



SSN 1447-4999

BOOK REVIEW

A Review of Two Thesis Help Books for Higher Degree by Research (HDR) Students in the Community Based Health and Emergency Health Areas

Dr Ameer Morgans PhD, Research Fellow, Department of Community Emergency Health and Paramedic Practice Monash University, Melbourne, Australia

Having completed a PhD a few years ago, I am now beginning to supervise other Higher Degree by Research (HDR) students, including honours, masters, and doctoral students. It's interesting to sit on the other side of the desk, to have limited time available for each student, and so much knowledge and expertise to impart. Throughout my own candidature I read many books on how to improve thesis writing, and found them to be variable in quality and applicability to a thesis in the health area. As a supervisor, I re-read some of the key resources with a view to making a recommendation to my students to provide them with a comprehensive guide to the HDR process in Australia, and some advice on how to survive a HDR and submit a better thesis.

One of the bigger obstacles to applicability of the published resources was the thesis writing books which were written and published outside Australia. Internationally, a PhD is examined differently depending on the geographical location of submission. Many European theses must be submitted as a short paper, (ranging from 15,000 – 40,000 words), and then 'defended' in a face-to-face oral examination. Theses from the US are structured differently and address different examination requirements, and the PhD can involve a coursework component and can be completed in concordance with work placements or as part of a research team. Therefore many of the theses writing resources written for international audiences are not applicable to Australian HDR students, as they fail to focus on the importance of the written thesis component, and are unable to advise on the nuances of Australian thesis examination processes and the HDR experience overall.

When looking for books on thesis and HDR help, I started with university bookshops, and then moved to published papers and electronic literature. I found books to be more comprehensive, offering advice on most aspects of the HDR journey rather than focussing on thesis editing, or statistical analysis. Specifics of method and data analysis were addressed well with publications, such as a great article on the planning, conduct and analysis of focus groups¹ and finding prehospital literature.² Other aspects of the HDR journey such as managing your relationship with your supervisor, how to select thesis examiners and using technology to support your thesis were less well addressed by published literature.

In my search for Australian HDR thesis writing support resources, I have come across two Australian thesis writing books that I thought were of particular value to HDR students and their supervisors in the Community Based and Emergency Health (CBEH) research fields. The purpose of this review is to compare and contrast these two thesis writing books for usefulness to students and supervisors in the CBEH fields.

The first book³ is written by Shane Thomas, an academic who has been at different times appointed to Deakin University, LaTrobe University, Melbourne University and Monash University. Having such a range of University experiences can make the author a valuable guide of HDR processes across universities in general. The author has also examined many PhD theses and uses these experiences to illustrate points along the way, which is useful. The book claims a health sciences approach to thesis writing, which is an advantage to the CBEH HDR student, and the book has proven popular with reprints in 2001, 2002, 2003 and 2005. However, the book begins with an (unfortunately) negative long-term view on the HDR journey which highlights low PhD completion rates, but moves quickly into selection of an appropriate supervisor, and gives firm advice on important ways to manage the supervisor-student relationship. One of the best tips for students and supervisors alike is to take notes at all meetings. This is useful to maintain continuity of the student-supervisor discussion, but can also be recalled in times of conflict to justify or defend a lack of progress.

The third chapter moves quickly into thesis writing, and offers some writing advice that seems to focus on the negatives, such as writers block, and accidentally deleting documents. The fourth chapter presents a short chapter (a meagre six pages) on determining research project scope, which is too short to really support HDR students in the development of the biggest question of the whole HDR journey. An interesting comment made by the author from an examiners perspective was that a longer thesis was not usually an indication of superior content, but more often due to a lack of brevity and poor writing on the student's part.

Chapters five and six present a guide to literature reviewing and literature management. The parts describing how to review literature are too vague and broad in my opinion. Unfortunately, this book has been disadvantaged by the passing of time, and needs to be updated in terms of the technology that can be used to assist literature searching. There is a limited search strategy section, which again is an important tool to reduce time wasted searching for the wrong things. There is very limited mention of databases that can be searched, with PubMed mentioned in just one sentence. Being a thesis writing book aimed at the health sciences, I would have expected a review of the major health science databases and their content, such as Index Medicus (peer reviewed medical literature only, usually accessed via Medline and PubMed), Embase (European Literature) CINAHL (Cumulative Index of Nursing and Allied Health Literature) and Meditext (Australian Health related Literature).

Similarly, reference management systems such as Endnote and Procite are also neglected, mentioned only in passing at the conclusion of the chapter, yet these technologies have the opportunity to cut significant time off a HDR candidature. A comprehensive Endnote library in the student's chosen field of study is one of the major legacies of a HDR, and development and maintenance of a reference library should be an essential part of the HDR process.

