctoral study period, or whether students should submit papers to 'top-tier' journals, or take a less ambitious path initially and submit to lower-ranked journals. Even academic staff who are newer to doctoral teaching/supervision may be unsure of the best advice to offer students.

The aim of this research is to discover the views, practices (of supervisors and business schools) and advice of experienced doctoral educators on how doctoral students may be encouraged and supported to write for publication as part of their academic career development. To our knowledge, this is the first international study that has explored the attitudes and practices of experienced doctoral educators to doctoral publishing, in the contexts of student development for an academic career, and doctoral supervisors acting as career mentors alongside their supervisory role. The scope of the study, key themes, and related research questions are shown in Table 1.

The findings of this research are intended to be useful for educators, to help them better leverage academic publishing as an active learning method to support the professional development of their students. Students may also benefit from the research, by helping them better understand the requirements and issues associated with scholarly publishing. By drawing on the collective experience and diverse views of a range of academics worldwide, the insights gained add value beyond what may be attained by doctoral students from their own institution alone.

Table 1
Scope of study, indicating the key themes and related research questions.

Themes	Research questions
Advantages of doctoral publishing for early career academics	• Should doctoral students publish in peer-reviewed journals? (or is it an unnecessary distraction, or does it contribute to the oversupply in scholarly output?) • What are the developmental benefits for students of publishing in peer-reviewed journals?
Doctoral student decisions on publishing	The 3Ws of academic publishing: • What should students publish? • When should students publish? • Where should students publish? (e.g. aim for the elite journals, or start by targeting more modest journals)
Doctoral student self-development	• What actions may be taken by students to promote their self-development as researchers?
Support for doctoral students	• How may the development of students be promoted by institutions and programmes? • How may the development of students be promoted by supervisors/advisors?

In some cases, it may be appropriate to consider the research questions in combination. For example, when considering when and where to publish, participants might advise that in earlier

doctoral years students should focus on writing conference papers and book chapters, and in later years peer-reviewed journal articles. This research is concerned only with doctoral programmes that conclude with the student submitting a thesis – referred to as a dissertation in the US – and not those programmes that involve previously published research papers, e.g. the Doctor of Philosophy (PhD) by Published Work, which is a qualification now offered worldwide by many universities.

This paper is structured as follows. In the following sections, we discuss the study's theoretical frame, early career academic success, and possible motives for doctoral publishing. Then, after the study's method is explained, the findings are presented, supported with discussion and participant quotes. Finally, the paper concludes with a summary and analysis of the key findings, and recommendations for students, institutions and educators.

3. Theoretical frame

The Humboldtian model of higher education conceives the university as a vehicle for integrated study and research, intended to achieve both comprehensive general learning and cultural knowledge. In most countries, larger universities tend to have both teaching and research roles, and research achievement strongly influences institutional status and reputation. In pursuit of improved rankings and funding, institutions are incentivised to uphold the Humboldtian ideal rather than newer conceptualisations that favour skills and employment competences (Wilkins, Neri, & Lean, 2019). In research-oriented institutions, it is increasingly expected that doctoral students contribute to research output (Enders, 2002). Academic staff in these institutions typically assume that doctoral students intend to pursue an academic career, and they begin the socialisation process of turning students into professional researchers, who focus on conceptual matters in order to generate theoretical contributions (Anderson & Gold, 2019; Bothello & Roulet, 2019). Many academics might consider a doctoral programme to be a form of academic apprenticeship.

This research is grounded in the assumption that the purpose of doctoral education aligns with the Humboldtian tradition of primarily preparing students for an academic career in a research university. Thus, this assumption provides the theoretical frame for this research. It is recognised however, that students following professional and practice-oriented programmes may not be intending to pursue a career in academia. Professional doctorates, such as the Doctor of Business Administration (DBA), are now common, and focus on applied and work-related research.

4. Early career academic success

Early career academics may be regarded as academic staff who are within their first five years of employment in higher education, which is often assumed to equate to the five years following PhD completion. The experiences of early career academics serve as an important marker of future academic rewards and overall success, as well as dissatisfaction and exiting from the profession (Hollywood et al., 2020). Business-oriented models and an audit culture now define the operation of higher education institutions worldwide. It is within such work environments that early career academics must establish their professional identities and strive for legitimacy. Individuals interpret the signals they receive from their institution, managers and colleagues about the actions they should take to gain institutional recognition and advance their career (Aprile, Ellem, & Lole, 2020).

Various studies globally have found that early career academics believe that their overall career success depends on success in research rather than in teaching (Hollywood et al., 2020). The theory of cumulative advantage suggests that due to feedback processes, the occurrence of a particular event increases the probability of such an event recurring in the future (Lindahl, Colliander, & Danell, 2020). Therefore, PhD graduates who obtain a position at a top school on the basis of the papers they published while a doctoral student, will likely be influenced by this feedback/learning process, and continue publishing as an early career academic in order to achieve their career goals.

