

Project Planning

Introduction

Project Management is included in your research training because it will enable you to manage your research project in a more professional way. This handout is focussed on academic research projects and supports the slides presented during the session.

Projects

At the start of any project it is important to understand why it has been undertaken. As a researcher you should also be clear on your personal motivations so understand your PERSONAL reasons for conducting research.

You should be able to summarise your project simply:

Context – a few notes on the area of your research

Aim – your project and its intended outcome

Methodology – how will your research project meet its aims?

At the start of a project you should also be as clear on possible on your responsibilities and the responsibilities of others – have you and the other project staff discussed your respective roles? Are you aware of all the stakeholders of your project?

Project constraints

All projects operate under constraints such as time, cost and quality to name a few. What are the constraints on your research project?

The project management process

The project management process is iterative with the initial stages being reviewed as the project progresses. It is made up of the following stages:

- Identify the Stakeholders
- Define the Scope
- Identify the Tasks
- Identify the Risks
- Plan
- Implement
- Review

The following questions ask for you to reflect on your own research and should highlight areas where PM techniques may be useful.

Scope – what is it you are aiming to achieve?

What is the scope of your research project?

Does your understanding of the scope agree with that of your supervisor and other stakeholders? Make a note of any ambiguities that you need to clarify.

Identify the tasks – what do you need to do?

Break the scope down into easily achievable tasks. List these below. The drill down technique discussed in the workshop is an effective method for plotting out a project, but you may prefer to use a flowchart or mind map.

Identify the risks – don't think it won't happen!

What could go wrong in your research project?

Of the risks identified above what is the worst thing that could go wrong?
For each of the risks identify how you could plan to minimise the impact of the risk.

Plan - before it is too late!

Work out which order the tasks need done in.

Can you organise it such that you can have more than one task on the go at any time?

Draw a Gantt Chart to illustrate your plan.

Implement – just do it!

What problems do you have in implementing your plan?

Can you change the plan to reflect this?

Review – check your progress

- Identify what is going wrong
- Change the plan before it is too late
- Let the stakeholders know
- Be honest

Example Gantt chart for first year of academic research

Activity	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13
Register	◆												◆
Literature review	■	■	■										
Deadline for literature review			◆										
Prepare and rehearse presentation							■	■					
Presentation to School/Department								◆					
Documented meeting with supervisors	◆	◆	◆	◆	◆	◆		◆	◆	◆	◆	◆	
Plan first research unit			■	■									
Present outline of first research unit					◆								
First research unit					■	■	■	■					
Review and analyse research results								■					
Survey of literature	■	■	■	■	■	■	■	■	■	■	■	■	■
Courses/conferences	■							■					
Learning about equipment & techniques		■			■				■				
Holiday								■					
Second research unit planning								■	■				
Second research unit									■	■	■	■	■
Drafting transfer report									■	■			
Finalise transfer report										■			
Deadline for transfer report											◆		
Transfer viva												◆	
Visit from leading professor						◆							

Additional points:

Can use colour to theme common or related activities.

Easier to predict conflicts on time well in advance – i.e. holiday occurs just before transfer report deadline

Easier to see positive connections – i.e. extend planning for second research unit to take into account ideas developed through attending conferences or prepare for visit from leading academic (read their papers, carry out preliminary analysis of data etc)

Activity																													
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Time Management

Introduction

Time management is an essential skill which if practised well should enable you to achieve more than if you neglected to manage your time. Some of the benefits of effective time management included reduced stress, more leisure time and increased effectiveness at work.

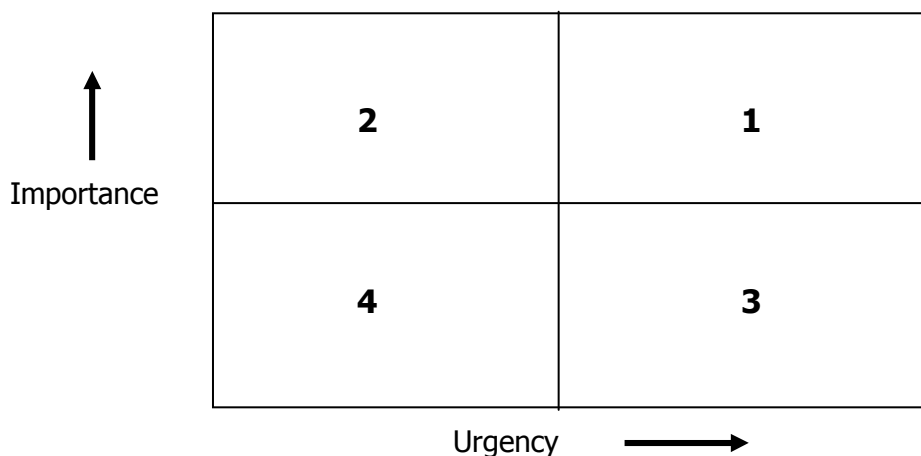
Relevance

As research students many people will place demands on your time – your supervisor, partner, friends and students. In order for you to operate effectively at work you need to actively manage your time to ensure that you achieve what you want to achieve. This workshop will examine a few of the issues relating to time management and encourages you to reflect on your current time management situation.

Where does your time go?

As a starting point, what are your time management issues?

Prioritising your activities – The Planning Square



Urgency is time related, importance is value related, but most people respond to urgency more than importance. Whilst they can coincide, they are not the same and one key time management element is to deal with important tasks before they become urgent.

The core skill in time management is deciding what tasks lie in each square and having the discipline to do them in the right order.

