

Research Project Management: Project management principles and practical tips



## Welcome to today's workshop



### **Zoom Housekeeping:**

- Please ensure you are **muted** if you are not speaking to the group
- We will pause for questions as we go
- If you are having connectivity issues, please try turning off your camera during the presentation; these can be turned on during discussion sections
- If you have any technical issues please privately message Sharmin in the chat for her help
- If you have a Question as we go, please use the chat function
- For breakout groups, we encourage use of your camera if possible please!

### AccessEd: Who are we?



- AccessEd is a non-profit organisation committed to supporting postgraduate researchers in their professional development and university access programmes to increase social impact globally.
- AccessEd has expertise working with international students and social enterprises, as well as delivering courses in transferable skills for the 21st century. AccessEd bridges the gap from education to the professional and public sectors.



### Introduction to your trainer



#### **Dr Nicola Vermooten**





Registered as an Industrial Psychologist in South Africa, with experience in training and development



Holds a PhD in Industrial Psychology



Has worked in the education sector, both nationally and internationally

### Session learning outcomes



### You'll get an understanding of and practical experience in:



### Session 1: Objectives





To understand the various components of research project management. (Part A)



To make a practical assessment of your own approach to research project management. (Part B)



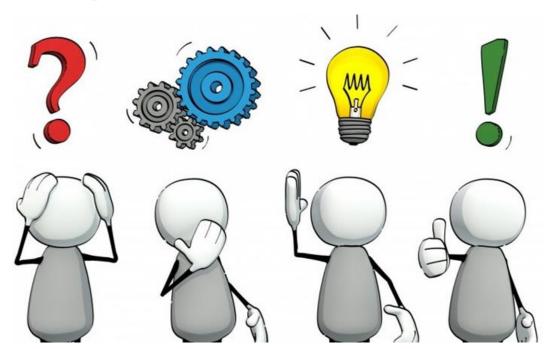
To explore options for 'plugging any gaps' in your current approach.

### Ice breaker





Introduce your name, one line on your research and what you hope to learn today about Research Project Management!





## **Session 1A**

Research Project Management: Principles



### Session 1: Our Approach to the Session

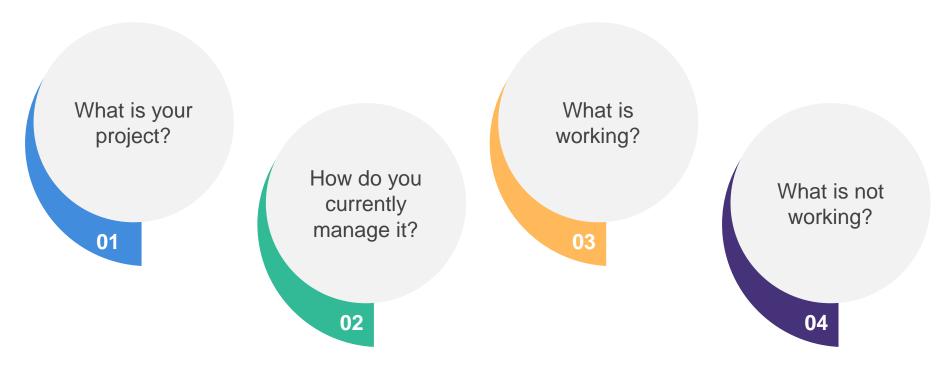


- There is no single 'right' way of managing a project.
- Effective processes vary significantly across disciplines.
- You might already be using effective project management techniques.
- Designed so that you can listen to each other as well as me.
- Better to be conscious about the techniques you deploy and to compare.



