



Australian
National
University

Reflective and Report writing

ENGN6250 Professional Practice 1

ANU Academic Skills

Outline

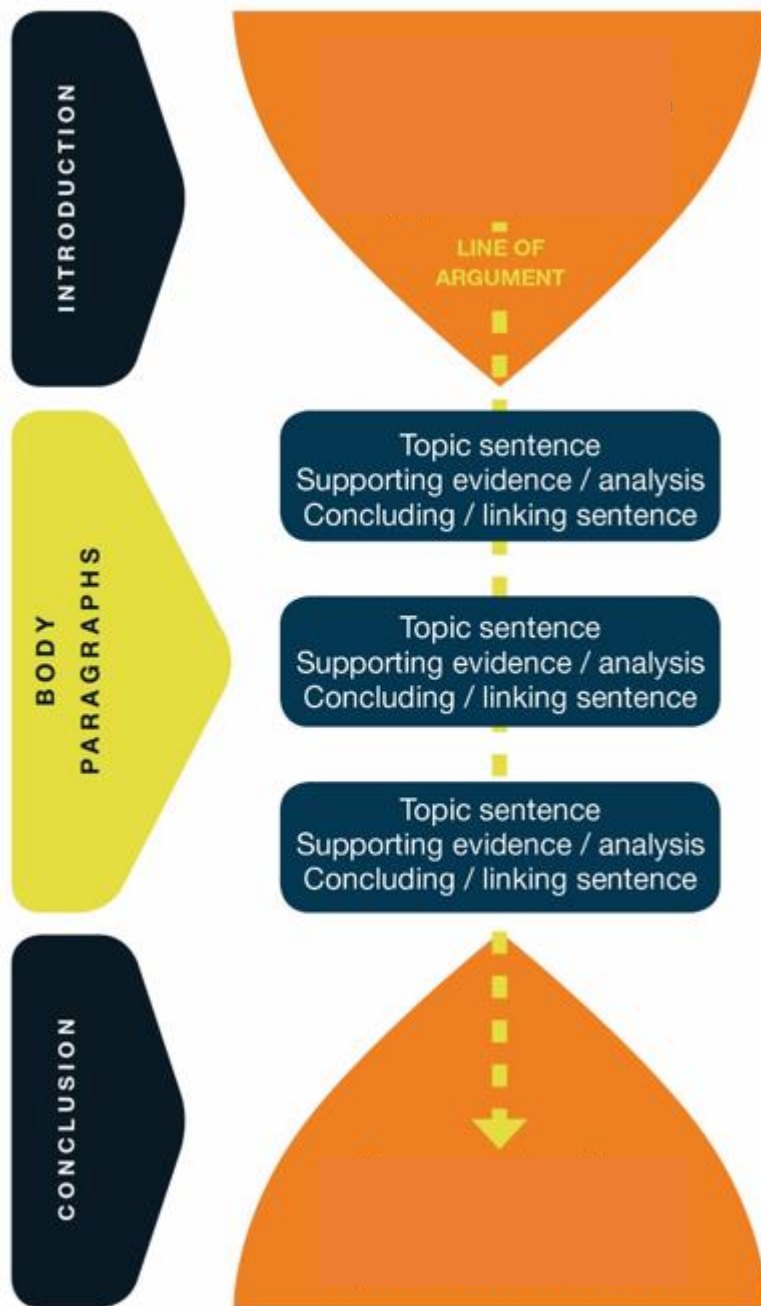
- Reflective writing—career episode
- Report writing
- Academic Integrity

Reflective writing

Your task: career episode reflective pieces

- Write 4 (PP1) 700-word reflections
- **Purpose:** 'an opportunity to develop reflexivity about your own practices and learning, and to develop succinct reflective writing capability'
- You are provided with a question each week to reflect on.
- Use the episode as the case study to answer the week's question.

How confident do you feel
about reflective writing?



What is your argument/ key reflection?

Topic sentences: key reflection for paragraph

Evidence: retell, relate

Summary: overall reflection

Implications: why is it important?

Example questions: what might your key message / key reflection be?

- How does engineering standard/guidelines (in the country where the episode happened) influence your decisions and actions?
- What are the ethical challenges associated with the project and your work?
- How do you (or your team) deal with conflict situations?



Topic sentence states the ***point*** - the reflective lesson

Supporting sentences

Retell – some description of what happened, significant concepts

Relate – this to your previous experience and knowledge, give examples and make connections

Reflect – what did you learn and what would you do differently

Concluding sentence summarises the reflection

Is this good reflective writing?

In Lecture 1 we learnt about X. The lecturer said it is important to think about Y.

Ys areThen we learnt about Z.

In my professional experience, I worked on project Y.

