University of Applied Science Fresenius

International Business School

Cologne

My Five Cents on How to Write a Thesis

A Guide for My Students

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Abstract

This paper is intended to help (my) students to write academically using their computers and resources efficiently. This includes avoiding common mistakes, recognizing and avoiding bad literature, using my Fresenius University of Applied Sciences templates in Quarto or LaTeX, setting up a bibliography manager, and using appropriate language tools.

1 Introduction

In this paper, I provide tips on how to use of the available resources (time, intellect, technology, supervision, etc.) efficiently when writing a academic paper. I refrain from specific advice on good writing, structuring your thesis, or adhering to academic rules and conventions. However, you should work on your writing skills to reduce the likelihood that reviewers will underestimate your contribution due to an unclear and complicated text. So I recommend the following resources:

- Nikolov (2023): *Writing Tips for Crafting Effective Economics Research Papers*
- Cochrane (2005): *Writing Tips for Ph. D. Students*
- Zinsser (2016): *On Writing Well: The Classic Guide to Writing Nonfiction*
- Strunk Jr. and White (1999): *The Elements of Style*
- Barros (2016): *The Only Academic Phrasebook You'll Ever Need: 600 Examples of Academic Language*

Nikolov (2023) and Cochrane (2005) offer excellent and concise guides with numerous tips you shouldn't miss. Zinsser (2016) elaborates on how to write in a convincing, clear, and appealing manner. The long-seller Strunk Jr. and White (1999) focuses on grammar and language and is available online here or slightly abridged here. In Barros (2016) you find a lot of examples that might give you a sense on how to express certain things efficiently.

I hope that the following sections will help you to improve your work. Admittedly, these recommendations are somewhat self-serving, as reading and grading poorly written work is not fun and is time consuming. The poorer the quality of a paper, the longer my assessment reports become, as I have to list all the flaws to justify lower marks.

2 Consider Failure as an Option

You can fail with your thesis. Unfortunately, that happens. Even if there is a second attempt possible, much of the work and time you have put into the failed thesis is lost. Please be aware of this. Failure can result in having to pay tuition for a few more months, explaining to parents that they have to cancel the flight for the graduation ceremony, and more.

3 Write for the Reader

When writing, even academically, remember that humans are your audience. Tell a story. Help, guide, and motivate. Every sentence and paragraph should contain a message to the reader. Make sure readers understand what you are trying to say. While you can't rule out the possibility of being misunderstood with words, you should minimize the risk. For example, if you can say it in simple words, do so. If it requires specific vocabularies, make sure that there is an intersubjective meaning. When in doubt, define the terms you use. Tell the reader what and where you will be discussing something and why it is important. Don't presume the reader knows the significance of details you explain on page 8 for understanding insights discussed later. Guidance and motivation is key. Provide reasons for your work and your discussions. Use common sense and familiarize yourself with the conventions of your field of research. Above all, this will help you write in a way that people are likely to understand the way you want them to.

4 A Thesis Is Not a Dissertation

The difference between a bachelor/master thesis and a dissertation (a.k.a. doctoral thesis) is that the latter must make a contribution to the state of knowledge of mankind. In a dissertation, you should find a research gap and narrow this gap. In a bachelor/master thesis, you demonstrate your ability to work systematically on a topic while adhering to academic standards and conventions. Such a thesis showcases your understanding of existing knowledge and research methods without necessarily introducing new insights or addressing a research gap.

To further understand this distinction, consider Pollock and Bono (2013, p. 629) assertion that scholars have two jobs: "Answering interesting questions and telling the story." Not every answer to an interesting or novel question constitutes a scientific contribution. In a bachelor/master thesis, your goal is to answer an interesting question, but your answer does not need to fill a research gap.

Consider two examples of successful theses without scientific contributions: When analyzing observational data, students can't predict whether their empirical approach will lead to reliable results. Often, after a labor-intensive process involving data importing, cleaning,

wrangling, calibrating, and analyzing, researchers find the data inadequate or the methods ineffective. For a doctoral student, this means that they can't use the results for their dissertation. In contrast, a bachelor or master student can demonstrate academic competence by identifying and discussing problems with the data or methods. Another common scenario involves students who design and implement a survey intending to analyze the results. Students may design a survey but fail to obtain enough participants or a representative sample, so their results don't meet scientific standards. Still, they can write a strong thesis by acknowledging the limitations of their findings.

Understanding professors' judgment requires grasping science's key principles: honesty, transparency, and dialectic approach. Don't oversell results or hide weaknesses. Be your own biggest critic and make it difficult for the examiner to criticize you.

A bachelor/master thesis measures your performance and ability to deliver results within a set timeframe. Examiners should consider the time constraints in their assessments, recognizing that no thesis is perfect.

