Advice for writing a thesis in the School of Public Health

September 2010

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1. General guide to thesis writing

1.1. What is a thesis?
Your thesis is a research report. The report concerns a problem or question in a particular subject area and it should describe what was known about it previously, what you did towards solving it, what you think your results mean, and where or how further progress in the field can be made. The readers of a thesis do not know what the "answer" is.

University of Sydney requires that a PhD thesis make an original contribution to human knowledge:

"in the opinion of the examiner the thesis is a substantially original contribution to the knowledge of the subject concerned, the thesis affords evidence of originality by the discovery of new facts, the thesis affords evidence of originality by the exercising of independent critical ability, and the thesis is satisfactory as regards to literary presentation."

Therefore, your research must discover something unknown. The originality on which you base your thesis can come from: new work, new interpretation, new application, new way of testing knowledge or new connections.

1.2. Styles of thesis
There are three thesis styles relevant to public health;

1. Traditional - a document that provides a complete and systematic account of your research in a logical and connected manner
2. By publication - a series of related papers connected by an introduction, a discussion and a conclusion
3. Hybrid – a combination of 1 and 2

The style of your thesis will determine the format. See Section 2 for guides to writing a traditional thesis and section 3 for a guide to writing a thesis by publication. Hybrid formats are discussed in Section 3.

1.3. Getting started
Your thesis will be a long and complex piece of writing which will seem, in the beginning, like an overwhelming task to undertake.

The first step is to review other theses to get an idea of the various ways you can layout, structure and approach your thesis. See Section 4 for more information.

Create an outline
The next step is to start on your thesis outline. Draw up a rough table of contents that includes proposed chapter headings, sub-headings, some figure titles (to indicate which results go where) and perhaps some other notes and comments. Under each chapter make some notes on what things will be reported or explained. You have now overcome the stage where writer's block strikes
the hardest. When you sit down to type, your aim is no longer a thesis - an overwhelming goal - but something simpler and manageable. Your new aim is just to write a paragraph or section about one of your subheadings. Start with an easy section as this gets you into the habit of writing and gives you the confidence to do more.¹

**Outline for chapters**

When you are considering the outline of a chapter try assembling all the figures that you will use in it and put them in the order that you would use if you were going to explain to someone what they all mean. When you have found the most logical order, note down the key words that you would use to explain them. These key words provide a skeleton for much of your chapter outline.¹

**Discuss your outline with your supervisor**

Once you have an outline, discuss it with your supervisor. This step is important: s/he will have useful suggestions, but it also alerts them to expect a steady flow of chapter drafts that will make demands on his/her time. Once you and your supervisor have agreed on a logical structure, s/he will need a copy of this outline for reference when reading the chapters which you may present out of order. If you have an associate supervisor, discuss the outline with him/her as well, and present all chapters to both supervisors for comments.¹

**1.4. Organisation**

It is a good idea to start a filing system – both in electronic and hard-copy format – when working on your thesis. Create an electronic file/folder for each chapter and one for the references. You can put notes in these files, as well as text, articles, correspondence etc.

**Back up files every day**

Make a back-up of your files every day (depending on the reliability of your computer and the age of your disk drive). Do not keep back-up files close to the computer, since if your home is broken into, a thief may take both your computer and your remote hard-disk with your backed up files.¹

If you are a student based in the School and you are using the School’s network, please consider saving your work to the network drive which is backed up automatically daily and therefore can be recovered if something should happen to your computer. Local hard drives (c:drive) should not be used as there is no automatic backup.

Another method of backing up is to send your work as an email attachment to another email address, such as a gmail or hotmail account, which sit offsite and online. Be careful to dispose of superseded versions so that you do not waste disk space, especially if you have large files.

**Keep hardcopies**

You should also keep a hardcopy/physical filing system: a collection of folders with chapter numbers on them. It will keep your desk clean and help you visualise your thesis taking shape. Your files
should contain your results, calculations, and all sorts of old notes, references, speculations, letters from colleagues etc., whatever you consider relevant to one chapter or other. As you write bits and pieces of text, place the hard copy, the figures etc in these folders as well. Watch your thesis taking shape!

If any of your data exists only on paper, for safety you should try to arrange for the data to be scanned into an electronic format. Otherwise copy them and keep the copy in a different location.

