

Managing your Research Project

Dr Ian Cornelius

Hello

Managing Research Projects

Managing Research Projects (1)

Why must we manage our research?

- Research is a complex task with little prescribed structure
- Managing your research project can help estimate and allocate time
- Creating a hard-copy can help you remember everything that needs to be done
 - otherwise known as *time management*
- Allows students to reflect upon their research process

Managing Research Projects (2)

Stages of a Research Project

- There are various stages for a research project that need to be met
- These are not considered an *exhaustive* list, but a guide

1. Preparation

- Identification of a research project
- Refinement of the research question(s)
- Refinement of the aims and objectives

2. Literature Review

- Literature gathering and review
- Evaluation of appropriate research methods

3. Methodology and Data Collection

- Design of the research tools
- Pilot test of the data collection methodology
- Collection of the data for your project

4. Analysis and Review

- Comparative analysis of data findings with the literature findings
- Evaluate the research question(s) to draw conclusions
 - it also requires evaluating the aims and objectives
- Reflection on limitations and further work

Managing Your Time

Managing Your Time (1)

- Time management is concerned with choosing how to use and organise your time
- Effective management can enable you to make the most of your day
 - i.e. achieving tasks quickly and prioritising those with most impact
- There is not one solution for all, *everyone* is different
- Nine types of time management techniques:
 - Pareto Analysis
 - Pomodoro Technique
 - Eisenhower Matrix
 - Parkinson's Law
 - Time Blocking
 - Getting Things Done (GTD)
 - Rapid Planning Method (RPM)
 - Pickle Jar Theory
 - Eat That Frog Technique

Managing Your Time (2)

Different Methods to Manage your Time

Pareto Analysis

- Sometimes referred to as the 80/20 rule
- A technique whereby 20% of the actions are responsible for 80% of the outcomes
- Helps you prioritise tasks that are most effective at solving problems
- Benefits people who are problem solvers and analytical thinkers

Methodology

1. List the problems you are facing
2. Identify the root cause of each problem
3. Assign a score to each problem
4. Group problems together by cause
5. Add up the score of each group
6. Take action!

Pomodoro Technique

- Use a timer to break down your work into intervals
- Each interval is known as a *pomodoro*
 - named after a tomato-shaped timer
- Can teach you to set goals and methods to achieve them
- Benefits people who are creative thinkers or those who are burnt out

Methodology

1. Choose a task that needs to be completed
2. Set a timer (i.e. 25 minutes)
3. Focus on the task at hand
4. When the timer rings, put a checkmark on a piece of paper
5. Take a short break
6. Repeat steps two to five

Managing Your Time (3)

Different Methods to Manage your Time (Continued)

Eisenhower Matrix

!include master_files/lectures/html/eisenhower_matrix.html

- Helps organise a task list into four quadrants:
 - important vs not important and urgent vs not urgent
- Urgent tasks are those that need to get done immediately
- Important tasks are those that contribute to long-term goals
- Tasks in the top two quadrants should be focused upon
 - other tasks should be delegated or deleted
- Benefits people who are in leadership positions or critical thinkers

Managing Your Time (4)

Different Methods to Manage your Time (Continued)

Parkinson's Law

- Based on the quote:

"the amount of time given to a task is the amount of time required to complete the task"

- Not a time management technique as such, but a law
 - when applied, it can be one of the most beneficial time management techniques
- Requires some work and effort by the student
 - i.e. working in short bursts of time
- Benefits people who are procrastinators or people who work well under pressure

Methodology

- Try and work without a computer charger
- Get the task completed early
- Set a deadline for the task
- Limit the amount of time to be spent on tasks

Time Blocking

- Assign each time block in the day with a task
- Tasks can be anything, i.e. eating breakfast to studying for a test
- Benefits people who are students or analytical thinkers

Methodology

1. Divide a piece of paper into two columns
 - on the left, write down each hour of the day
 - create blocks of time, such as half-an-hour or hourly chunks
2. Estimate the amount of time it takes to complete each of the tasks
 - assign them to your time blocks
3. Add buffer times in-between each time-block
 - allows for adjustments throughout the day
 - i.e. if a task was to overrun

Managing Your Time (5)

Different Methods to Manage your Time (Continued)

Getting Things Done (GTD)

