



## Overall instructions

The thesis shall be based on empirical data that are treated by the student under supervision. The empirical material can be collected by the student during the period of the course but may also be previously collected data. Analyses of the data material are made with the support of the supervisor and the research group. Either quantitative or qualitative methods can be used. The thesis is typically structured as a scientific article, i.e. according to accepted norms and rules for articles published in international scientific journals. The thesis can be written in Swedish, but it is recommended that it is written in English.

The thesis will be reviewed according to evaluation criteria found in the “Granskningsmall” at [Studentportalen](#). The text will automatically be examined for plagiarism in Urkund by Ouriginal.

### Layout

The length of the thesis should be equivalent to 20-25 pages and should not exceed 40 pages including appendices and excluding references. Although the layout is that of a scientific article it is advisable to extend the introduction and discussion sections (see below) and make sure that the full work of the student is presented, which of course also includes ”negative” results.

The title page ([English or Swedish](#)), abstract (always written in English), and popular [science summary](#) (always in Swedish) must be written according to a specific template that can be found at the end of this document. The abstract, introduction, methods, results, discussion, and popular science summary shall be written with 1.5-spaced Times New Roman 12p, whereas title page, list of abbreviations, table of contents, references and appendix shall be written with single-space Times New Roman 12p. Arial can be used for headings and subheadings. Provide page numbers. Explain abbreviations the first time they are used in the text. A decimal point and not a decimal comma shall be used to separate the whole number from the decimals when data are presented.

### Tables

Tables shall always be used instead of bullet lists. Tables should be placed in the text or in an appendix. They should be consecutively labelled as they appear in the text (e.g., Table 1, Table 2 etc...), and if they are placed within the text, they should be placed as close to the first reference to them as possible. The table number, heading, and explanation are placed directly above the table and all source material and / or notes such as abbreviations and symbol explanations are placed at the bottom of the table. Refer to all tables in the text. A sans serif font such as Arial might be used for the tables and if necessary, reduce the font size to 10p and use single-space.

## Figures

Figures should also be placed in the text or in an appendix. They should be consecutively labelled as they appear in the text (e.g., Fig. 1, Fig. 2 etc...). The figure number, heading, and figure text are placed directly below the figure. All abbreviations and symbols used in the figure should be explained. As for the tables, a sans serif font such as Arial might be used as well as a smaller font size and single-space. Make sure the figure is clearly readable. If a previously published figure is used, the full reference must be added to the figure text. Refer to all figures in the text.

## The examination

The examination board and the examiners evaluate the thesis according to the same guidelines/norms that are used in customary examination of a manuscript/article for scientific publication. The board then advises the examiners as to whether the thesis can be approved in its present form or if a revision is needed for a final approval. The student will be notified of the result within 20 workdays after the deadline for the submission. If a major revision is needed the supervisor will also be notified. The revised thesis is then returned to the examiners for re-evaluation.

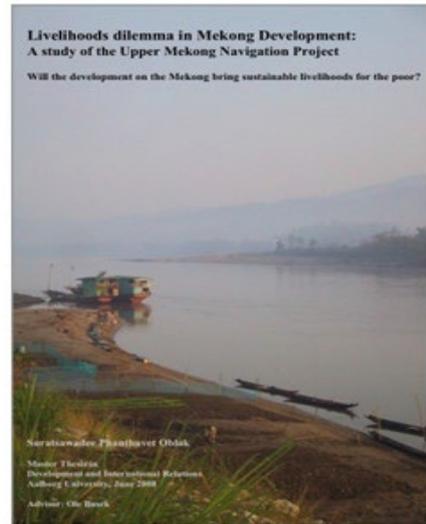
## Disposition of the scientific report /thesis

A common disposition of a scientific article is described in the sections below. Subtitles to use if you write your report in Swedish are given in italics.

- Cover page / *Försättsblad* Optional
- Title page / *Titelsida* Mandatory to use the template.
- Table of Contents / *Innehållsförteckning*
- List of abbreviations / *Lista över förkortningar*
- Abstract / *Abstract* Mandatory to use the template.
- Introduction or Background / *Introduktion eller Bakgrund*
- Aim / *Syfte*
- Specific objectives or Research questions / *(Specifika mål eller Vetenskapliga frågeställningar)*
- Material and Methods / *Material och metoder*
  - Data collection procedures, Variable analyses, Statistical methods / *Datainsamling/Analys av variabler/Statistiska metoder*
- Student's contribution / *Studentens insats*
- Ethics / *Etik*
- Results / *Resultat*
- Discussion / *Diskussion*
  - Strengths and weaknesses /*Styrkor och svagheter*
- Conclusions and Implications / *Slutsatser och betydelse*
- Populärvetenskaplig sammanfattning. Mandatory to use the template.
- References / *Referenser*
- Appendices / *Bilagor*

### **Cover page / Försättsblad (optional)**

The cover page is a front page designed by the student with for example a picture or an illustration. The Cover page typically features the title, author, and course.



### **Title page / Titelsida**

It is mandatory to use the template in English or mall på svenska for the title page. Replace all red text in the templates. The title should be short and clearly describe the report.

### **Table of Contents / Innehållsförteckning**

Apply the built-in heading styles to the headings in your text so you can generate a table of content automatically.

### **List of abbreviations / Lista över förkortningar**

If you use an abbreviation three or more times, explain it the first time and add it to the list of abbreviations. If the abbreviation is used only twice, remove the abbreviation, and instead write the fully word or concepts.