## Thinking about your work like a project





### Activity: How is it going?



### Introducing a four-point RAG rating:



- In groups, describe a project you are currently working on, RAG rate it according it to the four-point system and explain why, e.g. progress against deadlines / risks (5 minutes each)
- It may help to rate different aspects of the project depends on project, e.g.
  - (i) design/scope/overall clarity of project and task breakdown/budget sign-off;
  - (ii) data collection / primary research;
  - (iii) access to stakeholders, experts, colleagues, supervisors;
  - (iv) analysis, write-up, dissemination/impact plan
- Even where aspects haven't started, you can form a view based on whether you are well set up for it when it does start or the level of risk/activity required before then

### Unpicking your RAG rating





Good research project management can't resolve structural or academic problems with your research, but it can help you identify them.



If the research is viable, good project management will be the critical factor in successful and timely completion.

## Breaking Project Management down





### Task Management



- Tasks are all of the work items and assignments that need to be accomplished within a defined amount of time for a project to be completed.
- Task management (alone) is not project management: it can be a short-term, long-term or permanent process
- The central questions that effective task management need to answer are:
  - What sequence to these tasks needs to be completed in?
  - Which tasks are more important than others? How do I prioritise these?



## Time Management



- Time management = the way that you organise and plan how long you spend on specific activities.
- Focuses on how you complete the tasks in the most efficient way.
- At a basic level, it is about how you plan out your day which can be deceptively different.
- There are lots of micro-techniques as well.



### Data Management



- Data management is the practice of collecting, keeping, and using data securely and efficiently.
- 'Data' is a broad term incorporates all the materials that you collect.
- There are so many components to effective data management and approaches will vary depending on the type of data that you are collecting.
- For researchers, there are some crucial questions you need to answer about the system that you use:
  - If my data is sensitive, am I storing it securely enough?
  - As I collect data am I storing it in a way which will allow me to call on it when I am writing it up? (This is a question of labelling as well as storage)
  - As I collect data am I clearly recording where it came from?



### Stakeholder and Risk Assessment



- Research projects are not done in isolation. Successful project management involves mapping out your dependencies and the risks associated with them.
- Mapping your stakeholders and ensuring you have an approach to managing them is a crucial component of this.
- Again, the trick is to have a conscious technique, for thinking through your approach:
  - Have you analysed who the stakeholders in your research are? How influential are they?
  - Have you thought about when you will communicate with them?
  - Are you consciously aware of the risks to your project? How do you rate the seriousness of these risks?



## **Progress Checkpoints**



- Projects occur as a series of phases, structured along a timeline designed to produce deliverables, and meet stated goals.
- Checkpoints provide a basis for analysis and evaluation, to determine whether the project is proceeding as planned, and to take corrective action as needed.
- Typically, researchers use meetings with their supervisors as their checkpoints, but effective project management will build a series of other explicit deadlines around these.



## Activity: Project Management Self Audit





- Individually, complete the Project Management Self Audit (10 minutes)
  - Share your ratings with the group
- This will allow you to be conscious about the strengths and weaknesses in your current approach.
- It will also allow you to focus in on the techniques that we will explore in the next session.





## Break



### **Session 1B:**

Research Project Management: Tools



### Reflections on Project Management



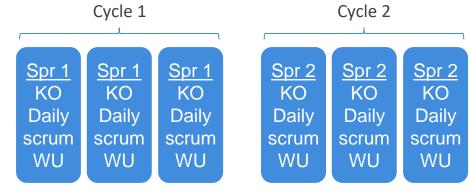
### Is there a fundamental difference in approach?

#### **Waterfall**

Week commencing	16/10	23/10	30/10	6/11	13/11	20/11	27/11	4/12	11/12			
Literature Review												
Conference paper draft												
Conference paper feedback												
Conference paper re-draft												
Book train tickets / expenses												

e.g. Govt contracts, research bids

### **Agile**



e.g. Software development

### Reflections on Project Management



### Is there a fundamental difference in approach?

#### Waterfall

- Clearly defined outputs
- Clearly defined timetable
- Comms plan agreed in advance

in conclusion, pre-specified

### **Agile**

- Clearly defined inputs (i.e. sprints)
- Flexible, responsive timetable
- Regular, intensive comms

in conclusion, adaptable

# Activity: An Approach to Task Management



- Spend 5 minutes sorting your to do list into the these categories.
- Important and urgent are your frogs, by the way!
- Does this reflect the order in which you would actually do these tasks?



