Chapter 17
Writing Your Doctoral Thesis with Style

If I have seen farther than other men,
it is because I stood on the shoulders of giants.
Sir Isaac Newton

All the raw material for your thesis is ready – at least it should be if you’ve successfully worked your way through the countdown plan as described in Chapter 15. So now it’s time to wrap things up and write your doctoral dissertation. This is easier said than done, of course, and you cannot hide from the fact that you still have a lot of work ahead of you. But don’t let the thought of writing your thesis paralyze you into a state of inertia. Like any big project, writing your thesis is easily doable if it’s broken down into smaller steps. In fact, you have already done this by having written at least a couple of articles that are ready to be transformed into chapters. Keep in mind, however, that a research article written for a peer-reviewed journal is not the same thing as a chapter in your thesis. Even if you’ve published several articles, you can’t just staple them together and – voilà! – create an instant dissertation. There are some fundamental differences in these two types of writing which we will discuss in detail in this chapter.

Although you may be feeling a bit stressed (or even a lot stressed) that the deadline for completing your thesis is approaching, writing a thesis will be a new (and hopefully exciting) phase of graduate school. See it as a challenge, and whatever you do, don’t think of quitting now. Too many graduate students leave their programme after having done everything but write their thesis. Maybe you think that those two little letters in front of your name won’t matter, but one way or the other, your degree will be of help in your further career. It would be a shame to have done so much work and leave graduate school without that coveted degree. Likewise, you may be the kind of person who loves working in the lab, but hates sitting down to write. In this chapter we
First things first: decide on the table of contents

If you didn’t make a countdown plan as described in Chapter 15, there is at least one aspect of it that you need to address before you start writing: make sure you and your supervisor agree on the table of contents of your thesis. This might seem obvious, but we have seen too many students start working on chapters without discussing it with their supervisor, only to find that those chapters had to be tossed out. As soon as you have agreed upon the table of contents, you should start talking with your supervisor as soon as possible, and in more detail, about what you are going to put in those chapters. We’ve repeated here the schematic table of contents that was presented in Chapter 15.

<table>
<thead>
<tr>
<th>Table of contents</th>
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<tbody>
<tr>
<td>Chapter 1:  Introduction to the field of research</td>
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<tr>
<td>Chapter 2:  Methodology, research instruments</td>
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<td>Chapter 3:  Research project 1 (already published as journal article)</td>
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<tr>
<td>Chapter 4:  Research project 2 (manuscript submitted for publication)</td>
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<td>Chapter 5:  Research project 3 (data available, no conclusions yet)</td>
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<td>Chapter 6:  Research project 4 (data available, not analyzed)</td>
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<tr>
<td>Chapter 7:  Conclusions/summary</td>
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<td>List of references</td>
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Cut the problem down to size: write an outline

Now that you’ve agreed on your table of contents, it’s time for the next step: writing an outline. For a written document as complex as a doctoral thesis, it is essential to work from an outline to keep
you on track and provide you with a framework for the text. Writing an outline will also force you to break up the writing process into manageable pieces. Your outline should consist of several pages that contain chapter headings, sub-headings, figure and table titles and some keywords and essential comments. Once you have created a comprehensive outline, you will have a framework or scaffold from which to work. In addition, an outline is a great tool for preventing writer's block, as you only need to fill in one section at a time of your outline, rather than face the enormous task of writing a document that will be well in excess of a hundred pages. When you sit down at the keyboard, with your outline in hand, your aim is no longer to write an entire thesis – a daunting goal without a doubt – but something much simpler. Your new aim is to write a paragraph or section about one of your subheadings. When you first start out, it helps to begin with an easy section: this gets you into the habit of writing and gives you self-confidence.

**Getting down to fundamentals: what’s a PhD thesis anyway?**

Whether you call it a dissertation, a doctoral thesis, or a PhD thesis, it all boils down to the same thing: a massive undertaking and a serious and substantial piece of written work. Depending on whom you ask, you’ll probably get a different answer to the question of what a PhD thesis is. But before you get heavily involved in the writing phase it may help to get a grasp of what it is that you are attempting to accomplish. Most people tend to agree on the following definition of a what a PhD thesis is (and is not):

**A PhD thesis is:**

- A formal piece of writing, quite substantial in length, that presents original data in support of a particular thesis or supposition.
- A comprehensive body of data. The scientific method requires you to state a hypothesis and then gather data to support or negate
your hypothesis. Before you can write a thesis defending a particular hypothesis or hypotheses, you must gather sufficient data to support it.

- A thorough analysis and interpretation of the data you have collected. This analysis forms the heart of your thesis.
- A document in which every statement is supported either by citing the scientific literature or your own (original) work.
- A document in which every statement must be correct and defensible in a logical and scientific sense. There is no room in your thesis for suppositions and conclusions that you pull out of thin air.