5 Do What You Can Do

Everybody has different talents and writing a thesis requires a special setup of skill. Some of them are difficult to acquire shortly before or during working on your thesis. Luckily some things can be worked out easily and quickly as they are not directly linked to analytical abilities or language wise talents. For example, strictly following the formal guidelines set by your university does not require you to be smart. It just takes a bit of time and effort. I highly recommend discussing the guidelines with your supervisor. In my experience, most supervisors are not overly strict but want students to consistently follow one style guide. That means, whatever rules you apply, do not change (or forget) the rules within your thesis.

Professors often advise you to "use APA rules". When they do, ask which edition they refer to. The most recent is the seventh edition and it is explained in the APA manual which is more than 400 pages long (APA, 2020). Undoubtedly, it is time-consuming to study all the rules and labor-intensive to apply them. It is more efficient to use a software that takes care of these rules for you. I recommend using Quarto or LaTeX, especially the templates I provide. You can find more details at Section 7.2.

Below, I provide some examples of common, easily avoidable mistakes that students often make:

- Most students often fail to capitalize titles, headings, and entries in their literature lists consistently. The APA style guide of the APA (2020), for example, allows for two types of capitalization for headings within papers: title capitalization and sentence capitalization (see here). Since the rules regarding what should and should not be capitalized can be complicated, and no one wants to memorize them, I recommend using the online tool capitalizemytitle.com, which provides the correctly formatted heading when you paste it into the tool and select a style.

- Students often forget to include the academic titles of the examiners or misspell something on the title page. This may seem insignificant, but it is an unnecessary error that the examiners notice first.

- Students frequently do not include all the literature cited in the text in their bibliography and there are often entries in their list that are not cited in the text. Moreover, citations in the reference list are often incomplete and inconsistently formatted. To avoid these issues, I strongly recommend using software. Applying the many rules of writing and style guides like APA or MLA can be challenging for humans, but computers can memorize and apply a large number of rules quickly and accurately. Take advantage of that! Section 7 introduces some tools for this purpose.

- Students often cite literature without including page numbers. Whenever you refer to a specific argument or fact rather than the entire paper, it's recommendable to indicate the exact page(s) where the information can be found. Although some style guides require page numbers only for direct quotes, it's a good idea to include them. This makes it easier for the reader of your thesis to locate the specific argument you reference. When students cite books that span hundreds of pages, it can be nearly impossible for the reader or examiner to find the information cited. If you're unsure, consult your supervisor.

- Many theses lack proper in-text citations, relying instead on references enclosed in brackets at the end of the paragraphs or the sentence. This approach leaves readers without context, making it unclear which information the references are meant to support. A more effective strategy would involve integrating in-text citations that directly connect referenced works with the specific points they are meant to substantiate.
- Students often make spelling, punctuation, and grammar mistakes that could have been easily avoided by using modern language tools, see Section 7.1.
- Finally, I often see students having a section with a single subsection. This does not make a lot of sense and often indicates a poor structure.

6 Do Things in the Right Order

Process and time management are essential. To accomplish something quickly feels good, but don't procrastinate the more challenging tasks. A thesis is not a sprint, and how well you start matters less than how well you finish. I recommend investing time in tasks that will benefit you throughout the process until submission day. I believe that familiarizing yourself with helpful tools from the beginning is crucial. I introduce some of tools in Section 7. Additionally, I suggest setting aside a few days before the deadline to polish your text. This includes improving grammar, reducing redundancies, clarifying your contributions, enhancing readability, and ensuring that your arguments effectively guide the reader. Poor language and weak explanations can make it difficult, or even impossible, for the examiner to recognize the brilliance of your ideas and your command of the literature. Guiding the reader is particularly important because your thesis is lengthy; you don't want to leave the reader unsatisfied for 30 pages, only to introduce key explanations out of nowhere. Remember, the text of your thesis is the sole basis for the examiner's evaluation.

7 Use the Computer

7.1 Use Modern Language Tools

Many smart language tools exist. Using them efficiently and successfully is crucial nowadays. I recommend considering ChatGPT, Grammarly, and DeepL. While DeepL is primarily a translation tool, it can also be used to check the language, find synonyms and

verify the intended meaning of written words. This is particularly useful if the language you are writing your work in is not your native language. Grammarly and ChatGPT are great to improve the language. However, it's important to use these modern tools wisely. Generating text with tools like ChatGPT can sometimes result in content filled with generic phrases and dictionary-like definitions that may not closely relate to your topic or effectively address the questions of interest. The language, repetitions, the neutral tone, and specific phrases (e.g., "to delve into" and "through careful analysis") may indicate the inappropriate use of these tools. To avoid generic or irrelevant content, refine and personalize the suggestions from the large language tools.

