

10 Tips for PhD Research

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Tip Number 8 – Write The Thesis Before Doing the Research

A thesis is not just a document written as a historical account of research that has already taken place. It should provide a detailed account of the methodology, experimental design, tabulated results, comparisons with other work, and so on.

Further, regardless of the field in which the research is undertaken, the thesis must contain a number of basic elements, including a literature review, a methodology, a design of experiments/tools to test the methodology, an aggregation of results, and so on.

Once an initial literature review is conducted, there is no reason why a good proportion of the thesis should not be written in advance. The thesis should not just be a historical reference, it should also serve as the roadmap for conducting the research program. The techniques for testing a hypothesis can all be documented in a thesis before a single experiment has been conducted – this enables students to create a flowchart for their work – taking into consideration what pathways to take based on various experimental outcomes.

The thesis writing process imposes a tight discipline on the conduct of the research itself. It defines what needs to be done to test a hypothesis, and what results will be required in order to reach various conclusions about the hypothesis. Of course, when pre-writing a thesis, a student has no way of knowing what the results will show – but they do know the possible range of outcomes *vis a vis* supporting the hypothesis or negating the hypothesis.

When students say that they cannot write a thesis prior to doing the research, often what they are saying is that they do not want to be burdened by the discipline of conducting a systematic investigation. A PhD is not about random experimentation and thought bubbles – it needs to be structured and systematic. Pre-writing as much of the thesis as possible is an excellent way of achieving this outcome.