Managing your PhD ... and some other things I wish I had known when I started

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My PhD experience
What is a successfully managed PhD?
Managing your time, organising and planning projects
Managing your supervisor
Thesis writing
Paper writing
Networking
Funding Opportunities
Job Applications
My PhD experience

Completed at UTas in 2010 July in 3.5 years to the day

My supervision was excellent

I wrote 3 MNRAS during my PhD

I worked on many other projects including large surveys

Spent 3 months traveling overseas

I was very involved in the Astronomical community (student schools, conferences, outreach..)

My PhD set me up to get the job that I wanted
Some good times...

A search for 22-GHz water masers within the giant molecular cloud associated with RCW 106

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What is a successfully managed PhD?

What do you think?

To me a successfully managed PhD is one that
- you finish (obviously)
- has placed you in a strong position to get the job you want
- you completed in a timeframe you are happy with
- was enjoyable
Managing your time

How you manage your time is up to you

- Be organised!!!! Use whatever works for you (toodledo, papers etc)
- know when deadlines are and work towards them
- don’t waste time
- don’t think time spent thinking is wasted
- write comprehensive notes in a systematic way (evernote is great for this)
- Remember that your time is important too and you don’t always have to say yes

Time out is important! Keep things in perspective
Is time management the key?

What do you think really dictates your productivity?

MOTIVATION

How do you stay motivated?

- Choose the right PhD project
- Choose supervisors well
- Meet with your supervisor regularly
- Have more than one thing on the go
- Enjoy time away without guilt

Is game management the key?

Managing your PhD, HWWS 2012 | Shari Breen
Managing projects

Generally I try to follow these steps

1) Determine where you want a project to end up and set goals to get there

2) Prioritise the most important stages (particularly proposals etc.)

4) Set yourself mini deadlines

5) Review progress regularly and adjust goals as necessary

6) Reward yourself for sticking to your plan
Managing your supervisor

Choose your supervisor well and make sure that your relationship works for you
  - If it isn’t then fix it early

Meet with them regularly

Have a ‘head’ supervisor

Trust and respect your supervisor but remember that you get a say too

Remember that it is YOUR PhD
Acquire the skills you need
Thesis writing

Just about everyone’s thesis takes longer than they expect
Your experience doesn’t have to be bad
Two simple factors meant that my experience was tolerable

1) I wrote papers as I went
2) I left myself enough time
Thesis writing tips

1) Be organised and keep notes

2) Work smart and hard throughout – saves you a lot of pain in the long run

3) Write papers as you go, if you write enough then your thesis is already mostly written. Also reduces examiner issues and helps you get jobs

4) Be aware of your University’s requirements and get formatting etc right from the beginning

5) There are a number of thesis style files on the web, use one if it works for you (I used Jamie Stevens’)

6) Don’t rewrite your literature review and introduction until the end. Make sure they set scene correctly for the thesis you end up with
7) Just because you started something during your PhD doesn’t mean it should end up in your thesis

8) Proofread it (and get others to help). Fix spelling and ensure you are consistent throughout

9) Just do it
Give yourself a chance to write your thesis

10) Side projects are great, but make sure you don’t take on too many

11) Don’t be afraid to say no

12) A support network is vital. Talking with someone who as been there is invaluable

13) Have a strict timeline for your last 6 – 12 months

14) Remember to give yourself due credit
Paper writing is a skill that needs to be learnt.

Going through ‘I can’t do it’ moments is normal.

To make the process as painless as possible:

1) Read lots of papers and look critically at the things that you like and don’t like about them.

2) Take note of style and terminology or jargon (don’t make up new terminology!) and mimic it.

3) If you are struggling to write it then knock over the easy bits first and build up to the more difficult sections.

4) If you get stuck on something then get help!
5) Make tables and figures first – this way you know the story you want to tell
6) Take time with the words because they are important
7) Good figures grab people’s attention – make them look good and be as clear as possible
8) Put enough information in your captions to allow your figure to stand alone
Dealing with referees

Most scientists regarded the new streamlined peer-review process as ‘quite an improvement.’
Networking (summerised from a recent talk by Geraint Lewis)

Networking is important for students

Successful astronomers consciously cultivate their careers and networking is an important aspect

Your network should be made up of people that contribute to your career progression in different ways

- those that know your work so they can comment on you in official and unofficial capacities
- mentoring and advice
- collaborators on projects

Building a strong network is important because it will work for you behind the scenes
How do you expand your network?

Be visible!

- go to conferences and *participate* – ask questions, make points and establish collaborators
- Publish papers
- visit institutions and give lunch-time talks or colloquia
- go observing

Do you have three people that can act as referees and help you get your first job? Now is the time to make sure you will have them when you need them.

Spend effort maintaining relationships
Set yourself apart from your peers

Get involved in the community
- organise conferences/workshops (e.g. HWWS)
- Join Societies
- Take part in committees if given the opportunity

Get experience observing
- Tag along on observing trips with other students/post docs even if the observations/wavelength is not related to your science

Get experience teaching, tutoring and in support roles
- All look good on your CV and help you decide what type of job you want

Outreach
- Its fun and inspiring and reminds you why you love what you are doing
Funding opportunities

Student Travel Assistance
Funds to assist student travel to conferences and observatories are available from the ASA and other sources.

Australian Federation of Graduate Women Inc.
The national voice of graduate women

IAU Grants
The IAU spends roughly one third of its income on grants for participation in the annual nine IAU Symposia, in the annual Regional IAU Meeting, and in the triennial IAU General Assembly.
Getting a job

Finding jobs to apply for

- AAS jobs register is a good place to start
  [http://jobregister.aas.org/](http://jobregister.aas.org/)
- institution websites
- talking to people

How do you know what to apply for?

- Rely on advice from your supervisor to help you decide what to apply for
- **Set your sights high.** Not applying is the only guarantee that you won’t get the job
Job application 101

1) Read the job advertisement and all supporting documentation carefully. Email contact person for more information

2) Ensure that your application looks professional. Check spelling!!

3) Give examples when addressing selection criteria

4) Your CV is important. Read lots and see what you think works well and what doesn’t. Presentation is important

5) Ask supervisors or mentors for help

6) Think about setting yourself apart from other applicants. Think about the big picture rather than the details

7) Include a cover letter even if it doesn’t explicitly ask for one

8) Choose referees carefully and give them enough time to do a good job.
General advice

- PhDs aren’t for everyone. If it isn’t what you want then get out early
- Other Students and new post docs can be the best place to get help
- Don’t worry if you feel like you have to redo everything that you did in your first year
- Use the licence to ask ‘stupid’ questions because it won’t last forever
- Don’t become an observing slave
General advice

- Choose your department and supervisor carefully
- Don’t feel locked into a particular type of science, wavelength etc. PhDs rarely end up looking like you thought they would at the start.
- Take advantage of opportunities as they come up, you never know where they will take you

- Keep things in perspective – is it really worth getting that stressed about?
Be organised and have a clear set of goals to work towards
Stay motivated
Make sure you have a good working relationship with your supervisor
Write papers as you go
Give yourself enough time to write your thesis
Get involved in the community
Work on growing and maintaining your network
Set your sights high when applying for jobs
Completing a PhD is a major accomplishment so give yourself credit
Enjoy timeout
Thank you

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