

Getting Through a PhD

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To get a PhD you have to...

- find out what is needed.
- have the determination to carry it out.
- take responsibility for your progress.
- have a degree of single-mindedness.

What's Needed?

To get a PhD you must write a thesis (approx. 100-200 pages). It will be a unified body of work such as could reasonably be achieved on the basis of three year's postgraduate study and research and should:

- be **original**, making a significant contribution to knowledge or understanding in the field of study.
- contain material **worthy of publication**.
- **reflect a comprehensive appreciation** of relevant literature.
- **exercise critical judgement** with regard to both the candidate's work and others in the same general field.
- be **literate** with **adequate references**.

GOOD NEWS!!!

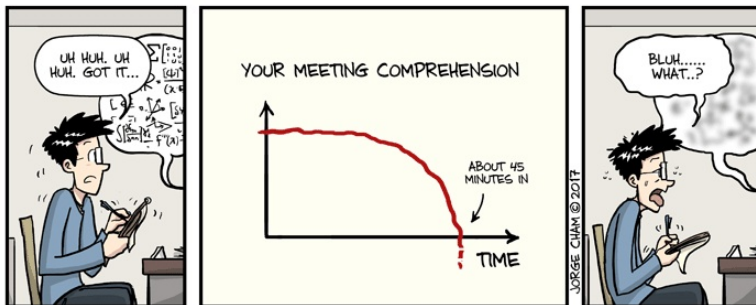
You do **NOT** have to make an enormous breakthrough which shakes the foundations of mathematics or statistics

Thesis assessment

- It will be read by **two** examiners appointed by the university one *internal* and one from another university. The internal examiner will not be your supervisor.
- There will be an oral **viva voce** examination (2-3 hours typically) in which you will have to defend the material in your thesis and show general knowledge of the work and its wider context.

Interacting with your supervisor

- Meet regularly.
- Prepare for your meetings - come to each meeting with:
 - List of topics to discuss.
 - Plan for what you hope to get out of the meeting.
 - Summary of what you have done since your last meeting.
 - Notes from your previous meetings.
- Always be honest about your progress.



Interacting with your supervisor – not yet done

- Always show your supervisor the results of your work as soon as possible.
- If you disagree with your supervisor, state your objections or concerns clearly and calmly



- Each of you will have a unique relationship with your supervisor.

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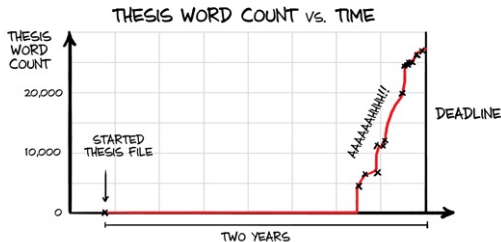
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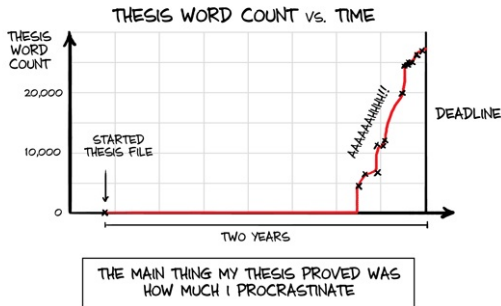
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THE MAIN THING MY THESIS PROVED WAS
HOW MUCH I PROCRASTINATE

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- Do not lose contact with your supervisor.

Active learners

You must make the transition from the passive mode of learning that traditional lecture courses encourage to an active and critical learning style. When you read a paper or listen to a research talk, ask yourself these questions:

- What was really going on there – what was the motivation for doing this work and what exactly was accomplished?

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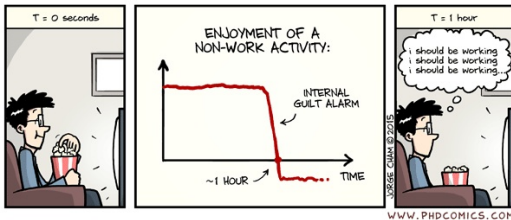
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- Can I use any of these techniques in my work?

Daily Life

- You need constant feedback. Discuss your research with anyone who will listen (even when they do not understand!).
- Explain your work to fellow students – if you cannot explain it there may be a reason...
- Explaining and writing down your ideas is the best way to debug them and can lead to new ideas.
- You will have to deal with isolation and loneliness - remember you are not alone - talk to people - you are part of a research community.
- You will have to deal with getting a good work-life balance.



Seminars and talks

- Regularly go to seminars, even if you think you won't understand the talk.
- Write down something about the talk, even if all you can write down is the general topic and the technique they used.
- You can also learn from the speaker's presentation style, what was good, (or bad!!).
- Ask questions

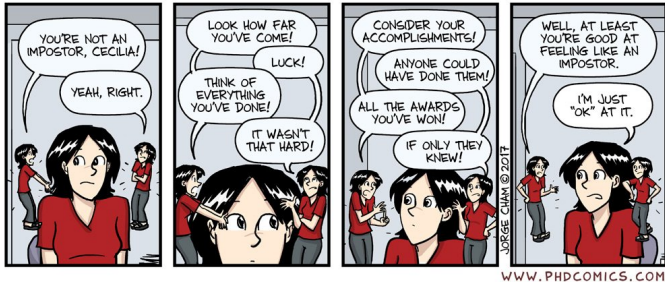


3-4 years go FAST

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- Make yourself comfortable with failing A LOT.
- Take advantage of all opportunities to build a research network/community.

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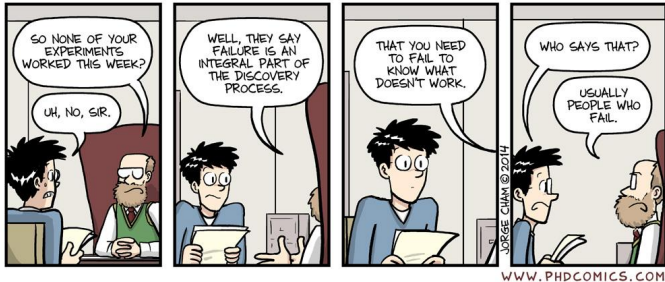
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So...

