



Australian  
National  
University

# CECS report writing: understanding the task

ANU Academic Skills

# A key message is vital

- You are being asked to analyse something or solve a problem.
- This means you need to:
  - Take a position or provide a solution
  - Have clear reasons for your position
- Write to persuade



# Common CECS report types

## Design proposal

- Persuade the reader why your design will solve the identified problems

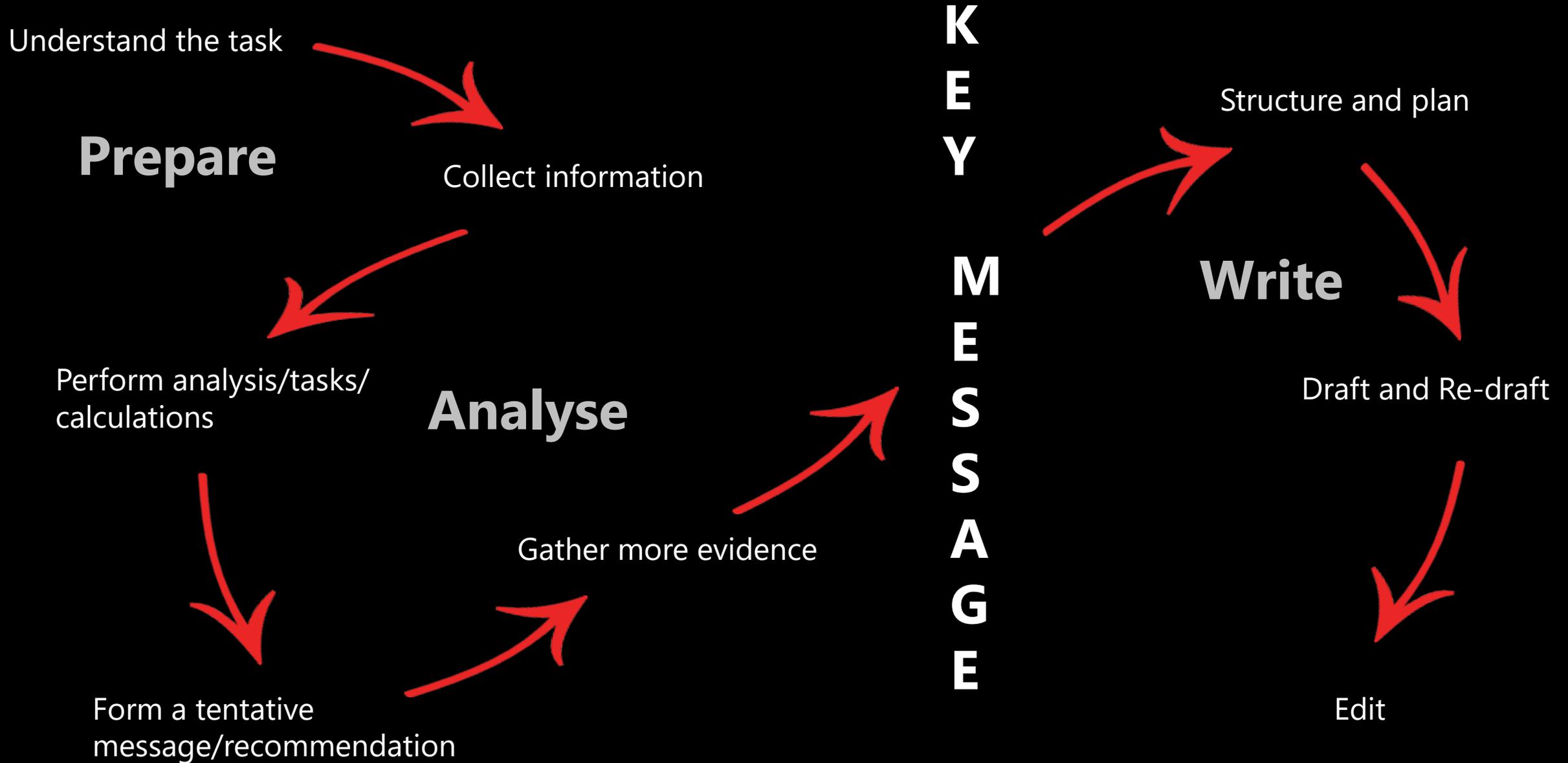
## Design development and implementation report

- Successful?
  - Persuade the reader why your outputs are beneficial
- Unsuccessful?
  - Persuade the reader why your outputs are a logical first step, and why your future directions are likely to succeed

## Application of coding to a problem or dataset

- Successful?
  - Persuade the reader of your code's logic and strengths
- Unsuccessful?
  - Persuade the reader why your decisions were logical
  - Persuade the reader why your identified limitations are the most likely, and why your proposed recommendations are likely to succeed

# Research and Writing process



# Understanding the task

- What are you being asked to investigate and analyse?
  - What problem are you being asked to solve?
- ⇒ What are you supposed to develop a key message in relation to?



