



The public defence of a doctoral thesis

Information to

Examination Board, Opponent and Defence Chairperson

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Introduction

This document is a compilation of routines and regulations that apply to the public defence of doctoral theses at Karolinska Institutet and defines the responsibilities of the different persons involved. All citations from the document *Rules for Doctoral Education at Karolinska Institutet*, chapter 7, start with a reference. The remaining text describes existing practice.

Routines and regulations for a licentiate examination have many similarities to the doctoral examination but with some important differences. Please see “Licentiate degree” on page 6.

Following person are involved in a public defence:

Respondent (the doctoral student)

Examination Board, three members whereof one coordinator of the preliminary review

Opponent

Defence Chairperson

Audience

Examination Board

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.5:

The following apply to Examination Boards at public defences:

- The Examination Board shall comprise three members (if there are special reasons, such as a doctoral thesis being of a pronounced interdisciplinary character, the number of members on the Examination Board may be increased to five).
- One of the members shall be designated as the coordinator. The coordinator shall not belong to the same department as the doctoral student, the principal supervisor or any of the co-supervisors.
- All of the members of the Examination Board must be associate professors (*docent*) or professors.
- All of the members must be experts in the field of the project. The combined expertise of the Examination Board shall cover the entire content of the thesis.
- The members of the Examination Board must be independent of and unbiased in relation to the doctoral student, the supervisors and the project.
- If possible, at least one member of the Examination Board shall have been a member of the board at the doctoral student’s half-time review.
- Only one of the members may belong to the same department as the doctoral student (or the principal supervisor, in cases when the principal supervisor is in a different department as the doctoral student).
- At least one member shall come from another university than the doctoral student, principal supervisor and co-supervisors.

The Dissertation Committee appoints the Examination Board.

Responsibility of the Examination Board

The Examination Board members are the doctoral student's examiners. In addition, the assignment also includes a review of the thesis papers before the actual examination, the so called preliminary review (*Sw: förhandsgranskning*).

Please observe that any contact between respondent/supervisor and examination board members should be limited to only practical issues. It is strongly recommended not to discuss the content of the thesis with the respondent before the public defence.

Preliminary review

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.6 and 7.2.2:

Most theses from KI are compilation theses, based on a number of separate original papers combined with a comprehensive summary.

Before the thesis is submitted for printing, the Examination Board shall conduct a preliminary review (*Sw: förhandsgranskning*) of the thesis in order to assess if the quality of its constituent papers is of a sufficiently high standard for a PhD. In the event of disagreement, the matter is decided by the majority opinion, even if all members of the board are expected to comment in its pronouncement.

The constituent papers should be original papers (not reviews). One of the constituent papers can be a systematic survey article, for example a meta-analysis. The requirement for such an article is that it creates new knowledge.

The number of constituent papers in a compilation thesis varies, but they must have a scope that in total is equivalent to four years of full-time doctoral education and a scientific quality expected at an international renowned university. The doctoral student's contribution to the constituent papers must be clearly identified.

If the Examination Board deems the quality of a thesis to be insufficient, the student is recommended to postpone the defence of his/her thesis. On the first such occasion, the student is entitled to further supervision and educational resources for an additional six months over and above the original study schedule in order that he/she may have the opportunity to improve the quality of his/her work.

(A doctoral thesis may also be presented in the form of a monograph thesis. Special rules of review then apply.)

Routines

Following documents should be sent by the doctoral student to the members of the examination board before the preliminary review can take place:

- All constituent papers and manuscripts
- A copy of the granted application for public defence
- A copy of the half-time review protocol
- (If the doctoral student has included a review article in the thesis frame, a description of the content or the article should be attached)

After the Examination Board has received the papers it has two weeks to complete their preliminary review of the papers and the coordinator to send in the concluding recommendation.

Coordinator

The responsibilities of the coordinator are:

- To ensure that the preliminary review of the constituent papers is conducted and that the form “Examination Board’s Preliminary Review” is sent to the Dissertation Committee by no later than two weeks after receiving the relevant material.
- To ensure that any comments made by an individual member are made known to all members and to facilitate further discussions within the board.

Assessment

When making its recommendation, the Examination Board is to pay primary regard to the following: Is the thesis material of a scope and quality that may be deemed high in relation to the equivalent of four years of full-time doctoral studies in an international highly-ranked university?

