# **Guideline SILS PhD trajectory and Thesis requirements**

To complete your PhD project, you will need to write a doctoral thesis and defend it in public. The PhD candidate, as well as the supervisory team, are responsible for the quality of the research conducted and described in the doctoral thesis, according to the prevailing code of Scientific standards. A PhD project encompasses the training of an academic to become an independent and skilled scientists who is well equipped for a career inside and outside academia. In the Netherlands, PhD projects are funded for a period of 48 months. The aim is to defend your thesis within 48 to 60 months from the start of the project. Your doctoral thesis is a written document demonstrating your scientific ability, capacity and maturity. In article 15 of the <a href="UvA Doctoral regulations">UvA Doctoral regulations</a> a general description of the content and scope of the dissertation is given (see below). This document gives a more detailed description of a PhD thesis according to the view of SILS.

#### Thesis content

Your doctoral thesis contains at least a general introduction, several publishable research chapters and a general discussion. The chapters in a thesis should form a collective unit; you create a story line throughout your thesis that is reflected upon in the general discussion.

## **General introduction**

In the general introduction, you describe your view of the current state-of-the art in your discipline. You highlight gaps in scientific knowledge, the research questions that comes from this knowledge gap, and introduce an overview of your thesis detailing the aims and objectives, followed by the approaches taken to answer the research question(s). The general introduction contains information and context that members of the promotion committee will assist to comprehend and appreciate the research chapters. A review article may be used as part of the general introduction. In that case, a short general introduction and overview of the objectives of the thesis research has to be added. Although you should strive to be concise, there are no explicit length or word count criteria for the introduction; quality is the only criterion.

## **Research chapters**

There is no requirement for the number of research chapters in a thesis: quality, coherence and your specific contributions prevail over quantity. The guideline is three or more publishable chapters. We define a publishable research chapter as a (future) publication or a substantial part of a more extensive study. Ideally, at least one research manuscript should have gone through the process of submission to a scientific journal, peer review and rebuttal.

Each research chapter contains work conducted and analysed by the candidates (experimental and/or modelling and/or data analysis), demonstrating that you, the candidate, followed the scientific research cycle:

- you identify a rational for your research,
- you identify a gap in scientific knowledge;
- you outline an approach;
- you describe the appropriate collection and analysis of data, or existing relevant databases/datasets;
- you reflect on and position (significance of the findings) the results within the context of the specific field.

The length and format of a (publishable) chapter, the number of figures, the scientific depth, the quality of data collection and analysis thereof, should be of a level <u>customary to your specific discipline</u>. Some general requirements:

- The mere collection of data in itself is not sufficient for inclusion of a chapter in your thesis. You should have followed the scientific research cycle and thus you should have contributed to the data analysis, interpretation, summarizing, and reflection on the results. You should be able to explain and defend all the results and conclusions with arguments that you present in your thesis.
- If you, as part of a team effort, have conducted a crucial part of a larger study, but you are not the first, second or last author, the work can still be included in your thesis. The extent of your scientific contribution determines whether a manuscript can be part of your thesis. If your contribution to that publication is not sufficient in itself to be a chapter, you may supplement the material with your own relevant work.
- A (publishable) research chapter does not already have to be submitted or accepted for publication in a peer-reviewed journal to be included in the thesis. However, you and your supervisors should strive to publish (parts of) these chapters in peer-reviewed open-access scientific journals. For manuscripts that are published or will be in the future, you will be (co)author of the respective thesis chapters, in recognition of your scientific work.

#### **General discussion**

Where research chapters, and sometimes the general introduction, may be collaborative efforts, the general discussion should be your own individual product. In this final chapter, you reflect and position your individual research work in relation to overarching research question of your thesis, e.g. you discuss notable findings or methods developed in a birds-eye perspective by placing it in the context of a broader scientific discussion. The aim is to aid the reader to appreciate the significance of this study by providing a novel model or new mechanism in relation to the general notion up to that point. You align them with the objectives you formulated in the introduction. You identify future opportunities for research and discuss the impact of your work on the research field and society.