1.5. Timetable your work

Agreed time frames

The value of sitting down with your supervisor and making up a timetable for writing your thesis cannot be emphasised enough. Create a list of dates for when you will give the first and second drafts of each chapter to your supervisor(s). This helps to structure your time and provides intermediate targets. If you aim "to have the whole thing done by [some distant date]", you can deceive yourself into thinking you have plenty of time and procrastinate more easily. If you have told your supervisor that you will deliver a first draft of chapter 3 on X date, it focuses your attention.

Chart your timetable

You may want to make your timetable into a chart with items that you can check off as you have finished them. This is particularly useful towards the end of the thesis when you find there will be quite a few loose ends here and there.

Make appointments with yourself

One technique used by students is to book regular appointments in their diaries for ‘writing’ time. Make appointments in your diary – and keep them - where you block out time to sit and write parts of your thesis. Make them short, with easy to achieve goals and reward yourself when done. This helps to establish a routine and helps you to set clear goals for each week or day.

Schedule writing sessions close together if you need continuity. Schedule them further apart if you need time to gain distance from the work or to gain a better perspective.

1.6. Writing the thesis

Who is your audience?

You need to think about who you are writing your thesis for as this can help clarify what you will communicate and how you will choose to present your information. The first, and main, audience of your thesis will be examiners. While examiners are experts in the general field of your thesis keep in mind that, on the exact topic of your thesis, you may be the expert!
Thesis writing is about showing your knowledge to a knowledgeable audience, who may or may not be specialists in your particular area of research. At a broad disciplinary level, the examiner will probably be more knowledgeable than you and can identify if you have left out something important. But with your research topic, you will be the expert, and will probably have more knowledge than the examiners.

If you are doing a thesis by publication deciding on your audience can help you to decide what your target journal/s are.

Define your purpose

You need to be clear about the purpose of your thesis. What is the message? You should be able to describe it in one sentence. What is new about your message? Highlight how your work builds on existing knowledge.

To keep focused try the following:

- Have your thesis topic written on a card sitting on your desk in front of you. You will keep focussed on the central research question while you read, write, and think.
- What is the main idea that you would like to convey through your thesis? Write a brief statement on the card. This is your purpose.

Start writing

Start writing as soon as you start thinking about the research.

Write notes about everything vaguely related to your thesis and its purpose. As you read any relevant literature, make brief notes; as related ideas occur to you, make a note of them.

- Use your outline & be organised
- Write!
- Don’t stall on details, if you do, then walk away (take SHORT break!)
- Use short and simple phrases rather than long a complicated sentences
- Write! Even 10 minutes a day can make progress
- Write clear English and good grammar
- Seek help from the experts - supervisor, library, faculty training programmes
- Write with the anticipation of rewriting. Get used to writing often and spontaneously and don’t focus on perfection. It is much easier to revise something you have already written rather than starting from scratch

Remember to give yourself time for reflection. It is a good idea to write, then leave your work for a while and return to it sometime later.

Gradually the process of writing, reflecting, and rewriting, and feedback from your supervisor, will develop your writing skills. Feedback from your peers can be very helpful too.
**Writer’s block**

It is very common for research students to get stuck with a particular piece of writing. When this happens you can try:\n
- mindmapping by writing down all your points on a big piece of paper
- writing what you want to say in everyday language. Concentrate on key words.
- freewriting techniques to get words down on paper
- taking a break and let your unconscious mind work on it. Come back to it tomorrow.
- doing exercise – it helps clear the mind
- sharing the problem with your supervisor or peers
- ask others to read and comment on some of your work
- prepare tables and figures and dictate text for them
- do the easiest bits first to overcome inertia

Perfectionism, impatience, burnout or guilt can be some of the many reasons for writer’s block and can create bad writing habits. Develop good writing habits by:\n
- writing regularly for short periods rather than in intensive bursts with long breaks in between, and
- make connections between writing sessions (when you finish one session, set yourself a specific writing task for the next session)

### 1.7. Editing your own work

Dr Mark Ragg has presented on “Editing your work” at the School of Public Health a number of times. Below is a copy of his presentation to the School in May 2008 (the basics never change).

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**Editing your own work**

**Aim**
To make the document invisible so there is nothing between the reader and the meaning.

**Today**
- Mechanics of editing
- basics of format, publication and editing
- common errors
- The thought behind editing
- How to get outside yourself

**Basics of format**
- White space
- Type size – 10 point absolute minimum, 12 point preferable. Six point not acceptable, even in illustrations.
- Portrait, not landscape
- Single column
Basics of publication

Who – target audience?
What – what’s it about?
When – why now?
Where – where is it being published?
Why – why are you writing it at all?
How – how will it be disseminated?

