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## Confronting Yourself: Reflections on Academic Publication in Doctoral Study

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### Abstract

Scholarly publication is a leading requirement for the Doctor of Philosophy (PhD) program. Publishing articles, therefore, has become an appealing expectation for early-stage doctoral researchers (ESDRs). However, little has been done to address the dynamic relationship between the PhD and the academic publication system. The purpose of this study is to understand the intricately intertwined structures of PhD study and to explore the challenges related to scholarly publication. A group discussion method was deployed for data collection by recruiting international ESDRs (n=15) from three different countries. Primary results indicate that common anxiety is associated with the requirement to publish in high impact factor journals as well as the publication process. Quality supervision is recognized as inevitable to improve a mentor-mentee relationship and was found helpful in reducing the barriers to scientific publication. Moreover, the dominant structural factors of PhD study determine the ESDRs' decision-making. The study suggests that the PhD study should remain research-intensive rather than simply for the sake of obtaining a higher qualification.

**Key word:** *Doctoral study, early stage researcher, journal impact factor, publication*

### Introduction

Scholarly publication is a way that gives the opportunity for researchers working for the degree of Doctor of Philosophy (PhD) to disseminate their research outcomes to the wider community. The rate of research outcome has been found to

increase within the academic hierarchy, where people in lower academic positions tend to publish fewer publications per year (see e.g. Abramo et al., 2011, Aksnes et al., 2011). In other words, publication usually carries deterministic impacts on PhD education regardless of disciplines (Robins & Kanowski, 2008). The impacts are often derived from the program evaluation, directed toward some common categorization such as where the article is published, the journal ranking, the journal impact factor etc. (Aiken et al., 1990). Although the scientific impact of a research output is considered a major concern for researchers, basic questions about the relationship between publication quality and quantity remain uncertain (Haslam & Laham, 2010). In fact, it creates additional two-fold appealing expectations for the early-stage doctoral researcher (ESDR); namely, to publish research outcomes in a topnotch journal, and to give preference to quantity over quality of the research outcome (Norton & Cherastidham, 2016). In this study, we defined the aim of the ESDR as to “[create] the new ideas and knowledge upon which future educational activities can be built, sustained and nourished” (Davis, Evans, & Hickey, 2006, p. 236).

Publication in international journals has become a conspicuous prerequisite to PhD graduation (Huang, 2010). Hence, the PhD program is an avenue that allows an ESDR to grow both professionally and intellectually (Zygouris-Coe & Roberts, 2019). However, there are ambiguities surrounding the contemporary purpose of PhD education (Mowbray & Halse, 2010). What is missing is clear-cut empirical evidence on disentangling the complex relationship between the scholarly publication process and PhD education from the perspective of ESDRs. Therefore, our concern is with the ambiguities about the purpose of the PhD, entangled in scholarly publications.

## **Understanding PhD Education and Scholarly Publication**

Winter and colleagues (2000) conceptualized the doctoral monograph writing and article-based thesis in a comprehensive way by integrating four characteristics namely- a report which others would want to read; a compelling story with inevitable critiques; a work which will carry the reader into complex realms; a work sufficiently speculative and original that it will command respectful peer attention. A PhD degree (similar terms such as DPhil, D.Lit, D.Sc, LL.D, Doctorate) contains a moral value which can be considered rather as ‘diligence’ than ‘intelligence’. Moreover, the PhD is signified differently with respect to inquisitiveness, creativity, discipline, persistence, perseverance, and meticulousness. The key purpose of a PhD

education- as a field of academic research- is to extend the boundary of knowledge (Dowling et al., 2012). The successful accomplishment of a PhD degree is supposed to be a little bit more than merely adding two letters (Dr) or three letters (Ph.D) as prefix or suffix to an individual's name. According to Zygoris-Coe and Roberts (2019), the degree eventually serves as certification of the expertise of the individual in a particular field of research that is challenging, as well as life-changing.

Scholarly publication is a specific way of presenting research output that is distinguishable from other forms of publication by its transparency (Hyland, 2016). Today's article-based PhD is rooted in the systematic growth of the scholarly community that was formulated in the mid-17<sup>th</sup> century (Vekkaila et al., 2012). The fundamental objective of the community was to produce advanced scientific knowledge and to avoid duplication of research outcomes. A fully peer-reviewed journal article was circulated by the Royal Society of Edinburgh, under the name of Medical Essays and Observations in 1731 (Merton, 1963). However, the peer-review system was not exactly like today's version that has been intervened by technological advancement. The current breakneck speed of modern technology gives academics access to choose an electronic platform for faster and better communication with research communities. As a point of departure, in 1990, the first online publication system was launched, known as open access (Harnad et al., 2004). This digital platform reduced typesetting costs for publication houses on the bright side but created some other pertinent complexities.

