Research Skills for Students Commencing a PhD or Masters by Research

2. Writing Your Research Proposal
   (Science/Applied Science Stream)

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Useful web pages:
http://www.postgraduate.uwa.edu.au/students/proposals
http://www.postgraduate.uwa.edu.au/students/proposals/format
Objectives:

- To consider the role of proposals in the research process
- To identify the key components of a UWA research proposal
- To clarify your thoughts regarding your research proposal
Workshop Outline

11.00 – 11.30  Research proposals and the research journey

11.30 – 12.00  The UWA research proposal: format and evaluation

12.00 – 12.30  Some example research proposals

12.30 – 13.00  Thinking about your research proposal
The Research Journey
Exercise:
What benefits are you likely to gain from preparing a research proposal? Do you see any pitfalls, risks or disadvantages associated with this process?
The building blocks of a research proposal

A Proposal is a persuasive document that:

- establishes that there is a research problem (“what”)
- establishes that addressing this problem will contribute to knowledge (“why”)
- outlines a plan for answering that question using the principles of academic inquiry relevant to your discipline (“how”)
- is a plan to answer that question using available resources (“how”)
- is a plan that YOU will implement using the skills you have and/or will acquire (“how”)
- outlines expectations, commitments and obligations that the student and the University have to each other (“how”)
- contains material that is early draft material for your thesis

The proposal should be written in a style that is easily understood by an intelligent reader from a related discipline.
Research Proposal Format:
1) Follow the Guidelines at
http://www.postgraduate.uwa.edu.au/students/proposals/format
the Form is located at
http://www.postgraduate.uwa.edu.au/students/forms

2) before submitting to the Graduate Research School, you must complete
the Coversheet at
The Coversheet must be signed by you, your Coordinating Supervisor,
the Graduate Research Coordinator and the School Manager.

These signatures confirm that
- the information contained in the proposal is complete and correct
- you have access to resources
- you will be provided with adequate supervision
- you have obtained all approvals required for your study.

N.B. You should make a copy of your research proposal and keep it
on file.

Some useful resources
http://www.is.uwa.edu.au/repository: digital repository of UWA research
publications (including theses)
http://www.postgraduate.uwa.edu.au/students/resources/schools: School
specific resources to support student research
http://www.postgraduate.uwa.edu.au/students/proposals/submission
http://www.postgraduate.uwa.edu.au/students/proposals/review
http://www.research.uwa.edu.au/staff/human-research/welcome-to-
HREO: research involving humans
http://www.research.uwa.edu.au/staff/animals: research involving the use
of animals.
http://www.research.uwa.edu.au/staff/biological: if you will be using
genetically modified organisms or working with biological hazards.
Submitting your proposal

Two copies of your proposal and coversheet must go to the Graduate Research School for approval.

Approval will be based on a review of your proposal by a member of the Board of the Graduate Research School. The reviewer will NOT be from your School.

Your proposal will be reviewed carefully, even though it should have already been assessed within your School.

The reviewer may recommend that the proposal be passed in its present form, make comments and suggestions or ask for the proposal to be amended and resubmitted for approval.

Criteria for review of proposals:
- is there evidence of a systematic review of the literature?
- does the budget make sense, are there concerns about funding for the research?
- Are supervisory arrangements consistent with UWA policy?
- Have the supervisory roles been adequately described for each nominated supervisor?
- Ethics and safety issues – have the appropriate approvals been obtained?
- Overall acceptability of the proposal as a piece of academic writing
- Appropriate use of references and absence of plagiarism
- Appropriateness of the project for the degree to be undertaken (scope, structure and originality)
- Any perceivable shortcomings in data analysis skills
- Appropriateness of research design: are there potential problems?
Submitting your Proposal  
Writing a pre-Proposal  

1. What is your research topic?  

2. What specific research questions might you like to answer?  

3. What do you expect that you will spend most of your time doing as you undertake your research (eg modelling, simulations, laboratory experiments, field study, interviews, building things, measuring things?). Describe this in as much detail as you can.
4. What is the importance or significance of the study?

5. How do you know this project is worth doing? What evidence should you look for in the literature to convince others that this research is needed and that doing it will contribute to knowledge?
6. How do you propose to go about addressing your research question? What is your proposed methodology? What methods do you propose to use? Do you know how to use these methods? Do you need any training?

7. What evidence can you provide in your research proposal that this project can be completed within the time frame of your Research degree? (what resources do you have, what skills do you have, what previous experience do you bring to this project, how do you plan to gain support and skills that you may need?)
Writing your timeline

First half of 2014

- Have a workable research proposal that has been passed by the Board of the Graduate Research School
- Start a “Thesis” file that has a working title and contains a draft outline for your chapter headings
- Develop your literature searching skills and seek help from your reference librarian to make these more efficient
- Organise a system for managing your references
- Develop other skills required for your research, and consider building additional skills that will enhance your development as a research professional.
Second half of 2014

- Complete requirements for your confirmation of candidature (PhD only)
- Present some aspect of your work in a public forum
- Continue shaping your “Thesis” file:
  - Add your current draft/s of your lit review, methods and materials etc
- Reconsider the working title for your thesis, and outline for chapter headings as your work unfolds
- What data can you reasonably be expected to have collected?
- What analysis can you reasonably be expected to have done by now?
- Do you need to learn new research related skills?
- Do you need to further develop more general skills e.g. in oral and/or written communication.
First half of 2015
- Continue shaping your thesis document
- Are there conferences you should be aiming to present at?
- What travel awards can you apply for (check the PSA website, the UWA Scholarships database and websites for professional associations and conferences in your research area).

Second half of 2015
- Continue shaping your thesis document
- Obtain peer review of your work (e.g., paper, conference presentation)
- Build your networks for future post-doc opportunities
- Are there prizes or awards you could apply for?
First half of 2016
- Continue shaping your thesis document
- Obtain peer review of your work (e.g., paper, conference presentation)
- Develop networks and build your reputation for future career opportunities.
- Consider your Professional Development portfolio – how are you preparing yourself for employment after your thesis is completed?

Second half of 2016
- Have a draft thesis document that outlines the entire work (although this will need substantial modification in the coming months, including addition of results that have not yet been finalised)
- What do you need to pay attention to so that you have meaningful work after thesis completion? Apply for fellowships?
**First half of 2017**

- Finalise results/data analysis
- Amend draft thesis based on comments from your supervisor/s
- Choose thesis examiners in consultation with your supervisor/s
- Final editing of draft thesis document
- Submit the required number of temporarily bound theses for examination