GUIDELINE FOR DOCTORAL STUDIES

BY (FORMER) DOCTORAL CANDIDATES FOR FUTURE DOCTORAL CANDIDATES

Faculty of Business and Economics, TU Dresden As of September 2018

CONTENTS

PREFACE	1
FIRST YEAR: TOPIC SPECIFICATION AND STATE OF THE ART	4
SECOND YEAR: CONCEPTION AND RESEARCH DESIGN	6
THIRD YEAR: IMPLEMENTATION AND EVALUATION OF IDENTIFIED SOLUTIONS	9
FOURTH YEAR: WRITING PHASE	.11
FIFTH YEAR: SUBMISSION, ASSESSMENT AND DEFENCE	. 12

PREFACE

This guideline intends to provide doctoral candidates with an orientation for their doctoral studies and assist them in the search of relevant information (e.g. offered courses, possible sources of funding etc). The document is explicitly to be considered as a guideline rather than a binding directive. This guideline has been developed by a team of doctoral and post-doctoral students from the Faculty of Business and Economics. Please note that the schedule and progress may differ to a greater or lesser extent among individual professorships.

The time schedule is divided into 10 semesters and includes the timeframe between the beginning of the doctoral studies and the publication of the doctoral thesis (see figure 1). The target mark of 5 years for earning a doctorate is to be understood as a recommendation for research assistants with teaching assignments and self-administration commitments. Individual professorships have separate regulations in this regard. Naturally, many doctoral students do not only research at the faculty. They also teach, participate in committees or undertake duties in academic self-administration. The progression illustrated here does not necessarily have to be followed and does not constitute a guarantee for successful doctoral studies. It rather intends to provide guidance to both doctoral students and supervisors. It is recommended, however, to contact your (potential) supervisor as early as possible in order to discuss a (rough) time schedule.

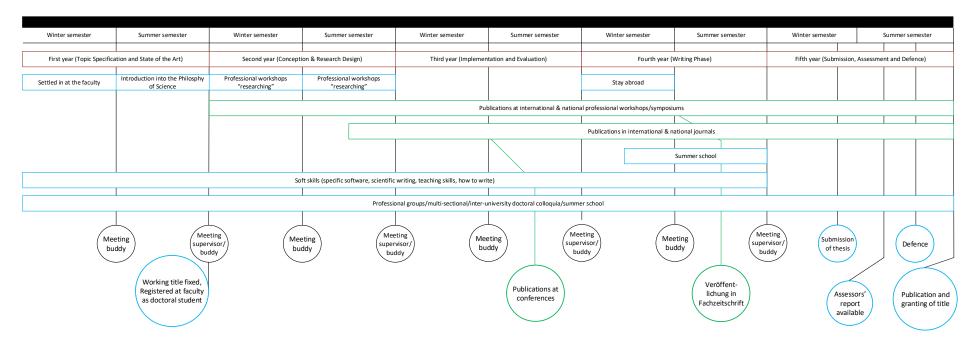
The dissertation project comprises five stages. The stage "Topic Specification and State of the Art" is followed by stage two - "Conception & Research Design" - in the second year. The third year involves the "Implementation and Evaluation of the Identified Solution" before the thesis is written down in the fourth year. The dissertation project is finally concluded with the stage "Submission, Assessment and Defence".

By structuring the dissertation project into several stages, it is possible to define objectives and tasks for a certain time period, e.g. for one year. The dissertation project can thus be planned in a detailed and well-structured way. Particular milestones are defined

¹ The availability of financial resources by means of third-party funds or scholarships is to be taken into account when planning the duration of the dissertation project.

for each stage. They may, for example, include a discussion with the supervisor at the end of one stage or the submission of the doctoral thesis in the middle of stage five. The individual stages further entail specific steps for personal, professional and scientific qualification, which shall be described in detail in the following.