Academic or scholarly publication throughout the PhD study represents greater research productivity and is becoming one of the dominating factors in the professional lives and career opportunities of academics across the globe (Kehm, 2015; Hyland, 2016). Consequently, a new tenet of doctoral study has emerged with the rising demand for scientific publications (Powell, 2004). The OECD (2014) reported that recipients of doctorate degrees have increased both at national and international levels, however, the candidates have commonly been encountering challenges, shown in the variation in the dimension of publication across countries and disciplines. Moreover, this publication trend has been criticized as 'unclear contribution by the PhD candidate' (Sharmini, Spronken-Smith, Golding, & Harland, 2015, p. 95).

## **The Research Objectives**

The current study was an attempt to investigate the intricately intertwined structures between the PhD study program and challenges related to scholarly publication. Thus, the formulated research objectives were:

- (a) to explore the ESDR's experiences and perceptions in relation to scholarly publication;
- (b) if and how the doctoral program has lost its educational purpose due to the overwhelming pressure for publication.

## **Methodology**

### **Study Design**

The study adhered to a cross-sectional qualitative design, using the method of group discussion. Group discussion, like a normal conversation, contributes to understanding the participant's everyday experiences and interaction among peers (Tuckett & Stewart, 2004). This approach is used to gain an in-depth understanding of the selected research area. The purpose of using a group discussion tool was to obtain data from a purposely selected group of individuals and to understand how they interacted with the phenomenon.

### **Participants**

Participants were recruited from three different institutions and countries and were contacted prior to organizing the discussion session. All participants were fully informed about the purpose of the study and the how the data would be reported. The inclusion criteria of study participants were that they should be doctoral students who are currently pursuing their degree, who agreed to participate voluntarily and who have experience in the phenomenon (Table 1). Across the 15 participants, the majority were non-native English speakers.

**Table 1.** Demographics of participants

Participants	Region	Year of education	Sex
ESDR (n=15)	Sweden (n=5); Japan (n=4); Australia (n=6)	1 <sup>st</sup> year (n=9), 2 <sup>nd</sup> year (n=4), 3 <sup>rd</sup> year (n=2)	Male (n=9); 60%, Female (n=6); 40%

### **Data Collection**

A group discussion guide was developed based on existing literature to facilitate the conversation. The discussion guide put a spotlight on five key features that enabled the discussion sessions to be interactive (Table 2). Extensive field notes- an accurate description of what is observed which comprises jotting notes and obser-

vations- were the primary means of capturing data (Mulhall, 2003). Documentary sources were synthesized along with field data. Two face-to-face (one in Sweden, one in Japan) and one online group discussion were arranged from October 2018 to March 2019.

**Table 2.** Data sources and Discussion guide

Data Collection Method	Data Sources	Key features of discussion guide
Group Discussion	PhD forum discussion, informal conversations with PhD students, International Conferences, Seminars, and Workshops	1. What are people doing? What are they trying to express? 2. How exactly do they respond? 3. How do people characterise and understand what is going on?
Written documents (both printed and electronic)	Newspapers, Magazines, Evidence-based research articles, Websites, and Annual reports	4. What are the emotional stances? 5. What do I see going on here? What did I learn from the conversation?

### Data Analysis

The commonly adopted data analysis method- thematic analysis- was adhered to for encoding qualitative data. Further, a data-driven approach was followed, where the data drives the selection of codes and themes (Braun & Clarke, 2006). The potential texts were coded to identify patterns with similar meanings and to determine the associations between them. Data trustworthiness was maintained by following the criteria recommended by Graneheim and Lundman (2004).

### Results

This exploratory study contributes to the existing literature on scholarly publications in two important ways. Firstly, the cross-national nature of the study is a unique investigation of international doctoral students pursuing degrees abroad. Secondly, the emic (insider) perspective (Merriam, 2009) explores the growing pressure to publish scholarly work. The study results are framed in four themes: (1) challenges related to the scholarly publication process; (2) challenges related to authorship and journal impact factor; (3) challenges related to quality and quantity; (4) challenges related to supervision.

#### (1) Challenges related to scholarly publication process

Overwhelming the article submission procedure was of prime concern. ESDRs have found manuscript writing, as well as the submission process, daunting and tiresome. An ESDR shared experience and stated,

*Article submission process is so much time consuming especially when you get rejection. Formatting the manuscript following every journal's author instruction is difficult. For example, one will ask for 300 word abstract, other required 150 words.*

The word limitation of the manuscript was also referred to by the ESDRs. According to ESDRs,

*As an early-stage researcher, our writing is not yet condensed like the expert writers. Thus, we experience difficulties to maintain the word limits.*

