

Promotionskommissionen Dr. phil, Dr. rer. pol. and Dr. rer. nat. of the Faculty of Sustainability Science

Guideline for cumulative dissertations

Enacted January 15th (Dr. phil.), January 23rd (Dr. rer. pol.), January 24th (Dr. rer. nat.) 2012

Note

This is the English translation of the original German-language document. It is provided for convenience of understanding, and is not legally authoritative. Only the original German-language version of the guideline is authoritative and applicable in case of legal interpretation.

Objectives of the guideline

The guideline details §8 of the Promotionsordnung of the Faculty of Sustainability of February 15th, 2011 („PromO“)¹ – as well as the identical §8 of the previous version of the Promotionsordnung of the Faculty of Environment and Technique of June 9th, 2009 – with regard to cumulative dissertations. This guideline details the formal, substantive minimum standards for cumulative dissertations for all PhD programs in a consistent and authoritative manner and is intended to inform PhD students and their supervisors about the requirements for submission of cumulative dissertations in a transparent and reliable manner. Furthermore, it provides a unified framework for assessment and evaluation for PhD examiners. This guideline is intended to enable and promote high quality dissertations which have the contemporary form of publication of articles (where applicable with co-authorship) in international peer-reviewed journals.

Form of a cumulative dissertation

- §1. A cumulative dissertation is based on a number of “qualified articles” (§8 Abs. 4 PromO, in the following: “articles”)
- §2. A minimum of three articles are required for a cumulative dissertation. If articles are written with one or several co-authors this number may increase according to §14.
- §3. The articles can be “written in German or English” (§8 Sec. 3 PromO). Deviations from this rule are possible. These deviations require agreement by the Promotionskommission. An application for such agreement can be made at any time without formal requirements.

¹ Literal quotes from the Promotionsordnung are marked with quotation marks in this guideline and have a reference assigned.

- §4. Articles may be already published. "The publications must not be older than 5 years" (§8 Sec. 5 PromO).
- §5. If an article is already published or accepted for publication, and is submitted in the cumulative dissertation in a version that is changed compared to the published version (or the version accepted for publication) in any way other than formatting, then these changes have to be made explicit.
- §6. Only articles can be accepted in which the PhD student states Leuphana University as his/her institutional affiliation. Exceptions are possible if the admission to the PhD program of Leuphana University was made to a higher semester. In this case a number of articles can be accepted which were written under the institutional affiliation before entering the Leuphana PhD program. In this case at least one article must have been written under institutional affiliation with Leuphana University.

Substantive qualitative requirements of the submitted articles

- §7. The articles must be "a substantially consistent contribution, that shows the aptitude of the author to do in-depth and independent scientific work and that contributes to scientific progress" (§8 Abs. 2 S. 1 PromO).
- §8. An article is a finished manuscript that has independent scientific merit for a specific scientific community.
- §9. For a manuscript to have merit for a scientific community it must be published in, or suitable for publication in a medium accepted by the relevant scientific community. For the articles submitted as a cumulative dissertation the following must therefore hold:
- a) All articles must have the substantive quality and form required for publication in a medium accepted by the relevant scientific community.
 - b) At least two articles must have been accepted for, or have the proven potential for, publication in a peer-reviewed journal accepted by the relevant scientific community. For articles not published or accepted for publication, it is up to the PhD examiners to assess and give explicit reasons in their evaluation, whether they believe the articles have the potential for publication in a peer-reviewed journal accepted by the relevant scientific community. This assessment should build, in particular, on external quality indicators such as the acceptance of the article for international conferences with open call for papers and peer review, or a first positive decision by the editor in the publishing process for an international peer-reviewed journal such as "revise and resubmit", "acceptance pending revision", "conditional acceptance" etc.

Articles with several authors

- §10. A cumulative dissertation can be "the result of collaborative scientific research of several persons", and as such articles can have several authors (§8 Abs. 2 S. 2 PromO).
- §11. A cumulative dissertation that contains articles with co-authorship must still be an "independent scientific accomplishment" of the PhD student that "shows his/her aptitude to do in-depth and independent scientific work" (§8 Abs. 2 S. 2 PromO).
- §12. In case of co-authorship the PhD student must submit a declaration of authorship (agreed upon with all co-authors) for each article which details: the PhD student's own individual scientific contribution in

preparing the article; the individual scientific contribution of the other co-authors; and the relative importance of the PhD student's own contribution in relation to the contributions of other co-authors.

- a) If a co-author's contribution has been substantial in preparing the article, then the specific scientific contribution of each co-author must be explicitly stated by its type in the declaration of authorship.

Examples for the type of contribution are:

- Conception of research approach
- Development of research methods
- Data collection and data preparation
- Execution of research
- Analysis/Interpretation of data or preliminary results
- Writing or substantive rewriting of the manuscript

A co-author can be assigned to more than one type of contribution, and more than one co-author can be assigned to one type of contribution.

