



ARC Centre of Excellence for Gravitational Wave Discovery

Taking Charge of your PhD

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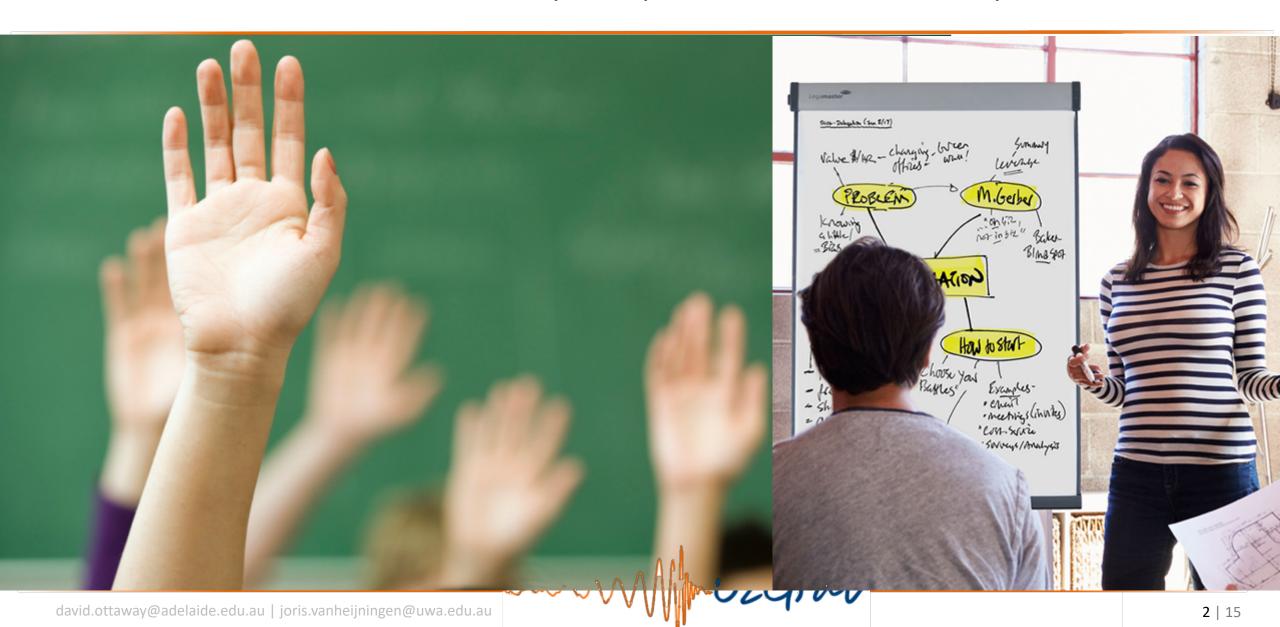








First of all, this workshop requires action from you!



Why do you need to take charge of your PhD?

The obvious reason: no one else is going to do it for you!

> You need a proactive attitude to get the most out of this unique period in your life and to make sure you realise your objectives.

➤ You need to define the scope of your research, expectations from both sides and clear 'go/no-go' points in time.

> You need to do it in a way that works for you, your supervisor and the rest of your research group.



What are we talking about today?

Definitions used throughout this session and Disclaimer



Goals, drivers and barriers in a PhD project

(Academic) Applications and Two-way communication



Time management and planning

Monitoring personal effectiveness and Your role in a research team



Mental health and supervision

How to document your research and Feedback

Definitions used throughout this session and disclaimer

Student \equiv you

Supervisor = professor/ chief investigator

Daily supervisor = postdoc/ staff scientist that helps you

Fellow students \equiv look around you

OzGrav is a collaborative effort of 6 universities which all have different support structures for their PhD programmes. As such, some discussions might feel repetitive or superfluous to you; they might not be to your neighbour.



NB. Everything <u>orange and underlined</u> is a link to stuff you could find helpful!

Goals, drivers and barriers in a PhD project



What are your goals?

What drives you?

What helps/stops you from reaching your goals?

How can you get more concrete?

snippet from an example job posting

What can you expect in future (academic) applications?

Find 'all' LSC Job posting here: https://wiki.ligo.org/LAAC/JobPostings (D. Shoemaker's emails link to this as well)

Knowledge, Skills and Experience

- 2. An established expertise and proven portfolio of research and/or relevant industrial experience within field X
- 4. Proven ability to publish in high-quality journals.
- 5. Knowledge and understanding of competitive research funding to be able to develop applications to funding bodies

Communication and Team Working

- 6. Proven ability in effective and persuasive communication
- 7. Ability to supervise the work of others to focus team efforts and motivate individuals

Other

- 8. Proven ability to demonstrate creativity, innovation and team-working within work
- 9. Proven ability to work without close supervision

Desirable Criteria

10. Evidence of ability to participate in and develop both internal and external networks and utilise them to enhance the research activities of the School.

Two way communication and preparing meetings

"[...] the adviser-student relationship has a big impact on completion time."

"After all, if your adviser is the world leader [..], he or she must excel at the seemingly simple task of advising [...] Sadly, that is not the case."