Putting importance on the language barrier, an ESDR said,

*Since English is not my first language, I had to invest more time than needed.*

## (2) Challenges related to authorship and journal impact factor

The difficulties related to authorship, work recognition, and the sequence of authors often evolved around who will be the first author, corresponding author, or senior author. ESDRs expressed the following concern,

*Senior and experienced researchers (e.g. supervisors, fellows from the collaborating institution) take advantage of reporting research outcomes due to having the ability to [make] the best possible presentation.*

With respect to the journal selection, some institutions have specific principles. The value of the manuscript is regulated, and even determined, by the journal impact factor. ESDRs stated,

*In my institution, we are not allowed to published an article in a journal below a pre-scribed impact factor for the successful accomplishment of the degree.*

## (3) Challenges related to quality and quantity

When asked which (quality or quantity) should be prioritized in dissemination of their research outcome, a group of ESDRs debated several arguments to find the right answer. One group preferred to maximize the number of publications, whereas others criticized this overtly. According to them,

*The bindings [i.e. requirements] of a specific number of publications can be helpful to maximize the quantity, however, a piece of research outcome can be impactful if it has merit, potential and is exciting.*

Along with this dilemma, the study design has an impact on the speed of publication. An ESDR stated,

*Research with the qualitative design always takes a longer time than a paper with quantitative data.*

Besides, different supervisors have different approaches and these are influenced by disciplinary practices. According to an ESDR,

*My supervisor does not ask me to produce any specific number of articles. Rather, [s/he] suggests me to produce good quality research output.*

#### (4) Challenges related to supervision

Dubious instruction from supervisors emerged as an issue while addressing the importance of quality supervision. An ESDR stated,

*I feel that the supervisors, as an expert, are the resources who can disseminate exemplary articles so that we can engage in and build a strong grounding.*

Importance of straightforward instructions from supervisors was mentioned by several ESDRs with comments such as,

*I am not fully aware of, or familiar with, the current trend in my research area. Simple and direct instructions of the supervisors can make the task easier.*

In most cases, the ESDRs have more than one supervisor they need to mediate with. There was widespread agreement across the groups about the common dilemma mentioned as,

*Different views, comments, and advice on the same issue from the supervisors create difficulties and hinder the cooperation process.*

## **Discussion**

The primary finding of the present study demonstrates some influential factors related to scholarly publication in PhD study programs and the impact this has on ESDRs perspectives of it. The issue is not that the mechanism of the current article-based PhD program pushes ESDR's attention towards publications. The main argument is that an evaluation process based on scholarly publications cannot be the only determiner to judge, or measure, the potential of a researcher. This corresponds to the findings of a previous study (Davies & Rolfe, 2009), where the authors claimed that if education is considered an inherently social or learning process, the experience of undertaking a doctorate is hardly educational at all.

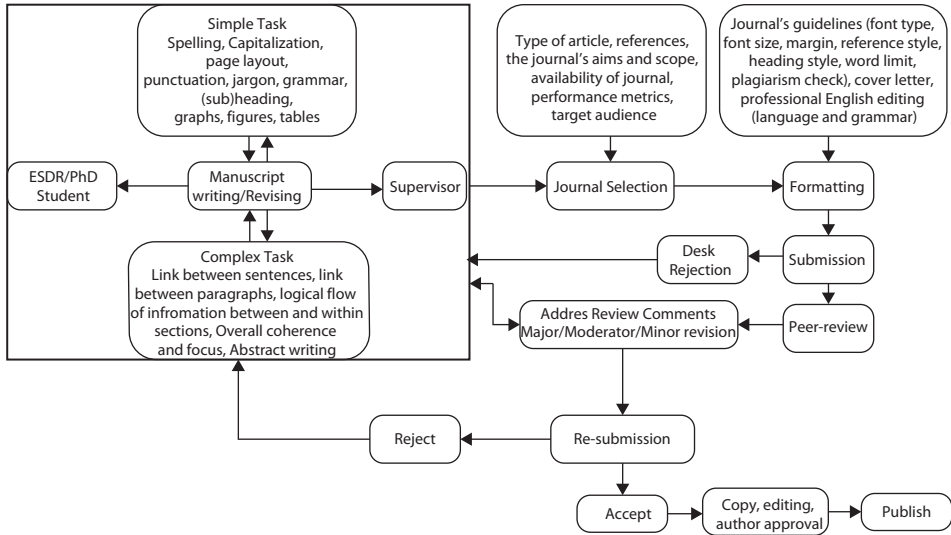
Besides, article-based PhD programs somehow nudge doctoral researchers to look for a short-cut to publication. The study participants collectively endorsed that publishing research findings as early as possible is advantageous and can secure originality. This approach may produce a premature publication and present incorrect, or incomplete work. Roberts (1991) described the rapid, or ultrafast publication (alternatively rush to publish) tendency which is exacerbated by heightened competition among researchers. The implicit pressure for publication found generates other adverse impacts on doctoral candidates, such as stress, isolation and even increases the likelihood of attrition or withdrawal from the program (Jairam & Kahl Jr, 2012; Gardner, & Gopaul, 2012; Levecque et al., 2017).

