2.ThA Thesis Proposal and Thesis Structure Notes Class 1, IAP 2007

Table 1 Thesis Proposal Structure

Section	Contents	Comments
Summary	Everything important	The proposal is an odd document because it has no end. Most readers get no further than the summary, so the summary must embody the entire enterprise. Consider avoiding the first person more than usual. Avoid citations in the summary. Make your context and motivation clear, but avoid emphasizing the context (via stress position or text length).
Introduction	Defines a problem. Perhaps defines a tidbit of information that should be known. Defining a topic does not suffice. Most proposals fail here.	Present tense (?) Start with wording from your title. Start with your specific problem; move to context at the level of your research. Focus/spin info on your problem. Try to make the structure of the whole clear, perhaps by explicit sectioning of the text or grouping of ideas.
Background	What the reader needs to know to feel confident of your solution. Heavy on literature and/or model development. Sometimes run together with the introduction, especially in shorter proposals.	Consider using the present tense; you may talk about peer reviewed/published results as if they are platonically true over all time, even though the research was in fact conducted in the past. Lots of citations here. Follow structure set up in the introduction.
Methods	Your solution. The gold standard is for someone else to repeat the experiment. The utility standard is to have a recipe for yourself and a contract both you and your advisor can live with. The minimum standard is what your advisor will sign.	Officially, you should use the future tense, but the future is clunky in English. Perhaps try the present tense. Avoid the subjunctive mood.
Other Stuff	Time line, deliverables, resumé, budget	

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If your proposal is well written and if your research goes as you expect, your proposal should appear word for word in your report.

Table 2 Thesis Structure

Section	Contents	Comments
Abstract	Theses have abstracts. Abstracts have	Often the sentences are long and difficult
	4 pieces of information: problem,	to parse. Avoid citations in the abstract as
	solution, results, conclusion. If you	many readers will not have access to your
	must, include half a sentence of	bibliography.
	context information, especially if your	
	audience is varied or your work	
	interdisciplinary.	
Introduction	Defines a problem. A topic does not	Possible word for word inclusion from
	suffice.	proposal. Try to set up a structure from
		the start.
Background	What the reader needs to know to	Possible word for word inclusion from
	feel confident of your solution. Heavy	proposal. Keep the reader aware of the
	on literature and/or model	structure via sections & headings
	development	(throughout the thesis).
Methods	Your solution.The gold standard is for	Officially, probably use the past tense for
	someone else to repeat the	your work, which is not yet peer reviewed
	experiment. While this section is the	and may not be found true over all time.
	"story" of your research, consider	Possible word for word \pm tense changes.
	other structures that are more	Perhaps try the present tense. Avoid
	important to your ideas than the	overusing multiple verbs tenses to express
	ordering of your research in time.	different eras of your research. "Data had been
	Avoid dwelling on thing you did that	derived from estimators before the onset of singularities occurred. Then unusual circumstances were being driven by
	did not work.	strange attractors while our lunch was delivered. Any
		conclusions will have been drawn from a hat."
Results	What happened when you did what	Past tense, like your methods. The results
	you did.	section may be very low on text for folks
		with quantitative or graphical results.
Discussion	I abhor the word "discuss." Think	Sometimes the results and discussion
	"analysis."	sections are combined. Sometimes
		discussion and conclusion are combined.
		Sometimes all three are lumped into one
		section, especially in shorter reports.
Conclusion	The big synthesis.	Consider starting with a sentence that
		restates your problem, along the lines of
		"We set out to solve problem X."

I have omitted many parts: cover page, table of contents, lists of stuff, bibliography....