Early career academics who hold a doctorate are more likely to believe that they possess the knowledge and skills needed to undertake research and publish compared to those individuals who do not have a doctorate, and doctoral publishing experience further promotes research self-efficacy. Successful early career researchers tend to possess a range of attributes, which include ambition and a desire to succeed; confidence; the requisite research skills; and previous experience of scholarly publishing (Hemmings, 2012). Indeed, the sacred spark theory suggests that differences in scientific performance among researchers can be explained by substantial, predetermined differences among scientists in their ability and motivation to do research (Lindahl, Colliander, & Danell, 2020). Thus, students who perform well during their doctoral education do so because they are motivated and have the ability to undertake creative research and publish, and as their career develops, the motivation and ability of these individuals persist, resulting in further publishing success as early career researchers. In contrast, some individuals may never achieve publishing success because they do not possess the essential 'fit' attributes for this activity, such as personal characteristics, motivation and academic writing fit (Ward & Brennan, 2020).

In seeking to establish their legitimacy, and to achieve their career goals, many early career academics appreciate the benefits of networking and collaborating with established and successful researchers (Kalfa, Wilkinson, & Gollan, 2018). Working in teams, individuals may undertake complex research that they could not have undertaken alone, and effective teamwork may also fulfil social and developmental needs (Aprile, Ellem, & Lole, 2020). Individuals who published with their doctoral supervisors and teachers may enjoy publishing success more quickly than those early career academics who did not publish as doctoral students. Also, the support received from working in teams may reduce stress levels and job burnout, which are both common in contemporary higher education (Lei et al., 2020).

The sacred spark theory and the theory of cumulative advantage provide theoretical foundations for the assumption that there is continuity between past and future research performance (Lindahl, Colliander, & Danell, 2020). In a study involving 152 management researchers, Williamson and Cable (2003) found a positive relationship between the number of publications achieved during doctoral education and in early career. Other studies have found similar results, e.g. Horta and Santos (2016) and Lindahl, Colliander, and Danell (2020).

The literature on early career academics tends to assume that higher education is a homogeneous sector, of which the older, research intensive university is typical. However, Gale (2011) argues that institutions are in fact quite heterogeneous, and attitudes towards research may be quite different in a teaching orientated university. In such institutions, publications may be desirable, but are not necessarily expected of early career academics. Thus, a doctoral student's attitude to publishing may be influenced by the type of university in which they aspire to work. It should also be noted that individuals recognise career success in different ways, for example, by using objective measures such as salary, promotion and position in the organisational hierarchy, or subjective measures such as career satisfaction (Sutherland, 2017).

5. Motives for doctoral publishing

Scholarly publishing may satisfy both the intrinsic and extrinsic motivations of students. Silverman (1982, p. 3) claims, "there are few more gratifying experiences than having one's manuscript accepted for publication by a journal whose readership will appreciate the contribution". Many students enrol in doctoral programmes with aspirations to contribute to the development of individuals and organisations, the greater good in society, and even to support national social and economic development (Bothello & Roulet, 2019). Publishing may be seen as a way that such aspirations can be realised. Students intending to pursue an academic career may perceive that it is important to establish a distinct research identity, and to be known for something in particular (Bothello & Roulet, 2019). Furthermore, research has indicated a positive relationship between the research achievements of doctoral students and their future earnings as early career academics (Marini, 2019).

Students may be motivated to publish because they recognise the self-developmental benefits. Every article intended for publication needs to fulfil a number of basic requirements. For example, it should be interesting; methodologically rigorous; have clearly explained theoretical and practical implications; and be professionally presented. Writing for publication while undertaking a doctorate can enable the student to practice and develop their research and writing skills, and hence can be considered an effective form of active learning that supports their development as an academic (García-Aracil, Monteiro, & Almeida, 2018). Journal articles are generally expected to make a clear contribution to theoretical or conceptual knowledge, which is usually in the form of an incremental contribution to existing knowledge (Wilkins, Neri, & Lean, 2019). Writing for publication forces students to think more carefully about their research contributions and the implications of their findings, which may lead them to writing a higher quality doctoral thesis.

6. Method

As this research is concerned with exploring the attitudes, perceptions, opinions and experiences of academic staff who are responsible for teaching on doctoral programmes and/or supervising/advising doctoral students, an interpretivist, qualitative approach appeared suitable. The data used in the study were obtained from an online questionnaire survey consisting of eleven open-phrased questions. The survey questions were developed by the authors, and designed to address the study's research questions. To establish face and content validity, the draft questionnaire was examined by four professors who each teach in doctoral programmes at a leading doctoral school in the United Arab Emirates. These professors approved the survey instrument and recommended only minor rephrasing of two questions.

Examples of the survey questions include:

- Do you think that doctoral students should publish in peer-reviewed journals? Why/why not?
- What may be the benefits for doctoral students of publishing in peer-reviewed journals?
- What advice do you have for students regarding the choice of journal in which to publish their research?
- What activities may be undertaken by students to improve their chances of success in publishing in peer-reviewed journals?
- How may the taught content in doctoral programmes support students to publish in peer-reviewed journals?
- How may supervisors/advisors support students to publish in peer-reviewed journals?

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The questionnaire was prepared using the Jisc online survey software. A purposive sampling strategy was adopted, to ensure that all survey participants had experience of teaching on a doctoral business/management programme and/or supervising doctoral students in a 'leading' university, i.e. a university that appears in the top 500 of a global ranking, published by QS (QS, 2020) and/or THE (THE, 2020). Participants were identified through institution websites, and the vast majority were not personally known to a member of the research team. Academic staff who appeared suitable for participation in the research were sent an email inviting them to complete the survey questionnaire.

