Guidance for

Theses, Term Papers, and Project Reports

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Prof. Gabriela Alves Werb, Ph.D.

Professor of Business Information Systems

Faculty of Computer Science and Engineering

Frankfurt University of Applied Sciences

Contents

1. Exposé (For Theses Only)

An exposé is a separate document that helps you to shape and structure your ideas. It serves as a blueprint that you will refine and later use to work on your thesis. We will discuss and iterate on your exposé at least a few weeks before you register your thesis. Your exposé should follow the structure outlined below.

1.1. Proposed Title

What is the proposed title for your thesis? Until you formally register the thesis, you can adapt the title as needed. Please consider carefully whether your title is indicative of what you plan to do in your thesis. Avoid titles that are too broad and uninformative or titles that are overly specific and may become unsuitable if you later need to follow a slightly different direction.

1.2. Problem Statement

What problem are you trying to solve? Try to define the problem in one or two sentences. Do not hide behind very complex language or technical jargon. Please note that this may be a hard task for complex problems, and it can take many iterations until you can define the problem at its core with simple words.

Why is this problem relevant and who benefits from solving it? Try to make this point very clear to potential readers and avoid getting lost in problems without societal or economic relevance or very specific edge cases of more general problems that have a known solution.

Why is this problem difficult to solve or why is there no straightforward answer to it? If there is a straightforward answer, or there are already many studies focusing on this problem and the scientific discussion is reaching a consensus, then there is likely little room for making a substantial contribution there.

1.3. Research Goals

What is the goal of your thesis? Your goal might be to test one or more hypotheses, to shed light on new phenomena with an explorative study, to develop a new method to solve a given problem, among others. Be careful in formulating your goal, because your research plan closely depends on it.

1.4. Research Plan

How do you plan to solve the problem? How does your plan compare to previous standard approaches to solve this problem? For example, what data, research or analysis methods do you intend to use. Make sure to compare your proposed plan with the existing literature and the current state-of-the-art in the field. Think carefully about why your approach should lead to different results or to a better solution than the current status quo.

1.5. Time Plan

How do you plan to structure your work during the time you have to work on the thesis? Make a short plan (e.g., table or diagram) showing when do you intend to start and complete tasks such as the literature review, methodology review, data collection and preparation, analyses, summary of results, writing, formatting, and proofreading, among others.

1.6. Preliminary Outline

How do you plan to structure your thesis' chapters and subchapters? Provide a (preliminary) numbered outline of the thesis using a table of contents (more details in Tables of Contents).

1.7. Preliminary References

List **at least five references** that you identified as relevant to your thesis. **At least three of them** must be from academic sources, such as scientific journals or conference proceedings. Make sure that you follow an accepted citation style (more details in Citations).

2. Document Structure

Title Page: It should include the course, the degree program, the student names and matriculation numbers, and the supervising lecturer(s), following the university's standard format.

Tables of Contents: It provides an overview of your document's structure. Think carefully about the **number of levels**, as too many levels go against a clear outline. Make sure that your headings have the same **capitalization and formatting**. You should only have **subheadings or subchapters** in your document if there are **more than one** at the same level. For example, you can only have chapter 2.1 if there is also chapter 2.2. Make sure that all headings are numbered, also within the text.

List of Figures, List of Tables, List of Abbreviations and Symbols: Desired elements, some may be removed if required and upon previous consultation.

Abstract: The abstract is a **self-contained document summary and appears o**n a separate page. It neither refers to other sections or chapters nor contains citations or references. A good abstract gives an overview of the motivation for the research (project) and outlines the methodology and data used, the results, and their implications.

Introduction: The introduction presents the **setting**, explains the importance of the **problem you are trying to solve**, presents the **goals and research questions**, and briefly summarizes the **methodology, main results, and implications**. It can also include a brief explanation of the structure of the upcoming chapters.

Literature Review (or equivalent chapter): This chapter provides a background of **existing academic research** on the topic and **previous attempts to solve the problem**. It describes the state-of-the-art and outlines the gaps and shortcomings you will attempt to close with your approach. Depending on the type of document you are writing and the type of problem, it can cover the theoretical background, methods, processes, or a mix of those.

Methodology (or equivalent chapters): This chapter explains the **methods used** in the research or project. Do not forget to credit the respective sources, such as the original developers of a method or tool you use. If you are working on a group project, you can also use part of this chapter or a separate chapter to describe the division of work in the group, as well as the tools and methods used to coordinate the project deliverables. It is a good idea to use **figures, process flows, and other visual resources** to explain abstract concepts.

Data (or equivalent chapter, if applicable): This chapter presents the **setting and the data** used in your study or project. Make sure to **explain in detail the steps** you took to **acquire and pre-process** the data before using it in the analysis. Explain how you selected the **sample**, including any data points removed. Make sure you also present the data with tables and figures containing **descriptive statistics**.