# Engineering Design report

This assessment item is a formal design report that documents the systems engineering design process that you undertook for your project. The document should outline the thinking in the application of the design tools, not just the final design decisions. In particular, the optimality or goodness of the final design should be justified in the report through evidence provided by the Systems Engineering Design process that you have undertaken.

# Engineering Design report: key message

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# Computer Science report

Your task is to:

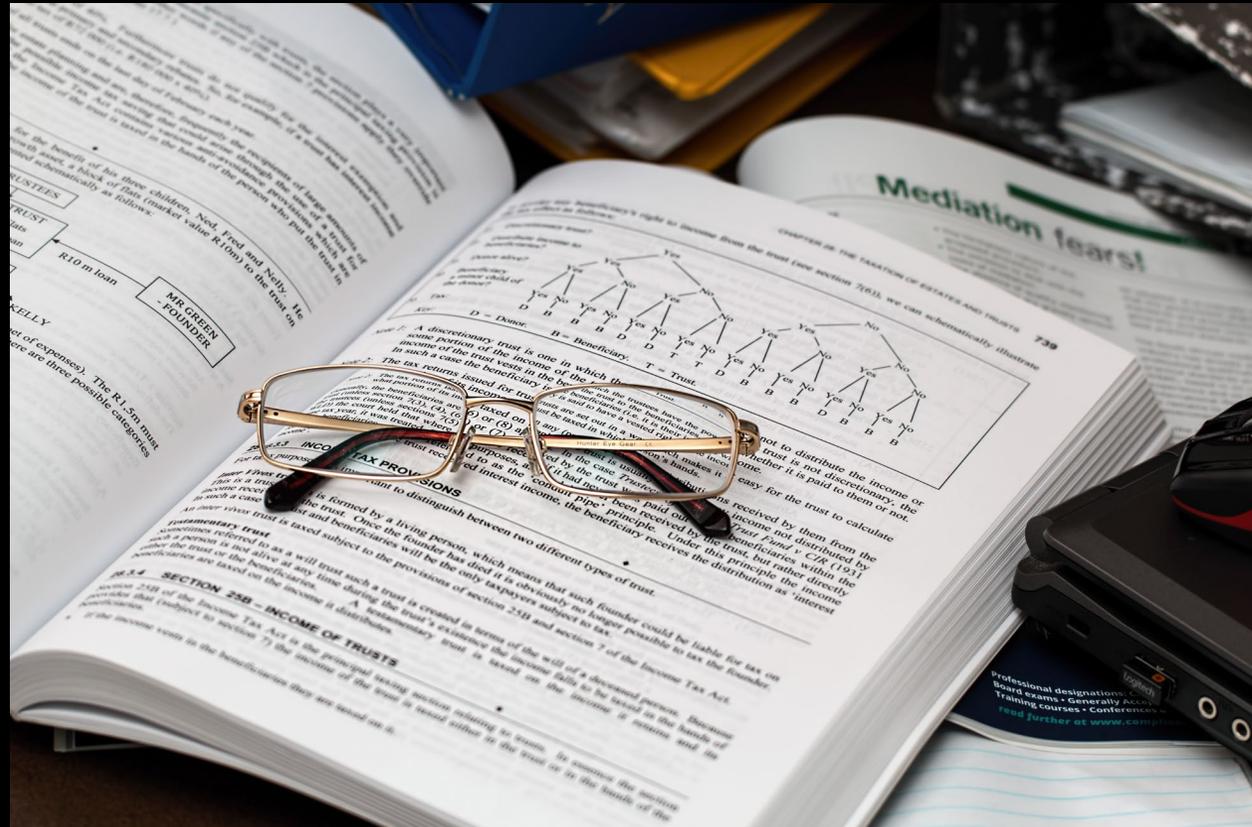
1. Devise a classification or regression problem to investigate using the data set provided
2. Implement a neural network in Python to solve the problem and implement a method to determine the performance of your neural network
3. Implement a technique from the literature and determine its benefit or lack of benefit
4. Compare your results with the results in the literature to evaluate your results
5. Write a report on your work

# Computer Science report: problem and **key message**

Your task is to:

1. Devise a classification or regression problem to investigate using the data set provided
2. Implement a neural network in Python to solve the problem and implement a method to determine the performance of your neural network
3. Implement a technique from the literature and **determine its benefit or lack of benefit**
4. Compare your results with the results in the literature to evaluate your results
5. Write a report on your work

# Analysis will include...



# Types of academic sources

- There are many different sources of information.
- The most common include:
  - Books or chapters in a book
  - Journal articles
  - Government reports
  - Industry reports
  - Newspaper articles
  - Some websites

Tip: get to know [SuperSearch](#) and [ANU Library resources!](#)

Tip: write out your key message before you start writing the report. If you are working in a group, agree on your key message together!

