



THESIS  
WHISPERER  
BOOKS

# HOW TO TAME YOUR PHD

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## **Why this book?**

PhD students seem to have become the 'problem children' of academia. Instead of celebrating their incredible contributions, most mainstream media articles focus on the financial and emotional stress of study and the (supposed) lack of jobs at the end of the process. I happen to think doing a PhD is worthwhile and can enrich your life in so many ways, but in my work as a professional research educator I encounter many students who have problems with finishing their PhD and coping with some of the stresses of academic life. The Thesis Whisperer blog ([thesiswhisperer.com](http://thesiswhisperer.com)) is dedicated to addressing some of these worries and making some practical suggestions to help you finish faster and with less stress.

I finished my own PhD in 2009, but I have been working with research students since 2006. I know the suggestions in this book work as I put them into practice while

I was studying. I finished in three years; one year shorter than most students in Australia. I worked two days a week for all but 7 months of this period, helped to raise a young child and did not get divorced. The finished PhD thesis (those in the US would call this a dissertation) won the faculty award for best thesis at the University of Melbourne, so I know I didn't compromise on quality.

I assure you I am not super human. I firmly believe that anyone who can get into a PhD program in the first place can graduate in a reasonable amount of time and turn out quality work. The trick is to thoroughly understand the nature of the task at hand and use a few simple productivity techniques. In addition, it is important to manage some of the emotions that the PhD experience can provoke. In these pages I will share some of my own strategies – all of which have been talked about at length on the blog.

So why a book if it is all on the blog? You can read most of what is in here for free on the internet, but this ebook is a more linear way to access that content. As a blog grows it eats itself. Posts fall off the front page and tend to be forgotten; new readers find it hard to digest all the material the blog has to offer. This compilation contains more than 20 blog posts which contain essential advice for all research students, regardless of discipline.

I have only included posts which I authored myself. I am lucky to have many people write guest posts for my blog, but have promised faithfully not to publish these in a paid format, so you will have to visit the blog to access them. Many of the posts included here have been altered and edited to improve flow and readability. Extra bridging text has been written to make it more book-like, while not losing the freshness and informality of the blog.

You can read this book from start to finish, or in 'chunks' by using the table of contents to jump straight to the topics that interest you most. If you do want to read it straight through, I have arranged the posts loosely around the timeline of the PhD: selecting a topic, understanding the thesis as a form, creative thinking, writing techniques, dealing with procrastination and negative emotions, as well as some tips on editing and presenting your final work.

Please note that the terms I use such as 'thesis' instead of 'dissertation' and 'supervisor' instead of 'advisor' because I teach students immersed in the UK / Australian style of PhD study. Practices vary in the US, Europe and elsewhere but I am confident that most, if not all, of what I have to say will be relevant to PhD students everywhere because it addresses the self directed parts of PhD study, such as the writing of the thesis or dissertation.

This book is intentionally short, around 25,000 words. You have enough reading to do as it is. At time of writing the Thesis Whisperer blog contains a further 100,000 words of advice, some of it written by other PhD students. The blog is still active so that store of knowledge is increasing week by week. The comments provided by other PhD students and academics provide interesting extensions and counterpoints. I hope this companion volume will encourage you to explore the blog further.

## **Why do many people have trouble finishing a PhD?**

It is often assumed that PhD students only have themselves to blame for poor completion times and high drop out rates. In my view PhD students are unfairly criticized; often called 'poor communicators', 'abstract thinkers', 'slow writers' or 'bad project managers'. A lot of this is rubbish of course, but the attrition numbers don't lie. Up to one third of those who start their PhD will never finish. It is clear that PhD study is difficult and many students experience a raft of problems along the way, from failed experiments to problems with writing and poor supervision.

While many of the problems PhD students are actually problems with the system and academia more generally, the Thesis Whisperer blog wouldn't exist if PhD students didn't face some common issues. I believe it is the outstanding talents that so many PhD students possess which get them into trouble.

It's true that the things we are good at can cause the biggest problems we encounter in life. My friend Colleen worked at a fast food chain as a teenager and was always the one who tasked with mopping the floor at the end of a shift. This was the hardest, nastiest clean up job, which everyone else avoided. When she finally complained to her manager about the constant mopping he replied: "Of course you end up mopping the floor. What do you expect? You're really good at it". There's some wisdom in only being good at the things which you enjoy doing in the workplace!

I like to think about the problems caused by our talents as our own personal Dark Side. As Yoda cautioned Luke Skywalker during the Star Wars Trilogy:

*"Fear is the path to the dark side. Fear leads to anger. Anger leads to hate. Hate leads to suffering."*

What Yoda was saying is our natural reactions to events, like fear or anger, if not channeled appropriately, can have unintended consequences. Fallout from your talents can smack you upside your head when you aren't looking. We can even fall into large pools of molten lava if we aren't careful.