To help to identify the right sector for each task, it is worth thinking about how you feel when you are working in each sector. Write in the square above what you associate with each area.

Dealing with the tasks:

- Quadrant 1
 - do these first and do them well
- Quadrant 2
 - plan these carefully and do next
- Quadrant 3
 - try to delegate, then turn full attention to 2
- Quadrant 4
 - bin these (or reward yourself with them)

To use the square effectively:

- decide what sits where
- focus on important tasks rather than urgent ones (obviously urgent and important comes first).
- Don't be tempted to do 3 over 2 - if these tasks aren't important to you, why are you doing them? Can you delegate them to someone who they are important to, or explain to someone why you need to spend time on your work?

Time wasters

Everybody will waste some time during the course of a day. A key to time management is to identify where you waste lots of time and to try and minimise these activities.

What are your big time wasters?

For each of the time wasters what strategy do you have to tackle it?

If you do not have a strategy can you think of a method to minimise the amount of wasted time?

Developing Professional Working Relationships

Your responsibilities

Your supervisor's responsibilities

In addition to those you have identified, you might find others in your departmental or institutional handbook, from your funding body or on one of the suggested websites.

Problems for Students

Note any problems and suggestions that have arisen during discussions.

Problems for Supervisors

Note any issues that might be affecting your supervision.

Can you do anything to address these?

Overcoming problems

- Keep things in perspective – your supervisor is human and has good and bad days as well as being affected by the pressure of their job; remember they share your long term goal (MSc or PhD success) and their eligibility for future funding will be damaged if your research fails.
- Any criticism is directed at your actions, not you (even when it seems personal).
- Be organized - organise FORMAL meetings if not they are happening; prepare for meetings with points for discussion.
- Be honest - report any mistakes (before your supervisor hears on the grapevine); report on difficulties whilst they are SMALL and you can discuss solutions. Remember that your doctorate is a period of training and no-one expects perfection.
- Be professional – accept criticism as a way to improve not an insult; during your working life you are unlikely to always get on with work colleagues so you can learn how to cope now; never bitch about your supervisor to other students or staff.
- Ask for feedback - don't wait to be told what to do/read
- Show your enthusiasm – many supervisors are disappointed and disillusioned by apparent apathy from students
- Meet deadlines – if you want to be treated with respect, you must respect your supervisor's time and instructions.

Structuring Meetings

- Always have a clear purpose. Think through this in advance and decide what the meeting needs to achieve – transfer of information, update on progress, decision making, problem solving, etc.
- Understand the agendas/expectations of all the attendees.
- Who has control and power at the meeting? Where are responsibilities for any actions before the meetings. If you expect there to be actions at the end of the meeting who will do these?
- Agree the best time and place for the meeting and choose these to maximise attention and minimise disruptions. Look at the aim of the meeting and ensure all necessary people are invited or have a chance to contribute in other ways.
- What are the implications of the meeting and preferred outcomes? What needs to happen after the meeting and how will you ensure it happens?

In advance: Draft an agenda stating the meeting's objectives and list all topics to be covered and circulate to all attendees (and other interested parties).

After the meeting:

- Record all actions, decisions discussions and agree a date and outline agendas for future meetings. Circulate this to all attendees.
- Evaluate the meeting against your expectations. If the outcome was very different analyse what happened so you can avoid problems in the future.

A strategy for effective meetings

Have an aim

- What do you want to achieve?

Consider the other attendees

- Who needs to be there?
- Why do they think they are there?
- What might they want to achieve?
- Are there any conflicts of interest?

CIRCULATE AN AGENDA IN ADVANCE.

Prepare

- Gather all data together
- Decide on questions/problems to discuss
- Formulate your own opinions
- Anticipate questions

Evaluate

CIRCULATE MINUTES WITH ACTIONS AFTER THE MEETING.

PROGRESS REVIEW MEETINGS *Written by Margaret Orchard, University of Leeds and reproduced with permission

Reviewing progress at regular intervals is crucial to the effective management of research projects. This type of meeting will therefore be held for all of the above reasons. An effective way of managing these meetings is to divide them into stages.

Stage 1

Briefly revisit the project goals, the targets/milestones and the tasks for the time-period just ending.

Stage 2

Report on the targets/milestones met and the tasks completed.

Stage 3

Report on the targets/milestones not met and the tasks not completed.

Stage 4

Consider priorities, milestones and relevant information.

Stage 5

Agree by negotiation, revised targets for the next period of the project.

Stage 6

Agree date and time of next meeting.

Useful websites and resources

Two recommended books:

the Postgraduate's Companion, ed by Gerard Hall and Jo Longman, SAGE Publications Ltd
The Research Student's Guide to Success, Pat Cryer, 3rd edition, OUP

Best websites:

The Vitae website includes a section for postgraduate researchers and includes advice on managing your research and careers. You can also link to many other sites for research students from here:

www.vitae.ac.uk/researchers

Science Careers (from the journal Science) covers all aspects of research and includes some great stories from successful scientists who share their career boosting secrets. This is a huge site, but easy to search from the front page:

<http://sciencecareers.sciencemag.org/>

Researchers in Residence – promotes science and research to the next generation:

www.researchersinresidence.ac.uk

Details of further training available within the University of Edinburgh:

www.transkills.ed.ac.uk

Two good general management sites, both containing downloadable resources:

www.businessballs.com and www.mindtools.com

And if you can't find what you are looking for, have a look at our site – we are keen to develop this as a resource for researchers and will do our best to add what you need.

www.shintonconsulting.com