What is a bachelor thesis?

The Bachelor's thesis is a scientific paper. Its aim is for students to show that they are able to work on a problem independently and with scientific methods.

1. Find a topic

Free yourself of the idea that you will make a scientific breakthrough in your bachelor thesis. This is rather reserved for the master thesis or dissertation. The bachelor thesis is about showing that you have mastered the basics of scientific work. **So it doesn't matter if the topic already exists in one way or another.** Most of the time the hypotheses and methods are different anyway and a different perspective on a topic that has already been studied is also worth a lot!

1.1. Personal interest: This is the most important thing! If you are not interested in your topic or if you are even really annoyed or bored by it, then writing will be a torture. You will work on your bachelor thesis for weeks and months and there will be days when you can't see it anymore. You need to identify with your topic to stay motivated and to experience such days as seldom as possible!

1.2. Literature: Your topic can be as good as it gets - if there is no literature about it, you will only make it with a lot of effort. This is especially true for newer topics that science has not really dealt with yet. To get an overview what the literature looks like, it is worthwhile to do a rough literature search as soon as you have an idea. This will help you avoid the unpleasant surprise of coming up empty-handed.

1.3. Narrow down the topic: As soon as you have a rough idea, it's time to get more specific. A bachelor thesis is about 30 - 40 pages long. You might already be terrified of having to write so much but it is not the length that makes the work, but the content. Therefore your question should be as specific as possible. A scientific question always follows the same pattern: "The effect of X on Y". For example: "Reception of the online marketing measures of the company ECN in the social medium Facebook". Here, X are the online marketing measures and Y is the reception on Facebook. Like this, you know exactly what your specific topic area is, in which context you are looking at it, and which data is relevant for you.

2. Type of work

In addition to the topic, you should also consider what kind of bachelor thesis you would like to write. In Computational Psychology, there will be roughly two options: **Experimental Bachelor Theses and Theoretical Bachelor Theses**.

2.1. Experimental

"I am still looking for participants for my study!" In experimental theses, the focus is on a

research question, for which one has to collect data from test subjects. Experimental or empirical papers are popular because by describing the study design and results in detail you'll quickly be at the minimum number of pages. In addition, you are in full control of all aspects of your work: you formulate a hypothesis, you collect and analyze data to test the hypothesis, and you discuss your results. This puts you right in the middle of scientific practice, and you may even find out something completely new!

You must not forget, however, that a study can also take a lot of time. It has to be planned very well, because you first have to find test subjects, collect and evaluate the data, and then write down your findings. An empirical bachelor thesis also includes a literature search. You have to place your research question in the scientific context, explain what is already known and what are still open questions.

2.2. Theoretical

The theoretical bachelor thesis answers a research question either by using already existing data, which are re-analyzed, or on the basis of data, which can be generated by models by means of simulation. The theoretical bachelor thesis requires programming skills as well as fun in programming and fun in data analysis with the help of visualizations. This is where you ask questions to data.

Maybe you think now that the theoretical bachelor thesis looks easier at first glance. After all, you 'only' have to analyze some data and do not need to plan , conduct and evaluate a study. But don't let that fool you. What you save in time for a survey, you will probably have to invest in literature research and programming.

3. Bachelor thesis exposé

Every major project needs a plan, and so does your Bachelor thesis. In an exposé you present your research question. Therefore you should have already read the literature on the topic. The exposé serves as a draft for the Bachelor thesis and is useful for several reasons:

- It serves as an "agreement" between you and your supervisor.

- It states the feasibility of the thesis.

- It is your guide for the bachelor thesis.

- It provides a rough outline for the thesis.

Even if the exposé is only a draft, it should keep the scientific form. That means that citations and references must be marked as such and that the literature must be indicated. You can also use parts of the exposé in the introduction of your thesis

Introduce your topic on about 1-2 pages. First, you describe the initial situation from which the problem arises as well as the resulting question / hypotheses. Furthermore, you briefly outline your planned approach and what you need for it. This includes how you would structure a possible study or which analysis steps are planned for the theoretical work.

In addition, you create a preliminary outline of your work. This can be rough, since it will most likely change again anyway. At the end, you give the results of your literature research, as this will also be an important basis for your bachelor thesis. It may also be useful to include your own motivation to show why you want to work on this topic. Also, create a timetable that shows when you want to be finished with which points. Start backwards with the submission of the work and then work your way forward.