**A PhD thesis is not:**

- A diary of your days in the lab. You must present your work in a way that demonstrates your mastery of a given topic. You will not be awarded a PhD just for writing down everything you did in the lab over the course of several years.
- A collection of published articles. A PhD thesis is similar to writing a book. While you can take your published papers and turn them into the core of your thesis, the thesis as a whole should stand alone and be cohesive in presentation and scope.
- Written in solitude. It is important to have other people involved in the thesis writing process, if for nothing else than for checking your first drafts and proof-reading your final ones. You also need to involve your supervisor so that he/she can tell you when to stop writing. As the person doing the PhD, you are too closely involved in the process – you must, therefore, ask for expert and third-party advice. Remember, too, that a good thesis, just like any well-written text, is designed for the benefit of the reader. So try to get several people to read your thesis and listen to their suggestions for improvements.

As you work, be sure to keep the above points in mind. It may also help to re-read several dissertations from former PhD students in your group or department in order to get a feel for the appropriate style and tone.
Pick a straightforward format and layout

You can spend an endless amount of time designing a special format and layout for your thesis. If you are not an expert in desktop publishing, however, we suggest you save yourself a great deal of frustration and time by copying the format of another student whose thesis layout appeals to you. Make sure the format is easy to use, however, as you do not want to find yourself spending many days on learning a new and fancy software programme – at least not at this stage. Once your thesis is sent to the panel or committee for review (a process that usually takes several weeks or months), you might want to consider upgrading your layout. For the time being this should not be your major concern.

Transforming (published) articles into thesis chapters

You most likely have a few articles already published in peer-reviewed journals or at least submitted for publication. So it may seem like a straightforward matter to transform those articles into thesis chapters. But transforming articles into thesis chapters isn’t just a question of copying and pasting the appropriate text. The following are some suggestions for creating cohesive thesis chapters from your published articles or submitted manuscripts.

• First of all, you will have to rewrite the introduction section of each article to put the chapter into perspective with the other chapters in your thesis. There is no reason to repeat in each chapter introduction what you have already explained in your general introduction and literature survey in Chapter 1 of your thesis.

• Also, the Materials and Methods section can be shortened since you have already presented most of that information in the chapter on methodology. Don’t make this section too brief, however, since the reader must be able to read each chapter independently without having to flip back and forth to other chapters for important information.

• Update your references. If your published article is somewhat out of date, you should include the latest literature in your list of refer-
ences. Moreover, refer to the other chapters of your thesis, where applicable, rather than just referring to your published journal articles. The thesis must be a cohesive piece of work in its own right that can be read and understood without having to refer to additional literature.

- Avoid repeating figures already used in preceding chapters. No matter how useful it was to illustrate in each article a (slightly modified) version of your experimental set-up, for example, in a thesis such a series of illustrations is often unnecessary and redundant.

- Adapt the format of your article to that of your thesis. For instance, if you transform a short article or letter into a chapter, insert the headings (introduction, results etc) at the appropriate positions.

- Include paragraphs that did not make it into the final version of the article. Often there are space restrictions on your article set by the journal editors. So you may have had to sacrifice a couple of interesting paragraphs to meet the journal’s requirements. Now you can use these paragraphs (and figures) at your own discretion, since they will be a valuable addition to your thesis.

Chapter Two: the first piece of new text

Now that you have transformed your published articles into chapters your thesis is starting to get some heft to it. Although you probably realize that the tough part is yet to come, take a moment to enjoy the progress you have made so far. From now on, you will have to write new text for the remaining chapters and that will slow down your progress quite a bit. Since writing the methodology chapter is relatively straightforward, we suggest you start with that one. You have already written several methodology sections for your articles so you probably won’t need much help in making a first draft. Since a thesis has fewer space restrictions, you should take the opportunity to describe some of the details of your work that did not make it into the articles. In a thesis, it is better to err on the side of being too detailed than risk leaving out crucial information. Be generous
to the next generation of researchers. A detailed description of your progress and failures, in terms of your materials and methods, will save them a lot of time.

**The last set of data: chapter or article first?**

Now that you have worked your way through the initial chapters and have written most of your thesis, it is time to tackle your final project. In this particular case you probably haven’t written an article yet and you will need to decide whether to write the article first and transform it into a chapter or do it the other way around. If there is stiff competition in your field to get results published as quickly as possible, your supervisor will probably insist that you write the article first. If this isn’t the case, we suggest that you write the chapter first, as this approach will allow you to describe your work, including all the details, from which you can select the appropriate parts for an article.
later on. While the thesis is out for review with your dissertation committee, you can transform the chapter into an article and submit it to a peer-reviewed journal.

**The introduction: the final hurdle**

A good introduction to your thesis is crucial for putting your work into context and it is probably the most difficult section of your thesis to write. This is your opportunity to describe your work in a broader perspective, including an explanation of why the research was relevant (to the scientific community and society in general) in the first place. Although you will probably write this chapter towards the end, you should start thinking about it long before then. During your last year as a PhD student you should create a file in which you collect ideas and article clippings that might fit into the introduction. Once you start writing the chapter you will have a ready source of ideas, some of which might fit in well, while other notions may be harder to incorporate. This strategy of collecting ideas for your introduction requires some discipline, but it will save you from writer’s block when faced with writing the introduction. It can be highly stressful if you have no clue what to write, all the while with a deadline hanging over your head. Having a file of good ideas will be of help in writing a comprehensive and elegant introduction when the pressure is on.

