

How Theses Get Written: Some Hot Tips

Dr Steve Easterbrook

NASA/WVU Software Research Lab

Outline

- Part 1: Writing your thesis
 - (1) Context: What is a thesis (for)?
 - (2) How Do I Get Started?
 - (3) What Should My Thesis Contain?
 - (4) How Do I Get Finished?
 - (5) Summary
- Part 2: The Examiner's View
 - (1) Oh God, not another thesis to read...
 - (2) What's this one about?
 - (3) Now there must be some corrections...
 - (4) Let's see, what can I ask the candidate?

What is a thesis?

- An argument
- An exposition of an original piece of work
- The product of an apprenticeship
- Probably the largest (most self-indulgent) piece of work you'll ever do
- Something that could be published

“A thesis for the PhD must form a distinctive contribution to the knowledge of the subject and afford evidence of originality shown by the discovery of new facts and/or by the exercise of independent critical power.” (U. of London regulations)

Examination Issues

- The thesis is what you are examined on. Hence:
 - **Choose your examiners well**
 - **Target your thesis at them**
 - **Keep abreast of their work**
- Whatever your research is like, it's what you say in the thesis that matters

How do I get started?

- Do this today:
 - **Decide your title**
 - **Write your title page**
 - **Start a file**
 - **(Look at some theses in your area)**
 - **Plan your argument**

Plan Your Argument

<i>Introduction (area of study)</i>	"A Ph.D. is examined by submission of a thesis..."
<i>The problem (that I tackle)</i>	"Many students fail to complete their theses within the regulation four years..."
<i>Literature Survey</i>	"Empirical studies indicate that late submission is highly correlated with delaying the start of the write-up..."
<i>My solution</i>	"A model of DPhil study which encourages an early start to the thesis writing task is clearly desirable..."
<i>How I implement my solution</i>	"Such a model encourages the student to plan a structure for the thesis and collect material for each chapter throughout their study..."
<i>The result</i>	"Application of this model dramatically improves submission rates."

Plan your thesis

- Convert this argument into a chapter outline
- Start a file with a division for each chapter
- Collect material in this file
- Set out clearly what each chapter should say

What the thesis should contain

Title (and title page) - conveys a message

Abstract - for the librarian

Contents Listing - shows the right things are there

Acknowledgements - get your supervisor on your side!

Introduction - says "I am going to look at the following things".

Review of Previous Work - show you know the subject

Philosophy of Approach - no great detail

Plan of Attack - a bit more specific

Description of the work

Critical analysis of the results - show you know its limitations

Future Work - show you know what's missing

Conclusions - repetition of the intro, but with reference to the detail.

References - Cover the field; examiners will look for key references

Appendices - Nitty Gritty details that would clutter your eloquent description

Say everything thrice

- In the thesis as a whole:

What the thesis will say (Introduction)	Details of the work (Body)	What the thesis said (Conclusion)
--	---------------------------------------	--

- Within each chapter / section

What this section says (Signposting)	The details (Body)	What this section said (Summary)
---	-------------------------------	---

- Within each paragraph...
- But it's not just repetition, it's linking and rationale.

Bibliography

- Keep a database of complete references
 - **Use a consistent citation style**
- Note: readability is reduced by:
 - **having to flick to bibliography (or foot of page)**
 - **having too much detail**
- (assume the reader is familiar with the main references).

How do I get finished?

- Answer: by not getting stuck.
- You've written most of it ...
 - ... but for the bits you're avoiding ...
 - ... you keep rewriting other bits ...
 - ... doing more reading ...
 - ... tinkering with the layout ...
 - ... seeking neat quotations ...
- **STOP!!!**
 - Q: Why are they difficult to write?**
 - A: Because they are not relevant.**
 - **Don't be afraid to change your plan if it proves too hard.**
 - **Be savage in cutting irrelevant bits.**

Reviewing

- Get other people to read your drafts
- Peers will give friendly comments (and may have the most time!)
- Supervisor will steer you
- Other academics will spot things your supervisor has missed.
- Above all, get the bugs out before the examiners see it.

