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# Guide to Academic Writing

Bachelor's thesis

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# 1 What is Academic Writing?

Academic writing is a distinctive style of communication that aims to present ideas and information in a lucid, concise, and well-organized manner, while also showcasing a critical engagement with the subject matter. It is characterized by a formal tone and language, along with adherence to specific conventions such as citations and referencing. These conventions help to ensure that ideas are properly attributed to their sources and that claims made are based on evidence and credible sources.

In addition to contributing to the field of study, one of the primary objectives of your thesis is to enhance or prove your critical thinking and analytical abilities. You should be able to evaluate sources, synthesize ideas and construct arguments that are firmly grounded in evidence and sound analysis.

To break down the essence of academic writing into its most fundamental aspects, keep in mind that academic writing is:

**1. Evidence-based:** Unlike other forms of writing, academic writing prioritizes logical, evidence-based reasoning. Every conclusion or point that you make should be supported by either academic sources or by your own evidence-based analysis. Furthermore, all of your points and arguments should work cohesively to support your thesis.

**2. Formal:** Scholarly writing requires a formal tone, avoiding contractions, colloquialisms, or slang. While you are encouraged to express passion about your topic, it is vital to maintain a neutral tone and avoid making inflammatory or judgmental statements. Though it is acceptable to use first-person pronouns (such as "I" or "me") to discuss your methodological choices or the structure of your work, you should avoid using them as much as possible.

**3. Transparent:** Proper citations play a pivotal role in academic writing. You must always support any evidence you present with clear, organized citations and references. This not only adds authority to your statements but also helps readers place your work in an academic context and verify the validity of your conclusions. Distinguishing between your original thoughts and those derived from other scholars is essential for academic credibility. Copying and pasting from other sources, translating or rephrasing others' work without proper citations, may lead to plagiarism and result in the failure of your thesis. Detailed guidance on proper citation practices is provided in chapter 4.

## 2 How to Get Started

Do you know what a Bachelor's thesis looks like? If not, a good starting point is to explore samples of other students' theses. Here are some sources you can check out:

1. Lund University, Sweden: [Thesis Library at Lund University](#)
2. Stockholm School of Economics, Sweden: [Bachelor's Thesis Repository at Stockholm School of Economics](#)
3. Erasmus University Rotterdam, Netherlands: [Thesis Repository at Erasmus University](#)

If you are in the process of finding your thesis subject, your thesis supervisor is happy to assist you by either providing a selection of potential topics or by helping you shape your own research ideas. For the latter, here are some tips on how to start your journey.

Firstly, ask yourself which broad subject interests you the most: Education in developing countries? Mobile money in India? The effects of Propaganda? Fairtrade coffee production? At this stage, your search should be more specific than merely a subfield (e.g., "I'm interested in development") but less specific than a fully formulated research question (e.g., "Has the one-child policy in China impacted education levels in urban areas?").

Once you have narrowed down one or two broad topic areas, start reading! You can start by reading economics related news publications, like [The Economist](#) or [Project Syndicate](#), or start looking for academic literature on the subject. Any material that helps you understand the ongoing professional debate on the topic will be valuable. An interesting source for getting an overview of the field might also be Handbooks, which are published every couple of years and aim to summarize the current stage of research (e.g., [Handbook of Development Economics](#)). Essentially, you want to identify the questions that experts and researchers find significant in this field and find your niche to contribute.

As far as economics literature goes, you don't need to read all the papers in detail at this point. Instead, aim to gain a general sense of the important questions economists consider, their methodologies, and the data they employ. Focus on reading abstracts, introductions, and sections on data and empirical methodology. Additionally, survey articles in journals like the [Journal of Economic Perspectives](#) and the [Journal of Economic Literature](#) are highly accessible and provide nice overviews of relevant research.

### 3 A Good Research Question

A well-crafted research question should, first and foremost, be **interesting** to you and **relevant** to the field of subject. To ensure its relevance, the question should be connected to the broader body of research in your field and address a specific issue or problem within that context. While it should be closely related to existing research in the field, your research question must also be novel, meaning it should include at least one aspect that has not been studied fully yet.

Phrasing the research question (RQ) is where you first set the scope and expectations of your thesis. Once you have decided on your research topic and approach, it is important to make sure your research question aligns with what is about to come. Generally, you want your research question to be **feasible**, **testable** and **specific**.

Ensuring **feasibility** might appear straightforward, but slight differences in phrasing can make a significant impact. Your RQ must be answerable within the scope of your thesis, considering time, resources, available data and literature. Both overly general and overly specific questions can be challenging to answer. For example, instead of asking general questions like “Do robots kill jobs?”, you should limit your RQ to the subject you are actually studying (e.g. manufacturing jobs in the US): “Do robots kill manufacturing jobs in the US?”.

The **testability** of your RQ is a central part of finding the right topic and this should be reflected in the thesis. While there are endless interesting RQs, both literature- and data-based research are limited by the available resources. Some questions might be too broad or too specific to be answered by your data or require understanding too many different strings of literature. Carefully assessing these questions before starting a research project is essential and should be reflected in the final RQ.

Finally, a good research question should be **specific**, meaning it should summarize what you are actually researching in one or two sentences. Based on the research question your reader should be able to identify your subject and object of analysis, the level of your analysis (“in the US”, “households in West Germany”, “manufacturing jobs”).

While there is no strict rules to how to phrase a research question, some tips have been proven useful. A) Avoid phrasing “How much” questions as these may be rather difficult to answer. Satisfying your reader to the point where they believe all effects have been found, hence the research question to be answered, is near impossible. B) While in your thesis, you will probably answer several smaller questions, your RQ should be limited to one specific question. C) State your RQ in the introduction of your thesis followed by more

details on your data, method and time period in-text.

## 4 Citing properly

When composing a thesis, it is crucial to understand how to cite sources appropriately to acknowledge rightful credit and avoid plagiarism. Crime doesn't pay and neither does plagiarism. Copy and pasted text is often quite obvious and thanks to improving algorithms plagiarism is getting easier and easier to detect. To alleviate any concerns, a single unintentional omission of a citation typically won't pose significant issues. However, intentionally manipulating the truth is strongly discouraged. Proper citation allows readers to locate and access the sources used in your research, verifying the accuracy of your arguments and bolstering the credibility of your conclusions. Non-trivial statements drawn from a paper should always be cited.

The most common way to cite, is by expressing the statement, point or argument in your own words (indirect citation) and then provide the authors' names and publication year at the end of the sentence (Jessen-Thiesen and Schiller, 2023). Alternatively, you can refer to Jessen-Thiesen and Schiller (2023) in your text and discuss their contribution by referring to them. Lastly, direct citations (meaning repeating exact content by using quotation marks) are used only **sparely** in Economics and should be limited to when the phrasing of a statement is fundamental for transporting the argument.

The term "non-trivial" requires clarification. Simply put, it refers to information that is not commonly known. It is better to err on the side of over-citing rather than under-citing. Nevertheless, not every claim requires a citation. Common knowledge, such as the *sky is blue* or the fact that *cars emit CO<sup>2</sup>*, does not need to be cited. However, claims that are more contentious, like stating that *cars are the primary cause of air pollution in cities*, demand proper citation. Neglecting to cite such claims doesn't lead to accusations of plagiarism but can weaken your reader's belief in your arguments, which is essential for the quality of your thesis.

Now suppose your claim is less trivial than the *sky is blue*, but not a specific finding of one scholar in particular (e.g. *the sky is blue due to the more frequent scattering of blue light compared to other colours*). To back up your claim you can cite several papers at the same time - typically three papers. This sequence of citations is also commonly used when claiming that some topic has been studied frequently in the field.

When your source cites another source that contains a claim you want to use in your thesis, it is best to locate the original source and cite it directly, especially if the claim is not crucial to the first source. However, if the original source is inaccessible, you can use "as cited in" in your reference to indicate that you encountered the claim in your first source but it originated from elsewhere, e.g., "(Schiller, 2023, as cited in Jessen-Thiesen, 2023)".