Some 820 invitations were sent, and eventually 54 usable responses were returned, resulting in a usable response rate of 6.6%. The survey participants worked at a global 'top 500' university, in eight different countries: the UK (16); the US (16); the Netherlands (6); Australia (5); Denmark (4); Singapore (4); Malaysia (2); and Canada (1). Invitations were sent to academics in many other countries – such as China (including Hong Kong), France, Germany, Japan, New Zealand and South Africa – but no replies were received from anyone in these countries. Five participants held job roles that are mainly managerial in nature (e.g. Dean), and 32 individuals (59.3% of the total sample) held the position of full/titled/chaired professor. All participants had experience of teaching and/or supervising in a doctoral business/management programme, and over three-quarters of the participants had over ten years of such experience.

To identify when data saturation was achieved, returned questionnaires were examined by the researchers as they arrived. After about 35 responses, the researchers perceived that they were close to data saturation (Saunders et al., 2018), as the observed answers became increasingly similar to those provided by earlier participants. However, to achieve broader discipline and geographical coverage, further responses were encouraged by continuing to send reminders.

The data were analysed using the six-phase procedure suggested by Braun and Clarke (2012), which starts with data familiarisation and generating initial codes, and concludes with defining and naming themes, which leads to production of the results report. This process enabled the researchers to systematically identify and organise patterns of meaning across the data set. Using the research questions as the point of departure in the data analysis, a deductive approach was adopted to code the data and identify themes. Deductive data analysis is less common in qualitative research than inductive approaches, but deductive procedures are often effective in producing a good fit between research questions and identified themes. Thus, deductive approaches may represent an important step in assuring the conviction of research findings (Hyde, 2000).

Coding was undertaken manually, which has the advantage of allowing the researchers to 'get closer to the data' and more easily identify common responses and themes (Wilkins, Neri, & Lean, 2019). After coding, themes were identified, which represented patterns of meaning across the data set. The data analysis was initially led by one member of the research team, but to ensure validity, reliability and agreement on the study's findings and conclusions, the other two researchers also rigorously examined and assessed the proposed themes against the survey transcriptions.

7. Findings and discussion

The headings used in this section correspond directly to the study's research questions. When analysing the data, the researchers identified and coded units of text that each had clear and distinct meaning. These coded pieces of text were then combined into the themes that collectively answer each research question. The nature of the data analysed in this study is such that there were no notable disagreements on data interpretation between the researchers, and thus no issues of inter-

rater reliability. In each section, we first report what our participants told us, and then we try to explain and make sense of the messages received, also reflecting on relevant literature and other sources of information, to richen the discussion.

7.1 The decision to publish, or not

Among our 54 survey participants, *every* individual believes that students should publish in peer-reviewed journals, or at least try to publish in such journals. In particular, it was widely argued that it is imperative for doctoral students who intend to pursue an academic career in higher education to achieve publications before they graduate. Some of our participants mentioned that students on professional doctoral programmes should also publish, but these students may focus on practice-oriented journals or books rather than scholarly peer-reviewed journals.

It is imperative for PhD students to publish, because publications will help them stand out in the job market, particularly insofar as they are aiming to land a tenure track position. PhD students without publications may not be able to compete for such positions. (*Assistant Professor, University of Amsterdam*)

In many institutions, and in several countries, for a PhD student to graduate, the content in their thesis must be deemed by the examiners to be publishable. Some institutions encourage student publications by including preparation of a journal-style article as a coursework requirement, while other institutions make it a requirement for students to publish in order to graduate.

In the UK, a doctorate of any type must be deemed to be publishable in order to pass its examination. Peer-reviewed journals are one outlet to evidence the quality of doctoral research. Whilst it's not a prerequisite, it should be an aspiration for a doctoral candidate. (*Postgraduate Research Coordinator, University of Plymouth*)

In my university, publication in peer-reviewed journals is a requirement. This forces the student to think about doing good research, collecting their data fast – to have something to write about – and it also helps the supervisor in terms of meeting their own publication requirements. (*Associate Professor*, *Universiti Putra Malaysia*)

The vast majority of our survey participants believe that students should be encouraged to publish, but not forced to do so. They recognise that students may have diverse reasons for undertaking a doctorate and that it may not be appropriate for every individual to devote time and effort to publishing. Some institutions encourage student publications by including preparation of a journal-style article as a coursework requirement, while other institutions make it a requirement for students to publish in order to graduate. Globally, there is little consensus on the benefits and drawbacks of making it compulsory for students to publish. Some institutions – particularly in countries with less developed higher education systems, e.g. the United Arab Emirates – are known to be considering making publishing a mandatory requirement for graduation, while others are abandoning such requirements.

In India, until 2019, a national policy required all PhD students to publish at least one article in a peer-reviewed journal and present two papers at conferences or seminars before they submit

their doctoral thesis for assessment. However, in October 2019, it was announced by the Indian University Grants Commission, that all publishing requirements for PhD students would end, because compulsory publishing was simply resulting in many bogus publications, which brought down the overall quality of PhDs in the country (D'Souza, 2019).