7.2 Use Quarto or LaTeX

Familiarize yourself with word processing software. Even if you are familiar with Microsoft Word or Apple Pages, I recommend Quarto or LaTeX. Using these alternatives does require some training, but the quality of the documents is excellent and the tools provide valuable support. The structured workflows help students to avoid mistakes, save time and, most importantly, make fewer errors that can have a negative impact on their grades. I provide templates for Quarto and LaTeX that ensure compliance with all formatting rules specified by Fresenius University and facilitate the integration of literature and the correct creation of bibliographies. This document, for example, was written with Quarto. Telford (2024) offers a guide on how to write a thesis with Quarto.

- You can find the LaTeX template on Overleaf or GitHub.
- The Quarto template can be found on GitHub in the repository temp_apa_en.

7.3 Use a Reference Management Software

Don't waste your time on tedious, repetitive tasks like citing and sorting literature according some complex academic citation style. Let the computer handle it.

If you use Quarto or LaTeX, you can easily cite literature with BibTeX, which saves the literature entries in a file with the extension .bib. While this file is a plain text file that can be opened and edited with any text editor, a reference management software such as JabRef helps to handle bibliographic data. JabRef is an open source lightweight software application that is

compatible with Windows, Apple and Linux operating systems.

7.4 Use MS Word and Pages the Right Way

If you decide to use writing tools like MS Word or Pages, make sure to take advantage of the tools these software packages offer. For example, they allow you to manage and insert citations and automatically generate a the reference list.

8 Use Resources Carefully

8.1 University

Inform yourself proactively about the rules and regulations of your university. For example, if you are a student of the International Business School of the University of Applied Science Fresenius you receive informations from the examination office and the page Collective Information for Writing your Thesis (Bachelor & Master) on ILIAS includes:

- Tools and formal instructions (e.g., proxy activation, paper formatting).
- Program-specific regulations and guidelines.
- An FAQ section for organizational questions.
- Information and tools for empirical research.
- Guidance, learning videos, and self-tests on scientific writing standards, covering literature, plagiarism, citation, form, and style.

8.2 AI tools

Nowadays, there are many great software applications that utilize artificial intelligence (AI). These tools can increase your productivity and catalyze the process of collecting and compiling ideas into readable text. However, their use is sensitive and not without risks in academic environments. ChatGPT and other large language models can be halucinating. Please talk to your supervisor about this. As a student at HS Fresenius, you should read the Guidelines for the use of artificial intelligence in examinations at Fresenius University of Applied Sciences.

8.3 Supervisor

8.3.1 Choose Your Supervisor Wisely

If you have the chance to choose a supervisor, try to find a professor who understands your topic and research area well so that he or she can guide and evaluate you well. Having a supervisor who is familiar with the unique challenges of your research field can be highly beneficial. Don't speculate on who tends to give better grades. I don't see this being a successful strategy at Fresenius University of Applied Sciences.

8.3.2 Let the Supervisor Supervise You

Every project is unique, and so are the examiners and supervisors involved. It is essential to discuss your project with your supervisors to ensure alignment on what your thesis can, should, and must deliver. It is important to agree on what can be excluded and how to structure your work. Seek recommendations, and if you disagree with your supervisor's suggestions, communicate that clearly before you submit the thesis. Otherwise, follow your professor's advice.

Every supervisor has his own idea to guide you well. Here is my typical procedure:

1. **Initial Contact:** Email me to ask if I have the capacity to supervise your thesis.
2. **Initial Meeting:** If I am available, we should schedule a meeting. In this meeting, I'd like to get to know you and your ideas. Please inform me about your subject preferences, your relevant skills (e.g., familiarity with empirical methods if you plan to work on an empirical topic), and your post-graduation goals. Ideally, come prepared to discuss a specific topic you have in mind. A detailed research proposal is not required; just explain your ideas concisely. If possible, send me a research paper that closely aligns with what you aim to do before the meeting.
3. **Topic Development:** After our meeting, we both will conduct some research to finalize a title for your thesis. Through email exchanges, we will agree on a title and collaboratively develop a non-binding abstract to guide your work.
4. **Formal Application:** You will formally apply to write the thesis. Send me the necessary form; I will complete my sections, and then you can submit it to the examination office.
5. **Start of Work:** The examination office will notify you of your official start date.

