

Guidelines for a Doctoral Thesis Referee Report

Doctoral School of Psychology, University of Graz

We appreciate your efforts in reviewing a doctoral thesis submitted to the Faculty of Natural Sciences at the University of Graz and extend our sincere thanks! To facilitate your task, we would like to offer **instructions on structuring your critical evaluation and final assessment** as an expert (in the field). Initially, we will provide an overview of the legal requirements for a doctoral thesis at the Faculty of Natural Sciences at the University of Graz.

In the University Act (UG), the Austrian legislature established the fundamental guidelines for the Doctoral Thesis (Dissertation). Universities design their doctoral programs' curriculum autonomously. The Doctoral Program in Natural Sciences is established by the Senate of the University of Graz, and the coordination teams from the Doctoral Schools are tasked with creating additional statutes that consider subject-specific characteristics. The most important sections from the curriculum and the additional statutes, which should be considered when formulating a referee report, are quoted in this (quotes from the curriculum are displayed in *italic*):

§ 4 (1) **Curriculum for the Doctoral Program** in Natural Sciences at the Faculty of Natural Sciences, University of Graz, 2024: **Requirements**

*„A dissertation must be written. In the dissertation, the student must demonstrate that he/she has **acquired the ability to independently solve problems of current scientific research and has achieved a new result** over and above the requirements for a Master's thesis/diploma thesis. The dissertation is an **independent piece of original scientific work** that has been independently prepared and written by the student.“*

Please note that the dissertation can also be based on publications that have already appeared or been accepted for publication (**cumulative dissertation**).“ Please note that there is a difference between a **monograph** and a **cumulative dissertation**. A monograph should not contain a 1:1 copy of a previously published paper.

„The dissertation must describe the new scientific findings of the work carried out by the doctoral candidate and present them in the context of the current state of scientific research in the relevant subject area. The investigations carried out must be documented and the results presented in a comprehensible form. The style of the dissertation should follow the usual standards in the subject area. In the case of research collaborations, the doctoral candidate's own contribution must be clearly delineated and each participating doctoral candidate must prepare a separate dissertation.“

§ 4 (2) **Curriculum for the Doctoral Program** in Natural Sciences at the Faculty of Natural Sciences, University of Graz, 2024: **Cumulative dissertation**

„In the case of a cumulative dissertation, the associated publications must be embedded in an introduction to the research problem and a summary of the results obtained. It must be made sufficiently clear what relevance the dissertation results have in the context of the respective field of research and how they are to be classified within it. For a publication-based dissertation, the following points are to be regarded

as a minimum criteria, which can be specified in the guidelines of the doctoral school.“

Statutes from the Doctoral School of Psychology at the Faculty of Natural Sciences, University of Graz 2024, further specify this point:

„§4(2) of the curriculum is specified as follows:

- 1) *The publication-based dissertation must include at least two original publications. The required original publications must be published or accepted for publication. There are two alternatives for completing the publication-based dissertation:*
 - a) *The doctoral candidate must be the first author of both original publications and the doctoral candidate's contribution to these original publications must be more than 50%.*
 - b) *If the publication-based dissertation consists of three (or more) original publications, the doctoral candidate must be the first author of one of the original publications and the doctoral candidate's contribution to this original publication must be more than 50%. For two of the remaining publications, the doctoral student's own contribution should be at least 30%.*
- 2) *In addition to scientific journals with a reviewer system, “peer-reviewed Proceedings” and “Registered Reports” are also considered. For “Registered Reports” at least one accepted first review (Stage 1 acceptance) and one submission of the manuscript for a second review (Stage 2 submission) is required.*

§ 4 (2) Curriculum for the Doctoral Program in Natural Sciences at the Faculty of Natural Sciences, University of Graz, 2024:

„Methods, measurement arrangements, evaluations, solution procedures, etc. that are not included or described in the publication must be described in sufficient detail in the descriptive part of a publication-based dissertation, e.g. in the form of appendices.“

§ 4 (5) Curriculum for the Doctoral Program in Natural Sciences at the Faculty of Natural Sciences, University of Graz, 2024: **Appraisal**

„1. The complete dissertation must be submitted to the Dean of the Studies. At the suggestion of the doctoral candidate, the Dean of the Studies must appoint two reviewers who fulfill the requirements in accordance with § 39 of the Statutes, Section Study Law Provisions. The first supervisor may be a reviewer.“

„2. Reviewers may also come from other universities or institutions of equal rank to the universities; at least one of the reviewer must come from outside the University of Graz.“

„3. Reviewers cannot be co-authors of publications in cumulative dissertations at the same time.“

„4. All reviewers must prepare one review each for the entire dissertation. The acceptance of one or more publications in peer-reviewed journals does not prejudice the decision of the reviewers.“

§ 5 Curriculum for the Doctoral Program in Natural Sciences at the Faculty of Natural Sciences, University of Graz, 2024: **Defensio**

„(1) The defensio is a public, oral board examination lasting a total of 90 minutes.“

„(2) The student is entitled to register for defensio with the Dean of Studies if the following requirements are met:

- 1. Completion of the curricular part of the doctoral program according to § 3 and, if applicable, the provision of additional supplementary achievements form conditions within the framework of admission;*
- 2. the positive assessment of the dissertation.“*

„(3) The defensio consists of a public presentation and defense of the dissertation, taking into account the expert opinions in the context of a general discussion. The presentation of the dissertation is scheduled for 40 minutes.“

„(4) The examination committee is to be put together by the Dean of Studies at the suggestion of the doctoral candidate and announced at least two weeks before the defensio is held. The examination date must be announced publicly at least one week in advance. The examination board for the defense consists of at least 3 persons. The first assessor and the first supervisor are always members of the committee. The second assessor and any other assessors as well as the co-supervisor do not have to be members of the examination board.“

„(5) A uniform grade is to be awarded for the Defensio, which also takes into account the overall impression of the examination.“

§ 6 Curriculum for the Doctoral Program in Natural Sciences at the Faculty of Natural Sciences, University of Graz, 2024: Overall assessment

„(1) An overall assessment of the doctoral program must be carried out. For this purpose

- 1. the grade from the arithmetic mean of the assessments of the modules in the curricular part according to § 3,*
- 2. the grade from the arithmetic mean of the assessments of the dissertation and*
- 3. the grade of the Defensio.“*

„(2) The overall assessment must be „passed“ if each of the grades is positive, otherwise it must be “failed”. It must be “passed with distinction” if the dissertation was assessed as “very good” (1), at least two of the grades are “very good” (1) and the third grade is no worse than “good” (2).“

All documents can be downloaded from the public Homepage of the [Doctoral School Psychology](#).

Based on the preceding paragraphs, a suggested structure for your referee report (assessment) could be as follows:

(Your mailing address and affiliation, date)

An den/die Studiendekan:in
der Naturwissenschaftliche Fakultät
Universität Graz
Universitätsplatz 3
8010 Graz, Österreich

Critical discussion and assessment of the doctoral thesis submitted by Mr./Mrs.....

For the doctoral thesis entitled ‘.....’ by [Mr./Ms./Mx], I provide the following assessment as an expert:

1) Subject and Significance

- Classification of the subject and the objectives of the doctoral thesis.
- Evaluation of the thesis’s relevance and significance for science and society.

2) Scientific Content

- How does the work contribute to the advancement of scientific knowledge? What novel ideas and contributions has the author made? Please evaluate the originality of the thesis and the scientific rigor of the research conducted.
- Does the work meet the criteria you have for a dissertation? Are the new scientific findings presented in a comprehensible and verifiable manner? Are the new results compared with the current state of scientific research? Can the author demonstrate mastery, application, and development of the field’s fundamentals and interpret new experimental and numerical results comprehensibly?

3) Substantial Aspects

- Critically discuss the content of the individual chapters (summarizing individual chapters is not required).
- Evaluate the author's methodological approach, content presentation, and the consistency of the thesis.
- Review the author’s literature survey. Has the author maintained rigorous honesty about the contribution of colleagues, collaborators, or competitors?
- For a **cumulative dissertation**, address the minimum criteria for a publication-based dissertation as outlined in § 4 (2) of the Curriculum for the Doctoral Program in Natural Sciences at the Faculty of Natural Sciences, University of Graz, 2024. In relation to pre-publications of doctoral research in national and international scientific outlets, verify that the candidate has adequately described and justified their contributions to these pre-publications and has faithfully acknowledged the contributions of co-authors. Also, evaluate the candidate’s **independence** to tackle new scientific problems.

4) Structure, Presentation, and Language

- Assess the logical structure of the thesis. Does its form follow the standards commonly accepted in the field?
- Evaluate the completeness and appropriateness of the content presentation within the thesis?

- Consider whether the author presents the results in an easily understandable manner? Are equations, tables, and images clearly presented?
- Determine if the submitted work meets the linguistic and stylistic requirements expected of a doctoral thesis?

5) Statement on the result of the plagiarism check

If you have access to the results of the plagiarism check, please include them in your report. What has the automatic plagiarism detection process indicated? Are all sources properly cited? Does the work adhere to academic integrity standards? Could there be any instance of plagiarism?

6) Overall Assessment

- Please provide a brief summary of your evaluation and a final assessment, e.g.:

The work submitted by [Mr./Ms./Mx.]..... significantly contributes to the field /provides an outstanding contribution to the field. The thesis submitted by [Mr./Ms./Mx.] meets all the requirements for a doctoral degree/ exceptionally exceeds the doctoral requirements. Consequentially, I recommend the (unconditional) acceptance of this thesis by the Faculty of Natural Sciences at the University of Graz / Consequently, I must advise against accepting this thesis. According to the Austrian grading system, my assessment of the work is “.....” (numerical grade).

SIGNATURE

The Austrian grading system ranges from 1 to 5:

- 1 = “Sehr gut” (Very Good) - Outstanding performance.
- 2 = “Gut” (Good) - Generally good performance, but with some errors
- 3 = “Befriedigend” –(Satisfactory) - Competent work with a number of noticeable errors.
- 4 = “Genügend” (Sufficient) - Performance meets the minimum criteria.
- 5 = “Nicht genügend” (Unsatisfactory) - Substantial improvement necessary; additional work required.