	Not urgent	Urgent
Important		
Not important		



### Some Techniques for Task Management



Writing a simple to-do list

Use an online calendar or email provider



## Making it more nuanced by adding:

- Current status
- Priority ranking
- Deadline
- RAG

Use an app like Remember the Milk

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### Some Techniques for Time Management



### Track and learn

- www.manictime.com
- www.rescuetime.com



### Pomodoro technique

www.focusboosterapp.com



### Eat your frog

https://www.briantracy.com/ blog/time-management/ the-truth-about-frogs/



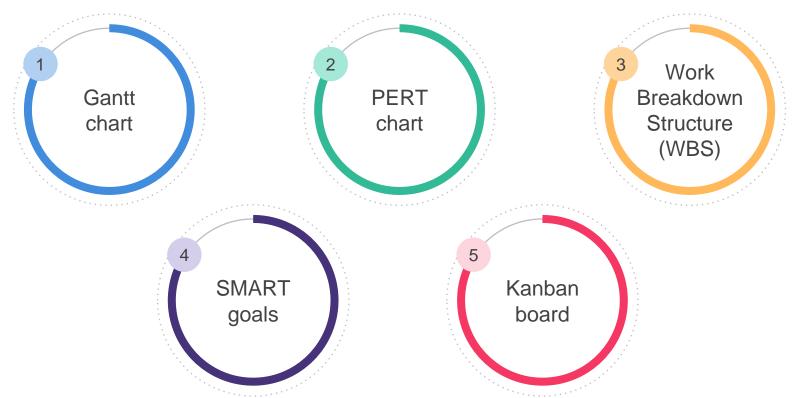
### **Email technique**

- Handle them a maximum of two times
- Think about when you see / send emails



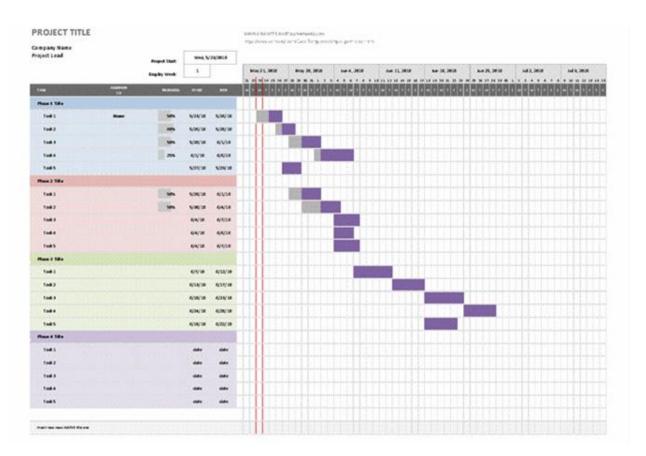
## Project management tools





### **Gantt Chart**





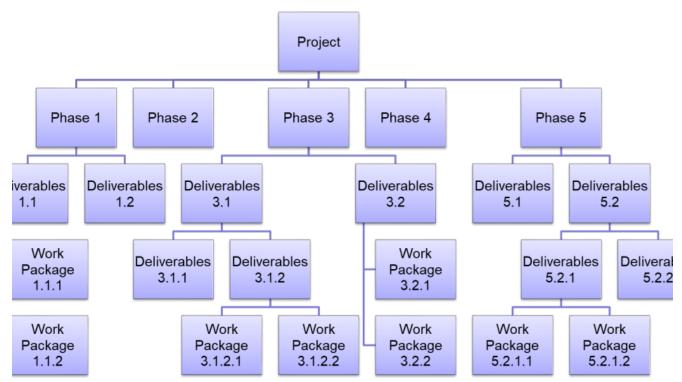
### **PERT** chart





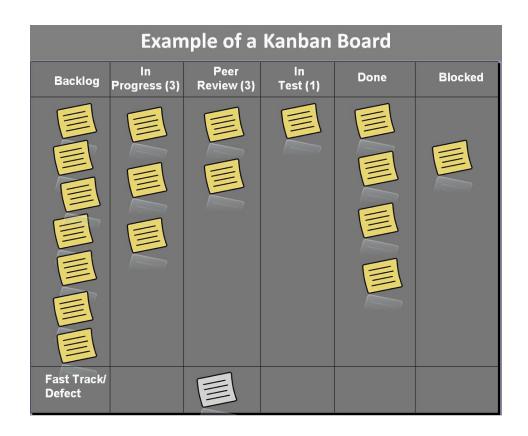
### Work Breakdown Structure (WBS)





### Kanban Board





## SMART goal



Specific

S

What do you want to do?

Measurable

How will you know when you've reached it?

Achievable

A

Is it in your power to accomplish it?

Realistic

L

Can you realistically achieve it?

Timely

S

When exactly do you want to accomplish it?

