

Support for writing the thesis

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**Karolinska
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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 the expectations and 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)

Requirements for a thesis from Karolinska Institutet

The formal requirements for a thesis from Karolinska Institutet (KI) are specified in the Rules for doctoral education at Karolinska Institutet² in the chapter about examination and more information is given on the webpage [content of the thesis](#) and related webpages. One also needs to be aware of the requirements regarding [layout and printing of the thesis](#).

¹ Barbara E. Lovitts. Making the Implicit Explicit: Creating Performance Expectations for the Dissertation. 2007. Stylus Publishing LLC. Sterling, Virginia, USA.

² [Rules for doctoral education at Karolinska Institutet](#).

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

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

Attainment of the intended learning outcomes for doctoral education and the thesis

You can reflect about your progress regarding the general intended learning outcomes (ILOs) [according to the Higher Education Ordinance](#) and [according to your individual study plan](#). You are able to show your [attainment of most intended learning outcomes \(ILOs\) in the different sections of the kappa](#). 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'. The doctoral student and the principal supervisor write reports on the development on the doctoral student's learning and development as a researcher, including on achievement of the ILOs as part of the application for public defence/licentiate seminar. The doctoral student is supposed to share these reports with the Examination Board and the Opponent.

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^{3,4}. 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

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 Barbara E. Lovitts. Making the Implicit Explicit: Creating Performance Expectations for the Dissertation. 2007. Stylus Publishing LLC. Sterling, Virginia, USA.

lists of characteristics makes the reader more conscious about the features of both a low and a high-quality thesis.

The following two booklets are available for home loan from KI library:
[Developing quality dissertations in the sciences : a graduate student's guide to achieving excellence](#)

Lovitts, Barbara E. & Wert, Ellen L. Sterling, Va. : Stylus Pub.; 1st ed.; 2009

[Developing quality dissertations in the social sciences : a graduate student's guide to achieving excellence](#)

Lovitts, Barbara E. & Wert, Ellen L. Sterling, Va. : Stylus Pub.; 1st ed.; 2009

General support questions for writing the thesis frame or kappa

(The questions below can help to enhance quality of the thesis; The titles 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

- 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, relevant and 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?

Practical tips

1. 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).
2. Download and use the latest [template for theses provided by the printing house](#).
3. [Use AI-tools wisely](#) in the writing process of your thesis.

4. Use suitable reference management software. Find information at the [KI library webpage](#) about the different alternatives.
5. 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.
6. Divide and conquer! Start with structuring the sections with titles and subtitles. Fill every part.
7. 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.
8. 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.
9. Locate the theses in your field of research in the [KI Open Archive](#) and check them.
10. 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.
11. You should understand the ethics of scientific writing and be aware of what is meant with plagiarism, including self-plagiarism, and other ethical misconducts and how to avoid those practices. 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](#).
12. 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.
13. 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 someone organizes a “kappa

seminar" or pre-thesis defense. Be sure to check your schedule until defense with your supervisors.

14. Remember to make frequent backups on hard discs / servers when writing your thesis.
15. Ask competent people to read your drafts.
16. Offer to review other doctoral theses.
17. Try to find a suitable place where you can write your thesis relatively undisturbed.
18. If necessary and possible: turn off email and social media alerts while writing your thesis.
19. '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.
20. You can consider to include a [graphical abstract](#).
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 out over the help you can get using AI-supported tools like Grammarly, DeepL and Microsoft Copilot?
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.

KI web pages for further information

(choose in Swedish or in English)

<http://ki.se>

<http://staff.ki.se/doctoral-education>

<https://staff.ki.se/doctoral-education/time-to-defend-your-thesis>

<https://kib.ki.se/en/start>

<https://kib.ki.se/en/about-kib/our-activities/librarys-workshops-courses-and-seminars>

<https://openarchive.ki.se/>

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