

The public defence of a doctoral thesis

Information for

**Examination Board member, Opponent and Defence
Chairperson**

Dnr 1-376/2020

Content

Introduction.....	1
Examination Board	1
Opponent	1
Defence Chairperson.....	2
The thesis	2
Preliminary review	3
Routines of preliminary review	3
Coordinator of the Examination Board	3
What is examined?.....	4
The <i>kappa</i> or comprehensive summary.....	4
Constituent papers.....	5
Objective fulfilment.....	5
Public defence proceedings	5
Examination Board meeting following the public defence.....	6
Unexpected events.....	7
In case of impediment.....	7
Suspicion of irregularities.....	7
APPENDIX 1. Outcomes for the Degree of Doctor	
APPENDIX 2. Guidelines for the <i>kappa</i> or comprehensive summary	
APPENDIX 3. Conflict of interest	

Introduction

This document is a compilation of the rules for the public defence and examination of doctoral theses at KI. For full access to KI's *Rules for doctoral education* visit the KI website¹.

The purpose of the document is to brief examination board members, opponents and the defence chairperson on their roles.

Following persons are involved in a public defence:

Respondent (the doctoral student)

Examination Board, three members (or five) whereof one coordinator

Opponent (external examiner)

Defence Chairperson

Audience

Examination Board

The Examination Board is appointed by the Dissertation Committee on behalf of the Committee for Doctoral Education.

The role of the Examination board is to judge the doctoral student's performance at his/her thesis defence, the scientific quality of the constituent papers and the quality of the *kappa* (the comprehensive summary), and to ensure that the degree objectives have been fulfilled (see *What is examined?* below). The Examination Board is also required to conduct a preliminary review of the constituent papers.

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

The Examination Board shall comprise three members (in exceptional circumstance, such as a doctoral thesis being of a particularly 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.

Opponent

The *opponent* (external examiner) is appointed by the Dissertation Committee on behalf of the Committee for Doctoral Education.

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 *kappa* (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

¹ <https://staff.ki.se/rules-and-general-syllabus-for-doctoral-education>

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. (More information at *Public defence proceedings* below.)

Other instructions for the opponent

On the same day as the thesis is “nailed” (i.e. three weeks prior to its defence at the latest), a copy of the thesis shall be sent to the opponent” (*The Rules*, section 7.2.8).

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.

Any suspicion of possible deviation from good research practice must be reported. Please see *Unexpected events* below.

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).

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” (i.e. three weeks prior to its defence at the latest), a copy of the thesis shall be sent to the chairperson.

The thesis

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

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

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.

At least two of the constituent papers included in the thesis must have been accepted for publication in peer-reviewed journals, the remainder may be in manuscript form.

The constituent papers should be original papers. One of the papers can be a systematic review article if it includes a meta-analysis or other comprehensive qualitative or quantitative synthesis. The requirement for such an article is that established reporting guidelines for systematic reviews have been followed.

The constituent papers that are included in a compilation thesis shall be introduced and discussed in the thesis in the form of a *kappa* (comprehensive summary).

(A doctoral thesis may also be presented in the form of a monograph thesis. Special rules then apply, see *Rules for doctoral education at KI, section 7.2.3.*)

Preliminary review

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

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.

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.

Routines of preliminary review

Following documents should be sent by the doctoral student to the examination board:

- All constituent papers and manuscripts
- A copy of the granted application for public defence
- A copy of the half-time review protocol
- The form *Examination board's preliminary review* to be filled in by the examination board

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.

(More information regarding assessing the scientific content of the papers can be found under *What is examined?* below.)

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.

Coordinator of the Examination Board

One of the members is appointed by the Dissertation Committee to coordinate the preliminary review. 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.
- To receive the report from the text-matching system and to make it and the instructions available to the other members of the Examination Board (see *What is examined?* below).

What is examined?

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 *kappa* (comprehensive summary)
- the scientific content of the constituent papers
- the fulfilment of the objectives of the doctoral degree.

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

The *kappa* or comprehensive summary

The Examination Board is required to judge the quality of the *kappa* (comprehensive summary).

On the same day as the thesis is made public after “nailing” (i.e. three weeks prior to its defence), the respondent is to send the printed thesis to the opponent, Examination Board and defence chairperson (*Rules*, section 7.2.8).