For example, good researchers are very curious people: they want to KNOW stuff. But to write a thesis you have to learn to channel your curiosity in productively narrow ways. Many students and academics (including myself) find this hard. Curiosity, once unleashed, can be relentless. A person who can't finish their literature review might have a curiosity problem, not a project management problem. They can barely finish reading a paper because they want to dive off in all the other exciting references and directions it suggests. Stopping long enough to write it down is a struggle.

Likewise a person who never finishes chapters on time might have an intelligence problem, not a writing problem. PhD students get used to using their intelligence to analyse arguments and look for flaws. The dark side of intelligence creeps in when you start to turn this analytical power onto your own arguments and ideas and find them wanting. A person with an intelligence problem may never think their work is good enough to hand in to the examiner.

Of course part of the process of becoming a scholar is learning how to analyse the strengths and weaknesses of your work. But there's a difference between trying to do good quality work and cutting your own head off with your scholarly light sabre. One

of the things I like to do with my students us to give them a series of standard critical thinking questions adapted from Browne and Keeleys' "Asking the Right Questions: A Guide to Critical Thinking"

- • What is the argument about and what is being claimed?
- • What are the reasons given to support the conclusion? Is the reasoning flawed in anyway?
- • What kind of evidence is being presented (i.e. intuition, appeals to authority, observation, case studies, research studies, analogies, etc) and how good is it?
- • What other explanations might be plausible than that offered?
- • Is the conclusion provided the most reasonable? Can you identify alternatives?

Give it a try. You will quickly realise that these critical thinking tools, when they are ruthlessly employed, destroy anything in their path.

So how do we conquer the dark side? I'm with Yoda on this one - remember that your reactions to the stresses of scholarly life, while natural, are not inevitable and should be examined closely. Understanding that your writing can never be flawless can be strangely liberating. Disagreement and debate is the live blood of academia. There is no way you can be immune to criticism; all you can do is accept it and move on. While we should hold ourselves to high standards, none of us can be perfect all the time. There is no such thing as 'the best' thesis - only good and bad ones.

## **The role of emotions in PhD Study**

Some time ago there was an interesting Thought catalogue blog post entitled "Five emotions invented by the Internet" which made me laugh so hard I snorted the coffee right out of my nose and onto my computer screen. This one was my favourite:

*The state of being 'installed' at a computer or laptop for an extended period of time without purpose, characterized by a blurry, formless anxiety undercut with something hard like desperation*

Who hasn't felt this way when working to deadline but unable to overcome the urge to check email / twitterfeed / facebook / google scholar or whatever? Since there's something wonderful about discovering others share your own nameless fears and anxieties I started to wonder: what new emotions does a PhD make possible? I decided to test this idea by talking to my PhD student twitter followers. I started by making up my own PhD emotions and sending them out as tweets like so:

*Irrational feelings of love for academics you have never met because their work helps you in unexpected ways #phdemotions*

For those of you not into twitter, the hashtag (#) enables users to make a 'conversation'. Anyone who included the #tag allows their tweets to be read as part of the same 'thread'. As I hoped, other people followed my lead and started to post their own #phdemotions and a minor meme developed. Later I nerded out and did a content analysis of sorts to see if I could develop a PhD 'mood-o-meter' from all this twitter action (aren't you lucky my employer pays me to do this sort of stuff?).

There ended up being 130 tweets containing either #phdemotion or #phdemotions from the Friday I started the experiment to the following Tuesday. After massaging similar ones together I counted a total of 71 distinct emotional states. If a person really liked the #phdemotion someone else came up with they could retweet it (add it to their 'stream' for others to read) or @mention it (have a conversation with someone else about it). I counted these as a multiplier, which enabled me to make a league table of new emotions. Using these scientific (ahem) measures for popularity, here are the top 5 emotions made possible by doing a PhD (at least, as determined by PhD students who happened to be on Twitter between the 14th and 18th of January 2011):

**1. 1. Elation when you realise you know more than your supervisor about your topic and you feel brave enough to argue about it**

This was an amalgam of tweets by @scientistmags, @soilduck @choloe\_kitten. It's not that surprising that this is the most recognised emotion since 'scholarly independence' is meant to be the goal of PhD study. I was happy that a slightly more positive emotion came out on top

**1. 2. Fear of being 'found out' as fraud, not really knowing enough/being smart enough to be Phd student (by @boredpostdoc)**

Otherwise known as 'the impostor syndrome' and related to the 'Dunning-Kruger effect', this emotion is the result of a demonstrable psychological phenomenon. Put simply, as the old cliché goes: "The more you know, the more you know what you don't know". As well as possibly being related to self-esteem and perfectionism, this emotion could be the by product of the nature and intensity of PhD study itself. PhD students, knowing as much as they do about a subject, are more likely to be aware of the possibility they don't know everything than anyone else.