Basics of editing process

1 – Thorough read: for structure and meaning, not typos.
2 - Thorough read: Correct spelling, punctuation, grammar etc.
3 - Thorough read: Check corrections
4 - Paper read: Things look different.
5 – Read aloud: Check sense and punctuation.

Common errors I

Poor structure – buried lead
Lack of purpose – who am I writing to and why?
Spellcheck errors – through not though or thorough
Literals – threw not through
Missing words – easy to miss on screen, easy to pick up when read aloud
Missing verb – if it sounds like a headline, re-write
Missing context – who, what, when, where, why and how?

Common errors II

Verbosity – too many words interfere with sense
Passive voice – use active voice instead
Too many adjectives and adverbs – hack them back
Too many fonts – minimise them
Latinate words – conclude not end, beginning not start
The what? factor – if you have to read it again, change it.

Tricks

Bench it
Read it somewhere else
Get someone else to read it
Clear your mind – read poetry
Read it aloud
Phone a friend
Tell your grandmother
Start from scratch.

Tools

A good dictionary – Oxford English Dictionary, Macquarie or Webster’s (depends on preference and audience).
The Elements of Style by Strunk & White (or your favourite).
A printer.
A friend.
The courage to read your work aloud.
**Final points**
- Aim for consistency
- Read a few books of rules. Then accept there are no rules.

**Further reading**
- The Penguin Writer’s Manual by Manser and Curtis
- The Complete Plain Words by Ernest Gowers

### 1.8. Length of thesis

The Committee for Graduate Studies and the Academic Board recommends a nominal upper limit of 80,000 words for a PhD. If you wish to exceed this limit you will need to seek permission of the Faculty Board of Postgraduate studies and the absolute upper limit of 100,000 words of text for PhD theses apply.

For the MPhil degree the university guidelines are not so clear. Since the minimum duration of an MPhil is one year full time, compared to 3 years full time for a Ph.D., we suggest as a guide around 30,000 words with an upper limit of 40,000 words.

### 1.9. Formatting of thesis

There are no fixed requirements for font sizes and line spacing for your thesis, except that it be readable. At the very minimum, it is best if you keep the default borders, as set by your word processing software, and use a font size of 11 points or more and double space lines.

Go to Section 4: Sample Theses, to see how other students have formatted their theses.
1. Advice for a traditional thesis
A traditional style thesis is a report that presents your work in a complete and systematic account of your research in a logical and connected manner.

1.1. Key elements

As a general rule, your thesis will include the following key elements:

**Introduction and/or background**

This section or chapter introduces the subject of your thesis to the reader and discusses the reasons or justification for the work. Usually the aims or central question(s) of the project will be presented and discussed. This section may also include a literature review, or describe the events leading up to the project.\(^{\text{vii}}\)

**Methods**

The methods of your study must be documented in detail, dealing with sampling issues (description of target population, method of sample selection, sample size), the study procedure (a flow diagram may be useful), measurement issues (details of how each variable was measured, justification of choice of measurement instruments) and data analysis methods. You should discuss any methodological problems such as sources of bias, repeatability and validity of measurements, and logistic problems.\(^{\text{vii}}\) If you have multiple studies, you will need multiple methods chapters describing the above for each study.

**Results**

The results section should include a presentation of response rates, a description of the study population, descriptive statistics of other variables, results of tests of hypotheses and other statistical analyses. In a formal thesis there may be more than one chapter of results, depending on the design of your study and the number of research questions or hypotheses that you are examining. Where there is only one results section or chapter, you may like to discuss and interpret the results in a separate discussion section. Where there are several results chapters, the results may be interpreted and discussed at the end of each chapter. Try to avoid any discussion of the results when you are writing them.\(^{\text{vii}}\)

**Discussion**

In this section the results are interpreted and discussed. The limitations of the methodology should be kept in mind and referred to where appropriate. Usually, the discussion should include an examination of the practical implication of the results. Try to avoid making generalised or opinionated statements about your results.
Conclusions and recommendations

It is essential to have a summary or concluding section. It is appropriate to make recommendations based on your findings.

References

Part of what you are being tested on when you write a thesis is your ability to relate your work to that of others in the field and to acknowledge your thanks to earlier researchers. You must give a reference to all sources cited in the text. There are two main reasons for giving a reference: (1) to allow the reader to find a source which you are quoting or paraphrasing, and (2) to support a claim of scientific fact.