- b) The relative importance of the PhD student's own contribution in relation to the contributions of other co-authors to writing the article must be stated – taking all types of contribution into account and weighting them appropriately – according to the following classification:

- *Single authorship*, if the PhD student's own contribution is 100%.
- *Predominant contribution*, if the PhD student's own contribution is greater than the individual share of all other co-authors and is at least 35%.
- *Equal contribution*, if (1) the PhD student's own contribution is as high as the share of other co-authors, (2) no other co-author has a contribution higher than the PhD student's own contribution, and (3) the PhD student's own contribution is at least 25%.
- *Important contribution*, if the PhD student's own contribution is at least 25%, but is insufficient to qualify as single authorship, predominant or equal contribution.
- *Small contribution*, if the PhD student's own contribution is less than 20%.

§13. Based on the criteria outlined in the classification in §12b, the PhD student must be the "single author" of, or have made a "predominant contribution" to, at least one of the articles, and at least an "equal contribution" to at least one other article.

§14. To determine the number of articles according to §2 each article is weighed with a factor according to the relative importance of the PhD student's own contribution according to the classification in §12b. The sum of factors must be at least as high as the number given in §2.

Relative importance of own contribution	Weighting Factor
Single authorship	1.0
Predominant contribution	1.0
Equal contribution	1.0
Important contribution	0.5
Small contribution	0

Framework paper

§15. According to §8 Sec. 4 p. 4 PromO a framework paper is to be submitted with the articles that elucidates the internal coherence of the articles, the aspects studied in the articles, the methods employed and the results. The framework paper must be written solely by the PhD student, that is in single authorship, as a coherent text. The framework paper may be written in German or English and should comprise about 15 to 20 pages. The framework paper is part of the dissertation and, therefore, also part of the evaluation of the dissertation.

§16. As an appendix to the framework paper a table must state for each article:

- authorship of the article (single or co-authorship), in case of co-authorship supplemented by the declaration of authorship according to §12,
- publication status of the article (§9), that is, whether the article is already published, conditionally accepted for publication, accepted for (minor or major) revision, submitted, or planned for submission; including information regarding the publication medium such as the quality of the medium, e.g. impact factors, position in relevant rankings, the peer-review system used,
- at what conferences the substance of the article was presented (§9b), including title, place, date, and documentary evidence of the open call for papers (where applicable through a www-link).

If there is an editorial decision based on external reviews for a paper that is not yet published or not yet accepted for publication such as "revise and resubmit", "accepted pending revision", "conditional acceptance", etc., then this must be stated in the publication status of the article and be accompanied by documentary evidence, as well as a copies of the external reviews.

The appendix is to include a signed affirmation of the PhD student with the following statement: "I avouch that all information given in this appendix is true in each instance and overall".

Evaluation of the cumulative dissertation

§17. The PhD examiners shall evaluate both the individual articles and the overall contribution of the dissertation in their reviews.

§18. PhD examiners that contributed to articles of the cumulative dissertation as a co-author shall not – with the exception of the supervisor – discuss these articles in their reviews.

§19. For the evaluation of the scientific quality of an article the usual standards for the evaluation of scientific work of the respective scientific community apply. Generally, the rules for good scientific practice (according to the corresponding guideline of the Leuphana University Lüneburg) apply as well as the generally accepted standards of science, especially the criteria of originality, scientifically sound and methodologically valid argumentation, and progress of science. In their evaluation of the cumulative dissertation the reviewers shall employ the general as well as the respective disciplinary standards.

§20. A good indicator for the quality of the article is usually the quality of the medium in which an article is published, or the quality of a conference at which the article was presented. The reviewers shall appropriately consider the quality of the publication medium and conferences, which varies between scientific communities, but is agreed within a scientific community, in their evaluations. Disciplinary rankings of journals or publishers can be used, without implying a specific rating of an article or a dissertation.

Applicability of this guideline: entry into effect, transition rules, exceptions

- §21. The guideline applies to all newly admitted PhD students from the point in time it comes into effect. The guideline is valid until it is invalidated through the Promotionskommission or a cumulative dissertation becomes impossible through a change in the underlying Promotionsordnung.
- §22. This guideline also applies to PhD Students admitted to the PhD program before the guideline came into effect, but who have not yet submitted their cumulative dissertation (correspondingly in case of older versions of the Promotionsordnung where applicable), with the following qualifications: PhD Students whose cumulative dissertation does not conform to the rules of this guideline because they planned and began their cumulative dissertation before the guideline was implemented, can informally apply in writing for an exception according to §23 at the Promotionskommission. This application cannot be discarded unreasonably by the Promotionskommission.
- §23. In the (expectedly rare) cases in which the application of the rules of this guideline would not do justice to the specific scientifically legitimate needs of a cumulative dissertation and the objective of the guideline would be violated, the Promotionskommission can allow individual exceptions through an informal written application of the supervisor which states the specific circumstances of the individual case. Such an exception must be determined in the Promotionskommission by a majority of at least two thirds of the votes cast.