**1. 3. Unexpected admiration of your own writing**

This feeling happens to me sometimes while editing my own work. Apparently it resonates with others too. As @orientalhotel remarked: "That was me yesterday reading my own chapter and thinking, 'yeah good point self'". Usually it applies

to text you wrote a year or so ago when you didn't know as much (see above).

1. 4. **The "I'm a genius! Why hasn't anybody thought to do that before?" moment before people point out the obscure paper you've not read**

This emotion surely captures the essence of the PhD emotion roller coaster. Closely related to the emotions described by @wolowic who commented: "experiencing the manic tidal waves of success and complete failure. good & bad stuff happens unbelievably close together!"

1. 5. **Misplaced smugness after photocopying/downloading loads of stuff but not actually reading it (by @orientalhotel)**

Or as I call it 'Obsessive Article Collecting' syndrome (OACS). This one got a fair bit of discussion, mostly of the 'me too!' variety.

If you have experienced any of these emotions rest assured that you are not alone. Of the list above the only really toxic one is the impostor syndrome. Healthy self-doubt keeps us sharp, but don't let it steal your confidence.

## Limiting Self Beliefs

Problems with the system extend beyond the academy and into those ideas about the PhD we pick up from popular culture. Have you ever had that moment at a social function where a relative or friend says: "Wow - you're so smart. I could never do a PhD!" I don't know about you, but the internal dialogue that would inevitably start up in my head would go something like this:

*Yes. I AM smart. It's about bloody time Uncle Tim noticed that... But hang on a second Inger. Are you as smart as John? He gave a great presentation the other day didn't he? He's only been doing his PhD for half a year. I have to graduate next year and I clearly haven't read as much as him - or understood it as well. Shit!*

*Calm down woman. You know you can write really, really well. Everything will be ooh-kay. Breathe.... But maybe writing well is not enough? Maybe the examiners will see through my act?*

*Oh God! I need another slice of cheese cake.*

If we are to believe the management and self-empowerment literature, how we think about the world determines our actions in it. Limiting self-beliefs can stop you

from achieving your goals (in my case it explains why I gained 17kgs while studying!). Obviously I finished my PhD despite these limiting self-beliefs and most people do; you can talk yourself out of them if you try. The more damaging Limiting Beliefs are the ones that lie 'out there' - by which I mean in academic circles and in popular culture.

Here are five beliefs about the PhD that I encounter time and time again in my work. Because they don't come from inside you, it's easier to be trapped into believing they are true. Are any of these lurking in your head?

### **Only the smartest people can do a PhD**

One of my favourite TV shows is the Big Bang Theory featuring three PhD and one Masters graduate as main characters. Most of the humour comes from the premise that, although the boys are super smart and endearingly quirky, they don't have much common sense. Shows like this reinforce the myth that people with PhDs are so intelligent that they are somehow alien from the rest of us mortals.

Sadly we only have to look around our own faculties and departments to know this isn't true. Success in academia depends on more than 'smarts'. Sometimes it is as basic as being in the right place at the right time or managing your professional networks well. I have seen highly intelligent people fall by the wayside because they got sick of the slog and were smart enough to realise they could make gazillions outside of academia.

### **I've always been a great student. PhD? No problem!**

Success in undergraduate study does not guarantee success in research degree study. A lot of people refuse to believe me when I make this grand statement in workshops, but it's true (refer to any paper or book by US scholar Barbara Lovitts if you don't believe me). Most scholars have come to the conclusion that a complex mix of social and psychological factors account for persistence and resilience in PhD study. Success in undergraduate study usually comes from following rules and passing exams, which don't teach you to be creative or innovative - or develop your emotional maturity. The upside is that you have probably acquired these skills elsewhere: in your professional working life, from hobbies, from parenting and so on. People who come to a PhD later in life often benefit hugely from this 'other' knowledge.

### **My supervisor is the foremost expert in his field. I can't lose.**

How do I say this and not get sued? A great researcher is not always a great supervisor. If someone is at the top of their field they are probably going to be too busy to spend heaps of time reading your work - or soothing your fears. I've even heard of supervisors who have deliberately delayed their students' studies in order to get more results out of them. The good thing about being in academia is that there are many ways to access the knowledge of these 'stars' without having to be in close orbit. You can read their papers, meet them at conferences or email them questions. If you are lucky they might peer review one of your journal papers. Stars are great examiners because if they like your work they are in a position to help you with your career. So don't worry if your supervisor is not a star. Do worry if they are inexperienced - but I'll get to that later on.

### **Writing a dissertation is just like writing a book - yes?**

No. Popular non-fiction draws the reader into another world; it doesn't spend time convincing the reader how smart the author is. A thesis is a peculiar kind of document; one which is meant to demonstrate your scholarly competence, not to entertain. Pick up any popular science or history book and you will see the difference immediately. Gone are the brackets containing references. Gone are phrases like "The literature suggests..." Even academic books are an unhelpful frame of reference; it's rare for an academic book to contain a whole chapter dedicated to methodology for example. Besides, thinking you have to produce the definitive tome on some subject or other is daunting. Better writing models for your thesis can be found by reading journal papers in your area. By all means write a book - but later, when you can put (PhD) after your name on the cover.

