The A-Z of the PhD Trajectory: A Practical Guide for a Successful Journey

Longxing Li Macao Polytechnic Institute and University of Macau

This article reviews The A-Z of the PhD Trajectory: A Practical Guide for a Successful Journey, written by Eva O. L. Lantsoght. This book presents the major milestones throughout the PhD trajectory, covering topics from defining research question, developing a literature review, preparing and executing experiments, time management, scientific writing, academic presentations, to preparing for a career after the PhD. It also offers step-by-step instructions to help readers develop practical skills that support the PhD research process. Overall, this book is highly recommended to doctoral students and their supervisors as well as professors preparing for workshops or courses on research for first-year PhD students. Publisher: Springer (Cham. Switzerland, 2018). ISBN: 9783319774244. List price: \$83.40 (U.S.). 406 pages.

There are a growing number of studies that research and document various aspects of PhD education and pedagogy in the interests of "better quality, completion rates, and student satisfaction" (Adkins, 2009: 167). Many of these arouse deep concern about students' abilities in finishing their PhD programs, and more specifically, in utilizing the right tools and resources to support the difficult work of doctoral research. In light of this, effective guidance is needed to help students address various issues throughout their PhD trajectory. This text presents a unique contribution to the literature by providing a complete volume that is wholly concerned with the material that supports students throughout their PhD journey, such as defining the research question, developing a literature review, preparing and executing experiments, managing time, writing and presenting for academic purposes, and preparing for a career. Thus, it provides a comprehensive discussion on issues pertaining to PhD studies and transferable research skills in doctoral work.

To meet the demand of flourishing higher education research, this guide is appreciated for its strong practical orientation. Drawing on the author's personal insights, as well as other researchers' experience about PhD education, the book presents a precise analysis of the difficulties and challenges doctoral students encounter and then offers strategies and actionable guidance for reaching the goals in different stages of the PhD journey. Moving from general themes to specific pedagogical concerns, the text constitutes a logical starting point for novice PhD students and supervisors, enabling them to deploy the materials and resources to support doctoral studies or supervision work.

Structurally, the book is composed of two parts with 15 chapters. Part I runs from Chapter 1 through Chapter 14, and Part II is a single chapter providing a glossary with reference items. The introductory and the concluding chapter in Part I clarify the aim of the book and summarize the topics covered in this volume respectively. The rest of the chapters convey the main

information, focusing on identifying the major milestones in PhD study and offering a step-by-step instruction to reach them. Such a reader-friendly organization lays out a blueprint for their PhD life and helps readers develop the practical skills that support the PhD research process.

For novice PhD students, how to prepare for their PhD study and plan their time for the whole journey is usually their first concern. Knowing well their needs, the author starts with introducing necessary skills for them to adapt to the new life, offering tips on socializing with fellow researchers, discussing mutual expectations with the promotor, documenting work, using a schedule, and maintaining harmony between work and life. Then a top-down approach for planning is proposed to help students plan the major milestones in their doctoral study. To make most use of the time, technological applications and To-Do lists are recommended in that these tools gain students a fuller understanding of the amount of time they should spend on various tasks.

After discussing the preparatory work in general, the author then devotes several chapters to offering suggestions on the accomplishment of the dissertation, which is the core task for PhD students. Sequentially, the author deals with the writing of the literature review and formulating of research questions. To cope with the literature review, normally "the first research activity" (p. 55) in a PhD journey, students are advised to find the right references, read broadly, and engage with the literature. It is important to bear in mind that reading can never be "done" even when the writing of the literature review is finished, thus it is advised that students should engage with the literature via summarizing, discussing, questioning, and keeping upto-date with the research output. A review of literature in this way helps students develop a better understanding of the status quo of a particular research area, identify gaps in the current knowledge, and consequently motivate research questions. Developing effective research questions is "a creative endeavour"

Li PhD Trajectory 537

(p.75) which requires creative thinking skills. With the research questions and sub-questions formulated, students need to convince their supervisors of these questions and then turn them into practical actions. For PhD students in STEM (i.e., Science, Technology, Engineering and Mathematics) fields, experimental work is an essential part in the dissertation writing process. To ensure the smooth execution of experiments, various facets of experimental work in the research laboratory are revealed, such as designing the test setup, planning and documenting experiments, processing data, and reporting results. With these steps done, the compiling of the work into a dissertation should be marked on the agenda. Therefore, the author devotes the whole of Chapter 12 to address the issue, focusing on planning writing, structuring the dissertation, self-caring, handling the introduction and conclusion, and preparing for the thesis defense. It is emphasized that a good planning is the foundation for the completion of the dissertation, and routines and other activities are also beneficial to keeping students' minds balanced along the way.