On “nailing”, the thesis *kappa* is run through a text-matching system. The ensuing report is then sent to the Examination Board coordinator along with instructions, for use as an aid in the *kappa*'s examination.

The text-matching process is designed to uncover any plagiarism, which as suspected deception must be reported. The report can also be used as a basis on which to judge the quality of the *kappa*, and whether the requirements set out in the *Guidelines for the kappa or comprehensive summary* (appendix 2) have been met (e.g. that the thesis is the student's own work).

Should the Examination Board judge the quality of the *kappa* to be insufficient, the matter should be taken up with the respondent at his/her defence. Should the *kappa* be of such poor quality as to risk a failing grade, the respondent and his/her supervisor should be notified in advance.

Constituent papers

The scientific content of the constituent papers is judged primarily during the preliminary review. When making its recommendation, the Examination Board is to pay particular 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? This is a subjective assessment requiring expertise and integrity of the Examination Board members.

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 see *Unexpected Events* last page.

Objective fulfilment

The Examination Board is required to ensure that the degree objectives have been fulfilled. The members should therefore have appendix 1 (Outcomes for the Doctoral Degree) at hand during the defence proceedings. Note that the defence application, the *kappa* and the constituent papers also provide information regarding objective fulfilment.

If the Examination Board is uncertain whether the respondent has met one or more of the intended outcomes, it should ask questions during the defence until the matter is settled satisfactorily.

Public defence proceedings

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

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 and 7.2.11:

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.

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.

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, it must be reported, see contact information below.

Contact information:

- Matters concerning formalities and rules or to report irregularities: disputation@ki.se. Emails are read regularly during office hours by Dissertation Committee administrators.
- Matters concerning practicalities: The director of doctoral studies or the doctoral education administrators at the relevant department: <https://staff.ki.se/contact-directors-of-doctoral-studies-and-administrative-officers-at-the-departments>

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

Intended outcomes of doctoral education according to 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.

Guidelines for the *kappa* or comprehensive summary

Guidelines for writing a *kappa*¹

Most theses from Karolinska Institutet are compilation theses comprising a collection of original papers introduced by a *kappa* or comprehensive summary chapter (sometimes called the “thesis frame”).

The purpose of the *kappa* is for doctoral students to:

- demonstrate the depth and breadth of knowledge and understanding they have of the research field, and their ability to identify a need for further knowledge in the field
- encapsulate the aim of their research project and the hypotheses/points of enquiry that have been addressed
- demonstrate familiarity with the methods applied in the research field
- demonstrate an ability to place their own research in a wider context of the latest research in the field
- demonstrate by means of a reflective discussion that the learning outcomes set out by the Higher Education Ordinance for doctoral education have been achieved

The *kappa* should be weighted towards a reflective discussion and contextualisation of the student’s own research results. It is to be considered part of the examination and is included in the assessment of whether the learning outcomes set out by the Higher Education Ordinance for doctoral education have been achieved.

The text of the *kappa* must be the student’s own original work without the extensive reproduction of extracts from the constituent papers. Failing to acknowledge sources when quoting from the work of others constitutes plagiarism.

Diagrams/tables from the constituent papers may be included in the *kappa*, although permission must be sought from the journal in question if the source article has been published or accepted for publication.

The *kappa* is a public document and is published digitally. It may be used to present preliminary (unpublished) results, but its public nature should be borne in mind if, for example, the research group is considering patenting any aspect of their work. Including preliminary results in the *kappa* might also cause difficulties for the group should they wish to have their results published in a journal at a later date.

¹ Decided by the Board of Doctoral Education. Ref: 7451/11-500

APPENDIX 3. Conflict of interest

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.

Apart from obvious bias by virtue of family ties or friendship, COI is also deemed to exist in the following situations:

- Scientific collaboration and co-production during the past five-year period constitutes COI. A joint article is considered sufficient to qualify as co-production. 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. 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.

More information on COI:

Swedish Research Council: How we avoid conflicts of interest:

<https://www.vr.se/english/applying-for-funding/how-applications-are-assessed/how-we-avoid-conflicts-of-interest.html>

Karolinska Institutet: Guidelines on conflict of interest, Ref: 1-405/2019:

<https://staff.ki.se/media/7285/download>