

The Easier Way to Write a PhD Thesis

For most scientists, writing their PhD thesis will be one of the most time consuming and complicated individual tasks they ever undertake. In my experience, the most common approach taken by students is to bury their head in the sand, get on with the research and only start thinking about the thesis when they absolutely have to, as the end of their PhD approaches. This obviously works, but it generally leads to a very stressful few months (yes, months) of writing. But it doesn't have to be that way, with the right approach you can make the whole process much easier – here's how:

1. Take full responsibility for your work from day 1. It is your responsibility to become an expert in your area, produce good quality research and write a competent thesis. Your supervisor is only there to guide and mentor you, no matter what you, or he/she, might think.

2. Keep good and accurate records. Good records are the foundation stone upon which your research is built. Keep your lab book detailed and accurate, and maintain good records of your samples.

3. Keep an electronic journal. Five minutes spent writing a bullet point summary of the work you have done each day will build up into an invaluable record. From it you can look back on your thought processes on a given experiment or pick up small, useful pieces of information that would otherwise have been lost in the ether.

4. Write yourself monthly progress reports. I would say this the most useful habit you can get yourself into. At the end of each month, you are in a much better position to accurately summarize and reflect on your work during that month than you will be at the end of your studies. A series of well-written monthly reports will build into an easily accessible but detailed account of your work and ease the thesis writing process greatly.

5. Get into the habit of reading every day. Whether you chose to read one research paper or spend an hour reading every day, over the course of your studies this will build up into a significant amount and contribute massively to your knowledge and abilities, allowing you to become an expert.

6. Summarize papers as you read them and keep a record of the summaries. Months (or hours in my case) after reading a paper, you will have forgotten many of the details. Keeping short summaries of each paper will allow you

quickly refresh your memory without having to re-read the original publication.

7. Build up a bibliography as you go. Every thesis needs a bibliography. You have two choices enter all publications and books you read into bibliography software as you go, or spend hours doing it all in one go at the end of your studies.

8. Start writing as early as possible. Even though you will be unsure of exactly what your thesis is finally going to contain you should begin writing what you can, as early as you can. The bulk of the introduction and methods sections can, and should, be written fairly early as a lot of the information included in them is unlikely to change. For writing the main chapters you can begin early on with an outline of chapter titles, with bullet points of likely topics to be included. Over time this skeleton can be built on with work as it is done. This is useful even if a chapter is not complete since writing a chapter from a rough or incomplete outline is easier than starting from scratch.

9. Read other people's theses! Amazingly, I did not actually read a PhD thesis until I was well into writing my own. This was a big mistake and one I would advise you not to make.

10. Tune your mind to be ready to do your best research.

11. Give yourself peace of mind. Setup an auto daily off-site backup so you never have to worry about losing your data.

12. Get your head out of the books regularly. Take time to think about your work, get a social life and exercise daily.