# Example of key message

We propose an adaptive coefficient setting method for two-hop relay protocol, and analyse it in comparison with the Metropolis method for nearest neighbour protocol. The simulation shows that there is a significant improvement on the consensus speed thus the coefficient setting method can be more efficiently used in these applications.

(Wang 2012, p. 87)

## Example of key message

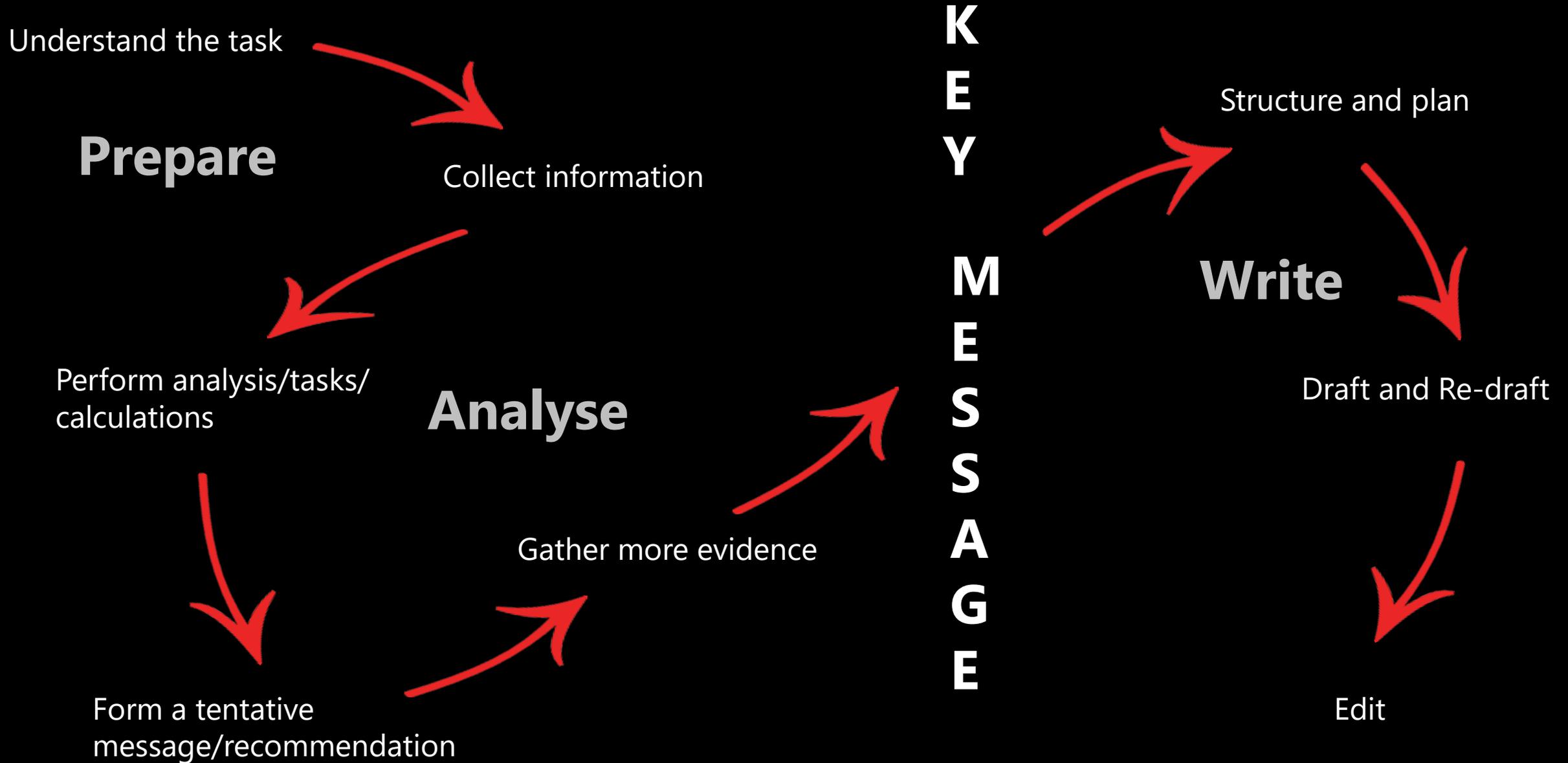
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(Wang 2012, p. 87)

## In sum

- Break down the question carefully
- Consider your key message
- If doing a group report, meet to analyse the question and identify your anticipated key message together

# Research and Writing process



# References

Wang, C 2012, 'An investigation of the adaptive coefficient setting method for the two-hop consensus protocol and the effect of network topology on power systems', *The ANU Undergraduate Research Journal*, vol. 4, pp. 87- 102