It was acknowledged by our research participants that even if a student wants to publish, he/she may face a number of barriers that prevent them from doing so. Early in their doctoral programme, students will generally not have the knowledge, skills or experience to publish in reputable peer-reviewed journals. They may have insufficient time to write and prepare manuscripts for publication due to programme coursework requirements or personal work/family circumstances. Their institution may not provide access to the necessary literature and resources, for example because the institution does not subscribe to particular databases or software. Some of the institutions in which our participants work offer relatively few research seminars and developmental workshops for students, and some schools do not fund international conference attendance. A number of our survey participants concluded that students who lack support, resources and development activities may find it difficult to publish in scholarly journals, which may then hinder their career advancement as academics.

7.2 Benefits for students of publishing

As its theoretical frame, it was assumed in this study that the purpose of the doctorate aligns with the Humboldtian tradition of primarily preparing students for an academic career in a research university. The survey participants appear to also share this assumption. Preparation for an academic career and/or gaining a competitive advantage in the labour market were the benefits of publishing mentioned most often by the survey participants. It was recognised that in higher education it is important for individuals to disseminate and promote their own research, in order to become recognised and well-known as an expert on a particular topic.

> If they want an academic job, students need to publish in peer-reviewed journals. It also helps them to participate in an academic 'conversation', which helps them to build their identity as scholars and become part of the academic community. Publishing in peer-reviewed journals helps students to develop a core skill that they will need to build a successful academic career. (*Professor, University of Cambridge*)

Many of our survey participants observed that it can be highly rewarding for individuals to have articles published in peer-reviewed journals, particularly when reviewers, peers and superiors – or even examiners and supervisors – recognise and acknowledge the intellectual contributions they provide. Initial publishing successes, even in lower status journals, may be a spur to their professional development, helping to build their confidence and motivating them to write more and even better papers. Also, many participants noted that submitting papers to peer-reviewed journals may be a relatively easy and effective way to gain feedback and suggestions that may improve not only the submitted article, but also the student's doctoral thesis.

The skill set needed to publish in high quality journals generally takes a long time to develop, and therefore the earlier in their career that an individual can develop these skills through active engagement in the publishing process, the more likely they will enjoy both publishing and career successes. Our survey participants argued that students who write for publication gain practice in planning and conducting a research study; literature searching and conceptual model development;

data collection and analysis; and developing their academic writing style. It is important that students learn how to effectively convince both their doctoral examiners and journal editors/reviewers of the originality and contributions of their research.

> Publishing is a means by which a student may receive objective feedback; learn about the peer review process; and signal to potential employers that they will be productive. (*Professor, Yale University*)

7.3 Drawbacks for students of publishing

Of the 54 survey participants, 11 did not, or could not, identify any drawbacks for students of attempting to publish that substantially outweigh the potential benefits of doing so. The main possible drawbacks for students of attempting to publish mentioned by the survey participants are:
- the student may put too much pressure on themselves, particularly if they have other study requirements or work/family commitments
- the time spent on publishing may distract students from working on their thesis
- attempting to publish before they have the necessary writing skills and experience, or indeed the necessary data, is more likely to lead to article rejection
- article rejection can be very disheartening, which may have negative effects on a student's confidence and motivation
- the article review (and revision) process is so lengthy that it is actually very difficult for students to achieve a publication, or even a paper acceptance, before their thesis is submitted
- students may waste their idea or work by rushing to publish in a low-ranked journal rather than further developing their research and then submitting to a high-ranked journal

> Publishing is always a balancing act, in terms of time taken away from work on the thesis. There can be setbacks in confidence with rejections. There can be pressures from supervisors for students to publish, so as to raise the supervisor's own status and publication record. (*Associate Professor, Macquarie University*)

7.4 The 3Ws of academic publishing

7.4.1 What to publish

Students who want to publish in a peer-reviewed journal may prepare one of three types of manuscript: a conceptual paper, a literature review or an empirical research article, which includes obtained data and data analysis. Alternatively, students may consider writing seminar or conference papers, or book chapters, particularly in the early stages of their doctoral programme. Several of the survey participants mentioned that a good strategy for students may be to produce seminar and/or conference papers in the first and second years of their doctoral programme, before writing for journals in subsequent years. This approach allows students to develop their writing skills and it may be an effective way to obtain feedback, which enables students to improve both their research paper(s) and their doctoral thesis. In addition, in the early years of the doctoral process, students may join their supervisors as research assistants and/or junior co-authors in the supervisors' own research projects.

At seminars and doctoral colloquia, students may present their doctoral research proposal or quite undeveloped ideas for future research. Some of our participants noted that feedback gained at such events can help students to develop their research and writing skills. Mid-way through the doctoral process, it may be practical for students to attempt writing an article for a lower-ranked journal, particularly if the article can be regarded as a complete, self-contained piece of research. If sufficient data is collected, such articles can, for example, be based on a pilot study. Some of the survey participants argued that every doctoral thesis should be converted into a peer-reviewed journal article. In most institutions, and in most countries, it is generally expected that supervisors are included as authors for journal articles that are based on a doctoral thesis. The student is usually named as the first author.

There was a lack of consensus among our survey participants about the suitability of submitting literature reviews for publication. Some participants saw literature reviews as a natural output that may be suitable for publication in lower-ranked journals, while other participants perceived attempts to publish literature reviews as wasted effort. It was mentioned by some participants that doctoral students rarely have sufficient experience and expertise to publish a high quality review. Nowadays, literature reviews are often found in specialised review journals, and such journals attract the work of experts, who are highly knowledgeable and experienced in their field of study, rather than researchers who are new to the field. The participants also agreed that unless a student has a highly original and convincing idea, it is unlikely that they will be successful in publishing a conceptual paper, which needs to make a substantial theoretical contribution. Some of our participants suggested that students following professional doctorate programmes should focus on producing practice-oriented articles, which have practical implications for individuals, organisations or policy makers. Such articles should discuss, analyse and promote new ideas and practices.