A common challenge for first-time academic writers is determining where to place citations. It is not uncommon that a paragraph has a finding or concept made by another paper at its core and your initial contribution is to put this finding into context. Usually, citations are located at the end of a sentence. Do not put the citation at the end of the paragraph, just because the whole paragraph somewhat refers to the content of that paper. When citing another paper, it should be directly linkable to one specific statement you make in the paragraph. Your interpretation, contextualization and discussion of this point is not part of that other scholar's work. To be more specific, when putting the citation at the end of the sentence, does your reader correctly identify what those scholars actually find? To give you an example:

*As trivial facts do not need to be cited in academic writing, the fact that X is not Y does not need to be supported by a citation (Jessen-Thiesen and Schiller, 2023).*

This placement of the source implies that Jessen-Thiesen and Schiller (2023) actually use the "X is not Y" example. A correct citation would be:

*As trivial facts do not need to be cited in academic writing (Jessen-Thiesen and Schiller, 2023), the fact that the X is not Y does not need to be supported by a citation.*

If you follow these rules properly, chances are high that you will cite the same source one or two times in

a row. When the source you are citing is identical to the immediately preceding citation, you can use the Latin “ibid” (short for ibidem, eng. “in the same place”) instead of the author-date citation.

When it comes to graphs and tables, there is many ways to clarify the source of information. Generally, when using information from other scholars in your graphs or tables, those scholars need to be mentioned as the source in the notes section below the graph/table. Graphs and tables copied from other scholars need be identifiable as “extracted from”. To emphasize the originality of your graphs and tables, you can add “own illustration” or “own calculations” as a source. Further, graphs based on one or two data sources usually provide information on the data source. You can include both a reference to yourself for the calculation/illustration and to other scholars for the data in one graph or table. Take a look at academic publications to see what graph and table citations look like.

Given these information on when and where to cite properly, the next question is how to actually cite. A citation consists of two parts: your in-text citation and your reference list. Generally, it is very important that the citation style you choose is **consistent** throughout your thesis. There is no specific citation style you must use in Economics, but the most common citation style in Economics is the Chicago Manual of Style (Chicago style), which you can find in many Economics journals and publications and is known for its relatively straightforward and consistent formatting. The Chicago-style uses in-text citations with an author-date format and a corresponding reference list at the end of the paper. Chicago-style citations look like this:

In-text citation: McMillan and Rodrik (2014) or (McMillan and Rodrik 2014), for direct citations you “need to add the page number” (McMillan and Rodrik 2014, 25).

Reference list: McMillan, Margaret, and Dani Rodrik. 2014. “Globalization, Structural Change and Productivity Growth, with an Update on Africa” *World Development* 63: 11-32

More information on the citation rules for different types of sources in Chicago-style you can find in the [Chicago Manual Citation Guide](#).

When compiling the list of references at the end of the document, it is essential to include all of the sources you have cited in the text. Arrange them in alphabetical order based on the last name of the first author. For each source, provide comprehensive publication details, including the title of the article, book or other publication, the name of the publisher or journal and the year of publication. If you are citing a journal article, add the volume and issue number, along with the page range. For online sources, include the URL or DOI. News or magazine articles should also have the access date noted. Although some papers include hyperlinks from in-text citations to the respective entries in the reference list, this is not obligatory.

To simplify the process of citing, academia offers excellent citation programs that can save you from repeatedly proofreading your reference list. Although using a citation program is not mandatory for thesis writing, investing a couple of hours to learn to use one before starting your literature research can be time-saving during your writing process. Especially if you plan to continue your education after graduation, mastering one of these programs will be valuable for your future. Here are two recommended citation programs:

### **Zotero**

Zotero is an online add-on that provides bibliography management in different styles like APA, MLA, or Chicago. It allows users to create a library of references that can be managed and, most importantly, specifically formatted. The citation software consists of two separate add-ons. The first is a management system for references and bibliographies that can be used to store individual references or entire bibliographies. The second add-on can be used for bibliography creation. In terms of an entirely browser-based add-on, Zotero does an excellent job. You can add sources either by the browser add-on or by copy and pasting the DOI, which is provided with most publications. Compared to Mendeley, the user interface of Zotero is a little more streamlined and straightforward.

You can download [Zotero](#) for free and there are excellent introduction videos to Zotero on YouTube.

### **Mendeley**

Just like Zotero Mendeley is a free reference management software. Mendeley Desktop can be used to manage and store references, create bibliographies, and format references into specific styles. In fact, its

style database is stocked with over 1,000 different style variations, which could prove very useful if you ever have to subscribe to an obscure style that isn't widely used. The main interface opens when the desktop icon is clicked, and it is easily navigable with user-friendly icons and prompts. Mendeley Cite, much like Zotero, is a plug-in for Word that serves as a bibliography builder and reference formatter. Mendeley Desktop also features an extensive library of references as well as a social networking element for researchers. Compared to Zotero, Mendeley has a more complex interface with more features and options.

You can download [Mendeley](#) online and find many well-made introduction videos on YouTube.

## 5 Literature Search

When composing an academic paper, it is important to use high-quality sources to support your argument and to ensure the credibility of your work. There are various types of literature that can serve as sources in academic writing, each with its own set of advantages and disadvantages. The most crucial sources for your thesis are peer-reviewed journal articles, which should make up the majority of your references. However, there are other sources you may wish to consider. Below is a list of different types of literature. In the second subchapter you will find some tips and tricks on how to successfully search for literature, specifically peer-reviewed journal article.

### 5.1 Different kinds of literature

#### Peer-reviewed journal articles

Peer-reviewed journal articles, or in short “papers”, are the backbone of academic research and definitely the most preferred form of literature to cite. Written by experts in the field, these papers undergo rigorous peer-review before publication, which means that other researchers have read, critized and finally approved of the paper. Journal articles contain original research and analysis, making them reliable sources for academic research. The peer-review process ensures that the information presented in the journal is accurate, unbiased, and well-researched. The quality of journals in which articles are published can vary substantially. Papers are cited including information on the publishing journal, which can be an indicator for the relevance of the presented research in the field. Knowing the top journals in your field and for your specific research topic, can be helpful for finding the literature that is not only relevant for you but also considered relevant by academics.

#### Books

Books often provide comprehensive coverage of a topic and commonly authored by experts in the field. They serve as valuable sources for background information, historical context, and theoretical frameworks. However, keep in mind that they may not always be the most up-to-date sources and could be influenced by the author's perspective. Books such as "[The Mixtape](#)" by Scott Cunningham might provide good overviews not only on your subject but also on empirical methods.

#### Collected Editions

Similar to books, you may come across collected editions, which consist of a collection of articles on a specific subject. When citing from a collected edition, you will need to include both the specific article and the collected edition in your reference list, as the article is part of another publication (the book).

#### Grey Literature

The so-called “grey literature” refers to research materials that are produced outside of traditional commercial or academic publishing channels. It is called grey literature because the quality varies from brand-new highly relevant research to essentially untrustworthy. Hence, citing grey literature is not a no-go, but should be handled with caution.

Grey literature includes reports, working papers, technical papers, conference proceedings, government doc-



uments and other materials that are not commercially published or widely distributed. Grey literature is often produced by government agencies, research organizations, and non-governmental organizations. Unlike traditional academic literature, grey literature is not subject to the same peer-review and editorial standards. As a result, the quality and reliability of grey literature can vary widely and should be cited with caution. It is important to critically evaluate the source and authorship of grey literature, as well as the methodology and data used in the research. For all grey literature, you should be sure about the validity of the author. E. g. if you write a thesis about education in a certain country, a contribution by the Ministry of Education of that country may very well be relevant.

For working papers specifically, assessing the quality of the literature can be quite tricky. It is recommended watching out for the following aspects:

- Authors: Are the authors renowned in the field? Did they publish similar work in a peer-reviewed article?
- Date: If the working paper is many years old it probably didn't succeed in the publication process, meaning the content was not good enough to be published in peer-reviewed journal. If the working paper is relatively new, chances are higher that the paper is actually contributing new insights and hence is relevant.
- Is it a done work? If graphs are missing or you can find typos, the working paper is probably still at an early stage of work. Conclusions might even be revise and hence your work might be based on incorrect findings.

