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How To Write Your First Thesis

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Chapter 1

Transition to Your First Thesis

Study at a college or university typically consists of a sequence of degrees: undergraduate, graduate, and research. The pattern of coursework study is familiar to every student. Across a sequence of subjects, where each one is somewhat independent of the rest, you learn the fundamentals through a series of constrained and discrete assessment tasks. In a research degree, in contrast, a student typically works with a supervisor (or advisor) to undertake an investigation over a period of years with little progressive assessment. To make the transition between coursework and research, students undertake a minor thesis.

I wrote this book to help you produce a first thesis. In this first chapter, I situate the work that lies ahead by defining a minor thesis, setting out its purpose, sketching the roles of the student and the supervisor, considering the work that is reported in the thesis, and indicating how it is likely to be examined.

Defining a Minor Thesis

A first, or minor, thesis is an extended argument of 5000–20,000 words that reports on the outcomes of a supervised, individual research project, as part of a graduate degree such as Honours or a Masters by Coursework.

A thesis, minor or otherwise, is an *extended argument*. That is, a thesis consists of logical, structured, and defensible reasoning based on credible and verifiable evidence.

In undergraduate degrees, a key task is to show that you understand a particular concept or procedure through lab reports, tests, or essays. Much of the work is descriptive: you provide some background information, check for completeness, and then explain how you responded to the task at hand. For your undergraduate assignments, you were responding to specific questions and prompts; in your

minor thesis, you are primarily in charge of the project. To be successful in a thesis, you need to *argue*, and continue to argue for thousands of words until you reach a conclusion. Throughout that argument, though, you will have a fair degree of freedom in your approach and style.

A thesis is much more than an extended essay or lab report. An essay is likely to be a descriptive exercise aimed at the learning of fundamentals, or of writing and reasoning skills; in contrast, a thesis is a proposition or claim that is defended through a high level of insight or creativity.

Just as a minor thesis is not an extended essay, it is also not a Ph.D. thesis. A minor thesis is typically a tightly supervised one- or two-semester project; a Ph.D. is the outcome of years of substantially independent research. A minor thesis reports on a single, straightforward investigation; a Ph.D. could well encompass a series of studies, innovations, or types of analyses. While the two kinds of thesis have many elements in common, the skills needed to complete a minor thesis can be very different to those required for larger projects.

The Purpose of a First Thesis

A first thesis provides an opportunity for high-achieving students to demonstrate their ability to conduct an open-ended investigation.

The academic community views the minor thesis as a signal of ability and preparation for undertaking a larger piece of work. Doing well on a minor thesis demonstrates that you are ready to pursue a higher degree such as a Ph.D. Some students, however, choose to do a minor thesis as a way of completing their study; for them, the thesis helps to synthesize their overall learning and demonstrates their maturity. Some students choose to do a minor thesis to see if they like research, to help them decide whether they are going to continue in an academic career or seek opportunities elsewhere. And some students have no choice—they are enrolled in programs in which a minor thesis is mandatory.

You should use the minor thesis to acquire the learning that is of the most value to you. If the thesis will be the end of your academic study, then you may want to use it to develop your practical skills, or to deepen your understanding of a particular area. If the thesis is a stepping stone to a Ph.D., you may want to use it to understand the current research literature in a particular field, or to gain an appreciation of different experimental methodologies. You may find that you have a great deal of freedom in terms of the kind of work that is done as part of the minor thesis, and you can use this freedom to focus on the activities that give you the greatest benefit. It follows that it is helpful if you know *why* you are doing a minor thesis—a question that will affect the research area of the thesis, the kind of activities you undertake, and, perhaps, who you choose as a supervisor.

The Role of the Student

A minor-thesis student works with a supervisor to complete an independent research project, and develops self-discipline, maturity, critical thinking, and a strong awareness of the wider field.

As you work to complete a minor thesis, you are signalling that you would like to make an initial entry into a community of scholars. To be respected as a member of that community, you must make appropriate use of specialized vocabulary, have discipline-specific knowledge, demonstrate an understanding of major works and researchers in the field, and show that you can effectively apply accepted methods of investigation. A successful minor-thesis student demonstrates independence and maturity, and a sustained drive and resilience. Such attributes may seem like a lot to expect, but, by undertaking a minor thesis, you should appreciate that you are both producing a relatively large piece of work and becoming socialized into a specific academic field.

Though you have prepared for the project in your previous studies, undertaking a thesis will accelerate your academic development. Perhaps for the first time, you must judge the value of contradictory research literature, gather materials that haven't previously been assembled, build an apparatus without knowing whether it will work, and make sense of raw data. You may be working with other researchers who are themselves uncertain about the outcomes they are striving towards—and you must then explain their work and discoveries to others in an academically rigorous way.

In contrast to an assignment such as an essay or lab report, it is very important to know—now, and from this point forward—that a thesis cannot be left until the final days or weeks before submission. Self-direction, a sense of purpose, and discipline are essential. You need to start strongly and make sure you are mastering all of the elements of the thesis as early as possible. You also need to remember that you are doing the work in conjunction with your supervisor, not alone, and thus you need to respect your supervisor's constraints; for example, it isn't reasonable to take your time to complete your project, then dump a 20,000-word thesis draft on a busy supervisor and expect feedback in a few days' time. To get feedback, you will need to have completed drafts some weeks before the thesis is due. Sadly, not all students produce a draft before submission, and such students rarely achieve a high grade.

Regular feedback on your thesis while it is in progress is critical to success. With an essay, you may have revised it once or twice and not shown it to anyone before you handed it in. As you complete a thesis, you will need feedback from your supervisor several times. Feedback on drafts of thesis chapters or an entire manuscript typically consists of questions ('What did you mean to say here?' 'Can this be clarified?'), recommendations ('Remove this, it seems unnecessary'; 'This would be a good place to discuss so-and-so's results'), and criticism. Many students, at first, are much too sensitive to criticism, and take it as a judgment on