> Students may have several opportunities to publish. They may try to write a literature review paper in the first or second year, or, once they have some data, a paper based on their pilot study. For mixed methods studies, it may be possible to publish a qualitative paper first and then a quantitative, or vice versa. (*Associate Professor, University of Southampton*)

7.4.2 When to publish

For doctoral students intending to pursue an academic career in a research-oriented university, our survey participants generally believe that it is usually beneficial to start publishing as early as possible in the doctoral process. From year 1 in their programme, students may take on additional writing projects that are not directly related to their thesis. Publishing enables students to obtain valuable feedback, develop their writing skills, and it signals to possible future employers their potential as researchers.

> Students should publish as soon as possible once they have a publishable paper. Having more papers accepted in journals, or even in review at journals, is critical for getting a job in academia. There is no reason to postpone anyway. Publishing takes a long time from first to final submission, so the sooner the better. (*Professor, Erasmus University Rotterdam*)

Some of our survey participants recognised that in years 1 and 2 of their doctoral programme, students lack the skills, experience, data and research findings that will allow them to write a paper

for a journal. Therefore, in the early stages of the doctoral process, it may be more appropriate for students to present papers at seminars and conferences, including doctoral colloquia, as these events are more likely to consider research proposals, literature reviews and undeveloped conceptual papers.

> Ideally, students should publish before their final thesis submission, but following the collection of data. My reasoning for this is that it is often very difficult to publish literature-based or conceptual work at the early stages of one's career, therefore waiting until the completion of data collection would seem to be the right time to write a journal article. (*Senior Lecturer, University of Exeter*)

7.4.3 Where to publish

> Publishing in a journal is like entering a conversation with the reviewers and readers of that journal. Students should determine who they want to talk to and who they want to know about their work. They should consider the chances of success in the review process and the likelihood of gaining valuable feedback from the reviewers, even if the paper is rejected. How urgently the student needs an acceptance will also affect the choice of journal, as review turnaround times vary from a few weeks to a year. (*Professor, Massachusetts Institute of Technology*)

Students may disseminate their research outputs in a variety of outlets, which may each have a different audience, chance of acceptance, timeline from submission to presentation/publication, and opportunity to gain reviewer and/or participant feedback. Students may publish seminar papers, conference papers (including for doctoral colloquia), book chapters, policy reports, practice-oriented journal articles and scholarly peer-reviewed journal articles. However, many of our survey participants noted that it is peer-reviewed journal articles – and particularly articles published in top-tier or 'A' journals – that represent the currency often needed to secure a full-time academic position.

Top-tier or 'A' journals may be recognised by a number of characteristics: they will be the journals where chaired and distinguished professors prefer to publish; they will have the highest impact factors (average citation rates); they will have the highest rejection rates; and they are more likely to be associated with the most prestigious scholarly societies. In many disciplines, there is no single source that can identify for students and supervisors the journals typically regarded as belonging to the 'A' category. When deciding where to submit a paper, many researchers consider journal impact factors, i.e. citation levels.

There was a lack of consensus among our participants as to whether students should always aim high from the outset, and submit their work to the most prestigious journals, or whether they should first target more modest journals.

> Students should try to publish in the top journal in their field and then step down to a lower journal if there are insurmountable barriers. Writing an ok paper takes nearly as much time as writing a good paper, but the payoffs are very different. Students should not attempt to target a top journal outside their field, as they will be wasting their time. They will not have the necessary experience, and the paper may not count for tenure anyway. (*Professor, University of Pennsylvania*)

> Students should start with a second-tier journal, to get some practice. Once they have some success at this level, they can try for a top-tier journal. (*Professor, Yale University*)

Many business schools assess the quality of the research published by both academic staff and students according to the perceived quality of the journal in which it is published. This is reflected by the fact that over one third of our participants mentioned journal rankings or journal lists as a factor to consider when deciding where to submit papers. A study by Wilkins and Huisman (2015), involving an international sample of higher education researchers, found that over two-thirds had used or referred to a journal ranking during the previous 12 months.

The most prestigious and recognised impact factor measure is published by Clarivate Analytics/Web of Science Group (WOS), which publishes its Journal Citation Reports in June of each year. The Social Sciences Citation Index (SSCI) is the index that tracks the citations of business and management journals. If a journal's website uses the terms 'Impact factor' or 'JCR impact factor', it is likely referring to Clarivate's impact factor, which is based on average citations gained over a two-year period. Impact factor scores vary across subject disciplines, so researchers generally only compare journals within the same field.

An alternative to Clarivate's impact factor is Elsevier's CiteScore impact factor. This counts citations for a journal over a four-year period, resulting in CiteScore values being higher than the corresponding Clarivate/JCR scores. The Scimago Journal Ranking is another journal list that is popular in universities worldwide. The ranking categorises journals into four quartiles. Research intensive universities generally expect researchers to publish in the top quartile journals.