Additionally, always look for the most recent version of unpublished working papers. Sometimes, a working paper may have been published in a peer-reviewed journal with slight differences in content or title. Always cite the published version, if available.

### **Newspaper and Magazines**

Newspapers and magazines can provide current and relevant information but may not always be reliable sources for academic papers due to potential bias or sensationalized reporting. However, they can be useful for providing context on current events and public opinion. While using newspapers and magazines to demonstrate public interest or refer to specific events in your thesis is acceptable, avoid relying on them to build research claims.

### **Websites**

Websites, especially those of reputable organizations or government websites, can be a valuable sources of information. Nevertheless, exercise caution, as many websites contain unreliable information. It can be challenging to determine the credibility of the content presented. Note also, may website you might want to cite (e. g. websites providing your data) provide information on how to cite the content correctly.

## **5.2 Finding Literature**

The essence of a robust literature analysis lies in the quality of the literature itself. Just as a skilled cook requires good ingredients to create a delicious meal, a literature review demands well-conducted research. One of the most important parts of any thesis is to give a comprehensive overview of the scientific discourse, identifying consensus, controversies and gaps in knowledge on the subject. While literature-based theses require a more in-depth analysis of the literature, identifying the most relevant strings of literature and theories is just as important for empirical theses.

[Google Scholar](#) serves as a powerful search engine to find research and it allows you to filter articles by publication year. Scientific understanding of a topic can change rather quickly, especially in Economics, which also means that the first criterium for good research is the publishing date. There is no general rule here, as it is heavily topic dependent on how new a paper should be. For most topics, however, research that is older than 20 years is probably outdated and newer studies are generally preferred. The exception are very few famous landmark studies that still shape the current scientific discussion. A useful alternative to Google Scholar is [Web of Science](#), which has the advantage of offering more filtering options.

When browsing for relevant literature, your first challenge is to find the relevant keywords. Sometimes synonyms can yield widely different results. Look into the phrasing the literature uses. “The effect of free trade on growth”, “the effect of trade liberalization of growth” or “Globalization in trade and its effects” all seem to convey a very similar meaning, but yield different results on Google Scholar.

Unfortunately, there is lots of mediocre or even straight-up bad research out there. It usually requires a good understanding about econometrics, empirical strategies as well as the state of the literature to judge the quality of a study. The best proxy for the quality of a paper is the journal in which it was published. Many journal rankings exist, with the [Handelsblatt ranking](#) being one of the most commonly used. In short, a weight of 0.2 or higher is considered good. Moreover, some journals are considered top field, e.g., the Journal of Health Economics or the Journal of Development Economics. These often have excellent papers on more specific subfields of Economics. Pro-Tip: When using the Web of Science, you can apply a filter for journals that you are looking for.

Other criteria, such as the number of citations or the fame of the authors, can also serve as indicators of a paper’s quality. Lengthy Wikipedia articles about the authors might provide a useful proxy for fame. The more specialized the topic, the less likely you are to find A-grade journals. However, economics sometimes overlaps with other fields, and relevant papers might be found in journals from those areas. Nevertheless, it’s best to be cautious with using non-economic papers, as their applicability might be limited.

If you have found a well-fitting, high-quality paper, you may want to use this paper as a centerpiece for finding other literature and make use of the so-called **snowball principle**. Essentially, good papers will cite only good papers. You can discover more crucial studies in the field by exploring the references cited in the original paper. Again, consider the quality indicators mentioned earlier, especially the journal, when assessing these citations. This iterative process allows you to build a more complete picture of the literature. However, be mindful not to overlook newer papers or excessively rely on dated studies. Conversely, there is also the **reverse snowball principle**. On Google Scholar, you can see which papers have cited the original paper. This way, you are more likely to find more recent literature but be cautious as the quality of these papers is not implied here. For identifying citation clusters, you may also employ tools like [ResearchRabbit](#) or [Connected Papers](#).

For the majority of papers, you get direct access to download through the university. You will either get access automatically if you are connected to eduroam or you will need to sign-in with your university account. However, sometimes access to scientific articles is gatekept behind a paywall. It can be infuriating to see that this is more often the case than it should be, but luckily some methods may help you getting access anyway. When searching a paper on Google Scholar, you can see a hyperlink on the right side of your research results. If the link starts with “[pdf]” the link will send you to the pdf-document of the paper directly. It is not too often, but sometimes this is a very easy fix. Alternatively, there might be a working paper version available for free online. You can often find these versions on the author’s website or you just google the paper and go to search results other than the first. The browser extension [Unpaywall](#) does this automatically for you. If none of these help, you can also ask the authors themselves, they usually are allowed to provide the paper and are happy to help out.

## 6 Types of Theses

In academia, we differentiate between primary and secondary research. Primary research means creating new data through methods like surveys, experiments, or analysing data from government or industry sources. On the other hand, secondary research entails summarizing and analysing existing literature or data that has been published by others. In secondary research, primary research serves as a source. More commonly these two types of research are also called “empirical research” (primary research) and literature-based research (secondary).

The advantages and disadvantages of these two types of theses will be discussed in the following. As for the nature of macroeconomic research, we will not discuss research that involved own data creation (surveys, experiments, etc). Furthermore, it is worth noting that both empirical research and literature-based research

are acceptable for a Bachelor's thesis. For your Master's thesis, however, conducting empirical research will be required.

## 6.1 Empirical Research

An empirical research-based thesis in macroeconomics involves the collection and analysis of data. Unlike other fields where data collection may include surveys or experiments, in macroeconomics, data is typically sourced from publicly available sources such as national statistics offices, international organizations or other researchers. With a wide range of data sources and increasing data quality, conducting empirical research can provide new insights on well-discussed topics with relative ease.

Although your thesis will require a strong theoretical foundation and a comprehensive understanding of the current state of research in the field, the central focus will be on data analysis to answer your research question. More detailed information on the structure of an empirical research thesis is provided in chapter 8.

Before finalizing your research question, it is highly recommended to explore the available data sources. Start your data search once you have a relatively concrete idea of the topic and research question you want to address. Your exact research question can be formulated once you are familiar with the data available. On this note, even if you found the perfect data for your research question, it is a central part of the analysis to critically assess the quality of your data and to determine the limitations of your analysis.

To get you started, the University of Minnesota provides an interesting overview of [Economic Data Resources](#). Finding data sources on Google can be tricky sometimes. If you cannot find any data, chances are high you are using the wrong buzzwords. Sometimes, finding the right data (just like finding the right literature) depends on coming up with the right subject-specific terminologies. Keep trying different synonyms or terminologies you saw in the literature and if you can't find anything, feel free to reach out to your supervisor.

This guide will not get into more detail about empirical research and hence no information on the empirical methods and programs for empirical research will be provided. Some information on the structure of your empirical thesis is provided in chapter 8.

## 6.2 Literature-based Research

In a literature-based thesis, you won't be conducting primary research, but rather utilizing existing materials. Your focus will be on exploring theories, concepts, or viewpoints to evaluate their relevance to your research question.

This type of thesis involves gathering a substantial body of existing literature and conducting an in-depth critical analysis of the arguments and evidence presented by existing theories and research. Your work will be firmly grounded in theory, requiring the application of a theoretical framework or concept. You'll need to contrast different viewpoints and build your own line of arguments based on your analysis. Your research question should be answerable based on existing research but also should not be trivial.

A common mistake in literature-based research is the lack of analysis. The main part of your paper, the literature-based analysis, should go beyond a mere summary of existing research. Instead, it should explore novel connections between different findings and theoretical perspectives. You must discuss a wide range of literature, critically assess and compare their contributions, and draw new conclusions based on them. In essence, your approach should be analytical rather than merely reporting.

A literature-based thesis requires extensive literature research and should include a diverse selection of both theoretical and empirical sources. Writing a comprehensive literature review demands patience and the search for evidence that adds authenticity and depth to your arguments.

When writing a literature-based thesis, you will heavily rely on other scholars' findings and definitions. Although the following is true for all academic writing, it is crucial to cite any quotation or idea that is

not your own. Since your analysis hinges on the analyses of others, you need a keen awareness of what you directly take from these sources and what constitutes your original contribution to the argument.