It is the scope and quality of the material presented that is critical to the assessment, not the number of constituent papers. This means that relatively few comprehensive papers published with the student as the principal author in some of the more renowned journals in the research field is a better reflection of the quality of the student’s work than many papers co-written by a number of authors (of which the student is not the principal one) or publication in less prestigious journals.

The student’s contribution to each article is clearly indicated in the defence application and is to be taken into regard in this context. Special attention should be placed on unpublished manuscripts.

The Examination Board cannot in its recommendation ask for more papers to be published, since that overrides the rules regarding the number of manuscripts allowed in a thesis.

If during the review suspicion arises regarding any kind of deviation from good research practice, please contact the Board of Doctoral Education, see “Unexpected Events” last page.

Examination

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.11:

The Examination Board shall assess the thesis and its public defence with regard to:

- the respondent's presentation of the thesis at the public defence, including the discussion with the opponent, and the ability to answer questions and discuss the significance of the results within the field of research
- the quality of the comprehensive summary
- the scientific content of the constituent papers
- the fulfilment of the outcomes of the doctoral degree.

Against the background of this assessment, the Examination Board comes to a decision to award a grade of either pass or fail.

The decision of the majority applies. A single member may dissent from the Examination Board's decision on the grade, in which case specific justification must be given.

The Examination Board must provide a written justification when awarding a fail. The doctoral student then has the opportunity to, at a later date, re-apply for a public defence of their thesis. However, there is no obligation on the part of supervisors, the department or KI, to cover the

additional costs that result from a renewed defence of thesis, or to support the doctoral student after a failed doctoral examination beyond the expiry of the existing appointment.

Opponent

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.4:

The opponent shall be a researcher who must hold a doctoral degree (exceptions may be made for very well qualified professors), who is an expert in the field of the project, and who is unbiased with respect to the doctoral student, the supervisors and the project.

The opponent is appointed by the Dissertation Committee.

Responsibility of the Opponent

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.4:

The role of the opponent is to critically review all parts of the thesis, both the comprehensive summary and the constituent papers, and to discuss these in detail with the respondent (the doctoral student) during the thesis defence. The opponent is to highlight the strengths and weaknesses in the thesis in a discussion with the respondent, in which the respondent shall also have the opportunity to demonstrate knowledge obtained. This discussion shall cover both technical and practical details, and how the results of the thesis may be viewed in a broader context.

On the same day as the thesis is nailed (three weeks before the day of the defence at the latest), a copy of the thesis shall be sent to the opponent.

Other instructions for the opponent

Please observe that contact between respondent/supervisor and the opponent should be limited to only practical issues. It is strongly recommended not to discuss the content of the thesis with the respondent before the public defence.

If during the review suspicion arises regarding any kind of deviation from good research practice, please contact the Board of Doctoral Education, see "Unexpected Events" last page.

Defence Chairperson

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.9 and 7.2.8:

The public defence is led by a public defence chairperson. A member of KI faculty who has a doctoral degree is appointed chairperson. It is not recommended that the chairperson be one of the supervisors.

On the same day as the thesis is nailed (three weeks before the day of the defence at the latest), a copy of the thesis shall be sent to the chairperson.

The responsibility of the Defence Chairperson

The chairperson's responsibility is to host and coordinate the defence. He/she is expected to know the proceedings (see "Public defence proceedings" below) and being able to handle any complications (see "Unexpected events" last page)

Public defence proceedings

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.9:

The doctoral thesis shall be presented and defended orally in public.

The public defence shall be public and preferably held in English, but Swedish is also acceptable.

If the proceedings are very long, the chairperson may suspend them for a break. Under no circumstances may the defence proceedings be concluded until all opposition and discussions from the opponent, the Examination Board members and the auditorium have been dealt with.

Public defence proceedings:

1. The chairperson will open proceedings and present the respondent, the title of the thesis to be defended, the opponent and the Examination Board.
2. The respondent gives notice of any corrections to the thesis and may, if necessary, distribute a list of errata.
3. The opponent or the respondent are invited to present a brief popular scientific introduction to the thesis and the field dealt with by the research.
4. The respondent or the opponent presents the main results and conclusions of the thesis.
5. The opponent discusses the thesis with the respondent, comments on its strengths and weaknesses, and poses questions which the respondent must answer to the best of their ability.
6. The chairperson invites the Examination Board to pose questions.
7. The chairperson invites the audience to pose questions.
8. The chairperson concludes proceedings.

Examination Board meeting following the public defence

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.10:

Following the public defence, the Examination Board is called to an immediate meeting to decide on the grade. The Examination Board appoints a chairperson from amongst themselves.