Checklist for your exposé:

- Title of the bachelor thesis

- Explain the problem

- Derive the research question

- State the objective of the Bachelor thesis

- Set up hypotheses

- Describe methods, study design

- Preliminary, rough outline, literature

- Motivation

- Time schedule

Timetable

Start planning backwards, i.e. think about what is your desired submission date and then calculate how many weeks you estimate it will take to write, analyse data, collect data, carry out the experiment, plan the experiment, embed the research question in the literature, concretising the research question and deriving hypotheses, writing an expose.

Literature research for the Bachelor thesis

Literature can be found in many ways. The important thing is that it is reliable. Wikipedia, news articles or novels have no place in your bibliography - unless, for example, you are writing a media analysis of a current bestseller. Literature research works from the general to the specific. Therefore, the internet is a good basis to see what is available on the topic. Wikipedia usually refers to the sources in the articles, and these can also be useful for you if necessary. So you can quickly find monographs, edited volumes, papers or studies that deal with your topic and that you can use. The newer the work, the better!

You will be able to find what you are looking for on the internet, and you can also search for individual titles, but you will probably not be able to avoid to visit the library at your university to pick it up. But that's not such a bad idea, because you can talk to the staff there. They will be happy to help you with your search. Of course, they don't do the work for you, but they may help you to find literature that you might not have found on your own.

It is also worthwhile to search as many databases as possible. The library at your university

should only be your first port of call. Municipal and state libraries may be able to provide you with other books, and online archives will certainly have something for you.

Study design of the Bachelor thesis

If you conduct a study as part of your Bachelor's thesis, it is the basis for answering your research question. The study design describes exactly how the study will proceed and should be carefully planned, because you cannot change it afterwards.

Since you want to answer a specific question with your study, the study design is adapted to this. You should therefore ask yourself how you can find out what you want to know. Basically, you have the option of using qualitative or quantitative methods. Qualitative methods are usually more flexible, the interest in knowledge is more explorative in nature, which means you are open to new aspects and may also find out things that science has not yet paid attention to. Quantitative studies, on the other hand, are tough as nails, they are based on clear hypotheses and pursue an interest in knowledge, i.e. they want to reveal causal relationships or draw conclusions from the small to the large.

In this context, you should also think about how large your sample needs to be, who your target group isand how you want to reach your target group. In addition, you need to think about what you need to measure in order to answer your research question. Questionnaires are most common and can be found in almost every study and are easy to design online, whereas the participants for a lab experiment specifically have to come to the lab.

You see, the study design is a central question that cannot be answered quickly. It must be exact and possible sources of error must be excluded to the extent possible. For example, questions should be clearly formulated and leave no room for misunderstanding. As with the topic of the Bachelor's thesis, this is a process that can take some time and that you work out together with your supervisor.

Registration and processing period

The last formal step before the processing period for the Bachelor's thesis officially begins is registration. Here, too, each university sets individual conditions. The prerequisites for registering your Bachelor's thesis are usually a minimum number of ECTS points, sometimes also that you have already participated in certain courses.

The registration includes important information about you and your Bachelor's thesis. This includes important data about you, the German and English title (for your English Bachelor's degree certificate) of your thesis as well as the names and signatures of the first and second supervisor. This information is fixed and as soon as you have registered your work, you can no longer change your title, or only upon request. You will probably find a form at your university that you have to fill out. Finally, you have to hand it in with all the required documents to the secretariat of your degree programme or directly to the examination office of the university.

As mentioned above, upon registration the official time to work on your Bachelor's thesis begins. This varies depending on the university, but is usually between 2 and 4 months. Some examination regulations explicitly state that you may not start working on your

Bachelor's thesis until you have registered it. After all, it doesn't make sense to work on it for a year or more. **Please take this into consideration and find out early on what the situation is in your case.**

In any case, you should avoid handing in your Bachelor's thesis at the same time as registering or even handing in your Bachelor's thesis without having registered it at all. There should be a reasonable period of time between registration and submission that is sufficient to at least prepare the Bachelor's thesis in writing.

Writing phase of the Bachelor's thesis

Now let's move on to the writing phase. A lot of emphasis is placed on scientific standards, which means that scientific sources are used, that they are correctly marked as such in the text and that the language is clear and exact. Thanks to your preparation so far, you know exactly what is important now and can get started quickly.