There is no need to support claims for universally accepted statements, trivial points or matters that you have observed yourself. To support a claim, you should refer to a study that investigated and demonstrated a point, or to a reputable review or meta-analysis of studies of the question. Making reference to other people’s unsubstantiated opinions does not support a claim. Avoid using abstracts, unpublished observations or personal communications as references to support claims.

You must give a full reference where you use someone else’s ideas or words (either paraphrased or quoted in full). Not doing so is plagiarism. It is also not acceptable to copy passages of someone else’s work and present it, either verbatim or slightly altered, as if it were your own writing, even if you reference the source at the end of the paragraph. Summarise or paraphrase it briefly in your own words.

Bibliography

If necessary, you may also include a list of other works you have consulted but not cited.

1.2. Structure

The parts of a traditional thesis include:

- title page
- abstract or summary
- acknowledgments
- note on the author’s contribution
- table of contents
- list of tables
- list of figures
- list of special names or abbreviations
• main text
• references
• appendix(es)

Title page
The title page should include the title of the thesis, your name, the month and year of publication.

Abstract or summary
This should ideally fit on one typed page and should be about 300 words long. State the purpose(s) of the study or investigation, basic procedures (e.g. selection of study subjects and observational and analytical methods), main findings (specific data and their statistical significance, if possible) and the main conclusions you have drawn from the findings. Do not use headings within the abstract, but do follow the structure of the thesis itself.

The abstract should be a summarised version of the central reasons for your study, your methods, results and conclusions. It should not be a description of your thesis or an advertisement - do not dwell on how remarkably original or successful your study was, or on the set backs that prevented you from coming up with more representative results.

Do not use phrases like ‘The implications of these findings for heart disease prevention programs are discussed’, or say that further work needs to be done (it always does). Instead state the main implication for prevention programs, treatment etc. in one bold sentence.

Do not forget to say when and where the study was done. Do not report any information or opinion that is not in the thesis itself. The abstract should not have any footnotes or references to the literature, or any tables or figures.

Acknowledgments
It is courteous to acknowledge anyone who has given you assistance (financial, practical, emotional or academic), and especially to cite those who designed the project or carried out the data collection if you were not involved at those stages.

Note on the author’s contribution
If you were not involved at all stages of the research project, or if major decisions affecting your work were made by other people, you should make clear exactly what your role was.

In Public Health, most researchers work with multidisciplinary teams and so, as a matter of course, you should make it a habit to be explicit about what your contribution has been to each project in the thesis.
Table of contents

List the chapters or sections, subheadings and appendices, with page numbers. (Do this last, after you have printed the chapters.) Start with the introduction and don’t include sections such as the dedication which should precede the contents list.

If your contents list comes to more than two pages it is probably too detailed. Omit minor subheadings to make it a more useful size.

Lists of tables, figures and illustrations

Make sure that the titles appear exactly as on the tables and figures themselves.

List of special names or abbreviations (if appropriate)

If there are special terms used in the text, or common terms used in a special sense, or many abbreviations, it is helpful to list and explain them. However, it is easier for your readers if you use as few abbreviations in the text as possible, except for very common ones such as NSW or AIDS.

Main text

Begin each chapter on a new page. Make sure you are consistent about the use of numbering or different type styles (such as bold and italic or underlined) to indicate levels of headings. Avoid footnotes.

Quotations

Avoid long direct quotations in the text unless the exact form of words used by the author is essential to your argument. Short quotations (less than two or three lines) should be enclosed in quotation marks. Decide whether you want single or double quotation marks and stick to your rule throughout (whether you are quoting someone’s words or using quotation marks merely to emphasise a word or phrase, or to qualify your use of it). The only exception is for a quotation within a quotation, when you switch style, i.e. if you are using single quotation marks; the inner quotation has double quotation marks around it.

Quotations longer than two or three lines can be displayed, i.e. set out with a blank line above and below, indented, more narrowly spaced and perhaps in smaller type. Do not use quotation marks in displayed quotations (unless there is a quotation within the quotation).

Quoted material should be letter-for-letter the same as the original. If there is an error in the original that might be confusing to your reader, add the word ‘sic’ in parentheses after it. If you omit any words from the original, indicate the omission with three dots (...); there is no need to use three dots at the start or end of a quotation unless for some special reason you need to emphasise that your extract begins in the middle of something. If you add words of your own, either in explanation or to adjust the grammar of the quotation so that it fits into your own sentence, enclose the interpolated words in square brackets.
Tables

Tables should be as simple and clear as possible. For a formal thesis, you may provide fuller, more complex tables than you would normally use for other publications such as journal articles. Very large tables can be included in an appendix, and simpler tables or graphs used in the body of the text to display summary information.