## Some Techniques for Stakeholder Management



- Consciously map out which stakeholders are important to your project.
- Use this to work out the frequency with which you should communicate with them, the content you should share, and how you should update.



_	Spend 5 minutes	sorting your	stakeholders	into the	these cated	ories.
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- Very interested and influential are your key stakeholders.
- Does this reflect the order in which you are actually prioritising your relationships?

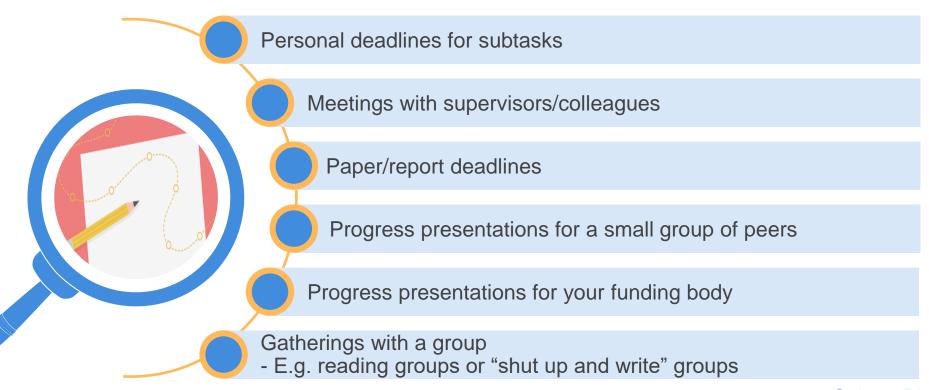
	Very interested, limited influence	Very interest, very influential				
Interest of						
stake- holder						
	Low interest, limited influence	Low interest, high influence				
	Influence of stakeholder					



### **Progress Check Points**



### How do you know you are on track?



### Some Advice on Check Point Meetings



## Arrange them properly:

- Send a calendar invite with a specific location

## Be specific with the time:

- Don't necessarily just go with 1 hour
- Could it be 30 mins? Does it need to be 2 hours?

## Seek clarity:

- Keep a list of agreed actions through the meeting.
- Use the format: [PERSON] will do [XYZ] by [DATE].



 Always send an email with a thank you and a list of actions.