6. **Progress Check (20%):** Make an appointment with me after about 20% of your allocated time. We will discuss the structure of your thesis, and I will provide individual recommendations and insights.
7. **Ongoing Support:** I am always available for support during your working time. Reach out if you believe I can help you save some time or improve the quality of your thesis. It is your responsibility to seek help when needed; do not wait for me to proactively solve your problems.
8. **Progress Check (80%)**: When you are about 80% of the way through your working time, send me your table of contents and one subsection of your draft (1-2 pages) that represents your writing style. I will provide detailed written feedback focusing on formal rules, language, and the clarity of your arguments. My feedback aims to be constructive, helping you efficiently use the remaining time to enhance your thesis. I strongly recommend taking advantage of this opportunity, as past students have found my feedback very valuable.

9 Literature: Cite Properly and Avoid Low-Quality Sources

In a thesis, you discuss the current state of research and aspects that might not be well understood. To allow the reader to verify your explanations, refer to existing literature. Your references should enable the reader to locate sources. References are typically organized applying a citation style. Ask your supervisor which citation style to use and adhere to it. Applying a citation style consistently shows diligence. If your bibliography is incomplete or sloppily formatted, you risk losing credibility, which is bad in a thesis and disastrous for a researcher.

Unfortunately, many students rely on less credible sources, which leads to poorly written theses. Students often study and cite works that are easily accessible but have never been subjected to quality control. Doing so prevents students from learning from the best researchers, instead exposing them to papers likely rejected by editors and referees. Thus, consider the quality of the resources you read and cite carefully. Avoid predatory journals, and be cautious of information from online blogs, magazines, and other media that do not seriously review the quality of their publications.

In academic journals, the double-blind peer-review process has become a standard that greatly helps avoid nonsense being published. Aim to find reliable sources from reputable institutes with a robust peer-review process and non-profit motivations. Do not simply rely on the first online search result or the selection provided by Google Scholar, as listing there does not guarantee reliability or quality. Better avoid citing articles and books published by vanity presses. While it is challenging to identify predatory journals, indicators of dubious quality exist:

- **Black list:** Check if the journal or publisher is included in Beall's List or on TUM's website.
- **White list:** Identify trusted publishers using Directory of Open Access Journals and whether the journal is listed in the SCImago Journal Rank and how is their SJR ranking?
- **Think and check:** Determine if the paper or journal is open-access. If it is, consider who is financing the journal. Predatory journals often require authors to pay for publication, and their peer-review process is often questionable. Use the content and the checklist that you find on thinkchecksubmit.org to judge on the reliability of publishers, journals, and their publications.
- **Publisher reputation:** Some large publishers serve as hubs for conferences and organizations to publish journals and articles. While a few journals from publishers like IEEE, ACM, scirp.org, SciEP, Science of Europe, and MDPI are of acceptable quality due to rigorous editorial standards, most journals are of low quality or predatory. Avoid these publishers or at least approach them with caution and consult your supervisor if in doubt.
- **Questionable impact factor lists:** Is the journal listed in dubious impact factor lists? The Scientific Jourrnal Impact Factor (sjifactor.com), for example, claims to determine the impact of a journal. However, the service provider remains anonymous, with no masthead, address or contact information other than an e-mail. This anonymity, which is against the law in many countries, including Europe, casts doubt on the quality and validity of the service, especially as the methodology is not transparent.

By following these guidelines, you can increase the chances that the sources you use and

cite in your work are credible. However, note that there is no rule without an exception. It can sometimes be appropriate to cite an online blog, a post from a social media platform, or an article from the yellow press. However, you should provide a clear reason for doing so. If you are uncertain, consult your supervisor.

Despite my recommendations above, no medium should be categorically rejected in science; it depends on how it is used and interpreted. For example, even Wikipedia can be cited in an academically written document. Even if it is "not a reliable source for academic writing or research" (Wikipedia, 2025a).Wait a minute. Did I just cite Wikipedia to make this statement? Yes, I did, and paradoxically, that proves my point. Here are the reasons why it is okay to cite Wikipedia here: First, I cited a "Wikipedia essay," an opinion piece by Wikipedia editors, which is not a standard entry (see Wikipedia, 2025b). Second, I use the permanent URL, allowing verification of the quote. Third, the editors' discussion of Wikipedia's unreliability on the site itself is noteworthy and can be considered a primary expression of opinion. In my opinion, a warning from Wikipedia editors is more meaningful and convincing than any other source. Overall, I consider this Wikipedia citation to be appropriate in this context.

Exercise

Explore these publishers and journals::

- International Research Journal of Engineering and Technology (IRJET),
- British Journal of Multidisciplinary and Advanced Studies,
- American Economic Association Journals, and
- The Stata Journal.

Visit thinkchecksubmit.org to understand journal evaluation criteria. Assess the likelihood of a paper of questionable quality being published in these journals. Determine which journals are worth considering for academic work, and evaluate the reputation of their publishers. Reflect on how these factors impact your view of the journals' credibility.

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