Chapter seven focuses on a range of methodologies that are likely to be used in health fields, and offers examples of poor methodology writing and ways to improve. There are useful sections on sample size and recruitment processes. The methodology chapter is again written from a negative perspective, where Thomas is speaking as an experienced examiner, and offers the reader a plethora of things that have the potential to irritate an examiner, and ways for the student to defend himself/herself within the thesis. This is useful when writing the thesis, but overly negative for the student trying to design a method. The method chapter is followed by an extremely short chapter on ethical considerations (five pages). Published research⁴⁻⁸ provides a better consideration of ethical issues affecting the CBEH field.

Chapters nine and ten present a really useful overview of the structure of the results, discussion and conclusion, complete with actual thesis examples of good and bad writing. The

use of tables, figures and diagrams is discussed, with clear guidance on when and how these should be used to promote thesis clarity. A three page chapter on the thesis abstract follows, which is too brief and very heavily structures towards the medical model, with little allowance for the social sciences influence on thesis style. Chapter twelve provides general information about the administrative content of the thesis, such as the title pages, table of contents and the lists of tables and figures.

Chapters thirteen and fourteen are undoubtedly the best chapters of this book. They cover the examination process with reasonable depth, including how to select an examiner, how the thesis is examined and what to do with thesis feedback and revisions. Chapter fourteen deals with publication of the thesis, and broadens the readers view outside of the results of the thesis alone, and encourages publication during the thesis writing rather than waiting until after submission. There are some interesting perspectives in this chapter and the author discusses reasons for publishing, including career prospects and external validation of work prior to submission. This chapter does not discuss the growing popularity of ‘thesis-by-publication’ methods of thesis writing, where theses are comprised of several published papers on a theme with a short thesis document as a longitudinal overview.

Overall, this book has very useful points throughout, usually demonstrated with written examples. Its strengths are the student-supervisor relationship, writing style, thesis examination, and publication. Its weaknesses are in the areas of technology for thesis writing, statistical analysis and reference management. Overall it has been written by Thomas in a negative style of ‘what-not-to-do’, which may seem humorous to the more robust HDR student but may dishearten the novice student. I would happily recommend this book to students that are past the halfway mark with their HDR journey. It is focussed on the end result of thesis examination processes, and has solutions for many common HDR problems.

The second book⁹ is written by a Melbourne University Academic of 40 years experience (David Evans) and a recent PhD graduate (Paul Gruba). The combination of experiences is very dynamic, and where the previous text³ lacked technological advice, this book delivers in abundance. The first edition of this book was published in 1995, and it has been reprinted every year since, with a second edition written in 2002 to update the technological advances and add the perspective of a recent PhD graduate.

The book starts with an introductory chapter outlining the author’s experiences and leads straight into what a thesis is, its purpose and how to prepare for writing one. The book makes a recommendation that all students should invest time in reading other theses and thinking about structure and content before you start writing. The third chapter is about making a start on your thesis, and deals with similar issues to Thomas, but in a positive manner. It discusses why it is hard to start and recommends some strategies to get past this phase. The fourth chapter is brilliant and details how to use technology to structure your thesis document over sixteen pages. This is really important as it is much easier to do this correctly from the start than to try and fix this at the end. Evans and Gruba also emphasise the importance of the Table of Contents as a document map for your examiner and encourage students to look at the table of contents from other theses to guide their thesis development. There are detailed instructions for automating tables of contents, headings, figures and tables and setting up your spell check to accept topic specific terms which can be particularly useful in the health research field.

Chapters five and six discuss the introductory and background chapters including a suggested paragraph by paragraph structure. This chapter also details how a preliminary research report (such as a research proposal or ethics application document) can be used to develop these

chapters. This is really useful to give HDR students a starting point for the writing phase and make use of the work the student has already done. Endnote and other reference writing software tools are discussed at length. Chapter seven details the Methods chapter and presents examples of good and bad methods chapters. There are three pages dedicated to the development of a research question and hypotheses, and then a lengthy ten page discussion about how to select the best method to suit your hypothesis. This chapter is invaluable to the novice HDR student and offers real advice and strategies to further the project plan.

Chapter eight is a little short, but focuses on the presentation and analysis of results. There is little discussion of practical data analysis, but detailed ‘how-to’ guides on specific statistical methods can be found in published literature^{10,11} and statistics textbooks.¹² Many universities offer their HDR students additional training in statistics and access to statistics consultants as part of the HDR enrolment. There is a valuable section on how to draw accurate conclusions from data to promote clarity and prevent overstating the study results. This section is illustrated with several examples of thesis results sections with a critical analysis from an examiners perspective, including comments on when charts, graphs and tables should be used and when they should be avoided. This chapter also addresses a common thesis structure question in the health sciences field, which is how to report a series of smaller projects that comprise a larger project. The chapter discusses the advantages and disadvantages of two style options: the first style, presenting the method as a single chapter with each experiment or project detailed (for example, Method: Experiment A, Experiment B), followed by the results as a chapter with each experiment or project detailed (for example, Results: Experiment A, Experiment B), or the second style, where each experiment or project is reported as a chapter (for example, chapter 6; project A method, project A results, chapter 7: project B method , project B results. Many CBEH research projects use multi-method approaches, so this discussion of different style options is very useful to these students.