### **I've never heard of anyone failing their PhD, therefore it can't happen.**

I'm not sure about the US, but you can fail your PhD in Australia and the UK. It only happens to a vanishingly small percentage of people so it's unlikely to happen to you (especially if you are the kind of student who bothers to read this book!). At our institution the majority of students have to make changes before they can pass and up to 5% of people have to do major revisions, or even be re-examined. This can mean up to a year of extra study with all the hassle and pain that suggests.

Be vigilant about these self-limiting beliefs and never assume that 'what everyone knows' is necessarily true, or true for you.

## **Finding the right topic**

It surprises many people who haven't done a PhD that it can be hard to know what your topic really is. When you first start a PhD your ideas can shift around a lot; it may seem like from week to week you change your mind. Over time you would hope this situation would settle down, but I meet many people who have two or more topics struggling to be in the same thesis, right up to the last minute.

I call this the Incredible Hulk Complex: too much man, too little shirt (your poor thesis text is the shirt in this metaphor by the way). I am no stranger to the Incredible Hulk complex. I originally got into a PhD program proposing that I would investigate the use of genetic algorithms in architectural design. I ended up looking at how architects use gesture as they are designing together.

It was hard to let go of all the interests that I had but, to paraphrase what a J.R.R Tolkien once wrote, there can be only One ~~Ring~~ Topic. Only one Topic can rule them all, find them, bring them all and in the darkness bind them. My supervisor gets the credit for convincing me to do work on gesture - and he has my undying thanks. How do you know when you have the One Topic? Here's how I knew:

### **I found there was substantial work in the area already**

This may run counter to the idea that a thesis has to be an 'original contribution to knowledge', but there's doable-original and too-original. If some work in the area exists already you have something to hold onto, examine and critique if necessary. When I decided to look at gesture I naively thought there wouldn't be much work on it - how wrong was I! There was about 200 years of research in the area of gesture already. I found this demoralising until I realised that only about 3 people had looked at architects and none had looked at education in the same way I was - a nice little gap was still left for me to squeeze into.

### **I thought it was fascinating**

Gesture is a compulsive thing - you can't help doing it. When you think about it as you do it, it becomes really hard to talk. Give it a try and you'll see what I mean. Did you know that even blind people gesture? They gesture when they are on the phone - to other blind people! If we gesture to communicate with others, why would blind people do it? Obviously I still find gesture mysterious and fascinating, even after three years of looking at it. This curiosity and desire to know kept me going. When all else looked bleak and I was slamming doors in my house in a fit of PhD rage I could always return to and draw from this well of curiosity. I really don't think I could have finished without this thirst to know. I know that sounds dorky, but that's how it was.

### **Other people said "wow - what a great topic" when I told them**

Apart from one of the mothers at my son's school who said with genuine disbelief "What the hell would you want to study that for!?" everyone else I talked to about my topic found it interesting. Especially (and this is the most important thing) all the architecture academics in my faculty, my home university and at conferences I went to. Since academics found it interesting they would remember that I was doing it and send me articles. Lots of people would come to my seminars when I had work to present. I got a lot of help from others, I think because they genuinely wanted to know what I would find out.

### **It wasn't too hot**

Genetic algorithms in architecture used to be HOT. Who remembers that now? God - so early 2000's... Gesture however is timeless. Others may dispute my findings, build on my work, dismiss it, but it will always be part of the discourse. Of course, it is impossible for every topic to be timeless. Scientists in particular know it is highly unlikely their work will be relevant for more than 3 years. If it can't be timeless it is good to work in a field that has the potential develop further, so you can still be a part of it as it moves on.

### **It had clear limits**

This point relates back to point one. Since there was work in the field already there were pre-existing boundaries to the work I could do and stay 'original'. Since I decided to focus on a location (gesture in architectural education) there was a lot that didn't have to make it in to the thesis. The topic acted like a sieve, which only certain

things passed through.

## **What is a thesis or dissertation?**

We can learn a lot about the problems of writing a PhD thesis or dissertation from studying the medieval origins of doctoral study. One book I particularly like is William Clark's "Academic charisma and the origins of the research University". It's an excellent book, but odd and self-consciously post-modern and therefore hard to read. Most PhD students would never bother, which is a pity because it lays out a fascinating argument about doctoral scholars and how they became progressively 'disembodied' into text. Clark's book provides a useful way to think about becoming a doctor because it explains (I think) some of the oddities of the thesis/dissertation process and emphasises the importance of authorship.

In a nutshell, Clark's argument is that back in the day (around 500 years ago) if you wanted to be a Doctor (in a Western Europe context) all you had to do was know everything. Luckily this was relatively easy because back then people believed that everything there was to know was written in the Bible. The Bible was the official canon of knowledge; in order to graduate to doctor-hood you studied it closely for a long period of time and then took part in a public process called the 'disputation'.