- Helps complete tasks by recording them on a piece of paper
 - akin to a to-do list
- Tasks are broken down into actionable work items
- Benefits people who struggle to focus on one item at a time or people overwhelmed with daily tasks

Methodology

1. Capture the actions that have your attention
2. Clarify what these actions mean
3. Organise the actions
4. Reflect
5. Engage

Rapid Planning Method (RPM)

- Developed to train your brain to focus on a vision of what you want
- Benefits people who are working students or people who have long-term goals

Methodology

1. Capturing
2. Chunking
3. Create your own RPM blocks
4. Create an empowering role for yourself

Managing Your Time (6)

Different Methods to Manage your Time (Continued)

Pickle Jar Theory

- Help you figure out what is useful or not useful in your daily life
- It allows you to plan tasks with time to spare and set priorities throughout the day
- Imagine a jar that is full of sand, pebbles and rocks
 - the sand is at the bottom, with the rocks at the top
- Benefits people who are visual or concrete thinkers

Methodology

1. The sand represents disrupting elements of your day
2. The pebbles represent tasks that need to be completed but
3. The rocks represent the most important tasks

Eat That Frog Technique

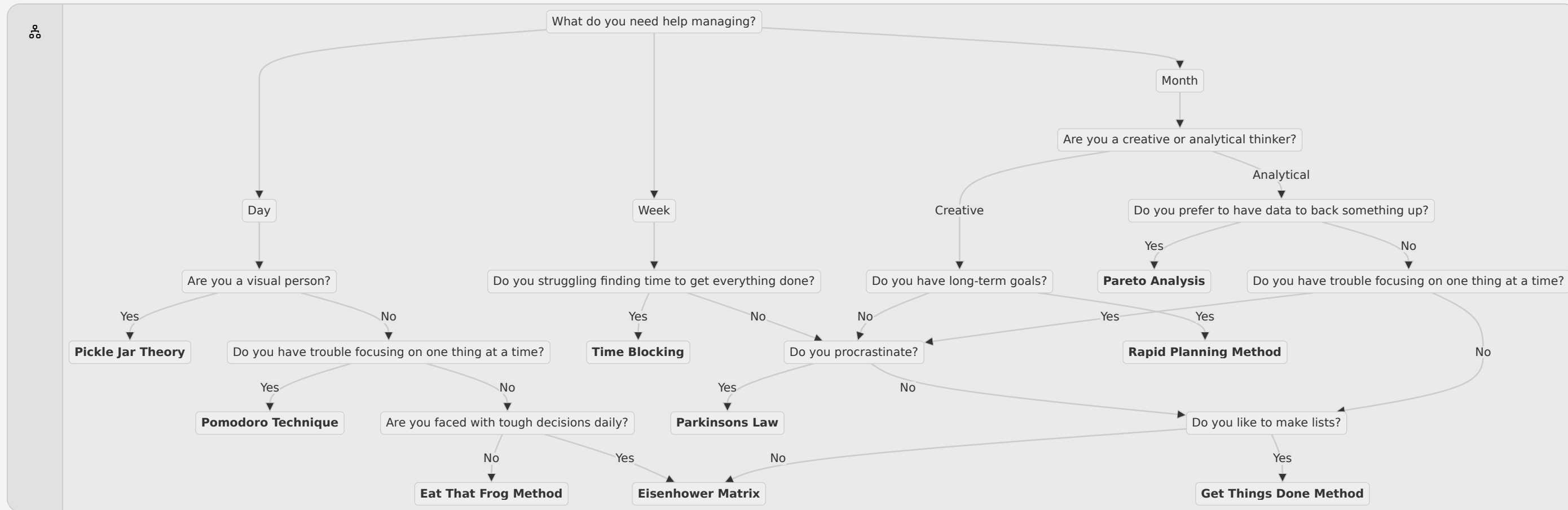
- Based upon a quote by Mark Twain:

"eat a live frog the first thing in the morning, and nothing worse will happen to you the rest of the day"

- Essentially, start your day with onerous tasks first to get them out of the way
 - Benefits people who are abstract thinkers or people with long-term goals ##### Methodology
1. Get clear on a goal
 2. Write it down
 3. Set a deadline
 4. Compile a list
 5. Organise the list in order of priority
 6. Task action
 7. Repeat this cycle every day

Managing Your Time (7)

Which method suits you?