Tables should appear:

• at the appropriate point in the text, or
• on a separate page in the text after the page referring to the table, or
• in a separate section at the end of the section or chapter.

The first system is easiest for the reader, but may pose problems with large tables breaking over the ends of pages or creating almost-blank pages beforehand if you use ‘block protect’. The third system is least convenient for the reader.

The title of the table should tell what the data represent: who, where, when and what. The source of any data, not your own, should be indicated in a footnote under the table. Further guidance on tables and graphs is given in the Introductory Biostatistics course offered each year by the School.

Figures (diagrams)

Keep graphs simple and avoid arty computer graphics such as unnecessary shading, confusing diagonal hatching or three-dimensional effects.

Lists

Lists can be incorporated within a sentence, introduced by a colon, with the items separated by commas. If individual items contain commas the items may be separated by semicolons. If the list is set out vertically there is no need for punctuation at the end of each item. Be consistent about the style you use for set-out lists - do not switch from bracketed numbers to unbracketed numbers, or to bracketed letters, ‘bullets’ (•) etc. Bullets are preferable to asterisks or dashes for lists where no order or hierarchy is intended.

References

There is a large range of acceptable referencing styles, but we recommend that you choose either ‘author date’ or ‘Vancouver’ style, unless your subject matter requires a different style (e.g. for legal cases). See the School’s guide on Referencing Styles for detailed guidance (http://www.health.usyd.edu.au/current/coursework/referencing_styleguide.pdf). Use of footnotes is not recommended.
Appendixes

Information not required in the text itself but relevant to the thesis may be included in an appendix, for example questionnaires, detailed tables on which graphs in the text are based, or the grant proposal for the study (if appropriate).
2. Advice for PhD Thesis by Publication

As the University of Sydney has no set firm policies or guidelines on how a thesis by publication should be prepared, the School of Public Health offers you some tips and suggestions in this chapter which you might find useful.

A thesis by publication is a thesis format that includes papers that have been prepared for publication. These papers can be inserted in their published format.

The decision to present a thesis by published papers should be made early in the candidature, probably in the first year.

2.1. Is a Thesis by Publication right for you?

There are many advantages to doing a thesis by publication. You should consider preparing a thesis by publication if:

- you wish to pursue a career where publishing papers during candidacy is highly regarded (for example, academia),
- your research topic involves several discrete stages, topics or components that could form the basis for a series of papers,
- you are undertaking your research part-time and you feel you would benefit from a thesis milestone plan which enables annual progress to be achieved through publishable papers and submissions to journals/conferences, or
- you would like to contribute to research at the earliest possible opportunity and not be held up by the completion of your thesis, it’s submission etc.

2.2. University guidelines on thesis by publication

Students considering a thesis by publication often seek more clarity on the guidelines for submission. Frequently asked questions include:

- How many publications do I need to include?
- Do I need to be the first author?
- Can I include publications submitted but not yet accepted?
- Do I need to get approval from co-authors to include a publication?
- What do I do if my journals are not accepted in time?
- Apart from the publications what else do I need to include?

These are valid questions. Unfortunately, the University of Sydney currently does not provide clear guidelines on thesis by publications as the criteria will vary significantly from Faculty to Faculty.

However, students should not be discouraged by this as there are many advantages to doing a thesis by publication. To put your mind at ease, the School of Public Health offers you some suggestions or tips that you might like to consider. These should not be viewed as recommendations or requirements, but rather as some informal tips to help you in completing your PhD thesis.
2.2.1. Number of publications
While the University does not state any minimum requirement we suggest you include at least three, first authored, peer-reviewed (accepted) papers. Any papers submitted to journals, but not yet accepted, can also be included, however, it should be clearly noted that the papers have been submitted, but not yet accepted for publication. When you think about the publications you would like to include in your thesis, think of this hierarchy of priority for papers; published papers, accepted papers, papers written for submission. Students must appreciate that the School provides this suggestion as advice only and it is based on general assumptions about quality, originality of findings and substance of work, and that adjustments may be necessary in the case of jointly authored papers.

It is easy to get caught up in having the right quantity of publications, but always remember, of equal, if not more importance, is the quality of the papers. The specific number of publications incorporated into a thesis will depend on the substance and quality of those publications and your role in them. For example, a review article will, in most circumstances, carry less weight than a substantial article reporting original results. Similarly a substantial sole authored article by a candidate would be likely to play a more prominent role than a co-authored article in which a candidate played only a comparatively small role. (See the Section 3.2.2 for advice on co-authored papers). It may also be appropriate to indicate the ranking of the journal of each paper.