In the UK, virtually every research-intensive business school uses the Chartered Association of Business Schools (CABS) Academic Journal Guide to make appointment, promotion and reward decisions. In Australia, the equivalent ranking is the Australian Business Deans Council (ABDC) Journal Quality List. Nowadays, most countries have some kind of research assessment scheme that evaluates the research performance of academic researchers and universities. A study by Rowlings and Wright (2019) found that national research assessment schemes have considerable influence on the publishing practices of doctoral students.

> Students should be advised to publish in good academic journals. They should not focus on journals that are below 3 in the CABS list. (*Professor, University of Leeds*)

Although it is common for business schools worldwide to force or encourage researchers to publish only in journals at particular levels in specified lists/rankings, there has been much criticism of such lists/rankings in the scholarly and practitioner literatures (Willmott, 2011). However, our participants observed that in countries with competitive higher education labour markets – such as the US and UK – it may be necessary for doctoral graduates to achieve publications in 'A' journals in order to secure a full-time academic position. There were only a few participants who made negative comments about journal lists/rankings.

> Academia should be more experimental and allow different ways to create knowledge. In the past, many people published books, and many still do. Increasingly, people publish in journals. But we all know that this has downsides. We should stop discussing where people publish, and instead focus on WHAT they actually discuss in their work. It should be the committee and not some obscure journal lists that decide whether a PhD is valuable or not. Some journal lists,

especially FT [Financial Times] and CABS, are too conservative to allow experimental ways of knowledge creation. (*Associate Professor, Copenhagen Business School*)

Of the few participants who offered a comment specifically for professional doctorate students, it was generally advised that these students may focus on submitting their research papers to practice-oriented journals. Students should consider who their target audience is and which journal will best reach this group or category of people. As with the scholarly peer-reviewed journals, there is a hierarchy of status and prestige among practice-oriented journals. Some participants recommended that all students should be warned about predatory journals, i.e., journals that charge a publication fee and which do not have proper peer-review. Publications in these journals is often not recognised by employers.

7.5 Student self-development

Our participants unanimously argued that if students want to achieve publishing success, they need to enhance their knowledge, skills and experience. If their programme has taught courses, students should conscientiously attend every lecture, seminar and workshop that is scheduled. However, much learning will be active and self-directed in nature. Students should read as much as possible; share their ideas and work-in-progress, to gain feedback from others whenever possible; and seek to constantly improve their writing style. It was recognised by some participants that peer learning can be effective in supporting knowledge and skills development in doctoral education, a fact also acknowledged by Meschitti (2019). Participants recommended that students should regularly look for self-developmental opportunities, both in their institution and externally, for example, by attending conferences.

Students may attend research method training sessions, academic writing training sessions and international conferences. Students should collaborate with external experts, and they may undertake a period of exchange at another university. (*Chaired Professor, University of Liverpool*)

Early in the doctoral process, students will recognise that publishing in top-tier journals is difficult for everyone, academics as well as students. A number of our participants suggested that students must learn to accept and welcome constructive criticism from reviewers, and recognise that in responding to such criticism they will become better researchers. They must also accept that as most leading journals have acceptance rates of less than ten per cent, reject decisions are always going to be the most likely outcome. Thus, students must learn to be resilient, and use the feedback that accompanies reject decisions to further learn and develop.

Learning how to publish is part of a student's training, as is coping with rejection and responding to reviewer comments. (*Professor, Macquarie University*)

Writing for scholarly publication may be regarded as a game, and many of our participants claimed that it is important for students to understand the rules of the game as quickly as possible. To enjoy rapid career progression in academia, students and early career researchers must play the 'game', even if national research assessment schemes (Grisorio & Prota, 2019; Watermeyer & Chubb, 2019) and journal rankings (Willmott, 2011) have serious flaws. Students need to

recognise that they are unlikely to achieve publishing success in good journals writing as sole authors. They will learn more, gain more experience, and have a better chance of accept decisions from journal editors and reviewers, if they submit papers coauthored with their supervisors. Our participants unanimously agreed that supervisors/advisors are more interested in publishing with students who are creative, hardworking and conscientious.

> Lack of training and guidance is often a problem for students. Students can overcome this by carefully picking their advisor and by reaching out to colleagues who have successfully published in good journals. (*Associate Dean, Cornell University*)

7.6 Institution and programme support for students

Our participants unanimously agreed that it is the responsibility of institutions to create a research culture that encourages and supports students and academic staff to collaborate and publish in order to support students' professional development. Both students and staff require resources to facilitate effective and successful research that results in journal publications. Students need to develop knowledge, skills and experience to achieve publishing and career success, and institutions must determine the best mode of delivery, e.g. formal certificated modules, ad hoc seminars and workshops, or opportunities for active learning. Supervisors must be given enough time to work and write with students, and students need to be supported in attending conferences and external seminars/workshops, for skills development and networking. A process is needed by which students can share their ideas and obtain feedback from peers and academic staff.

> The role of publishing in the profession should be explained to students. Schools should encourage co-authorship, provide opportunities for sharing papers in development, and provide resources when required. (*Professor, National University of Singapore*)

> Institutions should teach the right classes, both topical and methods. Students should be encouraged to learn the practice/craft of research. Schools need resources for students, for example to pay for travel to conferences, and to access subjects and databases. (*Professor, Massachusetts Institute of Technology*)

The survey participants suggested that taught programmes and workshops may include topics such as developing research proposals and research questions; writing literature reviews; how to make a theoretical contribution; how to determine the most appropriate method; and improving writing technique. It was also suggested that students may write better papers if they actively practice both writing and reviewing papers.