Similar to empirical research, it is essential to acknowledge the limitations of your work in your analysis. For literature-based theses, identifying unanswered questions and potential areas for future research is especially significant. This highlights the importance of contributing to the ongoing scholarly conversation and paving the way for further exploration in the field.

## 7 Contents

The structure of a thesis follows some simple rules, but can vary depending on the individual topic and research. In the following, some best practices for the structure and the content of each part will be discussed.

Unsurprisingly, the first page of your thesis is the cover page. The cover page must contain specific details, such as the title of your thesis (as submitted in your application form), the type of thesis (Bachelor's or Master's), the intended degree, your name, date of birth, birthplace (university specific requirement), the name of your examiner (Prof. Dr. XY), and the date and location of the submission. Two examples of a cover sheet can be found in Appendix A1 and A2. Exact information on the minimum information required on your cover page can be found on the website of the Office of Academic Affairs.

The second page can be your abstract. Including an abstract is optional and further information on how to write an abstract can be found in chapter 8.1. In any case, both the cover page and the abstract are not included in the table of contents.

Next, you will find the table of contents. The table of contents includes all following part of your thesis, some with chapter numbers and some without. Those parts preceding the introduction are not included in the page numeration, but are numerated separately using Latin numeration. After the conclusion, you will find the reference list, the appendix and the declaration of originality (university specific requirement). While for these three the page numeration continues, the chapter numeration does not continue.

The declaration of originality states that a) the work was completed independently, b) no sources or means other than those indicated were used, c) all passages of the work that make reference to other sources, whether through direct quotation or paraphrasing, have been indicated accordingly, and d) the paper has not previously been submitted to an examining authority in the same or a similar form. The university provides you with the wording for the declaration of originality (Ehrenwörtliche Erklärung), which you should copy exactly. The declaration of originality should be in German even if your thesis is written in English. You can find the template [here](#).

As an example, this is a simplified version of a table of contents:

### Table of Contents

List of Tables (not included in page number and chapters)

List of Figures (not included in page number and chapters)

List of Abbreviations (not included in page number and chapters)

1. Introduction
2. (Historical) Background
3. Main Part (several chapters)
4. Conclusion

References (not included in chapters)

Appendix (not included in chapters)

Declaration of Independence (not included in chapters)

In the following you will find two examples of how a table of contents may look like for an empirical thesis and a literature-based thesis. There are different approaches to naming the individual chapters of your main part and generally there are no strict rules for it. Most importantly, your chapter names should be short and appropriate for the content of the chapter. Regardless of the type of thesis, your thesis needs to include a table of contents, lists of tables and graphs (if you provide any), an introduction, a conclusion, references and an appendix (if needed). As a guideline, you can find an approximate percentage share for each chapter in the two tables of content below. These are merely experience-based numbers. Further, the exact order of the chapters (e.g., whether Data or Empirical Strategy should come first) is variable.

### **Empirical Research**

1. Introduction (5-10%)
2. (Historical) Background (5-10%)
3. Literature Overview (20-25%)
4. Data (5%)
5. Empirical Strategy (5-10%)
6. Descriptive Statistics (5-10%)
7. Results (25%)
8. Summary of Analyses (5-10%)
9. Conclusion (5-10%)

### **Literature-based Research**

1. Introduction (5-10%)
2. (Historical) Background (5-10%)
3. Theoretical Background (5-10%)
4. Themed chapters (3 to 5 chapters on different aspects/perspectives of RQ) (each 15-25%)
5. Discussion (5-10%)
6. Conclusion (5-10%)

For all chapters, except introduction and conclusion, you are advised to divide your content into subchapters, which will need to be included in the table of contents as well. Remember, the goal of subchapters is to provide a clear and logical structure for your writing and to help the reader follow your ideas and arguments. Avoid creating too many subchapters, as this can make your writing disjointed and difficult to follow. On the other hand, having too few subchapters can result in a lack of detail and structure. It is not common to include headings within a chapter that are not included as subchapters in the table of contents.

## **8 Chapters**

In the previous chapter, we talked about the different chapters your thesis may include. In this chapter, we will talk about what these chapters should include in more detail. As before, we will distinguish between empirical and literature-based theses.

Pro-Tip: Technically your chapters should include at least one paragraph of text even if your chapter is divided into subchapters. Before jumping into your subchapters, it is nice to give a short introduction to the broad reason for this chapter and an overview of the coming subchapters. In the best case, you can draw a connection between this chapter and the previous chapter(s).

## 8.1 Abstract

Voluntary. Not part of the table of contents.

The abstract is a brief summary of your thesis. It should be no more than 200 words and include only the most important information on your thesis. It should include information on a) your research question, b) your analysis and c) your most important findings. It is recommended to write the abstract as the very last piece of your thesis. Indeed, it is not uncommon to recycle sentences from your thesis in your abstract.

Writing an abstract is not a requirement for your thesis. It is, however, very professional and looks great. While there is little you have to lose from writing an abstract, it is a good chance to prove that you are able to communicate the aim and analysis of your paper. Reducing your results down to only one or two most important results can show the examiner that you have a good understanding of the field and a comprehensive understanding of your work.

## 8.2 Table of Contents, Lists and Abbreviations

### Tables of Contents

The table of contents must list all of the sections and subsections of your thesis, which includes both the numbered (sub-)chapters and all other content that follows the table of content. In virtually all word processing programs you have the option to auto-create a table of content and it is highly recommend to use that function. Note, the page numbers for sections that are not chapters, but additional content (list of figures, etc.) before the thesis are usually in Latin numbers (iii, iv, etc.). While page numbers continue for additional sections after the main content of your thesis (appendix, references, etc.).

### List of tables / List of figures

When presenting figures and tables in your thesis (and in your appendix), it is recommended to provide a list of tables and a list of figures. Make sure your table and figure titles are distinguishable and identical to the in-text names. Tables and figures in the appendix are commonly noted with an "A" in front of the numeration. This way, your reader will know where to look. Generally, the numeration of your tables and figures can be done in different ways. Figures and tables are always numerated separately. You can either use continuous numbers throughout the whole thesis or you can use the chapter number as a prefix and start the numeration from 1 for each chapter. The latter is more common for theses with a large number of tables and figures.

### List of Abbreviations

Voluntary.

In your thesis, you are most likely to introduce a handful of abbreviations. To make sure your reader can follow, these abbreviations should be listed. Your list of abbreviations should be in alphabetical order. Note, even if you have an abbreviation listed, you still need to spell out the full word in the text and write the abbreviation behind it in brackets the first time you are using it.

After you have introduced an abbreviation, you should use it consistently throughout the rest of your paper without spelling out the full word again. However, there may be some cases where it is appropriate to spell out the full word even after introducing the abbreviation, such as in cases where the abbreviation is used

infrequently or in contexts where clarity is particularly important. Generally, it is recommended not to introduce abbreviations too often. For example, if you are using a word only two or three times, it is not necessary to abbreviate. The same holds for common abbreviations like “excl.” for “excluding” or “i.V.m” for “im Verhältnis mit”. These are not usually abbreviated in academic writing. Common abbreviations like “e.g.”, “et al.” “etc.” need not to be included in the list.

## 8.3 Introduction

The introduction of your thesis is a critical part of the paper that sets the stage for the rest of the work. It should provide a clear and concise overview of the research problem, research questions, objectives, and methodology, as well as a brief discussion of the significance and relevance of the research. You may also add a short summary of your finding. Usually, the introduction follows a common structure and the most important aspects your introduction should include will be outlined in the following:

### **Start with a hook or attention-grabber:**

The first one or two sentences of your introduction should be attention-grabbing to capture the reader’s interest. You want to set the stage for your thesis with a smooth introduction to the topic for instance by referring to current economic developments, policy debates or a puzzling set of academic findings. Don’t use personal anecdotes, but rather something that everyone is familiar with or can relate to. Writing a good attention-grabber can be trickier than it sounds, but remember you want your reader to be motivated to follow your thesis. Imagine you are offering your reader to take your hand for you to join you on a ride through your thesis. The first step for you is to make your reader take your hand in the first place. This is what you are trying to do with a good opening line.