# Checklist to clarify supervisor and researcher expectations



#### Checklist to clarify supervisor and PhD student expectations Over a face-to-face meeting, clarify what is expected for all relevant points below and write down answers on paper. After the meeting, each person involved should keep a copy and bring it back anytime further discussion or adjustments are needed. PhD general formalities - how many years - possibility to extend - funding conditions - salary Scientific publications - number of papers required - first author paper - published or submitted types of journal aimed preprint, arXiv? Written thesis formalities - length requirement - format (can it includes papers as they are) - will the supervisor correct the thesis before submission - need supervisor approval before submission - admin procedure from submission to defense Defense formalities how long for presenting - how long for questions deliberation, decision - public/private defense Supervisor - meeting frequency and format - types of deliverable expected - how to assess progress when the supervisor is away - types of feedback expected

From https://academiac.net

Formalities of research project(s) is it the student or the supervisor	
responsibility:	
to define the research topic	
to decide the methodology used	
<ul> <li>to define a project outline with objectives,</li> </ul>	
milestones and checkpoints	
to check that the project is on track	
- to decide on project plan adjustments	
to decide on project plan adjustments	
- administrative aspects	
- are there requirements and restrictions	
according to funding agencies	
Thesis committee formalities	
- committee during PhD thesis	
- committee at defense	
- how many people & who chooses them	
- requirement for internal and external	
experts	
- timing and frequency of committee	
meetings	
meetings	
Other official or unofficial supervision	
<ul> <li>e.g. from a postdoc, a senior PhD student, a lab manager, a technician</li> </ul>	
a lab manager, a technician - degree of involvement and role	
- what is expected from the PhD student	
towards this other person	
Collaboration within & outside the lab	
e.g. with other PhD students, postdocs	
- how tight is the collaboration	
- what is expected from each person	
actively involved in the project	
- what can each person expect to obtain	
from the collaboration and the project	
completion (e.g. authorship)	
- is there a risk for the persons involved not	
to go along well and what to do in such	
case	
Case	

Presentations and posters	
requirement and possibilities presentation within the institute presentation outside the institute possibilities to get grants for international conferences	
Teaching	
<ul> <li>requirements or possibilities (incl. supervising a bachelor or master student)</li> </ul>	
Transferable skills training	
- requirements or possibilities	
Career plan	
- ideas, wishes, goals - what actions can be initiated already now - how to allocate time for it	
Social activities	
- within the doctoral program - within the institute - within the lab - other	
- general recommendations	
Should another meeting be scheduled to discuss some of these points again? For example, in 6 months?	

## Activity: An Approach to Risk Management



Risk	Owner	Initial Impact Score	Mitigations	Mitigated Impact Score	Contingencies
		High Medium Low		High Medium Low	



- Talk through two risks to your current project with your breakout room
- Ask them to judge the initial impact (high, medium, low)
- Then talk through the mitigations you are taking
- Again, ask them to judge the mitigated impact (high, medium, low)
- Then describe any contingency (i.e. backup) plans



## Some Techniques for Data Management



- Use your computer efficiently:
  - e.g. Folder structure and naming files (20171018 NAME v.1)
- Information dump:
  - www.evernote.com
- Research dump:
  - www.zotero.org
- Sync and back-up:
  - Google Drive, DropBox, SugarSync



### 6 final tips for researcher project management



01

Define your timeline

02

Prepare yourself for setbacks

03

Define your project scope

04

Add value, not experiments!

05

Define metrics of success

06

Make progress by failing early



## development training record reflections



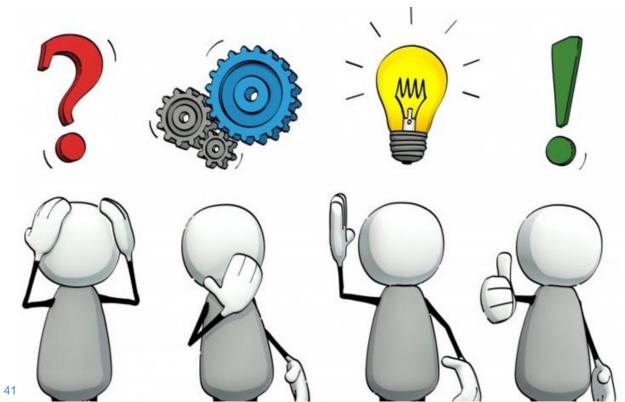


Group discussion: What have you learnt in relation to your development training record aims?



### Reflections







Thank you & Evaluation form