> Programmes may offer courses on theory development, writing, and navigating the publishing system. I suspect that of these, courses on how to write more effectively are the most useful. By teaching students to be more precise and concise in how they express ideas, we may help them to sharpen their own thoughts, which may then lead to improvements in theory development and more effective handling of reviewer replies. (*Associate Professor, Erasmus University Rotterdam*)

> Critiquing journal articles should be a core part of any doctoral programme, as of course is relevant training in theory and methods. I do an exercise where I get one of my papers, or that of a colleague, and ask students to write a review of it, i.e., to take the role of a reviewer. Then, I share the actual reviews and the next version of the paper. (*Professor, University of Cambridge*)

7.7 Supervisor/advisor support for students

> Students do not know the rules of the publishing game, and need someone more senior and more experienced to help out. (*Professor, Swansea University*)

All of our survey participants appeared to agree that supervisors/advisors should guide students in every stage of the publishing process, including providing advice and support on the 3Ws of academic publishing, i.e., on *what* to publish, *when* to publish, and *where* to publish. Supervisors need to act as mentors, fulfilling students' basic psychological needs for autonomy, competence and relatedness (Janssen, Vuuren, & Jong, 2020). However, it was also argued that students should be proactive and seek advice, guidance and support from their supervisors whenever it is needed, and supervisors should freely offer such support, acting as career mentors alongside their supervisory role. It was mentioned by some participants that students who actively interact with their supervisors are likely to feel better prepared for future research oriented job activities, a fact also argued by Mello, Fleisher, and Woehr (2015).

Our survey participants unanimously agreed that students and academic staff should share the responsibility to motivate and encourage each other to collaborate on the writing of journal papers. Supervisors should participate in the writing of papers, and not just assume an advisory role. Both students and staff should avoid trying to publish in journals outside their core disciplines. A number of our participants, particularly those holding management roles, suggested that academic staff who assume the role of doctoral supervisor should stay research active themselves, and ensure that they have publications in the journals that they recommend to students.

> Supervisors can help in all stages of the publishing process, for example, helping select the appropriate parts of the thesis to publish; in the writing and framing of the work; reviewing the articles before submission; helping choose the target journals; and helping students through the journal review process and corrections, as well as dealing with rejection. (*Associate Professor, Macquarie University*)

> From year one, students should start as very junior co-authors on papers that other experienced authors are working on. Taking on a small but defined task allows the student to contribute meaningfully without actually being a first author equivalence. Later, in year 2, students should take equal ownership. This means that by year 3, when the student works on their single (or first) author 'job market' paper, they have experience with submission and review processes. (*Professor, Copenhagen Business School*)

8. Conclusion

The aim of this research was to discover the views, practices and advice of experienced doctoral educators on how doctoral students may be encouraged and supported to write for

publication, in order to promote their development as future academics. In doing so, the research identified the ways in which institutions and supervisors can better support students to achieve peer-reviewed journal publications. Our first research question asks whether or not doctoral students should aim to publish. Although there is a common belief among the survey participants that students have a moral responsibility to disseminate their research findings, it is particularly important for students who intend to pursue an academic career in higher education to do so.

To prepare doctoral students for an academic career in higher education, our study participants suggest that both institutions and supervisors have a shared duty to equip students with the knowledge and skills that will enable them to become successful researchers, capable of publishing in the leading journals in their field. In addition, it is believed that both PhD and professional doctorate students should be encouraged and supported to publish. Professional doctorate students have considerable potential to contribute to the research impact agenda that has become popular in many countries.

The second research question is concerned with the possible benefits and drawbacks for students of publishing in peer-reviewed journals. Although the survey participants identified a range of possible drawbacks of publishing, these did not substantially outweigh the potential benefits. Preparation for an academic career and/or gaining a competitive advantage in the labour market are the benefits of publishing mentioned most often by the participants. Most individuals need substantial amounts of practice before the quality of their work improves to the extent that their papers are accepted by the leading scholarly journals, and therefore the more students write, the more likely their papers will improve in quality over time. Achieving publications, even in lower status journals, may be highly satisfying and rewarding for students, which may support their professional development and motivate them to write more and even better papers.

The developmental benefits of doctoral publishing should not be underestimated. As active learners, students may become better researchers when they publish, because the demands and expectations of journal editors and reviewers may be greater than those of the doctoral programme. Writing for publication may force students to think more about the originality and contributions of their research, and all aspects of the research process, from developing sound research questions, to conducting a comprehensive and critical literature review, to effectively collecting and analysing data. In response to editor and reviewer comments, and through practice, students may improve the clarity of their writing and the quality of their reasoning.

Research questions 3, 4 and 5 are concerned with the 3Ws of publishing. The general advice of the participants is that in years 1 and 2 of their doctoral programme, students may focus on presenting seminar and conference papers, perhaps based on their research proposal, literature review or conceptual ideas. In these years, students should also join their supervisors in the supervisors' own research projects, as research assistants/supporting authors. Once data for the student's doctoral research has been collected and analysed, students should consider disseminating the findings via journal articles. To enjoy the self-developmental benefits of publishing, students should try to publish during their period of study. To be pragmatic, some participants suggest that students should try to publish as soon as they have written anything that is likely to be publishable and of interest to journal readers, editors and reviewers.