Results (or equivalent chapter): This chapter outlines the **analyses and the results, including comments and interpretations**. For project work, you can outline detailed instructions on how to use or operate the resulting deliverable here or in a separate chapter. Do not forget to use sufficient

visual resources to show your results, including **data pipeline architectures, tables, and figures**. You may **use screenshots in moderation** to show a new system, platform, or website, you developed. **Do not use screenshots of data analyses or graphs**. You must export graphs appropriately and include them in the document.

Discussion and Implications (or equivalent chapter): This chapter discusses in more detail the results of your research or project and outlines their implications for selected stakeholders. It answers the question, "**who can learn what from your results?**". Alternatively, this content can also be part of the previous section.

Conclusion: This chapter briefly summarizes the **setting, the goals, research questions, main findings or results, and implications**. It can also contain **recommendations** for selected stakeholders, shortcomings, and an **outlook** for future research.

References: This chapter lists **references in a citation style of your choice** and should start on a separate page. Make sure to remain consistent with your chosen style and check for any divergences in capitalization and content (more details in Citations).

Declaration of Authorship: This chapter includes the declaration of authorship required for written assignments, following the standard template (more details in Declaration of Authorship).

3. Pages

Your **thesis** should have **at least 30** and **at most 40 (60) pages** in the case of a **bachelor (master)** thesis. Your **term paper or project report** should have **at least 15** and **at most 20 pages**. These limits include all chapters and references. The abstract, the table of contents, the list of figures, the list of tables, and the list of abbreviations and symbols do not count toward this limit.

There is the possibility of extending this limit upon prior consultation for empirical work**. Upon consultation**, you may include **additional material in appendices** (e.g., additional data description, questionnaires, robustness tests).

Data and codes must be handed in as **separate files**. Do not include them in your written document. Consider saving them in an online repository (e.g., GitHub) or a cloud storage service (e.g., OneDrive, Dropbox, or Google Drive) and include the link in the document. If you have many codes and data files, make sure that these are organized with a coherent **file and folder naming**

system. Ensure you include a README file with the respective **description of your file structure and nomenclature**.

Please carefully consider the **relevance of your content**; the length alone is not indicative of its quality.

Except for the references and declaration of authorship, **each chapter should start subsequently after the other** (do not start on a separate page). Avoid large portions of blank space by changing the position of figures and tables as needed.

Your pages should have **2.54 cm (1-inch) margins** on all edges.

4. Text Body

Please use **Times New Roman, Calibri, or Arial 12pt** in your text body with **1.5 spacing** and **fully justified paragraphs**. The headlines should have a larger font size (14pt). Consider using styles (such as in this document) to format similar text elements automatically.

You can use levels and sublevels to organize your thoughts and give your document a coherent structure. If you are developing different ideas or considering multiple points of view, try to split them such that each one gets its paragraph. It is usually helpful to start the document by **outlining its overall structure first** and "filling the gaps" afterward.

Avoid footnotes, but if you cannot avoid them, use the same font, 9pt, fully justified.

5. Tables and Figures

Use visual resources, such as tables and figures to convey your ideas appealingly. Make sure they appear close to where you mention them in the text.

Do not number figures or tables manually: use "insert caption" to create the captions and "cross-reference" to reference them in the text. Even if you add, remove, or move these elements as you write the document, you can press F9 at the end and update all numbers. Otherwise, you will likely end with errors in the captions, cross-references in the text, or both.

Choose whether you would like to place the caption above or below tables and figures and remain consistent with your choice throughout the thesis. Please include a list of tables and a list of figures

at the beginning of your document, after the table of contents. These lists do not count toward the page limit.

6. Terms and Labels

The same goes for labels (e.g., firms, companies, corporations). If you mean the same thing, always use the same label. Otherwise, explain early on why they are different concepts.

7. Language

Avoid writing long sentences: a sentence that spans beyond two lines likely has room for improvement. Avoid using passive voice: you can say "the project team estimated the costs using …" instead of "the costs were estimated using…". A text that uses active voice and concise language is much more appealing to readers.

Avoid writing very long paragraphs. A text with page-long paragraphs can quickly become tedious and hard to read. A good rule of thumb: a paragraph should contain one self-contained idea.

Avoid using colloquialisms and slang. Remember that a thesis is your opportunity to show that you are familiar with and can adhere to **scientific standards**, which include scientific writing.

Use built-in **spellcheckers** (e.g., in Word or LaTeX) and specialized tools for more comprehensive checks (e.g., Grammarly's free Word plugin or online version). Plenty of resources are available, so there is no reason for typos to persist in the final document.

Make sure you have a **clear and smooth transition between ideas and paragraphs** and **coherent argumentation**. Do not burden the reader to figure out on his (or her) own how several loose ideas might (or not) fit together and what role these ideas play in your argument.

8. Plagiarism

Plagiarism is the use of material drawn from another person's work without proper acknowledgment. Plagiarism is taken **very seriously** and can lead to a **failed thesis or project** and further **disciplinary measures**.