Finally, it cannot be stated often enough, your papers should be reporting original findings.

Although the School offers this advice we strongly urge all students to discuss their thesis plan/outline with their supervisors and to gain their advice and support before finalising the structure of their thesis.

2.2.2. Contribution statement and co authors
The Academic Board will accept a signed written statement from all authors of a work attesting to the contribution of the candidate as evidence to satisfactorily identify the sections of the work for which the candidate is responsible.

Where your papers have multiple authors, you would normally be the first or principle author and have written permission of the co-authors. Each jointly authored paper incorporated in the thesis must include a clear statement on the contribution made by each author. The statements must be sufficiently detailed to describe accurately the contribution of each author, must be signed by each author and must be incorporated in either the body of the thesis or one or more of its appendices.

The Faculty have confirmed that this is something the Research and Research Training Committee are getting stricter on. They advise that every effort should be made to have all authors sign your statement declaring your contribution. However, if this is truly impractical and a strong case can be mounted, then the Chair of the Board of Postgraduate Studies can ask for this to be waived on the recommendation of the Postgraduate Coordinator and the Head of the School.
2.2.3. Papers submitted, but not yet accepted in a thesis

Manuscripts which have been submitted but not yet accepted for publication can be included in the thesis, in addition to those already accepted for publication. However, they need to be clearly marked as ‘submitted’ to distinguish them from papers that have been peer-reviewed and accepted for publication. If your key papers (which are to form the chapters of your thesis) are subject to time lags from journal’s submission process you may need to consider changing your thesis to a hybrid format.

The hybrid format is a format that contains some more traditional chapters which include results from papers submitted by not yet accepted for publication and one or two manuscripts which have been accepted for publication but which are insufficient by themselves to qualify to submit by publication alone. You need to ensure that your thesis as a whole forms a coherent and cohesive narrative. A footnote at the beginning of any chapter that is a paper, either submitted or accepted, should explain its status.

2.3. Key considerations

2.3.1. Layout
The thesis layout must contain subject matter that is closely related and form a cohesive narrative; don’t combine journals on unrelated or loosely related topics.

2.3.2. Journals
You must be the first author on at least three papers and have written permission from the co-authors to include the paper in your thesis. It is a good idea to discuss authorship issues at a thesis supervisory committee meeting as early as possible.

There are different kinds of academic publications but journal articles are the main form of publication you should consider. Refereed publications have much more standing, and are connected to research funding more strongly than non-refereed publications. Therefore, we will always recommend that you include journals in refereed publications.

Choose the most appropriate journals to submit your publications. Discuss this with your supervisor. Publishing in journals that have a high impact factor may carry more weight with examiners and/or potential employers.

Remember that some journals take a long time to review and accept journals and this could delay your thesis submission and/or cause you to reformat into a hybrid format.

2.4. Structure
The parts of a thesis by publication include:

- Title page
- Declaration
- Abstract
- Acknowledgments
2.5. Key elements (some considerations)

Table of contents
You might consider including your impact factor or any citations of included publications in your table of contents.

List of publications included
You should include a section at the front of the thesis entitled "Publications arising from this thesis" (or similar words), where you list the published and submitted papers that have arisen from the work in the thesis. You will need to list all of the included published works with full bibliographic citations in the order they appear in the thesis.

Statement of Contribution of others
You must summarise and clearly identify the nature and extent of the intellectual input by any co-authors. You will need to obtain a written statement from each of the co-authors as indicated by University policy.³

Introduction and overview
Your introduction should include a succinct statement describing the research problem you investigated, the overall objectives and aims of your research and ensure these link to your papers. Describe the connection between the individual journals, so that your thesis presents as a coherent whole with a logical flow from one chapter to the next.

You must show how you have uncovered new knowledge either by the discovery of new facts, the generation of theories or the re-interpretation of known data and established ideas.⁸
Literature review
This section should include a clear statement of the significance of the project aims, a critical review of the relevant literature, identify the knowledge gaps and the relationship of the literature to the research program.

Methods
This is a key part of a paper and you may need to expand on the details particularly if you have spent considerable time in developing and validating research methods. Some journals limit this section in papers so it is an opportunity to describe this in more detail. You need to demonstrate to examiners that you have highly developed research skills. The ability to critically evaluate research methods is an important component of your research candidature and so you should take this opportunity to demonstrate this mastery to examiners!