Project Y had many elements, such as A,B, and C. There were many stakeholders involved, and they ...

Is this good reflective writing?

Another pitfall I encountered in my project was the unawareness of team conflicts. The issues became prominent in the middle of the project. Developers failed to keep code consistency, raising severe matters in team performance. Although this is out of my expectations, I managed to resolve the issue by actively communicating with the developers. After learning the "Unknown Unknowns" theory and Cynefin Framework in this course, my thinking, however, has changed significantly. I now understand the nature of the complexity issues in project management: it contains multiple levels known knowns, known unknowns, unknown knowns and unknown unknowns.

Reflective language

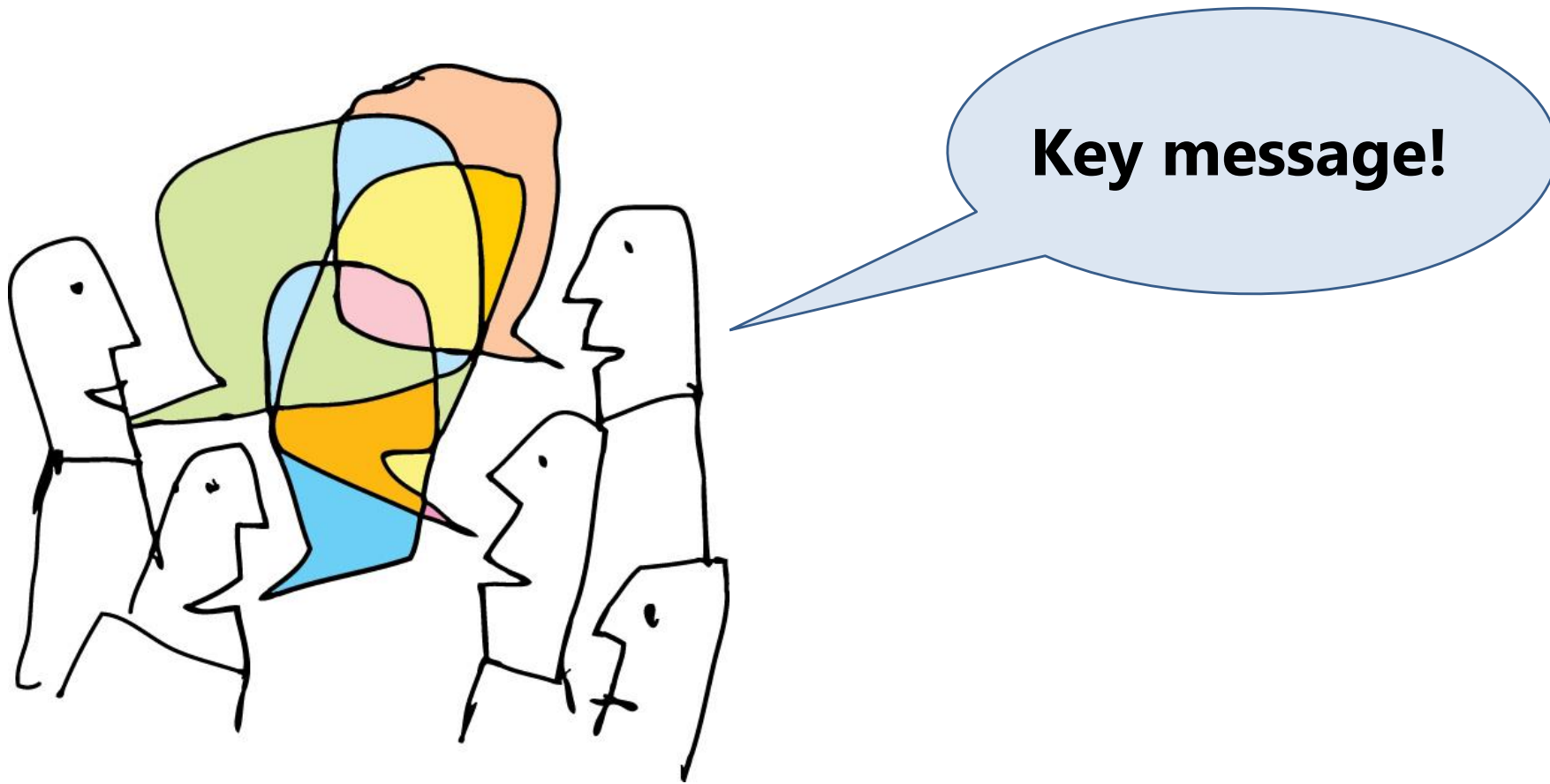
- Think about what you currently know
- 'I used to think/believe that ...'
- Make explicit connections between this knowledge and understanding and what you're learning, observing and/or experiencing
 - 'My thinking/understanding/perspective, however, has changed...'
 - 'I realised...when...' 'It was not until X that...'
 - 'These new ideas about...for example...'
- Reflect on extent of learning and why (source of learning)
 - 'This was a major learning experience for me as it taught me...' 'The experience has helped me to...'
 - 'I attribute this shift in understanding mainly to...'
- So what? Why does it matter? Implications of insight for future practice and development.
 - 'I feel that X has made a huge difference...' 'I will therefore...'
 - 'The fact that the my ideas about X changed the least suggest that in future...'