Basically the disputation was an academic performance piece that acted as a rite of passage – the only one we have left today is the graduation ceremony. Clark calls the Disputation a 'knowledge joust': the student stood up in public and defended the canon of knowledge in the Bible against a series of 'unorthodox' suggestions. The suggestions usually came from a crowd of your peers (who had been appropriately clued up about the kind of unorthodox suggestions you had answers for - probably over a pint of mead or two in the local pub). Your teacher stood behind you while you fielded the 'heterodoxy' from the crowd and refuted it with Syllogistic logic. Seated around the sides of the rooms were professors and even local nobles who were the official witnesses to the event. These people decided if your performance in this academic punching match meant you were worthy to become doctor.

So becoming doctor used to be a thoroughly fleshy affair in which you demonstrated your scholarly capabilities in public and in person. But with the invention of the printing press everything began to change. Clark takes some 300 pages to explain how the disputation system, which relied on speaking received knowledge in public, changed to the circulation of papers. This circulation took place in private because the text started to be written for a select group of scholars (the disciplines) instead of for all scholars.

The text started to embody the scholar; it became the authorised way to speak knowledge. I like to think about the text in terms of the movie Avatar - a movie I happened to like despite all the criticisms (mostly because of Sigourney Weaver - what's not to love?!). A thesis text is like an avatar. It 'stands in' for your scholarly self and 'speaks' your knowledge and capability as a scholar to the reader / examiner when

you aren't there. The examiner, as the most important reader, is like the witnesses to the old disputation; they decide if your text avatar is good enough at speaking knowledge to be considered a doctor.

Your scholarly capabilities must be translated into the medium of text. This is not an easy feat. As Sam Worthington discovered, things are different when you become an avatar. You have different capabilities because you take a different form; you both gain and lose in this transformation.

Before you think I have gone off into post modernist la-la-land, this transformation has some practical implications. For one thing texts say lots of things but they are really mute. Think about the examiner in the act of reading your text - they may come across something they think is wrong or something they disagree with. They may well wonder aloud why you haven't done something, or said something. They may want to ask you if you understand some nuance or other. But unless you have thought of this possibility beforehand - and put it in the text - there will be no answer. You are only a ghostly presence in your text avatar. It has to speak *for* you.

This is why it's important that the thesis text is very, very good. Or as I like to think about it: big, blue, strong and sexy.

## **The dead hand of the thesis genre**

There are many conventions about how a thesis should be structured and formatted. These vary slightly, but not as much as you may expect, over disciplines. There are plenty of books to give you advice on these standard formats so I am not going to labour too much here (a good primer is “How to write a better thesis” by Evans, Gruba and Zobel).<sup>1</sup>

While the conventions are laid out in detail in these books, there is little to no discussion of their effects on the writer – you. As with any convention, what starts off as a good idea becomes stifling when it is applied too zealously. Many students do not lack the skills or knowledge to write a document in the conventional way but many find they suffer under what we like to call in my workplace the ‘dead hand of the thesis genre’.

There are two dead hands actually: conventional thesis structure, known as the 'IMRAD' formula (introduction - methods - results - discussion), and a certain kind of 'scholarly style of language': mannered, distancing, defensive and lacking the personal pronoun ('I').

Maybe it is unfair for us to call it the dead hand of the thesis genre, because there are certainly a few disciplines where the IMRAD structure and scholarly language of the distancing variety are a pair of warm and lively hands which help you to get the job done. This is because there is a deep and abiding connection between this conventional way of doing a thesis and the scientific method. The IMRAD formula follows the experimental method cycles and the language is designed to present the results as facts, which exist apart from the researcher.

In the scientific method the questions are raised before the experiments designed

to answer them. Sure fresh questions will probably emerge as the scientific work progresses, but always to drive a new cycle of research. In other disciplines, this is not the case. Research questions may not be known in advance or may change substantially during the research - they may only emerge clearly at the very end. There will not necessarily be experiments to generate data, but observations, interviews, painting, the making of car engines and so on.

There are many different ways of making knowledge where ideas, data and arguments are unlikely to fit easily into the conventional thesis formula - yet some students feel compelled to torture them until they do. You may not set out to replicate this type of conventional thesis and still find that the dead hand is resting upon you because you freeze up when you try to write something 'real' - not jottings in a notebook.

At my university we get three other kinds of thesis that do not follow the IMRAD formula: the 'big book thesis' (common to history and social sciences), the 'bunch of papers' (a collection of published articles, becoming popular in the sciences) and the creative exegesis (text accompanying art and design projects). When there is this variety, why has the IMRAD formula, so necessary in the sciences, come to haunt the rest of us?

There's a good discussion of this issue in an article called "Thesis and dissertation writing: an examination of published advice and actual practice" by Brian Paltridge who examined some 30 finished PhDs to see how closely they aligned with the type of advice given in the 'how to do a PhD' books. The findings were preliminary as the sample set was small, but I think the observations were interesting nonetheless.