The Discussion and Conclusions are addressed in Chapters 9 and 10, and include a valuable section on how to write with authority, avoiding passive or self-defacing writing styles. This chapter details a useful strategy to make the thesis more readable overall for the examiner, advising students to write a couple of lines at the end of each chapter to remind the examiner what the chapter has done to further the understanding of the topic, rather than just re-summarising the chapter content. Chapter 11 provides practical advice on editing your own thesis. There are almost twenty pages of checklists, re-drafting tips, common grammatical errors and formatting advice. This chapter alone would be enough to make me buy this book.

The book ends with a chapter on dissemination of the thesis outcomes, including the role of seminars and conference papers in addition to published papers. There is no real discussion of future career considerations, but the advice given about publishing the most you can out of your thesis outcomes is practical and useful. Although this chapter denotes the conclusion of the book, I was delighted to find some appendixes which provide more in depth details about writing styles, punctuation and the use of figures and tables. Again, punctuation is something that is taken for granted, but reading this section I learned things about sentence structure and punctuation that I did not previously know.

Overall I thought this book was an absolute must have for all HDR students regardless of discipline and their supervisors too. It is an ideal gift for the commencement of candidature and its use will save the candidate time and painful reformatting of thesis documents later. The book also emphasises the student’s role in decision making and promotes the role of the supervisor as a support person for the HDR journey rather than the driver.

In conclusion, both books that were reviewed had advantages and limitations. Evans and Gruba is a clear, concise HDR support book that deals with many issues outside of the thesis examination process, and which offers practical advice about the HDR journey and particularly using technology to support the HDR process. This is important as these technological skills are used well beyond the thesis and the HDR, and have the potential to reduce time wastage and protect electronic material, including references and written work. The thesis editing checklist is an amazing tool that would be of great benefit to all HDR students, supervisors and examiners. Thomas' book focuses more on the process of examination, and is briefer with less detail. Thomas' experience as an examiner is apparent throughout the book and is definitely of value in the write up phase of candidature, and the extensive use of examples throughout give this book practical value. In terms of the CBEH field, although Thomas' book claims a health science background, Evans and Gruba have also focussed on a more scientific PhD structure where the thesis is comprised of Literature review, research question, method, results and discussion structure so this book is just as applicable to the CBEH HDR students. I would highly recommend getting your hands on a copy of Evans and Gruba's book for all HDR students, with Thomas' book a more useful resource for later stages of candidature.

References

1. Bender DE, Ewbank D. The focus group as a tool for health research: issues in design and analysis. *Health Transition Review*. 1994;4(1):63-79.
2. Hyde CJ, Fry-Smith A, Young J. Finding Literature on Pre-Hospital and Emergency Care. *Pre-hospital Immediate Care*. 1999;3:22-32.
3. Thomas SA. How to write health sciences papers, dissertations and theses. Melbourne: Churchill Livingstone 2000.
4. Dick W, Ahnefeld FW, Encke A, Schuster HP. Research and ethics in emergency medicine. Findings of a workshop. *Anaesthetist*. 1996;45(5):413-9.
5. Adams JG. Ethical challenges in emergency medical services. A special contribution of the Ethics Committee, National Association of Emergency Medical Services Physicians. *Prehospital & Disaster Medicine*. 1993;8(2):179-82.
6. Moscatti R. Protection of human subjects in prehospital research. *Prehospital Emergency Care*. 2002;6 (2 Suppl):S18-23.
7. Larkin GL, Fowler RL. Essential ethics for EMS: cardinal virtues and core principles. *Emerg Med Clin North Am*. 2002 Nov;20(4):887-911.
8. Moscatti R. Protection of human subjects in prehospital research. *Prehosp Emerg Care*. 2002 Apr-Jun;6(2 Suppl):S18-23.
9. Evans D, Gruba P. How to write a better thesis. Second ed. Melbourne: Melbourne University Press 2002.
10. Egger M, Smith GD, Phillips AN. Meta- analysis: Principles and Procedures. *British Medical Journal*. 1997;315:1533-7.
11. Dawson-Suanders B, Trapp R. Cluster Sampling. *Basic and clinical biostatistics*. Connecticut: Appleton and Lange 1990:70-1.
12. Tabachnick B, Fidell L. Using Multivariate Statistics. 4th ed. Sydney: Allyn and Bacon 2000.