Published papers/Chapters
Each of your papers accepted for publication must be presented as an individual chapter. But it is very important that you remember that a thesis is more than a collection of papers. Essentially, the chapters of the thesis can stand alone, but the thesis is a complete and coherent "story", in which each chapter is an integral part. The chapters must be in a logical order and linked together.

When presenting a thesis as a collection of papers it is easy to make the mistake of allowing the thesis to become disjointed. Sometimes, students who submit a thesis as a series of published papers introduce each new chapter with a foreword which introduces the chapter and establishes its links to previous chapters. More conventionally, this is in the introduction to each chapter. The chapters should contain references to each other, much as in a published article you would cite other references.

Chapter 1 needs to set out the rest of the thesis. It can include a publication, but must also be in-depth.

References
References can either be by chapter or included at the end, a more detailed bibliography may be needed as some journals do limit the number of references.

Discussion
Future research, etc as well as just the conclusions.

Conclusion
The final conclusion should reflect the entire body of research presented in all parts of the thesis, including all papers. The original contribution to the advancement of knowledge in the research area should be clearly stated in the final conclusion or in a separate section.
3. Sample Theses

This section begins with a guide to analysing sample theses. This is followed by excerpts/select pages from a number of Ph.D. theses which were submitted in the form of ‘Thesis by Publication’ by Public Health research students. These examples are up to date as most were submitted in the last 18 months. For references 1 – 7 a copy of the table of contents is provided for each Thesis. For references 9 – 11 no hard copy is currently available but you may contact the author for more information. Note (Bell Shepherd)#5 and 8 were in a hybrid format.

1. Guide to analysing sample theses
2. Contemporary management of low back pain [Costa, Leonardo]
3. Towards consumer-centred health care and health research in nephrology: understanding patient and family caregiver experiences and perspectives in chronic kidney disease [Tong, Allison]
4. Improving decision-making: Deriving patient-valued utilities from a disease-specific quality of life questionnaire for evaluating clinical trial. [Grimison, Peter]
5. Monitoring for initial response in chronic disease. [Bell, Katy]
6. The Physical Activity and Skills Study. [Barnett, Lisa]
7. Cancer and chronic kidney disease [Wong, Germaine](GermainW@chw.edu.au)
8. Involving patients in treatment decision-making: the views and attitudes of Australian cancer doctors to shared decision-making. [Shepherd, Heather]
9. Epidemiology and management of otitis media in Indigenous and non-Indigenous children. [Gunasekera, Hasantha] (hgun6897@mail.usyd.edu.au)
10. Exploration of complementary and alternative medicine by patients with cancer and evaluation of medical Qigong [Oh, Byeongsang](bsoh@med.usyd.edu.au)
3.1. Guide to analysing sample theses
(This guide is a straight copy from a section of “Write the Thesis”, Online web booklet, Monash University, http://www.monash.edu.au/lfs/hdr/write/ Accessed 16 Feb 2010)

1. Table of Contents
   o How many sections is the sample thesis divided into? Is a numbering system used for sections and subsections? How many levels? (eg. 1.5.2 = three levels)
   o Which sections are included before the introduction? (eg. abstract, acknowledgments etc.) How are these set apart from the main sections of the thesis? (eg. with Roman numerals)
   o How many sections is the 'body of the thesis' made up of? On what basis does the 'body' appear to be organised? (Method-Results-Discussion format? Topic areas?).

2. Abstract (Synopsis/Summary)
   o How long is the abstract? Do you get a clear sense of what the research is about from the abstract? Does the abstract motivate you to read (some of) the rest of thesis?
   o Can you readily identify these in your sample abstract? Are any other elements or 'moves' included? Do they strengthen the abstract?

3. Introduction
   o Look at the opening paragraph. How well does it set the scene?
     ▪ Some of the 'moves' in thesis introductions are elaborated versions of the first 'moves' in the abstract. In your introduction you should also seek to situate your research within previous research already conducted in the field. The following is a sequence of 'moves' used in many thesis Introductions:
       ▪ Introduction to the general area of the study
       ▪ (Brief) review of the current state of knowledge in the area
       ▪ Indication of gaps, shortcomings, problems in research to date
       ▪ Statement of the aim of your research, especially how it will fill the gap, solve the problem etc
   o Can you identify these moves in the sample introduction? Are the aims of the study transparently clear?
     ▪ Another common 'move' attached to the introduction is the 'thesis overview' (or 'advance labelling') as in the following:
       ▪ The first chapter outlines the background to the study including its theoretical framework. Chapter Two reviews... etc.
     ▪ Is there a thesis overview in the Introduction of your sample thesis? Where is it located?

