

HOW TO PREPARE A SCIENTIFIC DOCTORAL DISSERTATION BASED ON RESEARCH ARTICLES

The article-based thesis is becoming increasingly common, especially in the 'hard' sciences such as biology, medicine and technology, and is beginning to replace the traditional monograph. Format guidelines vary among universities. This is the first book to summarize the main features, showing the PhD student how to prepare a thesis in such a format.

The suggestions are highly practical; both its good and bad examples from published theses support the author's wise advice on all aspects of such theses. Poor figures are not only scrutinized in detail but also redrawn for comparison. Guidance also covers the issues of reprint permissions and copyright.

This informative and accessible book, by the author of *How to Write and Illustrate a Scientific Paper*, developed through the author's extensive teaching experience in scientific writing and also his experience as a journal editor. It is thus your guide to article-based thesis success.

BJÖRN GUSTAVII has been teaching courses in scientific writing for doctoral students for over 30 years. He brings his personal experience to this book, both from his work as a journal editor and from producing more than 100 of his own research papers. He is the author of the highly successful *How to Write and Illustrate a Scientific Paper* (2nd edition 2008).



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Contents

Preface	vii	
Acknowledgements		ix

- 1 Introduction 1
- 2 Compilation the article-based thesis 3
- 3 Front cover illustration 7
- 4 Title 15
- 5 Abstract 20
- 6 Quotations 24
- 7 Thesis at a glance 25
- 8 Abbreviations 32
- 9 List of publications 34
- 10 Contributors 39
- 11 Popularized summary 42
- 12 Acknowledgements 43
- 13 General introduction 46
- 14 Aims 49
- 15 Methods 51

V



- 16 Results 57
- 17 General discussion 65
- 18 Copyright 69
- 19 A dissertation worth considering 77
 Appendix A. To the authorities at the graduate division 82
 Literature cited 85
 Index 90



vi



Preface

Before writing this book, I looked into a couple of thousand theses* based on published (and ready-for-publication) papers. Most of them I viewed on the web, but several I surveyed while on location in various university libraries. Merely seeing an image of a thesis on the web is not the same as having a paper version in your hands; to smell and feel the paper – I love it!

Although the examples shown are real (if not otherwise stated), bad ones are given without revealing the source. When I wanted to include a figure, I sought permission from the author. If the example was bad, the author was informed of the changes suggested and of the form the credit line would take, for example: *Reproduced from a thesis published in 2008, with permission*. All the authors asked gave me permission. I am grateful for your generosity, which has provided the readers with authentic examples from which to learn. Thank you!

This book is about the overall summary of a thesis (also called the *overview*†). It is thus *not* about the research papers which were

vii

^{*} The terms *thesis* and *dissertation* are used differently in different parts of the world. For example, in the USA, master's students write *theses* whereas in Britain, they write *dissertations*. At the PhD level, however, these terms are reversed. In this book the terms *thesis* and *dissertation* are used interchangeably.

[†] Overview: To mention a few variants, this is also called contextual statement, explanatory essay, linking narrative, summarizing report, integrating paper, cover story, frame and synthesis.



dealt with in my book *How to Write and Illustrate a Scientific Paper* (2nd edition, Cambridge University Press, 2008). Such research papers authored by the degree candidate have passed editorial scrutiny; the overview has not. As a former editor of a scientific journal, I had the experience of giving this overview a closer look.

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viii



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ix