## **Author contributions**

For all chapters where other researchers have participated in, you should explicitly indicate what their contribution to the study has been. This should be done on a separate page at the end of your thesis to summarize contributions. The format you can use: Chapter 2, Title, Author names, abbreviations with contributions: AB and CD conceived and designed the study, CD and EF conducted the experiments, AB, CD and EF analysed the data and wrote the manuscript, etc. If more PhD students have contributed to one research article, this article can be used as a chapter in their respective theses, optionally extended with results that had not been used before in the publication.

#### **Planning**

To be able to defend your thesis within 54 to 60 months from the start of the project, you should aim to start working on chapters / publications as early as possible. Together with your supervisor you will work on this planning already in the first two years and practice your writing skills where possible. In the 24 months evaluation document for PhDs you are required to give a rough planning for the experiments you will be doing in the third and fourth year. Because the outcome of your experiments cannot be predicted, this planning serves mainly as a guideline and can be adjusted during the third year. In the 36 months evaluation document you are required to fill in a planning for the final experiments and detail the outline of your thesis, specifying the chapters it will comprise. In this way

you will have an overview what needs to be done. The assessment forms (also for the 9-12 months assessment and the TSP) can be <u>found here on the FNWI website</u>.

There is an UvA flowchart available (document *Procedure: 'From manuscript to doctoral thesis'*) that clarifies which steps you have to go through to submit your thesis and the associated timeline.

### **Conflicts of interest**

If you and your supervisors cannot reach agreement on the content of the thesis (number of chapters or quality/size of a research chapter), either of you has the right to approach an independent party. SILS aims to have two supervisors (promotor and (co-promotor) and an external advisor (this person can be appointed through the Graduate School the PhD candidate participates in or be a member of the SILS staff). In case of a conflict of interest, a person from outside the university has the role to mediate a satisfactory solution. In case this turns out to be difficult, a final decision will be made by the director of SILS together with the 'management-team representative' of the research theme after consultation of both PhD candidate and supervisors.

If you need advice in case of a conflict, there are <u>confidential advisors</u> available within the SILS and within the Faculty. For informal (peer) advice, the <u>SILS PhD/PD Council</u> can be contacted.

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## **UvA Doctoral regulations 2020**

Article 15 (for full doctorate regulations, check here).

Content and length of thesis manuscript and doctoral thesis

- 1. The thesis manuscript consists of a scientific treatise on a particular subject or a number of separate scientific papers that have been published, in whole or in part, provided that these demonstrate sufficient coherence in relation to a particular subject. In the latter case, an additional section needs to be added to the individual papers which explains how they relate to one another and states the significance of each.
- 2. The length of the doctoral thesis should be limited to 70,000 words (excluding bibliography, references, and appendices). Exceptions may be made at the discretion of the Dean, on the basis of a reasoned proposal by the supervisor.
- 3. The doctoral thesis and any accompanying propositions are to be written in Dutch or in English. The supervisor may, with the approval of the Dean, ask the Doctorate Board for permission to use another language. This request must take explicit account of the possibility of appointing a Doctorate Committee that complies with the requirements of these Doctorate Regulations and whose members have sufficient ability in the language in question to be able to assess the doctoral thesis.
- 4. The doctoral manuscript that is submitted to the supervisor for final approval must be identical in form and content to the doctoral thesis submitted to the Doctorate Committee for assessment and public defence during the doctoral thesis defence ceremony. It should include the following elements:
- a. a title page as supplied by the Office of the Beadle;
- b. a table of contents;
- c. an overview of the literature consulted;
- d. if the doctoral thesis consists of articles or contains articles by multiple authors: a page with a complete reference list for each article with a list of authors for each article and an explanation of the relative contribution of the co-authors;
- e. an explanation of how the research was funded, if applicable, as laid down in Article 29, paragraph 6;
- f. a separate summary bearing the title of the thesis in the language in which it is written;
- g. a separate summary bearing the title of the thesis, both in Dutch;
- h. a separate summary bearing the title of the thesis, both in English.

An acknowledgements section is optional.