The exact structure depends on the type and topic of the bachelor thesis. We tick off with you the points that should not be missing from any Bachelor thesis, and then you optimise and refine them for your Bachelor thesis. The typical components of a Bachelor thesis are (bold marked are compulsory for every Bachelor thesis):

- **Cover sheet**
- Foreword
- List of abbreviations
- **Table of contents**
- **Investigating the research question**
    - **Introduction**
    - **Main Part**
    - **Conclusion**
- **Bibliography**
- Appendix
- List of figures and tables
- Disclaimer
- Acknowledgements
- **Affidavit**

We start here with the most important part, the investigation of the research question. Afterwards, we will deal with everything around it. When writing extensive texts, it is often a

good idea to start with the main part and leave the introduction out of it. However, we will proceed chronologically and first show you what you should pay attention to in the introduction.

The introduction of a Bachelor thesis - what's the point?

As the name suggests, the introduction is meant to introduce the reader to a topic. It is the beginning of the actual text and the reader learns a lot about the further content here. Nevertheless, you must not anticipate too much; instead, you want to raise the reader's curiosity. Even if it is a scientific paper, you can build up some tension here.

But what should be included in the introduction to the Bachelor thesis? In terms of content, you can use your synopsis as a guide, because you also give your readers **an overview of the entire thesis**. You explain why your topic is important and how you came to it. In other words, you present the problem from which your research question arises. Here you also show how and why you narrowed down your topic. Imagine that you have to explain to someone why it is better to look at just this one aspect of the problem, rather than the whole problem at once.

You should also inform your readers about **the objective of the Bachelor thesis**. This is already clear from the question, but you can make it more precise by describing what you want to find out and what it is good for. For example, do you want to highlight one theory as a particularly good alternative to others, or do you want to work out action recommendations for companies?

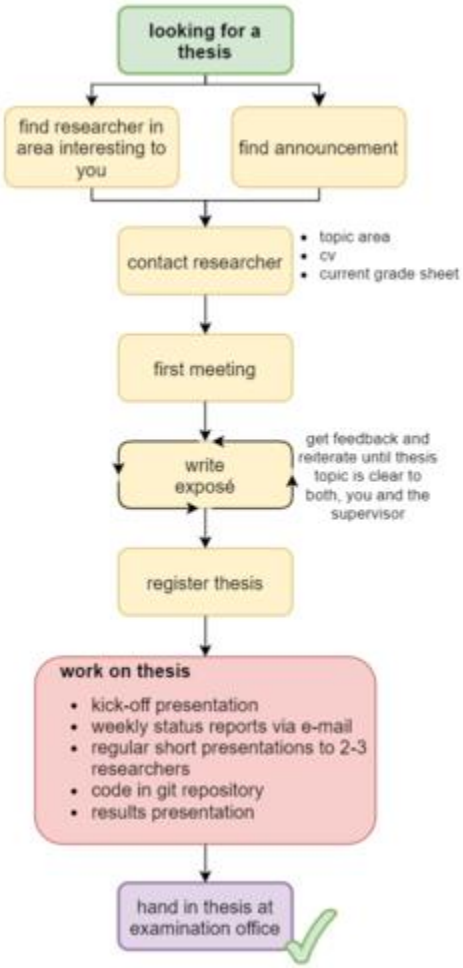
And how did you work on the question? Explain to your readers why you used which methods. Of course, this is all rather rough, you are not supposed to describe the study design in detail. But you can explain, for example, why you conducted a study and why you did not rely exclusively on literature.

Length of the introduction

How long the introduction should be depends on the overall length of the Bachelor thesis. Some say 5%, others 10% and still others 15%. With 40 pages, that would be **2-6 pages for the introduction**. You can use this as a guideline, because ultimately the introduction must be of an appropriate length: It has to contain everything that needs to be included, without anticipating too much.

The introduction to a Bachelor's thesis is easiest to write towards the end, because here you already briefly outline what will be discussed in the thesis. However, if you still have to write the main part and the conclusion, it's not that easy, because a lot can still change. Therefore, it is advisable to start with the introduction only when the main part is already finished. If you are one of those people who prefer to do everything in order, you can start with a preliminary version of the introduction. However, you will hardly be able to avoid revising it at the end.

Inspired by
https://www.campusjaeger.de/karriereguide/studium/bachelorarbeitzeitplan#einleitung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