Paltridge starts by analysing a range of texts available on the subject of thesis and dissertation writing. He includes some classics, such as Phillips & Pugh's "How to get a PhD", through to the eternally useful "How to write a thesis" by Evans and Gruba as well as some less well known ones. Paltridge found these books vary as to the amount of advice that they give on the overall organisation of a thesis, but all are light on when it comes to suggestions about structure. Some of the less useful ones devote as little as 3 pages to the issue.

Paltridge claims that most authors, when they do discuss structure, tend to outline the 'IMRAD' formula in simple or more complex forms. Virtually none of the 'how to' books provided advice on other ways of structuring a thesis, most likely because the author is trying to address multiple disciplines. The 'how to' genre needs to be read with this issue front of mind; more specific advice will often be needed. Hopefully your supervisor will be in a position to provide this.

While there are some books that talk explicitly about structure (one of my favourites is "Authoring a PhD" by Patrick Dunleavy who writes advice specifically for the 'big book' thesis writers) they are few and far between, perhaps because publishers worry they won't sell enough. The fall back advice is to look to examples of passed theses for models for your thesis. While this can be useful, I would add the caveat that the authors of these finished theses or dissertations would revise them given half the chance - I know I would.

So if you find yourself being pressed under the dead hand of the thesis genre remember that the summary judgment of your thesis by the examiner will be made on how well your thesis 'sings the song' of the content within it. Your job is to make that

song lively, not a funeral dirge.

## **How to Fail your PhD**

In Australia most theses are examined through blind peer review. Other countries have different ways of doing examination, but in every system judgment of any PhD is the job of a small group of experts. This is an assessment process unlike any other in academe and it pays to be familiar with it.

You'll be pleased to know that people have spent time studying how examiners read a thesis and what sort of document they expect you to deliver. The seminal paper is "It's a PhD, not a Nobel Prize: how experienced examiners assess research theses" by Gerry Mullins and Margaret Kiley. I consider this paper required reading for every research student, regardless of their location or discipline. There's a lot I could say about this paper. In fact I have been talking about this paper for about 5 years in one of my On Track Workshops "What do examiners really want?" where I spend two hours examining it in detail.

As you can imagine this is one of our more popular sessions, but I must admit I'm beginning to feel like one of those aged rock stars. Although the audience expects it, I don't want to sing a straight version of my hit wonder from the 1980s. I want to sing songs from my new album. So here I turn around my normal presentation of the paper. If Mullins and Kiley are right about how examiners examine - what are 5 things you could do if you really wanted to fail (or at least be asked to do major revisions)?

### **Don't talk to your supervisor about the examination**

I am located in the School of Graduate Research. We are the unit at RMIT University who manage the examination process, so I get to read a lot of examiner reports and see the occasional complaint go by. By far and away the most common complaint is that the examiner didn't understand what the student was trying to do. Usually this means there's some kind of disagreement about method and how the student has handled (or not) validity, reliability and so on.

You don't have to know exactly who the examiners are, but you do need to know if the supervisor is thinking about the right kinds of people. There aren't too many academics that are truly broadminded. It's best if you have someone who will be sympathetic to your methodology.

Sometimes supervisors take the confidential nature of the examination process seriously and may brush off your attempts to have a conversation about what sort of people they have in mind. However most universities, including ours, include an option for you to send a list of people who would **not** be appropriate. In my opinion every student should send a list of inappropriate people to their supervisor - if only for the record.

Just in case ok? Humour me

### **Send your thesis to someone who has never examined a thesis before**

Mullins and Kiley found that even more than methodological orientation, the amount of experience the examiner has matters in the way they come to a judgment. This probably makes sense to those of you who teach. Young teachers tend to have high expectations because they haven't had time to see the full range of student ability. The longer you teach, the more forgiving you become because for every new student you encounter, you have probably seen another who was worse. Some people can be nervous about sending their thesis to the world's expert in \*blah\*, but they are exactly the sort of people you should be aiming for.

### **Write your introduction first**

One of the most interesting and useful observations Mullins and Kiley made is that most examiners don't read your thesis like it's a novel - starting at the beginning and reading through to the end. Shocked? I was the first time I read this, but then I reflected on the last academic book I read from start to finish... and I couldn't think of one. Academic texts are dense, difficult, cumbersome beings at the best of times and a thesis is even worse.

Most examiners read the abstract, introduction and the conclusion to see what the work is about and then look in the references, so you should write these last - or rather rewrite them at the end. Any questions you raise in the introduction should be answered in the conclusion. If these parts act as righteous 'bookends' the examiner will form a better impression of you as a scholar - and is likely to be more forgiving of you if you slip up a bit in the middle parts.