In addition to dissertation writing, presenting and sharing the research findings is also an important part in PhD students' life (Chapters 8-10). To present the academic work, students should pay attention to the planning, the format, the logical order, and the types of presentations. To share the knowledge with a wider audience, students can take advantage of science communication on the Internet, such as blogging, Twitter, and online branding. Another prevalent way to share the research findings is to attend conferences, but attention should be paid to selecting the right conference, choosing proper topics, allocating time, and socializing properly so as to get the most out of it. Overall, attending conferences is of great value as it helps students find a suitable venue for presenting their research work, gaining insights in academic writing, and getting in touch with renowned scholars.

As the PhD needs to respond to the emergence of new academic disciplines (Boud & Tennant, 2006), improving academic writing becomes an important consideration in encompassing academic pursuits. Chapters 7 and 11 examine the development of academic writing skills and the writing of journal articles. Drawing on the experience and practices from researchers worldwide, the author presents vivid examples and practical tips to help PhD students fit academic writing into their busy schedules by focusing on structuring writing, demonstrating the author's voice, handling problems for non-native speakers, and increasing productivity in writing. When selecting the target journal for the first article submission, students need to consider its audience, impact factor, and ranking. After receiving reviewers' feedback, students are advised to write a comprehensive reply to the reviewers' comments to increase their chances for publication or rework the paper to try another journal if it is rejected.

Getting all the way through PhD study, students will walk into a new chapter of life. Therefore, Chapter 13 presents a description of navigating career options for the new doctors. When walking on the career path, regardless of in academia or in industry, one must note that it is not the doctor's title but what you can bring to the table with your unique skill set and your academic experience that determines your success. Finally, attention is paid to some special groups of academics in the increasingly diversified community, offering suggestions to the underrepresented female PhDs, minority PhDs, and academic nomads, and those who are seeking international collaborations. These less researched areas are significant issues and promising fields; however, they are addressed very briefly in this section.

Part II (Chapter 15) forms the literal A–Z part of this book and contains a glossary of topics involved along the whole journey toward the PhD. The glossary list serves as a refresher with short reminders, and each word included in the list covers one particular topic with a brief description.

Compared to previous books on similar topics, the volume is characterized by its breadth of topics covered, the practice-based issues discussed, and the accessibility of its writing style. These features make this book particularly useful for doctoral students and their supervisors, particular in terms of the elaboration on the kinds of challenges in doctoral journey and suggestions on how these challenges can be overcome. Armed with the practical suggestions to identify important issues meet the needs of PhD students, scholars interested in higher education research may also find this book stimulating and enlightening.

Despite the comprehensive spectrum covered in this volume, we may critique that some learning objectives and actionable tasks presented at the beginning of each chapter are not concise enough and might be overwhelming for some novice students at the first sight. Considering this, we would suggest that the learning objectives be rearranged according to the foci of different phases of the PhD journey, and the recommended tasks could also be simplified for practicality. Nevertheless, the detailed descriptions might also be a strength since they present a clear outline right from the start.

Overall, although this book is mostly aimed at PhD students in sciences and engineering, it is worthy of recommendation. It serves as a practical and valuable reference for PhD students, offering them insights into overcoming a variety of obstacles in their

Li PhD Trajectory 538

PhD trajectory. For supervisors and professors preparing for workshops or a course on research for PhD students, this book also serves as a useful guide with its clear elaboration of various aspects of PhD work and detailed discussion on how to encompass academic pursuits in doctoral study.

References

Adkins, B. (2009). PhD pedagogy and the changing knowledge landscapes of universities. *Higher Education Research & Development*, 28(2), 165-177. Boud, D., & Tennant, M. (2006). Putting doctoral education to work: Challenges to academic practice. *Higher Education Research & Development*, 25(3), 293-306.

LONGXING LI is a lecturer in the Macao Polytechnic Institute and a PhD candidate from the University of Macau where he studies in language education, discourse analysis, corpus linguistics, and translation studies. He has study and research experience in the National Institute of Education (Singapore) and the Hong Kong Polytechnic University. He has published a couple of book chapters and several reviews in the journals such as *System, Language and Education* and the *International Journal of Bilingual Education and Bilingualism*.

Acknowledgements

The author would like to acknowledge the research project MYRG2019-00162-FAH supported by the University of Macau.