

Support for writing the thesis

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**Karolinska
Institutet**

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Writing the doctoral thesis is usually a great learning experience, even though getting started is often experienced as tiresome. Development as a scientist is a major undertaking if sufficient time is dedicated to critical reflection, including reading and writing, about the meaning and implications of research findings, contextualization of research, and about potential future strategies. Writing a good thesis enhances scientific maturation. Having prior knowledge of both what makes a thesis of both high and poor quality may enable you to write a better thesis.

”The goal of explicating the rules (performance expectations) is not to rate or grade dissertations or individual components of dissertations and provide a summary score. Rather the goal is to make the expectations for the dissertation more transparent to graduate students while they are in the process of researching and writing their dissertations, thereby helping them achieve higher levels.”
(Barbara E. Lovitts, 2007¹)

Guidelines for writing a compilation thesis summary chapter

The previous Board for Doctoral Education at Karolinska Institutet (KI) developed Guidelines for writing a compilation thesis summary chapter (also called the thesis frame or ‘kappa’ or just thesis)².

Tips: read these carefully and discuss the content with your supervisor or another senior researcher before starting to write your thesis.

Quality characteristics of a thesis

General distinctions for the quality of a doctoral thesis have been established by a large group of researchers from different disciplines in the US in a study led by Barbara Lovitts^{1,3}. By applying these criteria a thesis was placed in the following four quality categories: *outstanding, very good, acceptable and unacceptable*. The categories with their quality characteristics or distinctions can be used as support for reflection when writing the thesis. Reading the presented tables with their lists of characteristics makes the reader more conscious about the features of both a low and a high-quality thesis^{1,3}.

General support questions for writing the thesis frame⁴

(The titles below are not meant to correspond to the different parts of the thesis)

Purpose

- Are the purposes of the studies clearly explained?
- What hypothesis or clearly defined research questions did I try to address?
 - Have the research questions been presented in the right context?

Literature review

- Relevant and up-to-date?
- Is it apparent that I am familiar with the literature in the field?
- Is there a good balance of what is known and what is not known?
- Is the discussion between the literature selective, analytical, according to themes and gives a good synthesis?

Theory

- Logic and coherent interpretations, suitable, relevant, clear, up-to-date?
- Adapted to the question that should be answered?
- Demonstrates evidence of knowledge and understanding about the theory?
- Are strengths and weaknesses of theory discussed?
- Is a deep knowledge and understanding of the research area demonstrated?

Methods

- Are the methods used suitable, relevant and described at an adequate level of detail?
- Were the methods used adequate for the questions asked?
- Is proof shown of knowledge and understanding of
 - the advantages, strengths and disadvantages of the methods?
 - appropriate methodology and analytical tools including statistics?
 - how the methods should be used?

Ethics

- Have adequate ethical considerations been addressed and described in a correct way?

Results and discussion

- Do the analyses follow from the research questions and hypotheses, and are they adequate?
- Do the data have a scope and quality that are sufficient? Are the data well-presented and interpreted?
- Have the insights from the studies, including their weaknesses, been presented in a clear way?
- Have your own research results been adequately presented in the context of the current research in the area?

In general

- Do I enable the reader to appreciate the thesis by being well organized, coherent, concise and clear? Is the referencing adequate?
- Is everything included that is needed to make the thesis coherent?

Reflection concerning learning outcomes for examination

Please reflect about what general learning outcomes ([according the Higher Education Ordinance](#)) and individual learning outcomes (according to your individual study plan) that you have attained during the thesis work. You may also describe progression in your learning, understanding and development as a researcher, either within the thesis or as an appendix to the thesis. This will give the thesis a personal touch as you will be able to ‘tell your story’.

For whom am I writing the thesis and what is my level of ambition?

It is suitable to discuss these questions with e.g., one’s supervisors, and it is a good practice to reflect upon these issues when writing the thesis summary chapter or kappa.