Organising Yourself

Organising Yourself (1)

Why should you be organised?

- Organisation is key to a successful project
- Ensure that all files and documents relating to a project are kept in a single area
 - this does not apply to participant consent forms and their data, **they must be separate**
- Plan your project accordingly by setting clear expectations and priorities
 - can be in the form of a Gantt chart

Tools and Software

- There are various tools and software available to help organise yourself
- They range from backing up your files and data, to arrange boards on what needs to be done, etc.
- Some common tools are:
 - Kanban Boards: [Trello](#) or [Miro](#)
 - Microsoft OneDrive
 - GitHub: [Coventry University GitHub](#)

Organising Yourself (3)

Gantt Charts

- Introduced back in 1910–1915 by Henry Gantt
- A visual representation for a project schedule
 - based upon tasks and deadlines
- Provides an instant overview on the status of the project
- Outlines **all** activities involved in a project against a timescale
- Essentially a list of what needs to be done and *when*

Organising Yourself (4)

Why do we use Gantt Charts?

- Identifying and planning activities with their expected durations
- Monitoring and tracking the progress of a project
- Serving as a communication tool
 - shows the project supervisor and students the progress being made

Organising Yourself (5)

Benefits of using a Gantt Chart

- Provides a simple method to schedule your activities
- See how a project is performing at a quick glance
- It Allows students to focus efforts and react quickly to unexpected changes
- Communicate efficiently with the supervisor on progress and issues
- Understand the required resources for the project

Organising Yourself (6)

What, When and Who?

- A Gantt chart is used to show the following:
 - the activities of a project (**what**)
 - the duration of the activities (**when**)
 - the person responsible for completing each task (**who**)
 - this will be **you**, the student
 - the order in which they will be accomplished

Organising Yourself (7)

Extended Information of a Gantt Chart

- The Gantt chart is also used to show the following:
 - the required resources
 - key project milestones
 - dependencies between activities
 - progress and status of the **project** as a whole

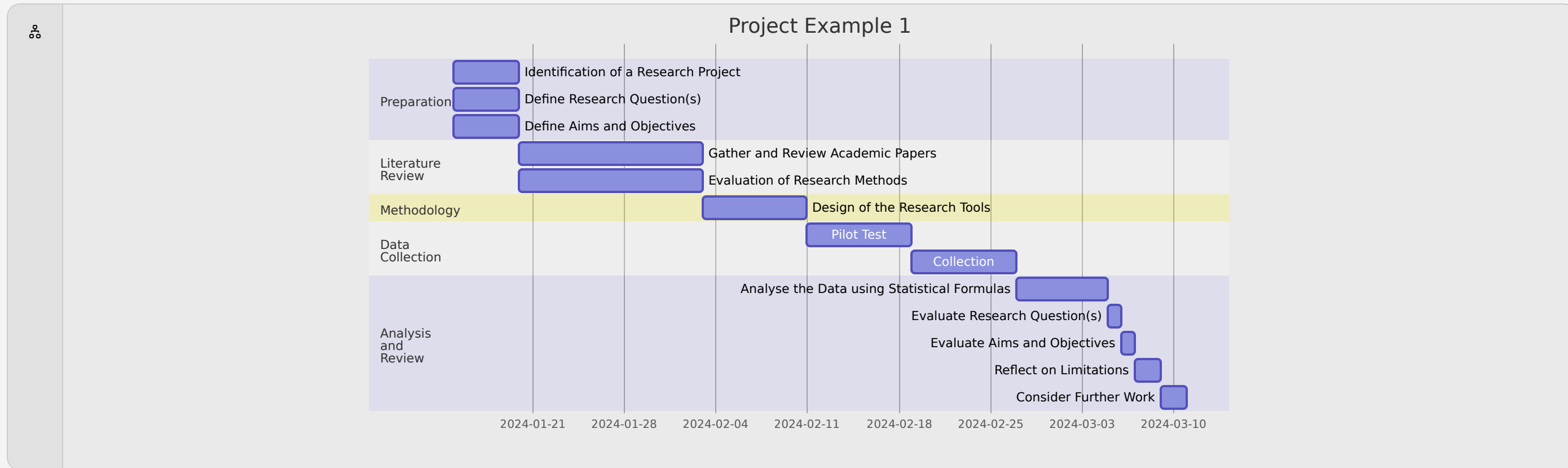
Organising Yourself (8)