### **Provide background information on the research problem:**

In the next few sentences, you should provide some background information on the research topic and the question your thesis addresses. This should include a brief review of the existing academic knowledge on the topic, as well as any gaps or limitations in the current state of research that your thesis aims to address.

You should narrow down the broader topic of your thesis to specific aspects that you find particularly important. You will have to focus on some aspects of the problem and leave out others. Therefore, it is crucial that your focus is well-motivated and the aspects considered follow a central theme.

### **State the research questions and objectives:**

In the next paragraph, you should clearly state the research questions and objectives of your thesis. These should be specific, concise, and aligned with the overall research topic that you introduced in the previous section. It is common to formally introduce the research question and write it centered and in italic letters, so it is easy to find at the first glance. Following the research question, you will give further information on methodology and data. This could look like this:

“(…), the following research question shall be answered:

*What are and what drive the labour market implications of global value chain integration in Sub-Saharan Africa between 2000 and 2015?*

The aim of this paper is to draw a clearer picture on (…)”

### **Describe the methodology and data sources used:**

In the next paragraph of your introduction, you should describe the methodology and data sources that you used to conduct your research. This should include a brief explanation of the theoretical framework, the data sources and the analytical methods you will use.

### **Discuss the significance and relevance of the research:**

In the final section of your introduction, you should discuss the significance and relevance of your research. This should include a brief explanation of the potential impact of your research on the field, as well as any practical implications or applications of your findings.

If you like, you can also give a brief summary of your main results at the end of your introduction (but before the last section discussed below).

### **Preview the structure of the paper:**

Finally, you should provide a brief overview of the structure of your thesis, outlining the main sections or chapters of the paper and how they relate to each other. This typically looks somewhat like this:

“The remainder of this thesis is organized as follows: In chapter 2, the literature review first discusses (...). Chapter 3 explains (...). Subsequently, I will analyze (...) in chapter 4. (...) will be examined in chapter 5. In section 6, I will discuss my findings and conclude.”

## **8.4 Background**

If your thesis requires, you can use this chapter to introduce your reader to the background of your thesis. This can be either the historical background or not so commonly known information about the region you are focusing on. You could also provide an overview of the most relevant concepts you are looking at. To give you an example: If your thesis is about the role of NFTs in the development of blockchain technologies, it might make sense to include subchapters on “Non-Fungible Tokens” and “The Blockchain technology”.

If you do include a background chapter, make sure it includes only those information actually necessary to understand your thesis. The information you provide in this chapter should provide the context of your research subject and your reader should be able to link these information to the coming analysis. In this chapter you may introduce broad concepts relevant for your analysis, but note that more specific concepts and methods should be discussed in the main part of your thesis. This chapter should be kept rather short.

## **8.5 Main Part for Empirical Research**

### **8.5.1 Literature Review**

The purpose of a literature review is to situate your analysis within a broader context, granting the reader a profound understanding of the subject matter, its theoretical underpinnings, and theoretical foundation of your expectations for your analysis. Within this chapter, you present, discuss and integrate different strands of literature. You deliver an overview of the research landscape and formulate hypotheses to guide the interpretation of your empirical results. Drawing from your literature review, it should become evident that your research holds relevance within the field, aligns with the studies of other scholars and finds its foundation in economic theory. Your task is to examine related literature and the findings of fellow scholars, thereby enabling your reader to position your forthcoming conclusions in context. Through your comprehensive evaluation and discerning critique of existing literature, you should elucidate why and how your research agenda introduces novel insights and contributes valuable knowledge.

Broadly speaking, a literature review starts as broadly as necessary for the reader to follow (and be convinced) and gradually becomes more detailed. One of the main challenges in writing a strong literature review is maintaining a clear thread throughout, so readers can understand the dense information you’re presenting. Another common misstep is straying off-topic. To stay on track, you can check whether each paragraph or theory discussed contributes to the reader’s understanding of your main thesis analysis. Sometimes, you



might even need to cut out paragraphs you're fond of during proofreading.

Based on your review of the current state of research, in this chapter, you should be able to phrase one, two or three hypotheses on what you expect to find in your empirical analysis. These hypotheses can be seamlessly integrated into your writing or highlighted more prominently, similar to how you introduced your research question in the beginning. For example:

“Following these theoretical characteristics of GVC integration the following hypothesis can be stated as:

***Hypothesis 1:*** *Backward GVC integration is associated with smaller labour market effects than forward GVC integration.*”

When writing a literature review, it's important to have a solid understanding of the overall literature. Begin by reading a good amount of literature before starting to write the review. It will help you get to know the field's terminology and distinguish the novel parts of a paper (which is what you want to cite) from those parts already established in the literature.

As you start writing, do not simply repeat what research articles find but reproduce their results in your own words. It is not necessary to provide a summary of the paper, but it can make sense to give some context when for example you are discussing specific empirical findings of a paper. When extracting arguments and findings, make sure you accurately grasp the context of the point and attribute it to the correct authors.

Creating a literature review means analysing all the relevant existing literature, not just selecting a few random scholars. Your review should aim to give a comprehensive overview of the research landscape. This involves more than just discussing each paper in isolation; you should also establish connections between papers, compare their arguments, and identify commonalities.

Regarding the number of papers to include, there's no fixed rule. Key aspects of your analysis should be supported by multiple sources, and a literature review based on only a handful of scholars might neglect diverse perspectives. Importantly, your literature review should encompass a thoughtful discussion of different viewpoints, demonstrating that you've developed a thorough and nuanced understanding of the subject.

## 8.5.2 Data

In this chapter, the primary objective is to clearly define the variables that will be used for your analysis and explain their sources. The data chapter is meant to be concise yet informative, containing essential information. You should describe where the data comes from. Cite your sources properly and provide reasons for why these particular variables are suitable for your analysis. In many cases, you will be using variables as proxies for the specific factors you want to test or control (for instance, using primary school enrolment rates as a measure for education levels). By explaining your rationale for selecting each variable and possibly comparing your chosen data with alternative options, you establish a solid foundation for your analysis.

Further, it's important to present key details about the data itself, including units of measurement, the time period covered, geographic scope, and more. If you're using indicators like real GDP, it's important to specify the base year or price level used for the calculations (for example, in 2011 USD). In cases where the data might be contentious or open to interpretation, providing insights into how the data was collected can add value. It's also a good idea to incorporate basic statistical measures (such as mean and standard deviation) to help readers grasp the data's characteristics.

Depending on the focus of your thesis and the depth of your empirical analysis, you can also consider including initial descriptive analyses as a subchapter. For instance, you might include simple graphical representations of data trends, offering readers a visual preview of the trends you'll delve into more deeply in your main analysis. This can serve as a useful introduction, setting the stage for the more comprehensive analysis that follows.

### 8.5.3 Empirical Strategy

The empirical strategy chapter introduced the heart of your thesis - the methodology your analysis is based on. While descriptive analysis sheds light on data distributions and trends, the empirical strategy delves into the technical underpinnings of your analysis. This chapter encompasses all essential technical details, elucidating the model(s) employed and presents the regression equation(s).

In most instances, your analytical approach will center around regression analysis. Provide information on your dependent variable, key independent variable(s), and control variables with your equation. Elaborate on their level of variation and role in your analysis. If you utilize techniques like fixed effects, DiD, instrumental variables, or RDDs, explain your choice and state analytical consequences. Address nuanced econometric details, such as the way you treat standard errors.

### 8.5.4 Results

The results chapter is the most comprehensive part of your thesis and the core of your analysis. In this chapter, you lay out your empirical findings in detail and walk your reader through your analysis step by step. While you use tables and graphs to show your regression results, important findings should also be explained in your writing. Explain your modifications and the statistical and economic significance of your results. For the interpretation of your results, link back to the hypotheses you set up in the literature review.

