

# ORGANIZING YOUR THESIS/DISSERTATION

A major part of any graduate degree is the researching and writing of your thesis or dissertation. This is your chance to follow your own interests and discover something new and worthwhile in your chosen area. It should actually be enjoyable! It can, however, be incredibly stressful to write a dissertation, due largely to improper planning. Thankfully, you are reading guides like this so you are about to become one of the better prepared students when it comes to tackling your dissertation.

A dissertation is probably the longest piece of writing you will have ever done, certainly for an academic purpose; therefore, it pays to be well organized. When it comes to writing up all the research, the beast can run away with you if you're not careful. That's You need to plan your dissertation well in advance to help maintain control of your research and ease your stress as you approach the write-up.

People usually find it easier to do something well if they understand the reasoning behind why they are doing it, so that is where we turn now.

## WHY UNDERTAKE GRADUATE RESEARCH?

Graduate research requires an original project which adds to our existing knowledge, not simply a summary of what has gone before. It has to have something new to say or otherwise why do it?

## WHAT IS THE POINT OF THE DISSERTATION?

To prove yourself, simply! The thesis will be the means by which you prove that you have made an original contribution and that your research is valuable. Your dissertation needs to convince your advisory committee and others within your institution that you have said something worthwhile; otherwise your research won't be released to the wider public. This involves demonstrating that your dissertation breaks new ground and that you have resolved the problem that you set out to answer.

## WHAT MAKES A GOOD RESEARCH QUESTION?

Your research question needs to be clear and worthwhile investigating. It must be something that has not been answered fully in the past or otherwise. What could you possibly add to existing knowledge? In the end, you will have to convince people that you have fully answered your own question, so you really need to make sure that it's a good one.

Your initial research question needs to be very clear. You should explicitly site your research question within what is already known and written about in your particular area of research. You need to present a thorough overview and review of the existing research literature. You must then refer directly to the literature review and explicitly demonstrate how what you propose to research:

- a. has not been researched before
- b. is worth researching

That is probably the most difficult part of your research, because your research has probably occupied virtually your every waking moment for the last few months.

You will need to give a dissertation defense upon completion of your research and dissertation writing and if you can't honestly and fully defend your answers to why and how your research is original and useful, you really won't have a leg to stand on. It is better you think this through properly now. Keep your purpose in mind at every step of your research and writing it up and make sure that you give a full and compelling argument. It will save you considerable heartache and major revisions later.

With that in mind, the following framework for your dissertation will help you give a strong and content rich line of argument that is easy to defend. Some advisors may prefer a slightly different way of organizing your dissertation and in which case they should give you guidance on this; basically, though, all dissertations will need to include the same essential elements. Those will be detailed in the following framework and afterwards some further advice on organizing your dissertation will follow.

Always keep in mind that your dissertation should be a formal document: there should be no repetition of material and everything should be in its proper place.

## A GENERIC FRAMEWORK FOR WRITING YOUR DISSERTATION

You should start your dissertation with a title page and a copyright waiver, for which your institution may provide you a standard format. Next, provide a declaration that the paper is all your own, original work. Again, your institution will probably help you with this format.

The remainder of your dissertation may well follow the following format, although the format can vary. Regardless of the order, your dissertation must include these sections in some order.

## ABSTRACT

Most often, people will read your abstract to find out the basic details of your dissertation and decide if it is relevant to you. It must be written as the final part of your dissertation when all your findings are known and all your arguments have been laid out, because all of these main ideas need to be included in your abstract. Your abstract needs to include a summary of your results and the implications of your dissertation for future research.

## INTRODUCTION

This introduction should be quite general, but engaging. It should not be merely a narrative detailing a summary of each section of your dissertation. It should briefly summarize your research question. Don't go into too much detail here as that should be left for a later section. You should give some justification concerning why this a worthwhile research question and go on to briefly present and overview of your main findings and results. It gives a taste of what readers will discover within the main body of your dissertation.

## CONTEXT

This should be brief, providing the background to your work. What research has gone before? What information do people need to determine where your dissertation is coming from?

You need to present contemporary ideas in the field to show readers how your research relates to other theories and how it is original. This section can easily become rambling so you need to organize it well. Organize your context section by idea, not by author or by publication or even by history, necessarily, although if several authors wrote on a particular idea, present them chronologically so it is easy to see how ideas evolve.