Creating a Gantt Chart

- Charts can be created by hand or using applications
- There is dedicated project management software that provides more elaborate features
- Common applications:
 - [Microsoft Excel](#)
 - [Mermaid JS](#)
 - [LaTeX](#)

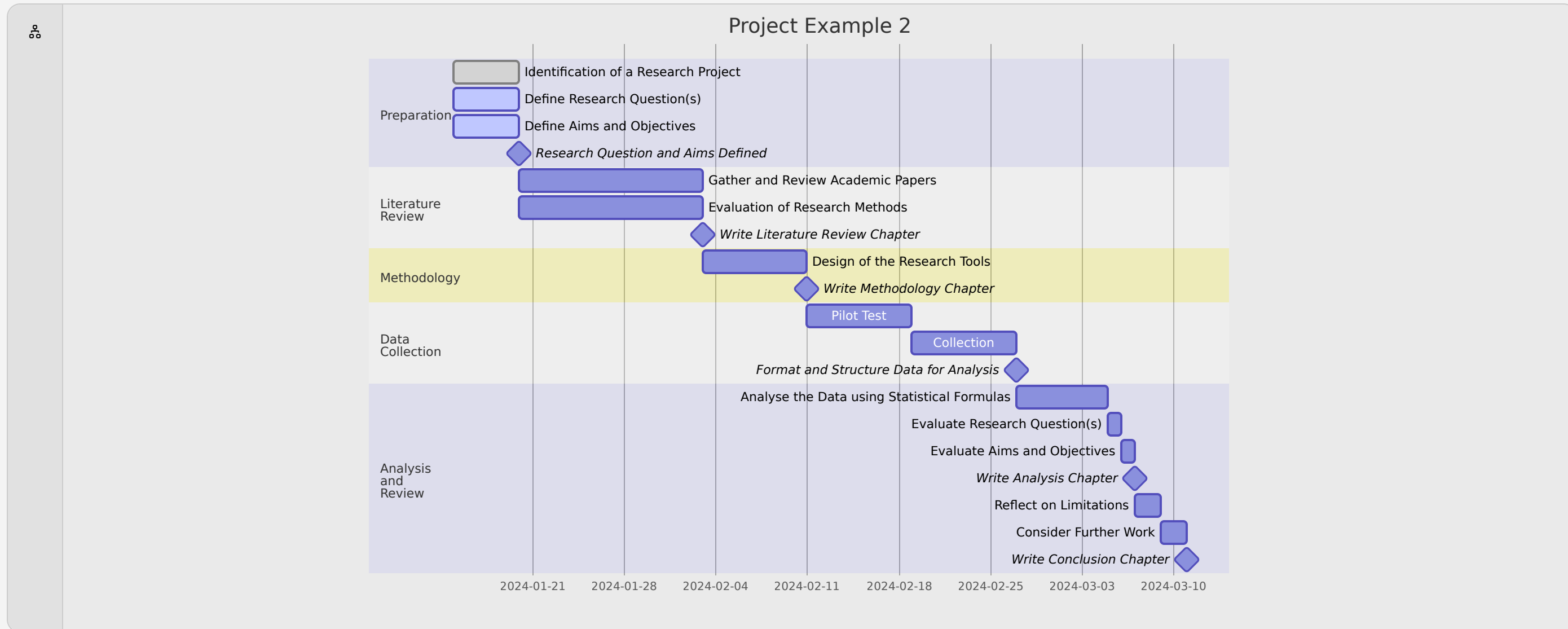
Organising Yourself (9)

Example: Simple Gantt Chart



Organising Yourself (10)

Example: Detailed Gantt Chart



This is an example and is not to be considered an exemplar of what is expected.

Goodbye

Goodbye (1)

Questions and Support

- Questions? Post them in the **Community Page** on Aula
- Additional Support? Visit the [Module Support Page](#)
- Contact Details:
 - Dr Ian Cornelius, ab6459@coventry.ac.uk
 - Mr Terry Richards, ac6860@coventry.ac.uk