While regression tables can look many different ways depending on your analysis, there are some usual practices. First, you may show different versions of your model side by side in columns. The specifications of each version should be discussed in your writing. A regression table should include the coefficient estimates with the standard errors below in brackets. Sometimes the t-statistic is used instead. You can use stars to indicate p-values below 0.1, 0.05 and 0.01. Especially when controls are plentiful, it is not necessary to display their coefficient estimates. Instead, you can simply indicate which control variables have been included (see e.g., “City FE” in Table 2). Do not forget to indicate other relevant statistics, such as adjusted  $R^2$  and the sample size. What is relevant here depends on your model. Finally, every graph and table should include a notes section, if necessary, that provides the reader with all the necessary information to understand the graph or table independently.

When it comes to how your tables look, it is not necessary to start from scratch. Many researchers use similar formats in their work, so you can follow their lead. Check out Table 2 for an example. Further, keep in mind that all tables and figures should make sense on its own. This means I should be able to understand what is being displayed without relying on your in-text description.

**Table 2 – OLS Results**

	<i>Dependent variable:</i>					
	Protests Turning Violent					
	(1)	(2)	(3)	(4)	(5)	(6)
Bottom Quantile Percentage (Overall Distribution)	1.721*** (0.134)		1.825*** (0.284)		0.681** (0.333)	
Median Eloquence (Within Protests)		-0.209*** (0.019)		-0.226*** (0.030)		-0.104*** (0.034)
Protest Type Dummies			✓	✓	✓	✓
City FE			✓	✓	✓	✓
Month FE					✓	✓
Observations	359	359	359	359	359	359
Adjusted R <sup>2</sup>	0.313	0.253	0.314	0.305	0.524	0.529

*Note:* OLS regression with protest type dummies and city and month fixed effects. Clustered SE on the city level in Parenthesis. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### 8.5.5 Summary of Analyses

If your results section includes diverse findings or several steps of analysis, it is often beneficial to summarize the important findings one more time. While to you this chapter might seem like a repetition, the summary of analyses will help your reader to filter the complex information in your results section and understand better what your conclusions will be based on. This section should include significantly fewer information.

Mirroring the discussion chapter in a literature-based thesis, this chapter (you may as well name this chapter “Discussion”), this chapter should provide a link between your empirical findings and your hypotheses. The answer(s) to your research question<sup>1</sup> and hypotheses should be discussed in this chapter. At the same time, the limitations of your analysis should be already included in this chapter.

## 8.6 Main Part for Literature-based Research

### 8.6.1 Themed Chapters

In a literature-based thesis, instead of writing a literature review and then analysing data for your analysis, you embark on a comprehensive exploration of the research landscape, delving deep into different strands of literature. As stated above, your analysis is typically split into 3 to 5 different themed chapters, each contributing a distinct facet to the mosaic that answers your research question (RQ). For instance, if you want to investigate the effectiveness of COVID lockdowns in China, one chapter might look into the effect of China’s COVID policy on the immediate spread of the virus. Another chapter could focus on effects of lockdowns on household income and a third chapter at their effect on poverty dynamics. Each chapter provides insights on your RQ from a different angle.

As for the literature review, discussed in chapter 8.5.1, each themed chapter comprehensively summarizes the existing literature, compares and combines findings and puts them into context of the RQ. A simple repetition of existing knowledge is not sufficient to be considered an analysis. It is essential for a good analysis to find new connections and to draw conclusions from your research. You should develop your own argument supported by empirical studies.

<sup>1</sup>Note how writing out “research question” made sense here as the abbreviation has not been used in a couple of chapters.

Organizing the themed chapters is about keeping things connected. Even though each chapter has its own theme, it still needs to tie back to what came before and smoothly transition to what is next. You want everything to flow and make sense. How you arrange your themes matters. Think about how your reader will follow along with your main point. Each chapter should have a simple setup: a quick intro, the main part where you present and analyze material and a wrap-up conclusion.

## 8.6.2 Discussion

In your preceding themed chapters, you have critically discussed the literature and made important conclusions about a specific part of your research question. In your discussion chapter, your job is to bring all those findings together to tell the full story that answers your RQ. Unlike the short summary in the conclusion chapter that is coming up, here you have more room to speak about your findings.

While your goal is to summarize the most important findings of your themed chapter, it should not be a mere summary of each themed chapter separately. In your discussion you are supposed to bring together the different aspects, evaluate their relationship and spell out their collective storyline. At the core of your discussion is a relatively detailed answer to your RQ. While all of your conclusions must rest on your literature-based analysis, the discussion is where it is most appropriate to share your own thoughts. Combining your findings and drawing meaningful conclusions, naturally means evaluating the importance of findings relative to others. As long as they are written in an objective manner, here is where you lay out which insights you deem most relevant.

Another important aspect of a good discussion chapter is the evaluation of the limitations of your analysis. Reflect on which relevant aspects of the RQ your analysis is not able to answer and how these aspects might be address in future research. Note also that while you should add new thoughts and conclusions to your analysis in this chapter, the factual information should have been discussed in the previous chapters. As for the conclusion chapter, this chapter should not add new evidence.

## 8.7 Conclusion

The final chapter of your thesis is where all aspects of your thesis come together in their most reduced form. While it will seem like everything has been said already, the conclusion is one of the most important chapters of your thesis. Luckily, the conclusion comes with a very well-established structure:

### **Introduction**

Your conclusion chapter starts with a small reintroduction of your topic. It is not uncommon to have one or two sentences copy and pasted from the introduction chapter. You should state your research topic and your subject of analysis.

### **Research question**

State your RQ again. In the same words as you did in the introduction!

### **Research design**

Quickly reintroduce your study area (country, years, etc.) and your research design (e.g., the model you use or the aspects you consider).

### **Mini summary of findings**

Give a brief summary of your most important findings.

### **Answer your research question**

This is the most important part. The answer to your RQ is your interpretation of the findings and conclusions. It should be relatively brief and very precise. The phrasing of your answer will show the examiner whether or not you have understood the scope and limitations of your findings. It is a balancing act to phrase a strong, relevant and catchy answer to your RQ while being clear about the limited validity of your findings. To give you an example:

A bad phrasing:

*“Based on the previous analysis, it has become clear that manufacturing and finance are engines of growth in India. (...) The finance sector might be good too, but it is much worse that the communication and business sectors are definitely not.”*

A good phrasing:

*“The previous analysis suggests that under limited conditions manufacturing and finance are engines of growth in India. (...) Though I find the finance sector likely to be an engine of growth, it seems more worrying that the communication and business sectors are not.”*

The answer to your RQ typically includes coming back to the policy relevance of the problem considered and highlight the policy conclusions to be drawn from your findings / answer. This could be, for example, a policy recommendation, a word of caution for researchers or a prediction for the future.

### **Limitations and future research**

Last but not least, you will need to point out again the most important limitations of your thesis and which possible improvement should potentially be made in the future. Additionally, you may provide the reader with potential future RQs and ideas on how to advance based on your thesis.

Some more tip for writing your conclusion: Keep in mind that every part of your conclusion should be kept as briefly as possible. A good conclusion should not be longer than one, maximum two pages. It should be just enough to understand what this paper is about and what exactly you have found.

A conclusion summarises all the points you have previously made and it should not include any evidence or topics you have not discussed before. There should be no new information, sources or quotations.

## **8.8 References**

Your references, reference list or sources is the part where your reader can find all of your citations. If you are using a citation programme as suggested in chapter 4, creating this chapter will take you about one minute. Here is all you need to know about a proper reference chapter.

Make sure that you include all references you are referring to in your main text in your reference list. This means every source you are citing should be included exactly once and there should not be any sources included in the reference list that you are not citing in your thesis. Throughout revising your thesis your citations will change, so double check if your reference list is up to date before handing in.

Also make sure that you cite the newest and if there is the published versions of a paper and not the working paper version. When using sources from the internet (newspaper articles, etc.) please provide a link including the date on which this link was accessed (see chapter 4). If your references are complete, there is only one source of error left: you need to have a consistent style for your references. In any case, double check for completeness and consistency.

## 8.9 Appendix

During your thesis (usually the main part) you can relegate supplementary material (data descriptions, graphs, tables, proofs, etc.) to an appendix. The graphs or tables that are essential for your arguments should be included in the main text. However, every time you wonder whether something belongs to the appendix, just ask yourself whether it is necessary to mention. If not, but you are still convinced that it is nice to have if additional questions arise or just for the sake of completeness, it belongs in here. This minimal level of importance also means that the material in the appendix is interesting enough to be referred to at some point in the main text.