The study participants were concerned with diverse author guidelines in journals and with the overall publication process. This complexity in some ways leads them to cut corners of good research findings and publish in several articles. While synthesizing the ESDR's perspectives, we found a generic publication cycle which has been illustrated below (Figure 1).

Our study findings showed that the research output is more likely seen as 'individual success' rather than 'research excellence'. These findings strengthen previous research, where it was argued that the researcher's success, journals, articles, as well as funding opportunity, are intertwined components of scholarly publication (Mabe, 2003, Jinha, 2010; Bromham, Dinnage & Hua, 2016). Moreover, scholars, as a consequence, in their early-career, as well as at the mid-career stage are increasingly influenced to submit their research for publication in high indexed (e.g. *Web of Knowledge* SCI databases, Institute for Scientific Information) journals (Björk et al., 2009). Therefore, the 'production of knowledge' has become a 'commodity' that can be parceled up (Hyland, 2016).

Producing a scholarly article and appropriate allocation of authorship are two associated aspects of the author's reward. Moreover, the recognition of scientific





**Figure 1.** Perceived publication cycle

accomplishments serves as a source of psychological energy (Seeman & House, 2015). This issue is important in particular with regard to multiple authorship or co-authorship. The opportunity to collaborate with others enhances doctoral students' networks, as well as raises the levels of competition in academic life in response to performative pressures (Moore & Griffin 2006).

We found a tension among ESDRs in choosing between pursuing quality or quantity. A single exponential and comprehensive research output can create a noteworthy impact, rather than a series of predatory publications. However, there is no harm in examining one model to answer multiple research questions. It can also be justified to generate two papers from one potential piece of research, as long as the findings convey two compatible and convincing messages. Authors need to be careful to decide the ideal time to submit both manuscripts. Unfortunately, evidence exists where research findings are 'sliced' like salami from one piece of research which could have been presented in one comprehensive article. This tendency has potentially negative implications. The message could hype the reader, oversimplification of the finding could be misleading, the take-home message could lead future relevant research astray. It can be suggested that striving for quantity of research publications may, therefore, reduce quality, and *vice versa*.

Our study has shown a pertinent concern which emerged with relation to the supervisor's impassive attitude to the timeline of the doctoral study. Supervisory

capabilities directly influence the student's abilities to write and publish. Dissatisfaction and other related tensions rise when this fundamental role is overlooked. A disproportionately lengthy time from registration to degree completion was identified as a common difficulty. Dissatisfaction toward supervision, lack of rigor and a clear supervision strategy is evidenced as leading to a higher attrition rate in doctoral study (Kamler, 2008). Some common and well-known tensions (Gunnarsson, Jonasson, & Billhult, 2013) related to supervision such as low frequency of meetings, disagreements, mediating between supervisors, and inadequate funding came to the fore during discussions. Can and Walker (2011) found the content of feedback and tone of feedback received from the supervisor has an influence on managing the *emotional state of mind* and contributes to the *willingness to learn* of doctoral students.

Finally, we argue that measuring the quality and importance of publications based on journal impact factor reinforces scholarly polarization. It perpetuates academic hierarchy as well as patronages imbalanced academic practice. Publishing academic works in a high impact factor journal may be a good strategy, while a blind faith in it could lead to a simplified view of scholarship. Therefore, scholars need to avoid simplified views of journal impact factor.

## **Limitation and Strength**

This study has several limitations that need to be considered in further discussion. First, the presented study findings might be considered self-reflexive. Second, the authors were concurrently an insider and outsider in the study so their views could be contradictory. Third, using single data collection method could restrict to draw a general conclusion. Nonetheless, the in-depth interpretation of the data has helped to bring together our different views and we found that the topic of the research had the potential to transform personal experiences across cultures and find common themes.

## **Conclusion**

The study suggests a tension related to the dynamic relationship between the nature of PhD study, publication trends, and the academic publication process. From the research findings, it can be suggested that ESDRs should not be overly concerned about publishing a number of poor quality papers and that a successful

researcher should have an open mind and embrace different aspects of criticism. Doctoral research is more likely to make a significant contribution to, advancement, or alteration in existing research.

## **Ethical Consideration**

For ethical reasons, this article has preserved the anonymity, privacy, and confidentiality of the participants. Neither video nor audio recording took place, respecting the participants' requests. Verbal consent was received at all levels in the production of this manuscript. The negative use of data was mitigated through open discussion and dissemination of the preliminary draft of this article to all available participants who showed interest, in order to justify the information included.

### **Conflict of Interest**

The authors declare that they have no conflict of interest.

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