Figure 1: Dissertation project outline



FIRST YEAR: TOPIC SPECIFICATION AND STATE OF THE ART

The writing of a research work is closely linked to the acquisition of new methods and techniques. Questions may arise like, "Should I do empirical or design-oriented research?", "What is the difference between a monograph and a cumulative dissertation?", "What type of data (qualitative or quantitative) is most suitable for my problem?", "What analytical methods should I employ?", "What theoretical-scientific positions are my arguments based on and what exactly is philosophy of science?". While answers to some of these questions may only be found over time, other questions should already be tackled in the first year. In close consultation with your supervisor you should thus find a working title for your thesis and specify the topic. In particular you should decide whether to write your thesis as a monograph (= classic type of dissertation in book form) or as a cumulative dissertation (= collection of several publications in professional journals). In any case we recommend you to apply at an early stage for a doctorate position at the Faculty of Business and Economics with the chair of the Standing Doctoral Committee. Furthermore, you are advised to join the Graduate Academy at TU Dresden. A supervision agreement with your doctoral adviser and a proof of the acceptance as a doctoral candidate at the faculty are prerequisites for a registration with the Graduate Academy.

- Link 1: Application for acceptance as doctoral candidate at the faculty
- Link 2: Registration Graduate Academy

The Faculty of Business and Economics has arranged various offers to facilitate the first steps of your dissertation project. At the beginning of the winter and the summer term the information seminar "Promovieren an der Fakultät Wirtschaftswissenschaften" ("Doing your PhD at the Faculty") takes place which is prepared and organised by post-docs. Here you can obtain insider information from experienced associates. Furthermore, this event is a good opportunity to meet fellow doctoral candidates at the faculty.

Regular meetings with a *buddy* (see schedule), e.g. an postdoc or an advanced doctoral candidate, can give you a faster and better understanding of research projects. Support by a buddy does, however, not mean that every candidate is allocated an individual men-

tor. We would rather like to encourage you to actively approach and regularly communicate with advanced doctoral candidates or postdocs in case of questions related to your doctoral studies.

• Link 3: List of current postdocs

In this regard we can also recommend participation in the regular meetings of the *Doktorandennetzwerk Thesis e.V.* (doctoral candidates' network) - a national network for doctoral candidates and post doctorates with local groups all over Germany. Apart from regular meetings in pubs in Dresden, *Thesis* also organises special evening events where own dissertation projects can be presented. This is a unique opportunity to get feedback from non-specialists but also experienced scientists.

Link 4: <u>Doctoral candidates' network "Thesis"</u>

The lecture "Einführung in die Wissenschaftstheorie" (Introduction to the Philosophy of Science) offers a first interdisciplinary insight into different scientific theories, whose basics are indispensable for every young researcher. With this basis, you may attend additional courses on the topic "Philosophy of Science" offered by external providers.

As early as in the first year you should regularly attend *doctoral colloquia*, which are offered at the faculty and by external providers. Good research output cannot be attained in an isolated study room but only through an exchange with other scientists. Even though the presentations given there may not be directly relevant for the topic of your doctoral thesis, you can learn a great deal about methods, research designs and presentation techniques.

Since all colloquia at the faculty are public, you can also attend colloquia of other professorships. Please click the following link for an overview of doctoral colloquia offered at the faculty:

• Link 5: <u>Doctoral colloquia at the faculty</u>

The faculty colloquium, held during the semester in the faculty's ceremonial hall, each Tuesday at 6.15 pm, offers an opportunity to think outside the box. Here you may listen to presentations by renowned (international) guest speakers and come into contact with other doctoral candidates and professors. Please click here for the current programme:

• Link 6: <u>Current programme of faculty colloquium</u>

MILESTONES DURING THE FIRST YEAR

In close collaboration with your supervisor, you have defined a working title for your thesis by the end of the first year. You have prepared an exposé of your topic, which serves as a basis for your thesis. You have registered as doctoral candidate at the faculty with the Standing Doctoral Committee and may have joined the Graduate Academy of TU Dresden.

SECOND YEAR: CONCEPTION AND RESEARCH DESIGN

The second year of your doctoral studies should mainly be dedicated to the conception and research design of your thesis. In order to acquire the necessary knowledge, a variety of professional workshops are offered by the faculty, the Graduate Academy at TU Dresden and external universities and institutions. These courses offer advanced training with respect to methods and specific contents that are useful or even necessary for your own research. Particularly in view of an increasing workload in the third and fourth year, you are advised to attend respective courses in the second year at the latest. When choosing suitable courses, you should be aware that, according to the faculty's doctorate regulations, you must have attained a number of certificates of achievement before the doctoral examination proceedings can be started at the faculty. Within your doctoral studies you have to attain four certificates of achievement. Two of these course work certificates should be gained in multi-department courses for doctoral candidates offered at the faculty (§ 9 section 1, subsection 5, PromO 2018). According to § 9 section. 1, subsection 6, PromO 2018 you have to prove two further certificates of achievement from method-oriented courses. Please note that the departments of Business Administration, Economics and Business Informatics have partially specific requirements for the award of these certificates. You are advised to consult your colleagues in this regard.