### **Abstract / Abstract (always in English)**

Use the template for the abstract. Replace all red text in the template. The abstract must be in English and have an English title regardless of the language of the rest of the thesis. The abstract gives a summary of the study, with the primary emphasis on results and conclusions. The length of the abstract is preferably between 100 and 300 words, 300 words is an absolute maximum. The abstract must be possible to understand independently of the rest of the report, i.e. explain abbreviations and provide results sufficient for the conclusion you present in the abstract. An abstract commonly includes the following headings: Introduction/Background, Aim(s)/Objective(s), Methods, Results, and Conclusion(s)/Implication(s). 3-5 key words of the thesis should be identified in the abstract under a separate heading.

### **Introduction or Background / Introduktion eller Bakgrund**

This gives a background to the work and presents the problem area and relevant published research in the field. The introduction can begin in a broad way but then narrows to give the aim/objective, and the purpose of the study. Make sure that the reader learns enough to appreciate the relevance of the work and why it is appropriate to ask the question that you will address with your study. An introduction/background in a degree project report needs to cover more than an introduction in an original research article as the student is expected to

demonstrate the knowledge he or she has acquired in the field during the scientific work. References to review articles are accepted in the introduction/background.

### **Aim and Specific objectives or Research question / Syfte och specifika mål eller vetenskaplig frågeställning**

Always state the hypothesis and/or objectives in your introduction. The aim of the study is often described briefly and concisely. Specific objectives may be given that break down the purpose and help to limit and focus on the questions to be answered.

### **Material and Methods / Material och metoder**

The choice of research methods is guided by the aims and specific objectives. The methods chosen should be clearly described so that the reader is able to follow the study design and analysis and take a position to the results. This section reports methods, the design and approach as well as the population/patient/materials that have been studied. This includes the method used for data collection, the variables that have been studied and the considerations on which the choice of method is based. If applicable, describe experimental animals and explain how the materials/tissues were gathered, and how the samples were prepared. The specific quantitative /qualitative methods used in the analysis must also be clearly reported.

### **Data collection procedures / Variable analyses / Statistical methods / Datasamling/Analys av variabler/Statistiska metoder**

Explain how measurements were made and what calculations were performed upon the raw data. You must document all methods performed in your study, and you need to summarize what you did in your own words. Describe the statistical techniques used upon the data. In population-based studies separate sub-headings are commonly used to describe the above e.g.: *Population and data collection, Variables, Statistical methods.*

### **Student's contribution / Studentens insats**

Describe your contribution to the work as student. Especially important if it is a large study where a great amount of data is analyzed and where you, for example, have received help with statistical analyzes.

### **Ethics / Etik**

Describe possible ethical considerations here. Read the information on research ethics given via [www.codex.uu.se](http://www.codex.uu.se). Any formal ethical permission involved in the study should also be denoted.

### **Results / Resultat**

The results of the study must be reported in a stringent manner. This section describes only the results of the student's own study. You should aim to narrate your findings without trying to interpret or evaluate them, other than to provide a link to the discussion section. Use tables and figures to display the data when suitable. Be sure to also include negative results. Instructions for tables and figures are described above. Remember to refer to all tables and figures in the text.

### **Discussion / Diskussion**

The discussion section often starts with a brief description in the text of the study's primary/main findings. The results of the study are then discussed in relation to other research

in the area, and references should be made to other studies that have been published. Discuss/interpret only the results you have covered in the results section and start with the most important results. Make what conclusions you can, then suggest how the experiment must be modified in order to properly test the hypothesis (es) in future studies. Finally, where do you go next? What questions remain? Did the study lead you to any new questions? Try to think up a new hypothesis and briefly suggest new experiments to further address the main question. Be creative, and don't be afraid to speculate! Avoid referring to review articles in the discussion.

### **Methodological considerations / Strengths and Weaknesses**

#### ***Metodologiska aspekter/styrkor och svagheter***

The methodological aspects / strengths and weaknesses of the study must also be discussed and evaluated at a sub-heading in the Discussion. Most studies will require a critique of the study material, analysis methods and/or experimental design. Determine if you asked the right question in the first place. Decide if the experimental design adequately addressed the hypothesis, and whether it was properly controlled.

### **Conclusions and Implications / Slutsatser och konsekvenser**

Describe the conclusions that can be drawn from the study results, the way in which this knowledge can be meaningful for people's health, thus possible clinical/medical relevance and what effect it may have for future research. If applicable, describe also more concretely what can be done to improve the situation of the patient group investigated. Actions on the structural (policy) level to the individual level can be suggested.

### **Populärvetenskaplig sammanfattning (must be written in Swedish)**

The popular science summary (including a title) must always be written in Swedish, and it is important to follow the template for the summary, as the summary must be able to be used separately from the rest of the report. Replace the red text in the template. Write the popular science summary simply and comprehensibly. Imagine that the text should go to publish in a daily newspaper and anyone who is not at all familiar with the subject should be able to understand what your work is about. Explain what you have come up with and, if possible, what the research can be used for. Use 300-500 words. Feel free to let someone who is not within medicine or natural science read through and comment.

### **Acknowledgements / Tack**

Mention and acknowledge people or organizations that have been of importance for making the study possible.

### **References / Referenser**

References are written according to Style Endnote<sup>®</sup> Numbered or a style that is used in any of the scientific medical journals. If you refer to a source on Internet, remember to include also when the information was published and when it was achieved as well as the full website.

### **Appendices / Bilagor**

Here you can include tables and figures, questionnaires or other study material used in the project.