Summary

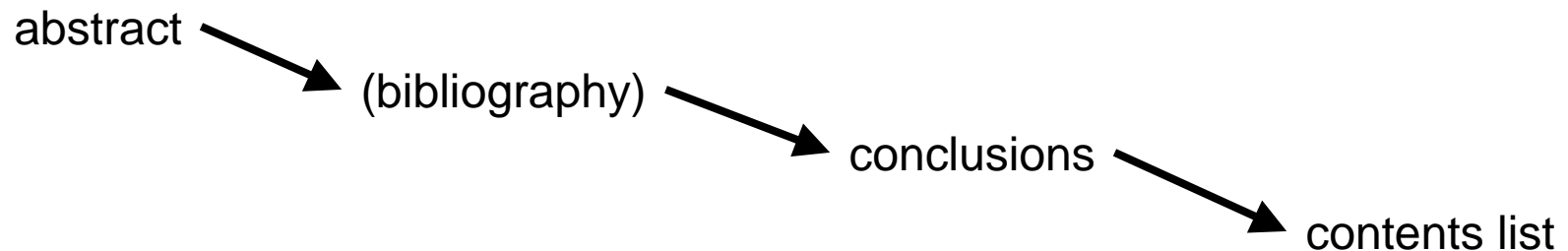
- Start writing today (never tomorrow)
- Make up a title page for inspiration
- Write down your argument succinctly
- Turn the argument into a chapter plan
- Maintain a file of stuff to put into these chapters
- Don't be afraid to change the plan

The Examiner's View

- Oh God, not another thesis to read...
- Your examiners are busy people
- Examining theses is a chore, but:
 - “It might help me keep up to date with an area of research”**
 - “It might inspire me”**
 - “I might learn something”**
- Note: the reading will be done in trains, planes, and departmental meetings!

Examiner's first question

- What's this one about?
 - **Examiners have little time available, so they want to extract the most juice in the shortest time:**



- This may be enough to decide whether it's worth a PhD.
- Then:
 - 1) What questions now spring to mind?
 - 2) ...read through...
 - 3) Were the questions answered?

Corrections

- “Now there must be some corrections...”
 - **Many examiners don’t feel they’ve done the job unless they find some corrections to do.**
- Typical errors
 - **Typographical / grammatical**
 - **Poor presentation**
 - **Missing statements / references**
 - **(Superfluous / redundant statements)**
 - **Missing pieces of work**
 - **Whole sections missing...**
 - **research questions**
 - **critical review of literature**
 - **research methodology**
 - **presentation of results**
 - **discussion and conclusions**

Thesis defense

- “Let’s see, what can I ask the candidate?”
→ **The examiners may have decided before the exam whether to pass you.**
- Defense, viva, exam, ...
→ **viva = “viva voce” = “lively discussion”**
- The exam is to check it’s your work...
→ **Talk fluently about the work; show you’ve thought about it (which you have!).**
- ...and a chance to clarify things that aren’t clear in the thesis.
→ **These are areas where corrections are likely.**

Summary

- Know your audience
- Help them understand:
- Keep it short; use signposts; get the contents right.
- Make sure you've covered the bases
- (Leave some simple mistakes in?)

What the examiners are looking for

[Adapted from Brown, G., and Atkins, M. (1988) Effective teaching in Higher Education. London: Routledge]

- **Review of literature**

- To what extent is the review relevant to the research study?
- Has the candidate slipped into “Here is all I know about x”?
- Is there evidence of critical appraisal of other work, or is the review just descriptive?
- How well has the candidate mastered the technical or theoretical literature?
- Does the candidate make the links between the review and his or her methodology explicit?
- Is there a summary of the essential features of other work as it relates to this study?

- **Methodology**

- What precautions were taken against likely sources of bias?
- What are the limitations in the methodology? Is the candidate aware of them?
- Is the methodology for data collection appropriate?
- Are the techniques used for analysis appropriate?
- In the circumstances, has the best methodology been chosen?
- Has the candidate given an adequate justification to the methodology?

- **Presentation of results**

- Have the hypotheses in fact been tested?
- Do the solutions obtained relate to the questions posed?
- Is the level and form of analysis appropriate for the data?
- Could the presentation of the results been made clearer?
- Are patterns and trends in the results accurately identified and summarized?
- Does the software appear to work satisfactorily?

- **Discussion and Conclusions**

- Is the candidate aware of possible limits to confidence/reliability/validity of the work?
- Have the main points to emerge from the results been picked up for discussion?
- Are there links made to the literature?
- Is there evidence of attempts at theory building or reconceptualisation of problems?
- Are there speculations? Are they well grounded in the results?