Guidance: How to write a ph.d. thesis

Approved by the Program Committee for Research Education at the Faculty of Health Sciences 15 February 2017.

This is a translation from Norwegian. In case of conflict between this document and the Norwegian version, the Norwegian version of this document has priority.

“The thesis” in this context is the text, which together with the relevant articles, completes the ph.d. thesis which is submitted for evaluation. This document gives guidance on how to write the thesis, with references to relevant sources.

The thesis is a scientific document. The candidate is the sole author, and thus this is where the candidate will show his/her independence as a researcher. This includes showing a good and updated overview of the research field, conveying capacity for critical assessment of his/her own work and the research of others, demonstrating necessary methodological competence, and reflection on ethical issues and choice of research projects. In addition, the candidate will in the thesis show how the main research questions are answered through the included individual articles. The thesis should, therefore, supplement and elaborate on the articles, rather than repeat and summarise them.

Citation rules also apply for the thesis, including citation of the author’s own work.

Guidelines and regulation

Some of the guidelines for the thesis can be found in Guidelines for the Evaluation of Candidates for Norwegian Doctoral Degrees. This states that: “When evaluating a thesis, special consideration should be given to whether the thesis represents an independent and comprehensive piece of scientific work of high academic standard with regard to the formulation of problem issues, methodological, theoretical and empirical basis, documentation, treatment of literature and chosen form of presentation. It is especially important to consider whether the material and methods applied are relevant to the questions raised in the thesis, and whether the arguments and conclusions posited are tenable. The thesis must contribute new knowledge to the discipline and be of an academic standard appropriate for publication as part of the serious literature in the field.

If the thesis consists of several papers, the evaluation committee must assess whether the content of the individual works forms a whole. In such cases, the candidate must document the integrated nature of the work in a separate section – an introduction - by summarizing and comparing the issues and conclusions in the separate works. This part of the thesis is of vital importance both for the doctoral candidate and for the committee’s evaluation of the work submitted.”

The requirements of the thesis are laid down in section 4 of the ph.d. regulation, but the requirements are not described in detail therein.

What do we recommend?

Our recommendation on how to write the thesis are based on the ph.d. regulation, our own experience, and other written advice.

Title of the thesis

The title should reflect the content, in a balance between the general and the detailed. In some cases, it will be informative with a general main title and a more specified subtitle.
Language and extent

The thesis is written in the language specified in the contract for the admission to the ph.d. program, in most cases this will be English. The defence can be in Norwegian/Scandinavian if appropriate, regardless of the written language. The thesis itself should be some 40-80 pages, written in font type Times New Roman, font size 12 and with a line spacing of 1.5-2. The reference list and articles included in the thesis is additional.

The thesis’ separate parts

Table of contents

Overview of content in the thesis. Do not use more than three levels of headings.

Acknowledgments

This is where thanks are given and people that have contributed to the work are acknowledged. The candidate is free to express himself/herself as he/she wishes, as this part of the text is not included in the evaluation.

Abbreviations

Maximum one page with a list of abbreviations used in the thesis.

Abstract

A short compilation of background, hypotheses, methodology, key findings and conclusion(s) in the thesis. Maximum one page. The text can be arranged in sections, such as "Background / Aims", "Methods", "Results", "Discussion/conclusions", where it is desirable or tradition. A Norwegian abstract may follow the English if desired.

Introduction

In this section the candidate must show good knowledge of the relevant research field and provide a rationale for the main research question(s) and the thesis as a whole. Relevant knowledge and theory which expand on the more specific introductions in the articles should be included here. Theoretical perspectives that can lift the later discussion of the results to a higher level should also be introduced here. The introduction ends with the main and secondary research question or hypotheses.

Materials and Methods (or only Methods)

Here, the description of the methodological assessment is made, i.e. an elaboration on the choice of methodology and explanation of the analyses used in more detail if necessary. Selection of research subjects, data collection, and any intervention should be described, whereas the associated critical evaluation should be addressed in the chapter called Discussion. Ethical considerations also belong in the Materials and Methods chapter, including mentioning of the necessary approvals (see also section “Appendix” below).

Results

A short summary of the articles, individually or compiled, with a focus on the findings.

Discussion

The discussion should be on a higher level and demonstrate how the thesis’ main findings as a whole contribute to the research field. The relationship between the individual articles included in the thesis should be clearly presented. Recent research and theoretical perspective may lift the discussion to a higher analytical level and clarify the main findings, but it is important to ensure that what is mentioned is relevant to the candidate’s own findings. Strengths, weaknesses, limitations,
clinical and other implications and suggestions for further research should be discussed on the basis of the thesis as a whole.

Conclusion
A short paragraph with the conclusions can be drawn from the work in the thesis.

References
The references cited in the thesis, formatted according to the academic research field’s traditions.

Papers
This is where articles are included in the form that they were when the thesis was handed in.

Appendix (or Appendices)
This section is for including questionnaires used as well as other information that is important for understanding the presented work. Questionnaires and instruments not previously validated or published must be attached. Any approval from Norsk Samfunnsvitenskapelig Datatjeneste (Norwegian Social Science Data Service), Regional Etisk Komite (Regional Ethics Committee) or other agencies is included here where there are requirements or tradition in the academic community.

Printing and Errata
Remember that it is the articles as they appear upon the time the thesis is handed in that should be listed and included when the thesis is sent off for printing. Any publication in the meantime cannot be included and makes no consequence for the evaluation, yet can be mentioned at the defence.

Thus one may not make any substantial change, and not correct mistakes after submission, before printing. Printing errors and other mistakes made may be pointed out in a document attached to the thesis, titled “Errata” (“Erratum” if there is only one error).

Literature

Forskrift for ph.d.-graden ved UiT Norges arktiske universitet: https://lovdata.no/dokument/SF/forskrift/2012-10-25-1150#KAPITTEL_4


https://en.uit.no/Content/364771/Guidelines%20for%20the%20evaluation%20of%20candidates%20of%20Norwegian%20doctoral%20degrees%20(20180811).pdf