Courses where you wish to attain a certificate of achievement are recommended to be taken at the beginning of your doctoral studies. Please click the following link for an

overview of courses offered by the faculty, the Graduate Academy, the VHB (German Academic Association for Business Research), the Central German Doctoral Program Economics and further providers:

- Link 7: Advices for the award of certificates
- Link 8: Doctoral programmes of various suppliers

Apart from improving your professional and scientific qualification, it is useful to acquire certain soft skills at an early stage. Corresponding courses include a variety of topics such as "Reading, understanding and scrutinising scientific papers", "Didactics in university teaching", "Time and project management" and "Presentation techniques". Further topics like "work-life balance" may also be essential for your doctoral studies. They can help you from the start to develop a balance between work and recreation, thus enabling you to better deal with stressful situations, which usually occur at an advanced stage of a dissertation project. The Graduate Academy, the Centre for Continuing Education at TU Dresden and the Centre for Didactics in Higher Education offer a variety of corresponding courses. Please be aware that softskills courses can't be awarded as certificates of achievement according to PromO 2018 section 1, subsection 5 or 6).

- Link 9: Course offers at Graduate Academy
- Link 10: <u>Centre for Continuing Education</u>
- Link 11: Courses at the Saxon Centre for Didactics in Higher Education

Since summer term 2017 there are two new services of the Faculty of Business and Economics that aim to support especially in the early stage of the PhD study. The *writing consultancy* supports you in improving reading fluency and in sharpening motivation for writing. The *research methods consultancy* is an important interface to the research lab *TexLab* which is part of the Center for Methods in the Social Sciences. The methods consultancy answers questions regarding experimental designs in Social Sciences and quantitative and qualitative research methods in general.

- Link 12: Writing Consultancy
- Link 13: Research Methods Consultancy
- Link 14: Research Lab TexLab

In the second year you will finally start to produce your own first research works and present them to other scientists. *Doctoral colloquia* are a perfect occasion to present this work in progress. These colloquia often provide an approach to finding a solution to one's own small challenges, which can be very helpful or, at least, question your own way of thinking. Doctoral candidates should also frequently take the opportunity to give presentations in doctoral colloquia as a preparation for the defence of their doctoral thesis and make use of the constructive proposals there for both their dissertation and personal development.

National and international conferences are a good way to present the state of your research to a broader audience. There are different formats and quality levels depending on the quality and maturity of your research. They include workshops where only short sketches or an exposé are required. For symposiums you are usually requested to submit research papers of between 7 and 25 pages. In order to find the most suitable format for you, it is important to seek advice from your supervisor and/or experienced associates. As a general rule, you should only consider the submission of a conference paper if you can come up with elaborated research results and new, relevant findings. Many major conferences offer workshops and so-called pre-conferences prior to the actual session, where doctoral candidates can take part in an intensive exchange of experience. Poster sessions are another occasion to present first research results.

Regular contact to your buddy and your supervisor can help you choose suitable formats. The faculty, the Graduate Academy of TU Dresden and the German Academic Exchange Service DAAD offer funding opportunities to finance the partly very expensive conference trips. Thus, the faculty pays a *conference allowance* to subsidise participation in (mostly international) scientific conferences. The financial support amounts to 75% of the total expenses for the journey to and from the venue, accommodation and conference fees up to a maximum of 750 €. As a general rule, each member of staff can be paid a subsidy for the participation in one conference per year. Further conference participation can be funded upon proof that you previously applied for a travel award from the Graduate Academy. Moreover, you can also apply for a travel subsidy with the German Academic Exchange Service (*DAAD*).