There is a lack of consensus on whether students should initially target 'A' journals (always aim high/for the top) or to start with second-tier journals (learn to walk before you try to run). Some participants observed that students were likely to gain superior feedback from 'A' journals, which may help the student improve both their paper and doctoral thesis, while other participants argue that the early work of students is not usually of the standard expected by top journals, and

receiving reject decisions may be disappointing and demotivating. It was agreed by the participants that students aiming to pursue an academic career should try to publish in 'A' journals as quickly as possible.

Research question 6 is concerned with the actions that students can take to promote their own development as researchers. Students will benefit from being organised from the first day of their doctoral programme. Whenever possible, students should select a topic/subject specialism for their research, and stick with it. Students should also set themselves publishing goals, and should avoid publishing outside their chosen discipline. Students should accept every developmental opportunity offered to them, whether it is serving as a research assistant for one of their supervisor's research projects, presenting at a seminar or conference (particularly doctoral colloquia in years 1 and 2 of the doctoral programme), or attending a workshop to develop particular skills, e.g. learning how to use a particular software for data analysis. Volunteering as a reviewer for conferences and journals is a good way for students to stay up-to-date with the latest research; develop their analytical and critiquing skills; and enhance their curriculum vitae.

Students should seek advice and guidance on every stage of the publishing process, from their supervisors, other academic staff, peers, and external academics. Networking with peers and academics at other institutions – e.g. at conferences – can offer benefits such as gaining new insights and knowledge, and establishing contacts for future research collaborations. Students should ensure that every paper they write is interesting; original; theoretically sound; methodologically rigorous; and professionally presented, and that it offers both theoretical and practical contributions. It is generally advisable for students to check journal impact factors and ranking/rating positions when choosing where to submit their manuscript. Finally, if a journal editor invites the revision of a manuscript, a student should, whenever possible, always do what the reviewers ask, otherwise they risk a final reject decision. They should also consider any additional guidance offered by the editor. Effective time management is an important requirement of any doctoral student. Although having an article published is a great achievement and is likely to be highly satisfying for the student, it is important that publishing does not become an obsession or distraction that is achieved at the expense of progress with taught courses or writing the thesis.

The final two research questions are concerned with how students' development may be supported by institutions, programmes and supervisors/advisors through publishing in peer-reviewed journals. The survey participants agree that institutions need to create the vision and research culture that encourages doctoral publishing, as well as student-academic staff collaborations. Institutions should consider including publishing as a topic in any taught elements of doctoral programmes, and ensure that students receive advice, guidance and practice in journal-style manuscript writing and reviewing. To enable students to develop themselves as researchers and undertake high quality research, institutions must provide the necessary resources – such as access to databases and software – and fund attendance at external seminars, workshops and conferences. It is important that mechanisms exist through which students can get feedback from peers and academic staff on their ideas and work-in-progress. Institutions should encourage and support academic staff development, and recognise/reward publications coauthored with students.

As soon as students enter the doctoral programme, supervisors should socialise them into the world of scholarly publishing, so that students understand the requirements and expectations of journals and institutions. Supervisors need to support, guide and mentor students in every stage of the publication process, from determining research questions and creating theoretical/conceptual frameworks, to advising on literature/information sources and methodological issues, to

manuscript preparation and submission. To lead by example, supervisors should remain research active, and constantly update their own knowledge and skills.

Student-supervisor collaborations can be extremely valuable for students, to develop their knowledge and skills, and gain practice in scholarly writing and the publishing process. As an effective introduction to writing for publication, supervisors may allocate students roles in their own research projects, as the students will not then have to worry about research questions, issues of originality, or the method. Supervisors need to assume a broad learning support role, which addresses individual student development needs, as well as the achievement of thesis and publishing goals. Being the friendly critic, and providing both face-to-face and written feedback, may motivate and support students to produce the highest quality work possible (Schillings, Roebertsen, Savelberg, & Dolmans, 2018). It is important that supervisors always make themselves available to students, to discuss the student's ideas and to review their work. Students are more likely to stay 'on track' with their writing when their supervisors schedule regular review meetings.

This research is not without limitations. Although our purposive sampling strategy enabled us to obtain survey responses from 54 academic staff who have experience of teaching and/or supervising/advising in doctoral programmes, the findings discussed in this paper are a summary only of the attitudes, opinions and experiences of these 54 individuals, which may not be generalisable across students, staff, programmes and institutions globally. Furthermore, our participants were employed in business/managements schools, and although their subject specialisms cover a broad spectrum of the social sciences – from sociology, politics and organisational behaviour to accounting, entrepreneurship and information systems – publishing in the natural sciences or engineering may be somewhat different.

Students may have diverse motivations for enrolling in a doctoral programme, so it may have been inappropriate for us to use the Humboldtian ideal as the theoretical frame for the research, as many doctoral students do not intend to definitely pursue an academic career. As the survey participants generated several hundred comments, it was impossible for us to include every suggestion and reflect every opinion, but we aimed to report the most significant areas of consensus and disagreement. Thus, we hope that the findings of the research provide useful insights and recommendations that can be implemented by students, supervisors and institutions. However, students should recognise that higher education systems, markets and cultures vary across countries, and therefore what may be good advice in one country may not necessarily hold in another.

Acknowledgement

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