

## Research Proposal

A proposal provides an overview of the initial planning of a project, helps to organize your thoughts, and develop general steps. It is prepared by you, the doctoral candidate, and discussed with the first supervisor before submission to the GFA. On the one hand, the research outline shows that you are working in the field of expertise of your first supervisor. On the other hand, the proposal assures that both sides, doctoral student and supervisor, communicate their ideas, expectations and the structure of the project transparently from the very beginning. Research questions and hypotheses, methods and initial literature for the thematic introduction are written down. The proposal should represent the applicant's part of the project and will later serve as a basis for the meetings with the thesis committee. However, the project described in the proposal is likely to evolve over time and may change significantly. A proposal usually consists of two to three pages and shall include the following points:

### 1. Working title

The title of your dissertation may still be provisional at this time. Please clearly define your research area with a short and concise, but also precise and comprehensive title.

### 2. Introduction

Briefly describe the scientific background of your research project, including an overview of the current state of research and the most important publications from other scientists. Please clarify the role of your project in the scientific context or which areas of application are affected.

### 3. Objectives/hypotheses

Give a concise and clear outline of what you intend to find out in your project. Research questions may take the form of a hypothesis to be tested against a specific set of criteria or an open-ended inquiry. Your proposal should show what contribution your project makes to current research. In the case of a cumulative dissertation, you can list the articles as intermediate objectives.

### 4. Methodology

This may well be the longest section of your proposal because comprehensibility is particularly important here. Give detailed information about how you intend to answer your research questions and which sources, evidence and analysis techniques you are going to use. Document precisely the planned methods of data gathering and statistics, the controls you will introduce and the type of literature or analysis to be followed. You can also discuss ethical issues, difficulties in data collection, sources of error and their solutions in this section.

To optimise planning, it is advantageous to indicate the requirements for carrying out your project. Do your analysis procedures require certain licenses, special devices or software? Which internal and external requirements have to be adopted, which cooperations or partnerships are planned?

## 5. Schedule

In table form, specify the order of research phases and the time you will probably need for each phase. At this stage, you usually estimate the required time, but make clear that you have an idea about the timespan that you need for each step. You should consider internal project dependencies. E.g. which data is required for which article or which chapter? External project dependencies should also be taken into account. Do I need data from other subprojects? When will they be available? Do I have to provide data at a certain point in time?

When scheduling, keep in mind that you cannot influence all steps and schedule time buffers accordingly. For example, the acceptance of an article in a scientific journal can take a long time or crucial devices can cause trouble. In order to avoid long waiting times, you can plan other work steps in parallel. Please assure realistic and feasible planning of the timeframes for structuring, literature research, data acquisition, preparation, analysis and evaluation as well as the creation of illustrations, followed by the first version of the text up to revision and publication. By a detailed schedule, you can easier identify occurring problems at an early stage and take appropriate countermeasures.

Example structure:

Quarter	2016				2017				2018				2019			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Literature research				X												
Survey company				X												
Create interview sheet				X												
Create online survey				X												
Pre-test					X											
Testing of hypothesis 1																
→ Data acquisition					X	X										
→ Literature research						X										
→ Data evaluation							X	X	X							
→ Publication										X	X	X				
First meeting of the thesis committee					X											
Testing of hypothesis 2																
→ Data acquisition							X	X								
→ Data cleansing					X											
→ Data evaluation							X	X	X							
→ Publication										X	X	X				
Second meeting of the thesis committee									X							
Testing of hypothesis 3																
→ Sampling							X	X	X							
→ Laboratory work					X											
→ Data evaluation										X	X	X				
→ Publication													X	X		
Third meeting of the thesis committee													X			
Synopsis/dissertation														X	X	
Defence															X	

Financed period