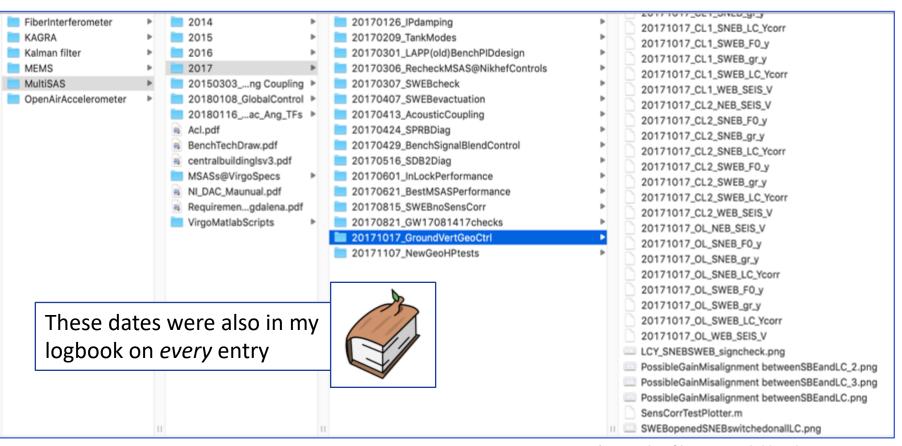
"In our experience, just scheduling the meeting isn't enough. You can't assume that your adviser hosts productive meetings or can intuit what you need to know."

Student when at supervisor meeting: ".... I have measured this and that and now we can move on"

How do you document your research?

".... I am sure I will remember that"

".... I wish I had documented that better"



You need to find a system that works for you!

(if you haven't already)

*example of how Joris did his documentation

Time management and planning



How can I plan something like research?

Go/no-go points and milestones

Cutting end goals into small bits

Flexibility is key for you not to miss out

Monitoring personal effectiveness



"Multitasking does not mean you do everything like crap"

"There is not one answer to this [...], but if you do not realize who you are, it's hard to be effective"

"What should I ask from in terms of support from the university? Because there is a lot of support..."

"Be meticulous in your work and be honest about *loose ends*"

Your role in a research team and visibility

"You need to do research. If you do not perform research, you will not get a PhD"

"Most scientific discoveries are done by teams." Use your supervisor(s)'(s) experience to help you perform your research.

"Make your work visible. Some of you are going to be brilliant at this. [..] You have to make sure you're all going to be visible somehow"

"When you go to a conference, you meet people and they meet you. Your next job is *gonna* come from something like that!"

Mental health and supervision



Mental health issues and where can you get help?

(<u>study</u> in Belgium, N=3659, found 1 in 3 PhD students "at risk of having or developing a common psychological disorder, especially depression. **Organizational policies** were significantly associated with the prevalence of mental health problems. Especially **work-family interface**, **job demands and job control**, **the supervisor's leadership style**, **team decision-making culture**, **and perception of a career outside academia** are linked to mental health problems.")

What can you expect from your supervisor?

What are typical supervision issues and and how to solve them?

Mentoring program within OzGrav*

Feedback and how to use/receive it best

"Listen to feedback, don't be defensive"

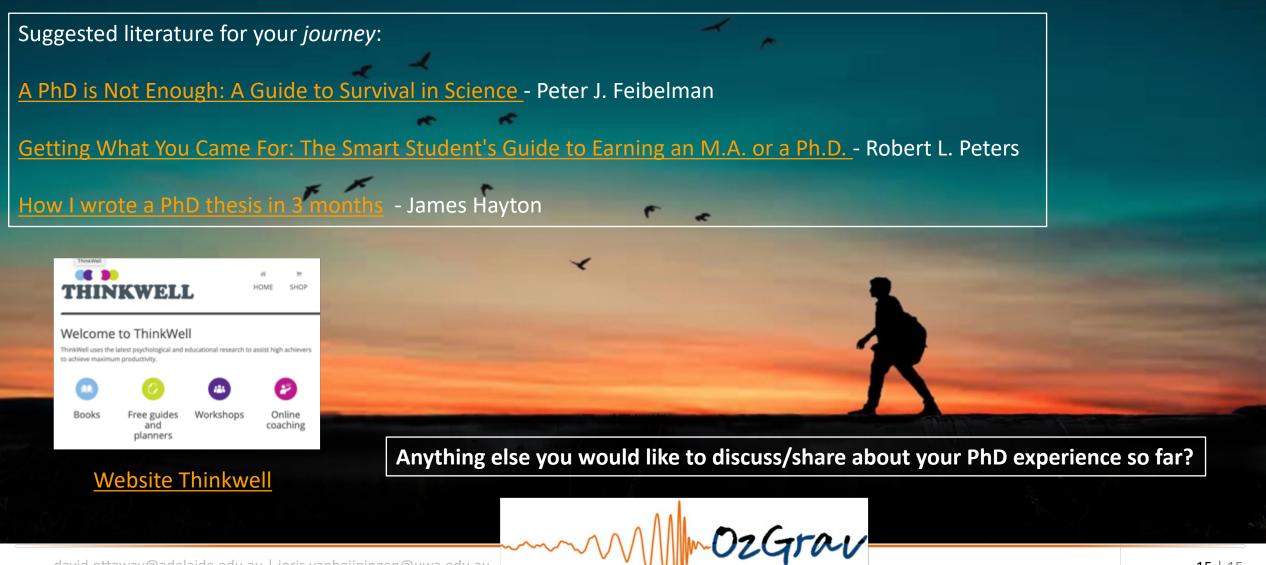
"[...], but maybe there's some truth in there. At least it tells you how others view you, which is really important for you"

When handing over your work, identify the type of feedback you are looking for. You might say, "This is an early draft, so I just want feedback on the overall direction," or "Please focus on the discussion on page six."

"... I wish I wrote down feedback I got"



Now go out and be effective researchers!



~OzGrav

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