

How To Write Your First Thesis

Paul Gruba · Justin Zobel

How To Write Your First Thesis



Paul Gruba
School of Languages & Linguistics
University of Melbourne
Parkville, Victoria
Australia

Justin Zobel
School of Computing & Information
Systems
University of Melbourne
Parkville, Victoria
Australia

ISBN 978-3-319-61853-1 ISBN 978-3-319-61854-8 (eBook)
DOI 10.1007/978-3-319-61854-8

Library of Congress Control Number: 2017952060

© Springer International Publishing AG 2017

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

*This book is dedicated to our children,
Tobias Gruba and Anna, Alex, and Sonia
Zobel, who sometimes have to tell their
fathers to get away from the keyboard.*

Preface

Completion of a minor thesis involves mastery of a range of accomplishments. It requires that you read other theses, undertake an investigation, manage a large number of references, assess the work of others, objectively interpret data, critically reflect on your own work, and master basics such as writing a long document efficiently on a computer. Throughout this book we discuss the components of a minor thesis—typically, the first thesis that a student ever writes—and set out the various tasks that you need to complete in order to finish the work successfully.

This isn't our first book on thesis writing; we are also the authors of the companion volume, *How to Write a Better Thesis*, originally written by David Evans and published in 1995, and revised by us in 2003 and 2011. That book is primarily intended for senior research students undertaking a thesis across a period of years. In writing this new book, we focus solely on first theses. Although we have relied on content from the other volume (from which about half of this book is taken), we have observed that the challenges of writing a minor thesis, especially given the time and resource constraints, are very different. Another factor is that senior research projects such as PhDs take a range of forms, whereas a minor thesis is—and should be—the product of a more or less standard approach. Our goal here is to help guide you through your first piece of substantial research.

As in the earlier book, we have blended our voices to make the reading easier, so we write 'I' rather than 'we' (except in this preface). We have blended our research perspectives too, as one of us (Paul) has a background in the social sciences and the other (Justin) works primarily in computer science. By combining our perspectives and backgrounds, we believe that the book is made more accessible, and captures the best of what each of us has to offer across the disciplines.

David's voice is prominent in our companion volume, and we are deeply grateful to him and his estate for his text, and for inspiring us in our supervision of students. While this new volume contains fewer of his words, it is strongly influenced by his approach.

We are also grateful to Anna Zobel for the illustrations. Her sketches capture for us the spirit of intensity and joy that successful study can bring.

Two Introductions

In this book, we draw on the experiences of two of our students. We introduce you to them here, so that, when you come to our discussion of issues they faced, you understand their background.

Let us first introduce you to Anouck. Although she had been in Australia for a few years, she was originally from France. Fluent in French and English, she had also studied some Chinese. Anouck had completed one semester of a Master's degree, and during that time she earned good marks in each of her four subjects. Having been in one of my (Paul's) classes, she approached me before the start of her second semester to discuss a minor thesis. Anouck told me that she was interested in language and media, a subject that I taught, and we agreed to meet to discuss some ideas. Later, at our first meeting, she told me that she wanted to do a minor thesis because she was considering doing a PhD. Anouck didn't, however, know much about theses, how they are structured, or how they are examined. As her supervisor, I knew that she would need some guidance, but I was certainly interested in her project.

Like Anouck, Mickey also had an interest in language, but his interests stemmed from being an avid reader of stories, such as fiction published free by authors on the internet. As an IT student, Mickey had observed that web search tools were unhelpful for the task of finding new things to read, and that recommendations on websites were unreliable. When he first spoke to me (Justin), he brought a broad question: What are the alternatives to conventional search methods for finding fiction? This question combined some of my own interests, so, after a couple of meetings in which we talked through possible approaches, we decided to work together, and in the process turned his rather vague idea into a well-defined project.

The experiences of Mickey and Anouck (and our many other research students) have helped us to appreciate the challenges of undertaking a minor thesis, and this is why we use their experiences as examples throughout this book.

How to Use This Book

In Chaps. 1–3, we explain what a minor thesis is and how the task of undertaking a minor thesis should be approached. In Chaps. 4–8, we review the components of a minor thesis in turn, from the introduction to the conclusion, and discuss what is expected in each. In Chap. 9, we give guidance on editing and on preparation of your thesis for submission.

You can read the book cover to cover, or dip in and out of the chapters. We suggest that you turn to sections that you need at the time that you need them, and compare our advice to that of your classmates and supervisor. But remember that your minor thesis is your own work, and, when you have understood our advice (and its limitations), you should feel confident about doing what seems to best fit

your own particular project and style, even if this differs from the approach we have described.

You should also seek out additional resources. Other books give detailed advice on writing style, referencing, development of effective graphs, experimental design, and so on; these are issues of relevance to academic writing of every level, and our experience is that many students benefit from such resources far more than they had anticipated. Our focus here is entirely on the challenges that are specific to a minor thesis. Use of this book will, we hope, set you on the path to completion of a successful and satisfying project.

Paul Gruba
Justin Zobel

Contents

1	Transition to Your First Thesis	1
	Defining a Minor Thesis	1
	The Purpose of a First Thesis	2
	The Role of the Student	3
	The Role of the Supervisor	4
	The Student–Supervisor Relationship	5
	Research Questions.....	6
	The Perfect Question?.....	8
	Expect the Unexpected	9
	Thesis Examination.....	10
2	Getting Organized	13
	The Right Attitude	13
	Discipline	14
	Milestones and Schedule.....	15
	Writing at a Computer	17
	Writing Tools	18
	Thesis Templates	19
	Present Well.....	20
	Writing Style	21
	Storage and Backups.....	22
	Health and Wellbeing	23
3	The Structure of a Thesis	25
	The ‘Standard’ Thesis Structure	25
	Creating a Non-standard Thesis Structure	26
	Narrative	27
	Initial Efforts	28
	Beginning an Individual Chapter.....	29
	Study or Case Study?	30

Observation or Innovation?	32
Organization	33
Plagiarism and Research Integrity	34
4 A Strong Beginning: The Introduction	37
Context of the Study	37
Motivation for the Study	38
Aim and Scope	39
Research Questions	40
Approach and Outcomes	40
Overview	41
5 Situating the Study: The Background	43
Structure of the Background	43
Literature	44
Developing Critical Thinking	45
Foundations	46
Conceptual Framework	47
Current Debates	48
Open Issues	49
Methods and Approaches	50
6 Explaining the Investigation: Methods and Innovations	53
Methods	54
Research Methods	55
Instrumentation Design and Use	56
Supporting Your Arguments	57
7 Presenting the Outcome: The Results	59
Data Preparation	60
Data Analysis Procedure	60
Quantitative or Qualitative Analysis?	61
From Data to Results	62
Presentation	63
Analysis	65
Reasoning from Data	65
Illustrations	66
8 Wrapping it up: Discussion and Conclusion	71
Summary of Key Findings	71
Discussion of Results	71
Implications	72
Pedagogy	73
Policy	73
Professional Development	73
Practice and Methodology	73
Products	74

Contents	xiii
Limitations of the Study and Critical Reflection	74
Agenda for Further Research	75
Conclusion	75
Appendices	77
9 Before You Submit	79
From First to Second Draft	80
Structural Editing	81
Revising	82
Checking the Details	84
Preliminary Pages	84
The Main Text	85
Format	87
Figures and Tables	87
Notes and References	88
Appendices	89
Glossary	89
And Don't Forget	89
Afterword	91
Index	93