The Examination Board meeting is comprised of two parts:

1. In the first part, the public defence chairperson, supervisors and the opponent may be present for discussing the respondent's performance with the Examination Board.
2. In the second part of the meeting, only members of the Examination Board are present. The grade and the written justification for this are confirmed, after which the minutes are written up and signed.

If there are any remarks made during the public defence which were so extraordinary that the Examination Board considers it necessary to undertake specific investigations or consultations before a decision can be made, the Examination Board should adjourn the meeting. The adjournment must be short, two weeks at most.

Licentiate degree

The differences between a public defence of a doctoral thesis and a defence of a licentiate thesis are as follows:

- The public defence of a licentiate thesis is called licentiate seminar (*Sw: licentiatseminarium*), not public defence (*Sw: disputation*).
- There is no opponent at a licentiate seminar. The respondent responds to questions from the Examination Board and from the audience.
- The scope and quality of a licentiate thesis should equal **two** years full-time studies (not four years)
- No half-time review transcript is to be sent to the examination board at the preliminary review.
- The defence chairperson is appointed by the student's department (not by the Dissertation committee). The recommendation regarding not appointing the supervisor as a chairperson is also applicable here.

Unexpected events

Sometimes complications may occur affecting the public defence proceedings and the defence chairperson has the responsibility to handle the situation.

In case of impediment

If any of the persons involved fail to attend, the defence can either be postponed awaiting late arrival or a new person can be appointed. In that case, the following applies:

from *Rules for Doctoral Education at Karolinska Institutet*, section 7.2.9:

If the opponent is unable to attend, the public defence may proceed with the Examination Board taking on the role of the opponent.

If one of the Examination Board's members is not present at the public defence, the chairperson must contact the Dissertation Committee administrator at the university administration so that a new member can be appointed. There must be three Examination Board members present for the public defence to proceed.

Suspicion of irregularities

At any suspicion of possible deviation from good research practice, conflicts of interest, cheating or any other misconduct arises either at the preliminary review or at the public defence, the Board of Doctoral Education must be informed, see contact information below.

According to the regulations for dealing with suspected attempts at cheating, it is the examiner, *i.e.* the Examination Board, which is responsible for reporting it to the Vice-chancellor. The easiest way is to use the contact information below.

Contact information:

- Questions regarding examination, preliminary review etc - please contact administrative officers for Dissertation committee.
- Questions regarding irregularities - please contact administrative officers in the Board of Doctoral Education.

Contact information: <http://ki.se/en/staff/contact-doctoral-education>

General information regarding doctoral education at KI, rules etc, is available from this web page: <http://ki.se/en/staff/doctoral-education>

APPENDIX 1.

Outcomes for the Degree of Doctor (the Higher Education Ordinance)

Knowledge and understanding

For the doctoral degree, the doctoral student shall

- demonstrate broad knowledge and systematic understanding of the research field as well as advanced and up-to-date specialised knowledge in a limited area of this field, and
- demonstrate familiarity with research methodology in general and the methods of the specific field of research in particular.

Competence and skills

For the doctoral degree, the doctoral student shall

- demonstrate the capacity for scholarly analysis and synthesis as well as to review and assess new and complex phenomena, issues and situations autonomously and critically,
- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work,
- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through their own research,
- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and society in general,
- demonstrate the ability to identify the need for further knowledge, and
- demonstrate the capacity to contribute to social development and support the learning of others both through research and education and in some other qualified professional capacity.

Judgement and approach

For the doctoral degree, the doctoral student shall

- demonstrate intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics, and
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.

APPENDIX 2.

Conflict of interest

The members of the examination Board and the Opponent are obliged to report any Conflict of Interest (COI) with either a supervisor or the student. Regulations on COI are contained within the Administrative Procedure Act (1986:223), which is a general law for all public authorities. Karolinska Institutet's Ethical Council has drawn up a set of rules governing conflict of interest at KI¹. The following additional praxis for the examination of COI has been decided by the Board of Doctoral Education:

- Scientific collaboration and co-production during the past five-year period constitutes COI. A joint article is considered sufficient to qualify as co-production.
- A COI situation can exist for longer than five years if the collaboration has been particularly close.
- The student-supervisor relation is always considered to constitute COI regardless of how long ago the partnership was active.
- An exemption from the five-year rule may be made for collaboration carried out in the form of multicentre studies or similar, for which the COI situation is assessed case by case.

¹ Jävsregler för Karolinska Institutet, dnr 900/06-608