## RESEARCH QUESTION

Your research question should refer to a "problem" or a "question" to be answered. Which of these you choose will depend upon the area you are concerned with and which is most appropriate; either way, your research question needs to present:

A concise statement of the question that your dissertation tackles

A justification, which makes direct reference to your context, which asserts how your dissertation adds original discussion to previously unanswered questions.

Shows exactly what you intend to research and how prior research fails to cover the ground adequately

A discussion of why this is a worthwhile research question

## MAIN BODY OF YOUR RESEARCH

This part of the thesis needs to convince your examiners that you answered the question or solved the problem that you set for yourself. Stay focused in your writing up of your research and do not include all the blind alleys your months and maybe years of research may have taken you down. This is the place to distil your one main line of argument so that it is clear and compelling. An examiner will be looking to find out if you chose a good research question and if you made a compelling and convincing argument in order to answer the research question which you set for yourself.

The main body of your dissertation should show clearly how you carried out your research and what you discovered. There may be several sections or sub-sections, but typically, the bulk of your dissertation is organized in terms of:

### Methods

## Results

## Discussion

Let's have a look at each of these in turn:

## METHODOLOGY

This section of your dissertation performs two functions: it should allow readers to decide how plausible and valid your results are; it should also be detailed enough to allow a reader to replicate your dissertation research for themselves, should they wish.

## RESULTS

The results and discussion sections of your thesis are closely linked; they can be written up in one section if you choose. Your results should identify any patterns or any incongruence within your research. They should be detailed and accurate, and presented in a clear format, with graphs and tables where appropriate.

It should be made clear how you gathered your data and what your variables were. Did you have a control? The results will be what make your dissertation succeed or fail, largely, because if you don't have accurate findings in support of your dissertation question – what can you possibly say?

## DISCUSSION

You may have several pages of results and therefore it might be best to put in a discussion of these as you go along, rather than waiting until the end of this section to discuss them. Your discussion section should be presented in the form of an essay. Your discussion should identify any patterns in your results and any exceptions to these patterns then put forward possible explanations for these results. You should show how these results relate to your original research question and to your wider discipline. What is their significance?

## CONCLUSIONS

You should actually cover three things in the Conclusions section of your dissertation, each in a separate subsection:

## Conclusions

### Summary of contributions

### Future research

Your conclusions need to be short and concise. They should draw out the main strands of your dissertation arguments. Order them from the most to the least important and ensure that you directly relate all of your conclusions to your research question.

## SUMMARY OF CONTRIBUTIONS

This is where you can blow your own trumpet. You should summarize in a list of bullet points what new contributions to the knowledge base your dissertation makes. Of course, your dissertation needs to substantiate all of these claims. Here it is fine to have some overlap with your Conclusions section and again your points must be organized from the most important to the least important point.

## FUTURE RESEARCH

The Future Research subsection of your dissertation should allow future researchers to have the benefit of the ideas that you generated while you were working on the project. Again, concise numbered paragraphs are usually the best way to present this section.

## REFERENCES

Most examiners will scan your list of references looking for the most important works in the field, so make sure they are there. It also might be a good idea to include the works of your examiners if they have written in the field of your research question. Reading your examiners' works, as well as flattering them, will help you to prepare for your dissertation defence because you will see what their interests are and pre-empt what questions they may ask you, so you can prepare for them more thoroughly.

All references given must be referred to in the main body of the thesis. This is different from a Bibliography, which may include works that are not directly referenced in the thesis. Organize the list of references either alphabetically by author surname.

## APPENDICES

Any material which impedes the flow of argument within your dissertation but which is important to the question should be included in an appendix. It may be that this information is too detailed for the main body of your dissertation but would be of interest to readers wishing to follow up with their own future research. Examiners will also look at the appendices and it may be just what you need to make your arguments sufficiently compelling to impress them.

## COMMENTS ON THE SKELETON

You should always bear in mind the purpose of your dissertation because that is what will help you get a good structure and ensure that one section flows into another.

### PURPOSES OF YOUR DISSERTATION:

Show you have formulated a useful research question

Show what research already exists in this area

Lead the reader into the research problem

Show what new contribution you have made to existing knowledge

Everything that YOU did should be carefully separated from what other people did.

The two have no place within the same sections. Your examiners will be very interested in who did what and in particular what you did. The Problem Statement is the obvious dividing line and everything that follows it should be what YOU did.