**The summary**

You may not be required to write a summary for your thesis, but even if you’re not, a good summary is essential, so take the opportunity to write a high quality one, as this is the one section of your thesis that is sure to be widely read. In a few pages you will have to describe the main findings of your thesis research, so it is best to write this part after you have finished all the other chapters. Do not, however, try to describe all your results in the summary. If the density of information is too high, people will stop reading your summary, and probably put your thesis aside altogether. Also, be sure to clearly designate in which chapters particular findings are described in more detail.
Going for gold: writing an error free thesis

Since a thesis is usually written under severe time constraints, it is difficult, and probably not realistic, to write a thesis that is completely free of typos and other minor errors. Spell-checkers do help, but they have limited use in a document that, by definition, will contain numerous scientific and technical terms that will not be recognized by the spell-checking software (you can build these into a glossary on your computer, of course, but this takes time). In addition, errors of grammar and syntax are not always highlighted and minor scientific errors can be easily overlooked. Your goal, of course, is to have the minimum number of errors in your thesis as possible. We suggest you do two things to help make this a reality. First, put the manuscript aside for a short while after you’ve written the first draft. Once you’re feeling refreshed and have gained some distance from the material, read it over again with a sharp eye, not for content, but in the guise of a proof reader who is only looking for typographical errors. Second, you should give a copy of your thesis to one or two trusted peers to read and devise a creative way to reward them for every error they find (free cups of coffee, beer, or pizza, for example). This will give them an incentive to go through your thesis with a fine-toothed comb.

Be generous with acknowledgements

Some universities allow you to thank and acknowledge co-workers at the end of your thesis. Take the opportunity to do so and thank wholeheartedly all those people (don’t forget family and friends), including other students, Post-docs, your supervisor, and lab technicians, who have made your work possible.

Ten tips for a stress-free dissertation

1. Don’t save data analysis to the very last minute. Plan ahead.
2. Confirm your table of contents with your supervisor.
3. Write an outline (and stick to it as you write).
4. Don’t reinvent the wheel: transform your published articles into thesis chapters.

5. Create a time frame (and deadline) for yourself and stick to it.

6. Find a quiet place to write where you will be free from distractions (the lab is usually not a good place to write a thesis – work from home or in a quiet place like the library).

7. Assign yourself a number of pages to write each day and stop when you are done. This will prevent you from spending 24 hours a day at the computer, agonizing over your progress. When you’ve written your assigned 4-5 pages, then you’re finished for the day. Turn off the computer and do something else.

8. Take plenty of breaks, and be sure to spend time with friends and family. Just don’t bore them, however, by constantly talking about your thesis and complaining about how hard it is to write.

9. Get some exercise, eat well, and take care of your health.

10. Don’t work in utter solitude. This is not the time to turn into a hermit. If other PhD students in your lab or department are writing their theses at the same time, consider creating an informal support group where you can share the stresses of writing a thesis and have people at hand who are willing to read or proof read certain sections or even the entire manuscript.
Publishing Your Doctoral Thesis. By Nicola Parkin. As a commissioning editor of a politics and international relations research list at a commercial press, the aim of this article is to provide a brief guide to the process of converting and publishing a PhD thesis from the publisher’s perspective. There can be a lot of pressure on successful doctoral candidates and junior researchers to convert and publish their PhD thesis. The potential for a PhD thesis to be published as a book is not decided by academic quality alone, but also by its potential commercial value. Some PhDs can lend themselves better to being reworked as journal articles, while some can be suitable for both selected journal publication and a viable book manuscript. How you will be adapting the language and style? How you write your thesis is almost as important as the content within. Your thesis must strike an acceptable compromise between technical language with an explanation of what is occurring in your research. Avoid overly superfluous language and instead focus and explain clearly in scientific terms exactly what your research and data represent for the scientific community. You need not explain your research in layman’s terms, as those who will read your dissertation understand the science at hand. Remember to use these steps to complete your thesis with less stress. And think of how wonderful it will be to fully become a doctor in your chosen field. The opportunities will be limitless for you. Authoring a PhD: How to plan, draft, write and finish a doctoral thesis or dissertation. How to Write a BA Thesis: A Practical Guide from Your First Ideas to Your Finished Paper (Chicago. 411 Pages·2005·1.51 MB·3,592 Downloads). New! Guide from Your First Ideas to Your Finished Paper (Chicago Guides to Writing, Scientific Writing Style and Grammar: Guidelines. 9 Citation Practice. 10 Bibliography. Table 5.1 Broad issues to discuss with supervisor at start of writing process. Table 5.2 Matters of style to discuss with supervisor. Table 6.1 Outline of main body of a scientific-style thesis*. Table 7.1 Use of numbers and numerals in academic writing. The ability to compose a thorough, detailed and accurate thesis is a vital skill for doctoral students and those studying at research Master’s level to acquire and refine. This manual aims to help you to develop the authoring skill and writing competency that will help you to achieve the award of Doctor or Master. It seeks to lay the foundations of your success as a writer in your career in academia, industry or public service.