

Chapter 12 How to write a PhD thesis.

Through these lectures, you will receive guidance and tips on how to write a PhD thesis, including tips on how to show the validity, reliability, and credibility of your research.

Obviously, the way a thesis is structured will vary, depending on professions, the academic disciplines, its traditions, as well as the variations within a discipline.

However, all theses tend to have a shared structure [1] that includes:

Summary (or abstract or annotation)

Introduction

Chapter 1 on theories and existing knowledge/previous research (or so-called Literature Review)

Chapter 2 Research methods (that could be divided into two subsection Theory/Methods or may combine them)

Chapter 3 Presentation of findings/Discussion (also could be divided into two subsection or combined)

Conclusion and maybe also some implications for future research and or practice

List of references

Appendices must also be included if you have ones

My university more strictly defines the structure of the master's thesis [2], which should include the following components or the structural elements of a master's thesis project

title page;

content;

normative references;

list of definitions;

list of abbreviations;

introduction;

the main part usually 3 chapters;

conclusion;

list of references;

appendices

Since it is not useful to consider in detail these requirements, which are different for different universities, I will focus on the content and structure of the main elements of a master's thesis and advice on how to maintain the coherence and consistency of your thesis.

Let's start with the **Summary** or Annotation or Abstract. This part should include an Introduction with topic, context, area of interest, and research question, the methods including research design, describing the type of data and how they are analyzed, findings and your conclusion. It should not be more than 250 - 300 words. However, it depends. No more than 5 pages for a PhD thesis in Kazakhstan for example

The **Introduction** section should briefly describe and clarify the relevance and context of the research question, existing knowledge and previous research and

the thesis' research question. A delimitation of the area of study is an important part of the introduction. Describe briefly the field and context in which the thesis' research question unfolds

Think about the **Chapter 1** or a **Literature Review** as a “funnel” that leads towards the thesis research question (Fig.1).

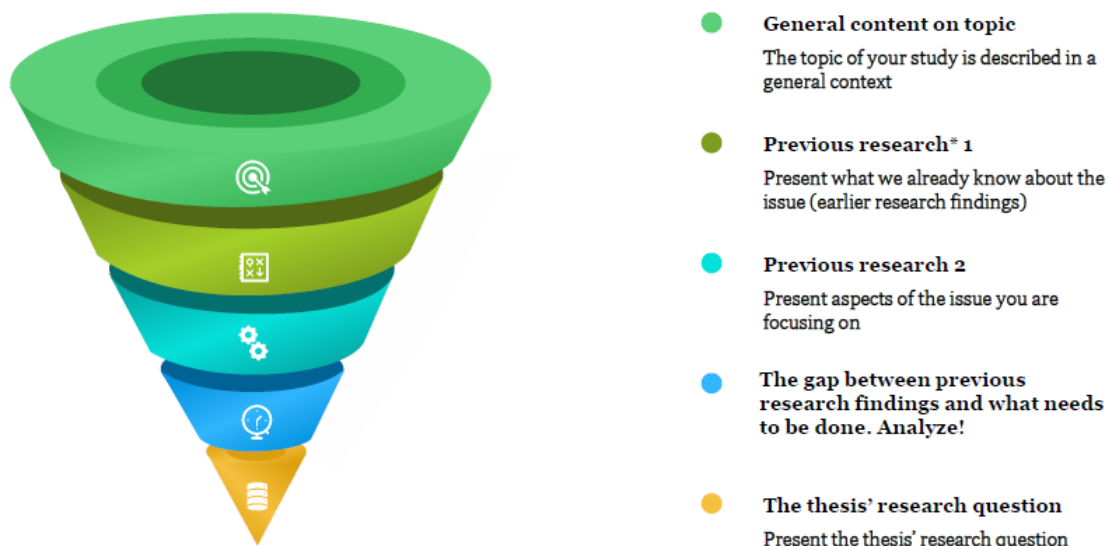


Figure 1. - Chapter 1 (Literature Review) as a “funnel” that leads towards the thesis research question

In the top of the funnel, the topic of your study is described in a general context, and in the bottom of the funnel you present the thesis' research question.

Describe the previous research here. Present what we already know about the issue i.e., earlier research findings, and then aspects of the issue you are focusing on. You might need the findings from earlier research later – in the discussion part – when you interpret your findings.

Show the gap between previous research findings and what needs to be done. Analyze the advantages and disadvantages of the previous research.

Present your research question.

Chapter 2. Research Method. Theory

In a thesis based on empirical analysis, the **theory** can be regarded as a “tool” to illuminate the data at a level above “everyday observations.”

This is why it is important to present theories that you actually apply later (in the discussion chapter).

Do not present lots of theory that you will not use later!

Anyway, the kind of theory you choose to apply, depends on how you go about analyzing the data.

It is possible to have theories suitable for “placing” phenomena into various categories – such theories help reduce the complexity of the data.