Practical tips

1. Read the “[Guidelines for writing a compilation thesis summary chapter](#)”² by the former Board of Doctoral education carefully and find suitable literature concerning thesis writing and read it, preferably at the latest when two years to examination remain.
2. Start at an early stage to gather materials for your thesis (ideas, articles, names of persons you want to acknowledge) in a folder on your computer (a note page in your mobile phone can also facilitate this).
3. Check out the webpage “[Content of the thesis](#)”.
4. Download and use the template for theses provided by the printing house.
5. Use suitable reference management software. Find information at the [KI library webpage](#) about the different alternatives.
6. Look at video clips and/or read blogs about “writing literature review”/ "writing thesis" / "writing dissertation". There is so much valuable information to find on the internet but try to be selective in order not to get drowned.
7. Divide and conquer! Start with structuring the sections with titles and subtitles. Fill every part.
8. It can be helpful to plan results-oriented instead of time-oriented. Thus, try to make a realistic plan for how much writing to accomplish in a certain short time span instead of just planning how many hours to be writing.
9. Begin preparing the introduction/background/literature review part before the half-time review – you can then update continuously. The results section is also a good section to get started with at an early stage.
10. Locate the theses in your field of research in the [KI Open Archive](#) and check them.
11. Ask your supervisors or other senior researchers for good theses and read them and discuss with your supervisor and/or other researchers what it is that makes the thesis good in their opinion.

12. You should understand the ethics of scientific writing and be aware of what is meant with plagiarism and other ethical misconducts and how to avoid those practices (see e.g. "[God forskningsset](#)" (also in English: "Good research practice"), Vetenskapsrådets rapportserie 2017 ⁵, Roig 2011 ⁶). It is a good learning experience and useful for quality control to [check your half-time review and thesis with the plagiarism detection tool iThenticate](#).
13. It is allowed to include unpublished data, failed experiments or dead-end studies that you may have performed during the course of your thesis, when applicable and preferably in agreement with your supervisors. These still represent learning experiences.
14. Make a checklist of all the important milestones before thesis defense. Include time for revisions of the thesis (and manuscripts) e.g. by the supervisors and find out if the research team or division organizes a "kappa seminar" or pre-thesis defense. Be sure to check your schedule until defense with your supervisors.
15. Remember to make frequent backups on hard discs / servers when writing your thesis.
16. Ask competent people to read your drafts.
17. Offer to review other doctoral theses.
18. Try to find a suitable place where you can write your thesis relatively undisturbed.
19. If necessary and possible: turn off email and social media alerts while writing your thesis.
20. 'A picture says a thousand words' – a thesis in which appropriate tables and illustrations are included is generally more attractive to read than one only comprised of written words.
21. Make sure that you are aware of [copyright](#) issues. Remember to include the sources from **all** tables **and** illustrations (unless you have designed them yourself) and request the appropriate permissions in time and mention the permissions that you have obtained in connection to the illustration.
22. Take sufficient time to reflect on the layout (check also the KI regulations about thesis [layout and printing thesis](#)) and general presentation of your thesis.
23. Need for language editing? Check in time:
 - a. for the possibility of language editing including funding for this purpose.
 - b. for names of people who have a good record of language editing.
 - c. when the language editor has time to review your thesis and how much time is needed for this.

References

1. Barbara E. Lovitts. Making the Implicit Explicit: Creating Performance Expectations for the Dissertation. 2007. Stylus Publishing LLC. Sterling, Virginia, USA.
2. [Guidelines for writing a compilation thesis summary chapter](#). 2012. Board of Doctoral Education at Karolinska Institutet, Stockholm.
3. Peggy L. Maki and Nancy A. Borkowski. The Assessment of Doctoral Education: Emerging Criteria and New Models for Improving Outcomes. 2006. Stylus Publishing, LLC. Sterling, Virginia.
4. [Assessing a PhD thesis](#). 2017. Sahlgrenska akademien, Göteborg. (See especially the criteria on page 10).
5. [”God forskningssed”. Vetenskapsrådets rapportserie 2017](#) (Swedish); [”Good research practice”](#). Vetenskapsrådets rapportserie 2017
6. [Avoiding plagiarism, self-plagiarism, and other questionable writing practices: A guide to ethical writing](#). Miguel Roig, St. Johns University, New York, USA. Website of U.S. Department of Health and Human Service, Office of Research Integrity. Latest revision.

KI web pages for further information

<http://ki.se> (choose in Swedish or in English) and its “staff portal”

<http://staff.ki.se/doctoral-education> (choose in Swedish or in English)

<http://kib.ki.se> (choose in Swedish or in English)

<http://publications.ki.se> (choose in Swedish or in English)

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