• Link 15: Conference allowance at the Faculty of Business Administration

- Link 16: <u>Travel awards of the Graduate Academy</u>
- Link 17: <u>Funding opportunities of the DAAD</u>

Your personal network will also be increasing over time. You already know quite a few researchers from your area of science; you will integrate more intensively into scientific processes and, with some experience, join a research group to write and publish papers. This is a recommendable way of expanding your knowledge. With a view to your own doctoral studies, particularly when aiming for a cumulative dissertation, you should pay attention to PromO 2018 §10 section 3 and, in that context, the co-author declaration. Guidance on the collaborative writing of publications can be sought from the information on ethical and professional orientation issued by the members of the German Academic Association for Business Research (VHB), the faculty's guide on collaborative writing as well as the university's principles on safeguarding good scientific practice

- Link 18: <u>Information on the ethical and professional orientation by the members of the VHB</u>
- Link 19: Guide on collaborative writing
- Link 20: Principles on safeguarding good scientific practice at TU Dresden

MILESTONES IN THE SECOND YEAR:

By the end of the second year you will have attended first professional workshops and attained certificates of achievement. You have presented the state of your research in a smaller group (e.g. in a personal discussion with your supervisor, a presentation at a doctoral colloquium). You have successfully submitted a paper at a symposium and introduced your project to researchers from other universities.

THIRD YEAR: IMPLEMENTATION AND EVALUATION OF IDENTI-FIED SOLUTIONS

In the third year of your doctoral studies, you will increasingly publish *mature research* results in journals. This is particularly true for doctoral candidates working on a cumulative dissertation.

Nowadays, research results are internationally disseminated across all fields. Against this background, publishing is becoming an important and integral component of your scientific work. This is essential for your qualification since publications both increase the visibility of your own research activities and strengthen international networks. Due to the wide range of specialised magazines in your own field of research, you are faced with the challenge of ascertaining the focus of the magazine where you wish to publish your work thus avoiding a possible rejection in advance. Many papers are rejected because their topics do not match a magazine's objective, even though they may be based on high-quality and relevant research. *Meet-the-editor sessions* at symposiums and conferences, where editors of journals answer questions, offer a good opportunity to learn more about the requirements and objectives of individual journals. Furthermore, these events present the journals and supply details on what reviewers and editors expect a successful manuscript to look like.

Apart from requirements for the content of a publication, it is also the journals' high demands on grammar and general expression that should not be neglected. English-language publications should therefore always be proofread by native speakers. The faculty and the Graduated Academy financially support the use of proofreading services. For more information, please click the following links.

- Link 21: Proofreading service of the Graduate Academy
- Link 22: Publication allowance of the Faculty of Business and Economics

Regardless of the journals' high requirements, every doctoral student should aim to publish as effectively as possible in the interest of their own scientific qualification and reputation. Scientific journal rankings of the respective department offer a guideline for the selection of suitable journals:

- Link 23. <u>VHB-JOURQUAL 3 (mainly Business Administration)</u>
- Link 24: <u>Handelsblatt Journal Ranking VWL (mainly Economics)</u>
- Link 25: <u>ERIH (European Reference Index for the Humanities) (mainly Business and Economics Education)</u>
- Link 26: VHB-JOURQUAL 3 (Segment Ranking Business Informatics)
- Link 27: SCImago Journal and Country Rank (mainly Business Informatics)

MILESTONES IN THE THIRD YEAR

If you are working on a cumulative dissertation, there should be at least one paper submitted for appraisal with a scientific journal or a renowned conference in the third year. Moreover, you should have a precise plan for your further publication strategy. In addition, your supervisor should consider your paper to be worth publishing. Doctoral candidates writing on a monograph should by then have prepared a well-organised structure including theses for each chapter.

FOURTH YEAR: WRITING PHASE

Doctoral candidates working on a monograph as their dissertation mainly spend the fourth year of their studies writing down their research results. If you work on a cumulative dissertation, you should start at the end of this stage to write a separate treatise, i.e. the framework for your individual research articles (see § 10 section 3 PromO 2018).

A stay abroad (for 3-6 months) can be very rewarding at this very advanced stage of your dissertation project. This is particularly the case if you plan to remain active in the academic sphere after your doctorate. Research periods abroad offer the opportunity to do concentrated work with other researchers far away from daily university life, expand your network, plan and tackle publications and thus work on your dissertation more intensively than it would be possible in the daily routine at your department. Amid all the anticipation, you should keep in mind the following when planning a stay abroad: You have come up with a replacement for your teaching assignments at the faculty in due time. A proactive planning of your stay abroad and an open approach towards your colleagues will surely lead to best solutions.

The faculty offers support to doctoral candidates for their stays abroad by awarding annual scholarships for this purpose. Whereas proposals for the Dr. Händel Scholarship can be submitted by doctoral candidates from all disciplines, the Scholarship of the German Bundesbank for the Promotion of Research Projects Abroad focuses on doctoral students doing research in the fields of financial and monetary economics, financial management and statistics/quantitative methods. Please click the following link for further information on the above mentioned scholarships.