4. Literature Review
   o Does the thesis contain a separate review of the literature? How long is it? Which citation system is used? (eg. Harvard, Oxford, other?)
   o How does the literature review (or sections that refer extensively to the literature) appear to be structured? Are different themes covered in different subsections (eg. theoretical issues? methodological issues? results of previous studies?) Is 'advance labelling' used to indicate how the literature review will unfold?
   o How does the literature review conclude? Does it manage to show how the present study fits in with work discussed in the review?

5. The 'body' of the thesis
In the middle sections (or body) of a thesis, the focus is very much on the study itself. In very general terms, these sections will give an account of:

- what was done in the study (methods, procedures, approaches etc.)
- what was found (results, findings etc.)

In some theses, especially those based on experimental models of research, these two elements may be incorporated in separate Method and Results sections. In theses which have a more thematic organisation of chapters, these elements might be signalled less explicitly.

- How do these two elements (I and II) appear to be organised in the sample?
- What level of detail is given for I? (eg. subjects, equipment, procedures for data collection, methods of analysis etc.)
- How are the findings (II) organised? In a series of separate sections? In what form(s) are the findings presented? (eg. as tables, calculations, examples, extended description etc.)

6. Conclusion/Discussion

- Conclusion sections tend to include at least some of the following 'moves':
  - Summary of the main findings
  - Comparison with findings from other research
  - Explanations for findings
  - Implications of the findings
  - Limitations of the research
  - Suggestions for future research

- Note that these 'moves' do not necessarily appear in the order shown above. Some 'moves' may also be repeated, especially those that deal with the discussion of findings (moves I-IV).
- Which of the 'moves' I-VI can you identify in your sample thesis? In which order do they appear? Are any 'moves' repeated?
- Move I is concerned with making claims about your subject. These often need to be expressed in a qualified way, using expressions like the following:
  - On the basis of this study, it would appear that X is...
  - The findings of this study suggest that X is...

- Can you identify the claims made in your sample thesis? How are these expressed?

7. References/Appendices

- How many pages of references are there? How are individual references set out? (Pay particular attention to difficult sources eg. non-written or non-published sources.)
- Are appendices used? What sort of material is contained in these?

8. Other Language Matters

- How does the student refer to him/herself in the thesis? Explicitly, using first person pronouns? (eg. I, my etc) In third person? (eg. the researcher, this writer etc?) Implicitly eg. using passive forms (eg. it is thought that?) Do these patterns vary in different parts of the thesis?
- How is the thesis referred to - eg. "the present study"? Is a distinction made between the 'thesis' (the written product) and the 'study' (the research process)?
- How does the writer deal with the problem of sexist language? eg. by using 'slashes' (his/her), as we have done in 8.1?
Sample theses – 62 pages total

Note page numbers are incorrect from this point forward
4. Useful references

Effective Writing

- The Elements of Style, William Strunk
  http://www.bartleby.com/141/
- Organizing Your Argument (The Online Writing Lab at Purdue University)
  https://owl.english.purdue.edu/owl/resource/588/03/
- PhD – Writing tips

Candidature and thesis matters

- The seven secrets of doctoral success
- Guidelines on PhD research and supervision, Robert Cipolla
  http://mi.eng.cam.ac.uk/~cipolla/phdguide.html
- Final year projects, Mike Hart
  http://final-year-projects.com/index.htm

Thesis by publication

- Guidelines for Thesis by Publication, Curtin University of Technology
- Write the thesis, Monash University
University of Sydney Policies and Procedures

- Supervision of Higher Degree by Research Students Policy 2013

- PhD: Guidelines for Examiners of Doctor of Philosophy Theses

- PhD: University of Sydney (Doctor of Philosophy (PhD)) Rule 2011

- Postgraduate: Degree of Doctor of Philosophy

- Postgraduate: Higher Degree Theses - submission and publication

- Postgraduate: Oral Examination of PhD Theses at the University of Sydney

- Postgraduate: PhD: Appointment of Additional Examiner as Assessor

- Postgraduate: PhD: Submission of Doctor of Philosophy Theses Containing Published Work

- Proof-reading and editing of theses and dissertations
References

8 Curtin University of Technology. Guidelines for Thesis by Publication. 2008. Available online:
9 McCallum P. PhD by Publication. Email from McCallum to Chapman. 7/9/2010
11 University of Sydney. Theses containing publications.