

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