## GETTING STARTED

The best way to get started on your dissertation is to prepare an extended, detailed outline. From your Table of Contents list each section and subsection and write a bullet pointed list of what you intend to include in each section. Aim for an outline of between two and five pages in length. Once you have this outline, you should discuss it at length with your dissertation supervisor. Is there anything in there which is not directly related to your research question? If so, now is the time to

delete it. Putting in too much extraneous detail will detract from your main research argument. On the other hand, if anything important is missing, you need to add that in now. It is much less painful and less time-consuming to make such decisions early, during the outline phase, rather than after you have already done a lot of writing which has to be thrown away.

## HOW LONG DOES IT TAKE TO WRITE A DISSERTATION?

Unfortunately, the likelihood is that writing a dissertation will take more time than you think – on average, about half as long again as people estimate it will take to write. Even after all your practical research is done, all models built and calculations complete you should allow yourself a whole term in which to purely write up your dissertation.

Most people inexperienced in writing up a dissertation would protest and say that is crazy to think you should allow all that time simply to type up your dissertation; the problem is that it is not simply a matter of typing up your research dissertation; as you begin this process you will in fact see that writing up your dissertation requires the complete organization of your arguments and results. You need to formalize your results so that they form a well-organized dissertation which is capable of withstanding the scrutiny of expert examiners. It's only in your writing up process that you discover the weaknesses within your results and arguments so that you can address them. It is addressing those weaknesses which takes a lot more time than you might imagine.

Another thing which students regularly fail to appreciate is that in writing their dissertation, they will probably need to make several drafts.

This is also probably the first time that your supervisor has seen the formal expression of concepts that may have been approved previously in an informal manner. Now, when you begin to write up your dissertation, is when you discover any misunderstandings or shortcomings in the informal agreements that you previously thought you had with your supervisor. Supervisors aren't always as rigorous as you might hope in reviewing your drafts and students with English not as



their primary language may experience particular difficulties in expressing their ideas. It takes time to fix these misunderstandings.

Make sure that you leave yourself sufficient time to re-draft your dissertation at least twice. That will all pay off for you in the end, making your dissertation defence so much easier.

Here are some tips for ensuring that your dissertation is successful:

Always keep the reader's background and understanding in mind

Who is your audience? How much can you reasonably expect them to know about the subject before they read your dissertation? Often, they have a lot of knowledge about the general problem before they venture to read something as in depth as a dissertation; however, they haven't had the intimate involvement in your research that you have. You at least need to define any subject-specific concepts. Try to visualize a real person as you write up your dissertation and imagine yourself writing directly to that specific person.

## HELP YOUR READER TO UNDERSTAND

Your dissertation should take your reader by the hand and lead them through the topic. Each subsection and each point should lead logically from the one before it. You know what main point(s) you want to make in your dissertation; that should help you to structure your dissertation under relevant subheadings. Choose section titles and wording to clearly state your points. Make it easy on your reader to find out what you have to say; this is especially useful when your readers are also your examiners as the harder they need to work to understand your dissertation, the more likely they are to be put into a mood and the more likely they are to request revisions to your dissertation.

It is impossible to be too clear when it comes to writing your dissertation. Spell out your arguments very clearly and give appropriate titles along the way to signpost the developments in what is being discussed. A dissertation includes an awful lot of

information so your readers need some signposts along the way so that they don't get lost as you attempt to take them on this journey with you.

### DON'T PATRONIZE YOUR READERS

Whilst you need to be very clear in your dissertation, you shouldn't patronize or belittle your reader. Avoid using phrases like "Clearly, this is the case..." or "Obviously, it follows that ..." ; it might just be that you haven't explained yourself well, but phrases like this imply that you just think your readers are stupid for not understanding you.

### BE CAREFUL IN STATING YOUR OPINIONS

You need to substantiate any of your claims by reference to literature or your research findings. You need to be able to demonstrate that your opinions are correct, rather than simply stating them.

The purpose of your thesis is to clearly document an original contribution to knowledge. You may develop computer programs, prototypes or other apparatus; but they do not take the place of your dissertation. You need to use these tools to demonstrate that you have made an original contribution to knowledge.

### THE DIFFERENCE BETWEEN A MASTERS AND. PHD DISSERTATION

There are different expectations for Master's theses and for PhD (Doctoral) theses. They both follow the format as above but there is a difference in the significance and level of original discovery which is expected by your examiners. This difference is manifested both in the complexity of the problem to be solved and also in the number of substantial contributions which are expected. A Master's dissertation can develop knowledge incrementally or apply known techniques in a new area; it doesn't have to be totally new. In contrast, a PhD dissertation needs to make a substantial and innovative contribution to existing knowledge.