### **Write a bad literature review**

Oh boy. Where do I start? There are so many ways to write a bad literature review that it deserves a few posts on its own. The literature review is the nice party frock of your thesis. If the examiner sees that you have chosen the right frock for the occasion they are more likely to want to have a drink with you. It goes without saying your frock should be freshly ironed and have no stains on it - even better if it matches your handbag and shoes.

The kind of dress you think is appropriate is up to you, but I think you can't go wrong with a little black dress (LBD). In thesis land the LBD is a simple, but competent run through of the major authors with a thread of an argument running through the whole. The argument should be connected to why you are bothering to do the study. It's up to you of course, you can be more daring, but I would stop short of trying to be Lady Gaga.

### **Don't let anyone else do your copy-editing**

Mullins and Kiley note that across all disciplines examiners report being put off by 'sloppiness'. Yep - typos, missed footnotes, badly formatted bibliographies and so on. Those of you writing in a different language don't need to fret too much, there's evidence to suggest that examiners accommodate idiosyncratic grammar more than plain mess. I'm not sure how much it costs to get a copy editor - but most universities will allow you to employ one under certain guidelines. If not, do a lot of favours for a grammar enabled friend and ask them to perform the duty for you. It's hard to see the mistakes in your own work on the 700th read.

## How to cook up ideas

A PhD thesis or dissertation is supposed to make a "significant and original contribution to knowledge". This can create a lot of angst amongst research students, partly because originality is often defined, but rarely talked about in actionable ways.

In "How to get a PhD", Phillips and Pugh set out 16 ways to be original (page 62 of the current edition if you are interested), but don't say anything at all about how to come up with the original ideas in the first place. Similarly "Doctorates Downunder", edited by Evans and Denholm, has chapters full of useful suggestions for managing your time and enriching your study experience that may increase your chances of finishing your doctorate, they do not really help you become original.

Don't get me wrong - it is good to know what originality *means* in relation to doing a PhD, but it's far better to know what you have to *do* to produce enough original and novel ideas to fill a thesis. The reason why so many books avoid this topic, perhaps rightly so, is that creativity is assumed to be a disciplinary issue or an individual matter. Either you know enough about your subject to see the way to produce novel ideas, or you are naturally a creative person who will come up with them anyway. But is this really the case? Are there actions you can take that can help you come up with more ideas and solutions to research problems - regardless of discipline?

You may have figured out by now that I have a fascination with the issue of creativity in research - how it happens, how to promote it and how to think about it. This is why I enjoyed reading a paper that attempts to measure social interconnectedness and the relationship with ideas generation called "Social origins of good ideas" by Ronald Burt.<sup>2</sup> Burt explored the production and uptake of good ideas in a supply chain logistics company by exploring the nature of discussion networks amongst managers. He found that the network in the company was characterised by a 'bridge and cluster' formation. Most people discussed ideas with their immediate work colleagues (within clusters) but relatively few people would act as 'bridgers' and talk to colleagues across clusters.

Managers who had a diverse social network, ie: those who 'bridged' between clusters of smaller discussion networks were "at risk of having more good ideas". He supports this argument by a whole bunch of numbers that seem pretty convincing to me. Although I could probably drive a truck through this method on the grounds that he doesn't really into account physical objects and locations and how they affect social relationships, or give much attention to how generalisable this knowledge is, given that a logistics company is bound to have some unique constraints, I think the findings are interesting nonetheless.

The hypothesis that lies behind this work is that, within a discussion cluster, information, beliefs and behaviours tend to become more homogenous over time. This is certainly a phenomenon one sees if they work for any period of time in the same

office or live in a family group. Burt's key argument is that 'bridgers' discuss ideas with a wide range of people, not just the ones closest to hand. As a consequence they are more likely to be exposed to contradictory ideas and alternative practices. If these bridgers are astute and thoughtful, they can see ways to transfer or combine ideas and approaches from elsewhere to their own problems.

In effect, Burt claims, "Creativity is an import export business". A mundane idea in one area can be a spectacular one in another because the recipient determines the value of the idea, not the person who thinks it up. Burt argues that: "the certain path to being creative is to find a constituency more ignorant than yourself" and notes that this is a common tactic in academia (!)

Here's where it gets interesting for you. Think about it for a moment: what do you spend most of your time on while doing your PhD? Probably doing experiments, making stuff (or whatever it is you do) and/or reading the work of others. Hopefully you will also be hanging out with your peers and talking to your supervisors.

These are good ways of generating ideas, but could you be doing more? Administrators and academics in my university constantly complain that it's hard to convince PhD students to attend lunchtime seminars put on by other researchers. When I was doing my PhD it always seemed like a waste of time to break my flow and attend such events unless I knew the person who was presenting, or the topic of the seminar seemed especially relevant. I always assumed that the discussion was unlikely to have any direct relevance - but what about indirect relevance? Might I have missed out on many opportunities to cross breed exciting new idea hybrids?