Note that while not every thesis needs an appendix, it is rather common to have one. An extensive appendix, however, is by no means a sign for great research. Do not dump every graph and table you created in the appendix. Add only those information that the reader might actually be interested in while reading your thesis.

You also have chapters in the appendix, the order is often just the order in which they are mentioned in the main text. Put an “A” before the number to indicate that it is found appendix (remember, you have to reference them in the main text), e.g. A1, A2.1, A2.2, etc. The same is true for graphs and tables, you refer to them as “figure A1” and “table A1”.

## 9 How to write

### 9.1 Reader-friendliness

Expressing your knowledge, arguments, and interpretations in words can be challenging, but academic writing is a process of rewriting. Finding the right order of paragraphs, level of depth of an argument or whether or not to keep a certain part at all, takes time. Do not forget to allocate time for revisiting, proofreading, and receiving feedback from others. Although you’ll need to develop your own effective strategies to get started and for translating your thoughts into writing, there is a very common and very true saying: First drafts don’t have to be perfect. They just have to be written.

To make your judgment of the quality of your writing a little easier, there is the common theme (Roter Faden) and the guiding-the-reader perspectives you may want to remind yourself of. Starting with the common theme, it should be obvious that the structure of your thesis needs to make sense not only to you, who already knows what will come next, but also to the reader. Make sure, all arguments following one string of thought are delivered together. Though it might seem trivial at first, it is not uncommon to find information or an argument in one chapter although it is much more closely related to something that was discussed two chapters earlier. The order in which you learned about information is most likely not the order in which you will write it down in the thesis. One task that has proven to be of great help to achieve a common theme thought a thesis, is writing a comprehensive outline before starting your writing processes. An outline for your thesis is essentially the table of contents with about one paragraph on the different aspects you intend to cover written for each chapter and subchapter. Having a proper outline of your thesis before starting to write, can help reminding yourself of the aim of each (sub)-chapter and makes it much easier to switch from working on one chapter to another.

When it comes to guiding your reader, imagine you are trying to walk your reader through a parkour of research holding them by their hand. You want to keep them close, so they don’t try running off in a different direction. You want to share where you are going, so you don’t have to drag them. You want to want to prepare them for (thematic) jumps, so they don’t get lost. And you want to take the most linear way, so they don’t get annoyed by your guiding skills.

When revising your first, second and maybe third draft try to put attention on guiding the reader. Is it easy to follow you? Is the reader missing information to be convinced by your interpretation because they

are provided a couple of paragraphs later? Very typical comments by proof-readers with a good eye for structured writing are “Why are we talking about this right now?”, “Why do I care?” and “How is this linked to ...?”.

Please, ask a friend or family member to proofread your thesis, once you have a draft you are fairly happy with. Allocate time for improving your thesis based on their comments. Your thesis should be written for a person less informed about the subject than you but with some understanding of economics.

The final point to make when talking about reader-friendliness is how to write a paragraph. Most have probably learnt this in school, but even then figuring out when to start and end a paragraph can be a headache. Generally, there are three rules of thumb: 1. A paragraph should not be shorter than three sentences. 2. A paragraph should make sense on its own. 3. You should start a new paragraph when starting a new argument.

Although of course, every paragraph looks different there is a theoretical concept of how to put together a well-structured paragraph:

**Topic sentence** (what is your main argument/point)

”In the past decades, developing countries have experienced slower industrialization than expected.”

**Development of point/argument** (expand your point by providing more details)

“Historically, developing countries have shifted from an agriculture-led economy towards an industry-led economy. In the past decades, however, the share of the industrial sector in employment has remains relatively small and instead a shift towards service sectors has taken place.”

**Evidence from sources to support your argument** (either citation or reference to your own findings)

”Rodrik (2016) defines this development as premature deindustrialization.”

**Critical analysis** (discuss other perspectives, relativize your statement, add context).

“While Rodrik find that the share of manufacturing employment in Sub-Saharan Africa has decreased between 1960 and 2011, Kruse et al. (2022) find that this trend has been reversed since the 2000s.”

**A final wrap up / conclusion** (what is the take-away from your reader)

“Even though deindustrialization may be slowing down at least in Sub-Saharan Africa, industrialization seems to be less universal compared to historical development.”

Pro-Tip: Theoretically, a well-written introduction should make sense to an informed reader when only reading the first sentence of each paragraph.

## 9.2 General language guidelines

**Dos:**

- Write in present **tense**. The future tense is reserved for describing an action that will occur in the future, such as a plan for future research or a prediction (“This study will examine the effects of...”). The past tense is reserved for real-life events that took place in the past (“The medieval society was characterized by a hierarchical social structure...”).
- **Proofread** for language and understanding. Have someone proofread your work carefully for errors in spelling, grammar, punctuation, and formatting. Have another person proofread for understanding.

They may check if you are following a consistent style, if your arguments are comprehensible and if information is missing or redundant.

- Stick to the **spelling** of a word. Optimally, you should not switch from e.g. British to American English.
- Try to be as **precise** as possible. Vague language leads to confusion for the reader and weakens your power to convince.
- **Guide your reader** as much as possible. Leave no step of analysis to the reader. Provide them with the arguments, the pros and cons AND the conclusion from it. Link your arguments, repeat your interpretations and tell your reader what is coming in the chapter. Make following your storyline as easy as possible.
- Introduce every **abbreviation** in full words before using the short version. Stick to the abbreviation once you've introduced it. If important for understanding the content (e.g. when you are talking about differences between two similar terms) or if you haven't used the word for several page, you can reintroduce the abbreviation.
- Use **"so-called"** if you introduce a term that is seemingly common in the literature (referred to in the literature), but not straightforward for the non-expert reader. E.g. the so-called premature deindustrialisation.
- Use **transitional phrases** and signal words such as "therefore," "in addition," "however," etc. to guide the reader through your argument.
- Use simple to read **sentences**. You might be tempted to write overly complicated sentences to prove your complex thinking, but it makes following your storyline hard. At the same time, vary the length and structure of your sentences to avoid monotony and maintain interest.
- Use **examples**, evidence and data to support your arguments and claims. This is true for all parts of your thesis. For your theoretical part, it is highly recommended to connect your arguments with your research topic. Use topic-related examples when describing a concept or model.
- Be **gender-inclusive**. Don't refer to an agent as "he". The agent could also be female. Don't forget to check the gender if you cite a single author.
- **Language matters** and the words you choose to describe e.g. countries, people and living situations may imply more than you think (e.g. "third world countries").

#### Don'ts:

- Don't **overstate**. Finite statements are easy to falsify and hard to justify. Instead, you should use language appropriate to the validity of your findings. E.g. "Based on these findings... ", "The results suggest... ", "It seems", etc.
- Be **objective**. Don't include judgements if you can't base them on your findings precisely.
- Don't use **personal anecdotes**, rhetorical questions or sarcasm. Using these in academic writing is an art in itself. Let's leave that to established researchers.
- Don't use **exclamation marks**.
- Don't overuse **italics** and **bold** print.
- Don't (over)use first or second person (I or you). **First-person language** can be used when referring to choices by the author (such as the structure of the paper, choice of methodology, and choices regarding data). The second person is not used in academic writing.



- Don't be **submissive**. Don't write that your chapter "will try to summarize X and Y", but state that your chapter "will summarize X and Y". Leave the decision of whether or not you were successful to your reader. You may use submissive language to set expectations straight, hence setting the range of acceptable outcomes (e.g. you are using a method that might be able to answer a question but might as well not be sufficient to answer)

### 9.3 Footnotes, cross-referencing, tables and graphs

Footnotes are used to add additional information to a point that does not fit into the flow of the main text but is still relevant. Sometimes it is additional context that some readers may already be aware of, sometimes it is an additional explanation and at other times it is caveat to an argument of the main text. You can get an idea of how long and what kind of content can be provided in the footnotes when browsing through academic papers. Note that sometimes it seems tempting to move a paragraph that you are fond of (e.g., because you spent a lot of time working on the content), but that is not relevant enough for your main text, to the footnotes instead of deleting it. Don't.