• Link 28: Information on the award of scientific scholarships

For short stays abroad (up to 3 months) you can apply with the Graduate Academy of TU Dresden. The Graduate Academy also offers the program great!ipid4all which enables international exchange between research groups. We also recommend searching the Scholarship database of the DAAD. For further information click here.

• Link 29: Short stays abroad

• Link 30: Program great!ipid4all

• Link 31: Scholarship database of the DAAD

Doctoral students can also apply for the Strategic Fund and the Flexible Fund for Internationalisation. The aim of both funds is to support projects which serve to further the internationalisation of TU Dresden.

• Link 32: Strategic Fund: Internationalisation

• Link 33: Flexible Fund: Internationalisation

MILESTONES IN THE FOURTH YEAR:

By the end of the fourth year you will have successfully published further scientific articles and papers or submitted them for evaluation. If working on a monograph, you have drawn up a first version to be discussed with your supervisor or colleagues. You have attained all certificates of achievement necessary for the registration for the doctoral exam.

FIFTH YEAR: SUBMISSION, ASSESSMENT AND DEFENCE

All work has now been completed. Each dissertation project comes to an end, and each doctoral candidate just wants to submit their work now. This last stage once again includes a number of important steps that have to be considered and planned.

The rules for submitting your doctoral thesis are stipulated by the current doctoral degree regulations (PromO 2018). Everything starts with the application for the opening of

12

the doctoral examination procedures (§ 9 PromO 2018). This application once again requires your particular attention since a correctly completed application can spare you distress and stress. In particular cumulative dissertations involve certain particularities. Since publications are frequently written together with co-authors, you have to specify who contributed which part of an article (during the conception, data collection, data evaluation, interpretation). Otherwise, an assessment of the doctoral candidates' individual performances is not possible (§ 10 section 3 PromO 2018). This can best be proved with a joint written declaration of the co-authors, which states who, and to what extent, produced which part of the publication. The said declaration(s) must be submitted with your application for the opening of the doctoral examination procedures. Please note that in case of a cumulative dissertation, at least one paper has to be produced by each of the authors individually (§ 10 section 3 PromO 2018).

Furthermore, when writing a cumulative dissertation, parts (individual papers) of the doctoral thesis will usually have already been published. Thus, it may appear redundant to publish them again. The cover paper (separate treatise according to § 10 section 3 PromO 2018) is of particular importance in this regard. The separate treatise forms the content bracket. It describes the common thread of your doctoral thesis. You show how the individual "parts" combine to a research strand. This separate treatise is mandatory. Without it, the doctorate committee cannot accept the doctoral thesis.

After the successful submission, it is now in the assessors' turn. They draw up their reports and assess your written work. It is important to coordinate the period of submission with the assessors. At the beginning of the semester, for example, assessors usually have a heavy workload so that the assessment of your thesis may take some time. Experience has shown that the end of the winter semester is a good time for submitting your thesis.

If the assessment of your thesis is positive and your work was on display at the faculty for three weeks, your oral defence can take place (e.g. in the middle of the summer semester). The timing of the defence will be coordinated by the chairperson of the doctoral committee. Since the doctoral committee is made up of four university professors whose diaries normally only have few free slots in the short run, the date of your defence

should be planned in time. It is generally recommendable to regularly attend thesis defences as a guest already at an early stage of your doctoral studies (e.g. one year before your planned defence) in order to familiarize yourself with the procedures. Ideally, you should participate in defences related to the topic of your thesis.

With the successful defence of your doctoral thesis, you have reached an important milestone. Now you can publish your work and make it available to the scientific community. The necessary steps for this purpose are stipulated by § 13 PromO 2018. When you have published your work, you will be awarded the doctorate and receive the doctoral certificate. For both the digital and analogue publication of your work, you should follow the guidelines issued by the State and University Library Dresden (SLUB).

- Link 34: <u>SLUB guidelines</u>
- Link 35: <u>Information on doctoral degree regulations and doctoral examination</u> procedures

MILESTONES IN THE FIFTH YEAR:

You have successfully applied for the opening of the doctoral examination procedures and submitted your work with the Standing Doctoral Committee. You have defended your work and published your dissertation.

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