So I will finish with some questions for us to ponder. How can you create an ideas 'import export' business? How much time do you spend in discussion about ideas with others? Who are they? Do you need to find more people who will expose you to different ways of thinking and doing? Since no one likes a free loader, what might people in these other areas learn from you?

## **Taming the Literature Dragon**

The literature review is the thesis component that gives you the most scope to demonstrate your mad skills of scholarly warfare. Being able to write a killer literature review is important because it 'sells' your academic competence to examiners and other readers.

The literature review receives a lot of attention in the how-to-do-a-PhD books. The key point they all make is that the lit review must be more than a list of things you read – it has to have an argument and a point of view. There's no shortage of good advice out there, such as this excellent list of 'literature moves' out of my favourite book on PhD writing, "[Helping doctoral students to write](#)":

1. 1. Sketch out the nature of the field relevant to the inquiry – including history if relevant and

2. 2. Identify major debates and define terms, in order to
3. 3. Establish which studies, ideas and/or methods are most pertinent to your study, and
4. 4. Locate gaps in the field, in order to
5. 5. Create a warrant for the study in question, and
6. 6. Identify the contribution the study might make

But there's a gap between this kind of style advice and the actual mechanics of analysing and organising the raw material of your literature review. I'm talking about getting to grips with all those journal articles people. You have rather a lot of them don't you? How are you going to 'identify major debates' and decide which are the 'right' studies to draw on in all that mess?

As I see it, there are two basic techniques for developing a literature review from a given set of references. You must work at forming critical judgment on the literature by reading it, at the same time as you work on finding patterns in the mess of information. It's important to realise that these patterns are not 'real' – you make them by sorting and presenting the information in particular ways. This sorting process makes the raw information *legible* so that you can start to write an argument from it.

This is more than a filing problem. If you are anything like me you have a massive pile of journal articles on your desk. The neat freaks amongst you will have them all printed out and filed in alphabetized binders. Some of the more technical minded amongst you will probably be using something like Mendeley or even – ahem – Endnote. These tools help you find stuff when you want it, but they don't do the intellectual heavy lifting for you.

There are many different techniques you can use to massage meaning out of your information mess, but there's only room here for one. It comes from the seminal book 'Information Anxiety' by Richard Saul Wurzman. Yes, you heard right – Wurzman is the creator of the TED talks (good pedigree I think!). Wurzman argues that there are only 5 ways to organise information, which he calls LATCH: **L**ocation, **A**lphabet, **T**ime, **C**ategory and **H**ierarchy. These organising principles can be used to perform simple operations on the material you have. Here are some ideas.

### **Location**

All scholars are 'located' somehow. Sometimes geography matters – think of the famous 'Chicago school' in social science. But we can think about location in more abstract ways – such as a 'location' of a scholar within a discipline. Some scholars will be 'fringe' and others will be 'main actors'; some people will be 'theoretical' and others will be 'practical'; some people will care about history, others will not – and so on.

Make a table in word and arrange the authors according to different 'locations'. This is a good way of choosing which authors you can use to illustrate the dimensions of each debate. It's easy to compare and contrast their ideas with each other because you have identified oppositions.

### **Alphabet**

Of course alphabet is essential to organising your bibliography! I can't think of another good use for alphabetical in a literature review, so I'll pass over this one for my favourite:

### **Time**

Simple genius. Take all the references and lay them out on the floor in order of their publishing date from left to right (or whichever way your culture prefers to do it). Skim read them all again in order – what do you notice?

Fashions will have come and gone; ideas will have grown and died. This is a really good way of interrogating underlying assumptions in a body of literature and how they have developed. Indeed you may discover that 'facts' presented by subsequent authors are merely 'ideas' which have grown pretensions by being repeated by subsequent authors, who haven't done due diligence like you have.

### **Category**

I call this the 'colour by numbers' technique and use it often as a quick and dirty method of squeezing sense out of the literature. Basically you can develop categories about almost any idea or theme you read about. A good way to come up with themes is to visualise them in a spider diagram. Once you have identified the categories they can act as subheadings in your literature chapter. Simply make a list of which authors fit in which categories; don't worry if some of them occupy multiple categories – that can be solved with:

### **Hierarchy**

I find this organisational principle is really a 'meta' device – a way of criticising information you have already sorted using one of the other methods, particularly the category method. You make a hierarchy by exerting critical judgment on each of your categories: is one school of thought or way of doing things described in the literature superior to the others? Is one idea more practical and useful than another idea – or more theoretically interesting and elegant? Why? If you have organised your information according to location and identified oppositions, you can use hierarchies to identify which side you are on in the various debates. As you write, you weave in the critical stance you have developed – but that's a topic for another time.

So that's a grab bag of techniques to tame your literature dragon – at the very least they give you something to do when you are stuck!

## **Why you might be Stuck**

In high school I had a history teacher who would talk about the second world war like he was a German soldier. At first his performance was funny. In his hands every victory by the allies became a loss; every weakness of the allies was celebrated and German losses were lamented.