Cross-referencing means referring to the information given in another part of your paper to avoid providing information twice. This is helpful in many cases as you have seen before even in this paper. In chapter 8.8., for example, we referred back to an earlier chapter discussing the same subject in more depth. Generally, referring to a previous chapter always works. When referring to a discussion provided in the same chapter you can also write "as discussed earlier" or "see above". It becomes trickier when referring to a coming chapter. It is nice to provide information on what will be coming as in "The consequences of these findings for India will be discussed in more detail in chapter 4", but you should not refer to conclusions and interpretations you will make in coming chapters.

Throughout your thesis and especially in your results section (empirical research) you are presenting tables and graphs. While we will not go into what these should look like, there is a couple of things you should keep in mind. When including graphs or tables, you must enumerate them. Each graph and table should have a) an individual number, so you can properly refer to them in your text and b) a title so your reader knows what they are looking at<sup>1</sup>. About the enumeration, the most common practice is to use continuous numbers throughout the paper (Figure 1), but you can also use the number of the chapter and start the enumeration at 1 for each chapter (Figure 9.1). The latter is less common and only really makes sense if your paper includes a large number of tables and graphs. In both cases, tables and graphs (usually named figures) are enumerated separately. Below the graph or table, you can and should provide additional explanations (Notes). Without the notes, some aspects might have been confusing. An important rule of thumb: A table or graph should be understood by only looking at it and reading its notes.

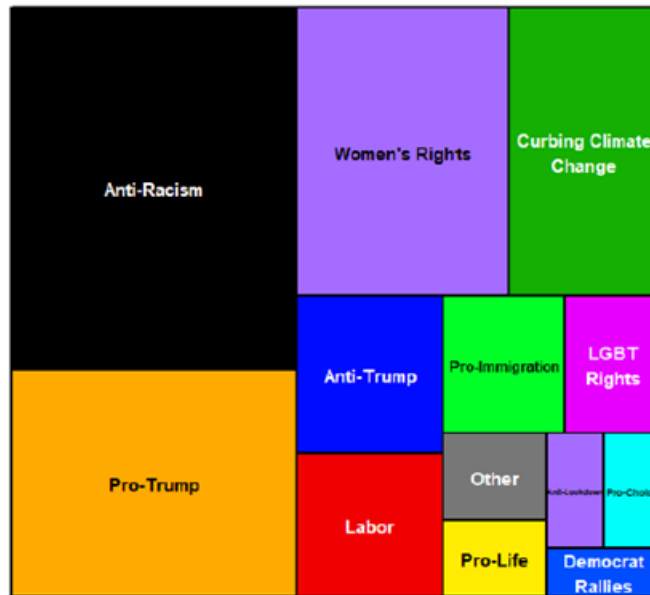
All graphs and tables in your thesis – that includes the appendix – must be referred to in your text. You don't want your reader to skip over them. Add a reference to the graph or table when you first talk about them in the text. You should discuss what the graph shows and integrate this into your argumentation.

Keep in mind that your paper is most likely being printed in black and white, so graphs should be understandable without colours as well. If Figure 1, for example, did not have the names written in the boxes but rather in a legend next to it (black = Anti-Racism, purple = Women's Rights, etc.) it would be impossible to take information from it in black and white. You can still use colours in your graphs but make them black and white friendly at the same time. To be fully inclusive, do not use shading of green and red. Red-green colour blindness is the most common colour blindness.

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<sup>1</sup>Referencing graphs and tables in the main text is an absolute necessity. You don't want your reader to skip over them. Add a reference to the graph or table when you first talk about them in the text. You should discuss what the graph shows and integrate this into your argumentation. This footnote is, by the way, an example of how not to do footnotes. Everything in here is not only relevant but also part of the main arguments of this paragraph and thus not fit to be relegated to a footnote.

Figure 1 – Incidence of protests by protest type in the sample.



*Note:* This figure presents the relative frequencies of protest types in our sample. Box sizes reflect the frequency with which a protest category appears in our data set. Categories were assigned by us according to the stated goal of a protest. In the Appendix, we list all types of protests together with the category into which we sorted them.

## 10 Additional Tips and Tricks

Staying on track thematically is easiest when you have a well thought through idea of the structure of your thesis. A good practice to help you doing this is to write an outline. **Thesis outline** are essentially your table of content with a couple of sentences on the content of each chapter and sub-chapter. It will help keeping yourself motivated and on track. It's much easier to write with a plan in mind than to write into a shapeless void. Optimally, you should have your outline written by the time you are officially deciding on a topic.

When **reading literature**, many people have come up with many different theories on the most effective method to extract and organize the relevant points and argument. You will find your own effective strategies for this, but some basics may help: Start reading a paper by reading its abstract, introduction and conclusion. Mark key arguments when reading papers. Phrase arguments and your interpretation the moment you feel like you have understood them.

Remember that your thesis will almost certainly not follow the path you are expecting. Give yourself time for missteps by preparing a solid **timetable**. You may set out to answer one question, find that what interests you is a second one, abandon that for lack of data and then stumble onto a third. This is what research is about.

Keep in mind that there is **quality and quantity**. A good thesis does not require you to do everything you

can think of. It is more important that the things you choose to include in your thesis are well executed.

## 11 Institute-specific rules

- To find a thesis supervisor please reach out to ONE member of the chair. We may reallocate you to another person if fitting.
- Bachelor's thesis may be written in English or German. Master's thesis must be written in English.
- Bachelor's thesis may be empirical or literature-based. Master's thesis must include empirical research.
- Please use font size 12, line spacing of 1.5, block justification for text alignment (Blocksatz) and margins (Seitenrände) of 2.5 cm on all four sides of the page.
- A Bachelor's thesis should be 20 pages (+/- 2 pages) excluding the cover page, tables of contents, tables, graphs, references, appendix, etc. There is no page limitation for Master's theses.
- Please include the declaration of originality (Ehrenwörtliche Erklärung) as provided by the faculty. The declaration must be in German and the identical wording. It is not part of the page count.
- The thesis does not need to be submitted in paper format. A digital copy (pdf) to Prof. Dr. Gassebner and the Office of Academic Affairs is sufficient.
- After registering your thesis topic with your supervisor, you should receive a confirmation stating your filing deadline from the examination office within one week. If this is not the case, please reach out to your supervisor!

## Appendix

On the following pages, you can find two examples for a cover page. The requirements for the coverpage are regulated by the Office of Academic Affairs. Please refer to their websites to ensure up-to-date information.

## Titel der Arbeit / Title of Thesis

### Bachelorarbeit

zur Erlangung des akademischen Grades "Bachelor of Science (B.Sc.)"  
im Studiengang Wirtschaftswissenschaften der  
Wirtschaftswissenschaftlichen Fakultät  
der Leibniz Universität Hannover

von Maria Musterfrau

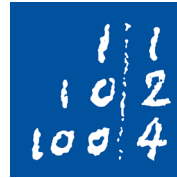
Matrikelnummer: \*\*\*\*\*

Geb. \*\*. \*\*. \*\*\*\*\* in \*\*\*\*\*

Erstprüfer/in: Prof. Dr. Martin Gassebner

Abgabe: \*\*. \*\*. 202\*, Hannover

Gottfried Wilhelm Leibniz Universität Hannover  
Fakultät für Wirtschaftswissenschaften  
Institut für Makroökonomik



Leibniz  
Universität  
Hannover

**Titel der Arbeit / Title of Thesis**  
**Untertitel der Arbeit / Subtitle of Thesis**

## **Bachelorarbeit**

zur Erlangung des akademischen Grades "Bachelor of Science (B.Sc.)"  
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der Leibniz Universität Hannover

Submitted by:

Maria Musterfrau (Student ID)

Geb.: \*\*.\*\*.\*\*\*\* in \*\*\*\*\*

Erstprüfer/in: Prof. Dr. Martin Gassebner

Abgabe: \*\*. \*\*. 202\*, Hannover