Even if you are only using parts of a material or someone else's idea, you must cite the author(s). You must insert the passage in "quotes" if you repeat the exact words. Any terms you add to a

quoted passage must be enclosed in square brackets [ ]. You may substitute any omitted parts using three dots (…).

9. Citations

You must choose and follow a consistent citation style throughout your thesis. The APA style is popular in many disciplines. Please refer to the specific guidelines of the style you chose.

Here are two examples of in-text citations using the APA style: Geyskens, Gielens, and Dekimpe (2002) find in their study that (….). Other studies also find similar results (Geyskens et al., 2002). Try to keep citations at the end of the sentence to improve your document's readability.

You should use a citation manager, such as Citavi, EndNote, or Zotero. Citation managers help you manage all sources and format citations into your document according to your chosen citation style. They also help you to automatically generate and format your list of references in the end. Doing it manually is very time consuming and almost always leads to errors and inconsistencies. Citavi's full-featured version is available through the library for all Frankfurt University of Applied Sciences members.

You can import the references from the publisher's website, journal databases, or Google Scholar (e.g., in RIS format). You can also import these and other sources using browser plugins such as those offered by Citavi, Zotero, or EndNote. This page provides a video and instructions for your literature search (video in German only).

Please check that all your references have the same format in the citation manager, as this is how they will appear in the final list of references. When importing the references from different places, these might not look the same at first or have inconsistencies (e.g., some references have DOI, others not; some references are capitalized, others not; some are missing the volume, issue, or pages). Reference downloads from Google Scholar typically require more editing to reach a consistent format.

10. Grading

Several aspects influence your grade. For bachelor and master theses, the grade consists of the written thesis and its presentation (colloquium). The colloquium weighs 20% to 25% in the final

grade, depending on your degree program. Please consult the examination regulations of your degree program for more information.

Please find below a summary of the elements that influence the grading of term papers and written theses. Grading for project work may deviate from this scheme to accommodate practical aspects of the solution and implementation whenever appropriate.

1. Content (approx. 25%)
    1.1. Structure and outline
    1.2. Goal formulation and argumentation of the topic's relevance
    1.3. Alignment between the goal of the thesis, theoretical framework, and methods
    1.4. Reasoning and argumentation
    1.5. Critical reflection

2. Formal aspects (approx. 15%)
    2.1. Visual appearance
    2.2. Spelling, punctuation, and grammar
    2.3. Proper terminology
    2.4. Proper use of tables and figures

3. Literature review (approx. 15%)
    3.1. Adequacy and relevance of the sources
    3.2. Breadth and completeness of the literature review
    3.3. Correct citation
    3.4. Extraction and presentation of the relevant information

4. Empirical study (approx. 25%)
    4.1. Adequate connection between theoretical and analytical concepts
    4.2. Quality and adequacy of the data
    4.3. Adequacy of the chosen methods
    4.4. Ability to apply the chosen methods
    4.5. Discussion of the empirical results and practical implications (merit and relevance)

5. Difficulty (approx. 20%)

    5.1. Topic originality

    5.2. Effort / topic complexity

    5.3. Innovative / creative thinking

    5.4. Ability to work independently (autonomy)

11. References

This is a list of references that the citation manager automatically generated.

Geyskens, I., Gielens, K., & Dekimpe, M. G. (2002). The Market Valuation of Internet Channel Additions. *Journal of Marketing, 66*(2), 102-119.

12.   Declaration of Authorship

Every written work requires a declaration of authorship to state that the work is the student's own and has not been copied from another person, either a student or published author and that all materials (in paper form and electronic) are appropriately referenced. You must include this text and sign it at the end of the document.

English version

I hereby formally declare that the work submitted is entirely my own and does not involve any additional assistance. I also confirm that it has not been submitted for credit before, neither as a whole nor in part and neither by myself nor by any other person. All quotations and paraphrases but also information and ideas that have been taken from sources used are cited appropriately with the corresponding bibliographical references provided. The same is true of all drawings, sketches, pictures, and the like that appear in the text, as well as of all internet resources used.

\<City Here\>, \<Date Here\>

\<Your Signature Here\>

German version

Ich versichere, die von mir vorgelegte Arbeit selbstständig verfasst zu haben. Die Arbeit hat mit gleichem Inhalt bzw. in wesentlichen Teilen noch keiner anderen Prüfungsbehörde vorgelegen und ist nicht veröffentlicht. Sie wurde nicht, auch nicht auszugsweise, für eine andere Prüfungs- oder Studienleistung verwendet. Alle Stellen, die wörtlich oder sinngemäß aus veröffentlichten oder nicht veröffentlichten Arbeiten anderer entnommen sind, habe ich als entnommen kenntlich gemacht. Sämtliche Quellen und Hilfsmittel, die ich für die Arbeit benutzt habe, sind angegeben.

\<Ort\>, \<Datum\>

\<Unterschrift\>