

# Leaflet 5: Writing Quantitative Empirical Studies

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A theoretical essay is a scientific article with a continuous text flow that makes the following three core contributions: it 1) it elaborates one or several theory, 2) it applies the theories to explain a social phenomenon, 3) it gives brief summary of existing empirical support, and 4) it compares the different applied theories to one another. The quality of these four contributions defines the overall quality of a theoretical essay. The goal of a theoretical essay is to convince the reader that a theoretical argument is a plausible explanation for a social phenomena and to compare the theoretical argument to alternative theoretical accounts.

Academic studies are meant for those who enjoy thinking, that is, for those who find pleasure in using their minds to solve puzzles, unearth patterns and associations, formulate logically sound and coherent arguments, and have original and innovative ideas. This holds particularly for writing theory, and leads us to one of the main reasons why writing theory is tough: It is extremely difficult to estimate in advance, how long it will take to come up with a sound argument and to think it through. This is exactly why you ideally enjoy the process of thinking.

There is another reason why writing theory is tough. I believe that we have been taught to respect it too much. But everyone in the social sciences should be allowed to come up with own ideas and justify them with coherent reasoning, don't you think? According to King et al. (1994), that basically qualifies as theory: "A social science theory is a reasoned and precise speculation about the answer to a research question, including a statement about why the proposed answer is correct" (King et al., 1994, p. 19). This is precisely the task, you are asked for, when writing theory: give reasoned speculation about the answer to a research question. It does not matter whether we call it a theory, hypothesis, or some well-done reasoning afterwards.

1. *Introduction* (1 page): A good introduction achieves two goals. First, it introduces the topic to then clarify why it is interesting and relevant – why do we care about this topic? Second, the introduction gives a summary of the rest of the manuscript. To achieve the latter goal, the introduction is like a trailer of a movie: it is a preview of the whole proposal. Oftentimes it already spoils the "movie's" best scenes (i.e., paper's most interesting arguments and overall conclusion). The first paragraph introduces the topic and explains the societal relevance – why is this interesting? It needs to draw the attention of the reader and convince them that the topic is important and exciting; this is very important! The second paragraph introduces the contribution you hope to make. It is usually a lucid summary of your argument (see 'Own Argument' below). The third paragraph is a summary of your overall conclusion.

2. *Theory 1* ( $\frac{1}{2}$  page): In this section you summarize one of the two theories you want to apply and compare. Apart from a brief and lucid summary, the section should also entail a brief *literature review*, which gives an overview of the existing literature on the theory. That is, give a review of the existing debate on the theory with respect to the phenomenon of interest.
3. *Theory 2* (1 page): See above.
4. *Phenomenon* ( $\frac{1}{2}$  page): Give an introduction to the phenomenon you wish to explain. Why is it interesting, and what descriptive evidence do we have about its extent etc.
5. *Application* (2 pages): Elaborate how theory 1 and theory two may each help to explain the phenomenon. Also discuss existing empirical evidence supporting your argument.
6. *Comparison*: (1 page): Compare the explanatory power of theory 1 to that of theory 2 for your specific case of explaining the phenomenon you chose.
7. *Conclusion* ( $\frac{1}{2}$  page): The first paragraph of the conclusion repeats the central research question and again summarizes your argument in answer to this question. The next paragraph gives a brief summary of your key argument. The conclusion should then also entail a paragraph on limitations. What are the open questions and remaining problems? However, do not end with limitations and problems. The conclusion's final paragraphs should re-address the introduction's first paragraph and suggest how your essay has deepened our understanding of the topic. This closes the circle and thereby also re-emphasizes the relevance of your essay.

### General suggestions

- **Reflect on topics covered in class:** If you write a research proposal for a course, make sure that the topics and discussions covered during the different meetings are reflected in your proposal. Discuss your research design against the points made in class.
- **Text flow:** Although the structure is predefined and the matter seems very technical, try to write an enjoyable text with nice text flow. Despite the fact that you write a research proposal, try to take the reader on a journey that shall convince her/him of your contribution. Try to captivate your reader in the very first paragraph and then hold the grip by guiding her/him from paragraph to paragraph.
- **Meta-text:** Meta-text is the kind of writing that navigates your reader through your text. An example is: "The following paragraphs will introduce two theories that have been proposed to explain the phenomenon. After introducing these theories, I will synthesize them to propose a comprehensive answer to my research question ...". This meta text helps the reader understand why you engage in certain debates. It is important for a reader to understand why they need to read through certain paragraphs, which purpose certain sections have. Don't expect readers to understand that; explain it to them with meta-text.
- **Frequent summaries and announcements:** You should start (sub-)sections by announcing/summarizing what follows and how the section is structured. This helps readers not to get lost and to know what is ahead. Also try to give brief summaries at the end of sections, so as to wrap up and ensure that readers have gotten the most important take home messages from each (sub-)section.

- *Levels*: Do not use more than three levels of (sub-)headings. There should only be sections (e.g., 'Theoretical Background'), sub-sections (e.g., 'Dependent Variables'), and the final level of sub-sub-sections.
- *Paragraphs*: Apart from ((sub-)sub-)sections, paragraphs are your most important tool to structure your text! You should thus use them in a very explicit and guided way. In general, the following holds: one idea, one paragraph. Every time you start a new idea, make a paragraph. At best, start your paragraph with that idea. Then use the rest of the paragraph to explain and justify that idea.
- *Finish early*: Be done *at least* two days before deadline. Print your paper. Let it rest for at least a day. After that, Proof read it and be astonished how much there is to revise. Iterate until you are confident with the result.
- *Reading club*: Have a circle of fellow students and circulate your papers before you hand in.
- *Zotero*: Check out [www.zotero.org](http://www.zotero.org) and use it together with the word plug-inn, unless you are already using some other program that manages your literature.
- *Spelling*: Continuously bad spelling really puts off any reader, irrespective of whether your ideas are great. It also results in a downgrading of your final mark.

**Necessary precondition** There is a minimum level of coherent, logical, and consecutive writing, which any reader of your work expects. Also be aware of the difference between academic claims making versus normative/political claims making. *If your text falls short of these minimum requirements, you will receive hardly any useful feedback because it is impossible to give feedback on something incomprehensible.* If this happens to you, but the text represents your best effort, feel strongly urged to visit a class on academic writing. If you could have done better, you really need to show more effort.

## References

**King, Gary, Robert O. Keohane, and Sidney Verba**, *Designing Social Inquiry: Scientific Inference in Qualitative Research*, Princeton: Princeton University Press, 1994.