Use theory to develop something that initially seems “simple.”

Method

Explain the choice of method based on the thesis question you have introduced

Present the selection criteria for your research methodology and materials if necessary

Describe the procedure for data production and explain the considerations you made.

Describe how the data is analysed. The method of analysis you choose depends on how you want to process the data. Analysis processes are often consist of a systemization of the data material in the form of themes, codes and relationships between them or in the application of statistical methods of data processing.

You must also describe the research ethical considerations, deliberations, and any dilemmas you have dealt with.

There are 3 key principles of ethical research:

1) Research should be designed, reviewed and undertaken to ensure integrity and quality;

2) Research staff and subjects must be informed fully about the purpose, methods and intended possible uses of the research, what their participation in the research entails and what risks, if any, are involved;

3) The independence of research must be clear, and any conflicts of interest or partiality must be explicit.

Show how you have evaluated the validity during the process of the study, and reflect on the strengths and weaknesses of the study as it went along. This is evaluated and described in slightly different ways depending on whether it is a quantitative or qualitative study.

Emphasize the validity, reliability and credibility of your research

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Presentation of data findings.

In this section, which is similar to the Results or Results and Discussion section in scientific articles, the findings from the analysed data material are to be presented.

As a general rule the findings you choose to emphasize and present, are the findings that you regard as best suited to explore the relevant the thesis’ research question. This is a top tip on this section.

The **discussion** of the findings can be included in the chapter on Findings, or the discussion can be put in a separate chapter. Anyway, the issues from the theory

chapter and or previous research should be used here discussed here to interpret your findings beyond the analytical level presented as Findings.

In the **discussion** you may: discuss and contextualize your findings related to previous research – do your findings align or confirm, or does your data reveal other and new aspects?

Then you can also discuss your findings in a broader theoretical context by demonstrating how they can be interpreted through your chosen theoretical perspectives.

This is an important chapter as it will demonstrate whether you actually have provided analytical and methodological skills in regard to apply existing knowledge and theoretical concepts to critically examine and interpret your own findings.

Conclusion section should be brief, but must in a clear and straightforward manner work as summary and ending of the thesis.

It should include:

- a) short summary of the thesis, what it aimed at and answering the research question.
- b) Theoretical implications of the thesis: Do your findings support, contradict and/or bring new light to previous research?
- c) Implications for practice: Do your findings have relevance and be applicable for professional practice, if so, how?
- d) Recommendations on needs for future research
- e) Reflections on the thesis' strengths and weaknesses which very rare reflected by students, bit always by reviewers

The next go **Appendices**, they can include the following elements:

drawings;

illustrations;

schemes;

blueprints;

tables;

graphics;

questionnaires;

copies of various documents (copyright certificates, acts of implementation, conference certificates, your publications, etc.);

instructions.

Appendices are compiled in parallel with the main text of your thesis (theoretical and practical parts) in the course of work on it. You should at the same time make reference in the text and design the Appendix so that none of them get lost.

Appendix materials must necessarily be associated with the main text of the work, unnecessary components must not be added in any case!

Usually, appendices are arranged in the order in which references to them occur in the text. Each appendix must have a title and a sequential number, and they must correspond to the references in the main sections. Instead of a serial number,

capital letters can be used for the sequential presentation of elements, for example: Appendix A, Appendix B.

Usually, appendices do not included in the total volume of your thesis.

And last but not least - **References** - how many and what should they be?

There is no single answer to this question, only that there should be references to those research papers that you read on the topic of your thesis.

So, the more the better, but only the relevant papers that you have read and understood! (at least 25 references)

We have already discussed the types of research papers and how to write a literature review for your thesis, refer to these chapters, please.

Coherence and consistency are very important requirements for your thesis. To maintain them, the introduction and the summary should be well connected in regard to its content.

The topics, aims and research questions that were presented in the introductory parts of the thesis, should be recognized in the summary and concluding parts.

This is also as good way for you to check if your thesis is equivalent. You might become aware that you presented something in the introduction and or in the theory chapter that you ended up with not giving more attention – in that case, delete it.

So, you learned about the full structure of a PhD thesis and you would be able to use this information for your future work and prepare a well-structured, coherent and consistent thesis

To test yourself, answer these self-test questions.

What are the main parts of a PhD thesis?

What summary should include?

What is the structure of literature review for your thesis?

Explain the meaning of research ethics

What should be presented at the Chapter 3?

What is the difference between quantitative study and qualitative study?

What should be presented in the Discussion section?

What should the "Conclusion" section include?

What can be included in the Appendix?

References

1. A guide on how to write the master's thesis – Dep. of Social Work <https://student.oslomet.no/documents/>
2. Training of masters at NJSC " D. Serikbayev EKTU" Documented procedure of DP NJSC "EKTU" 014-II-2021, 44 pages. In Russian.