Report writing

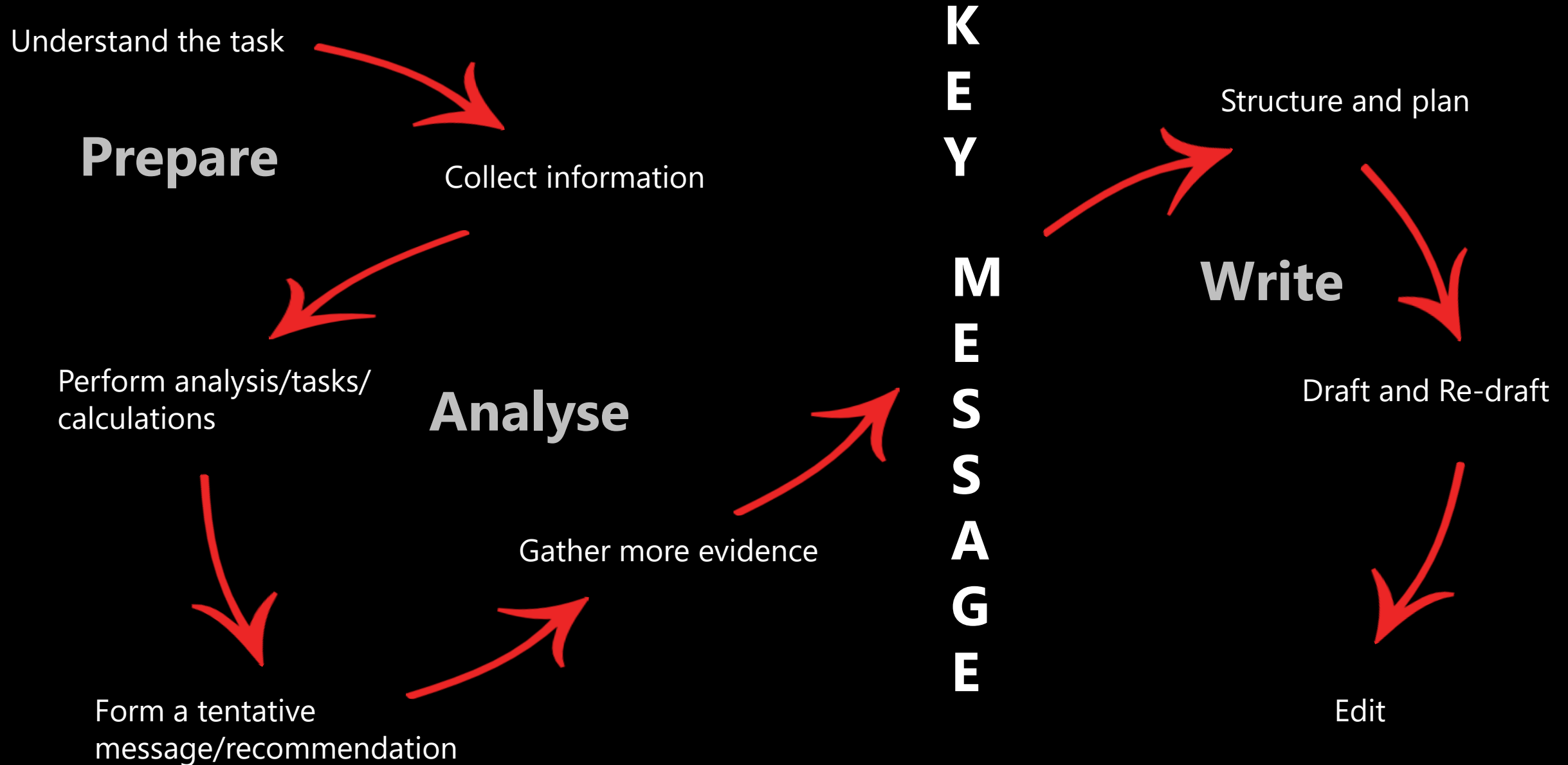
Your task

- You've been asked to choose 1 of 4 cases and then
- Research and **write a 2,000 group report**
- The report includes three sections:
 - Project summary
 - Findings
 - Discussion

What is the most important thing you need to include in a report?



Research and Writing process



Information about your project can be collected using the following questions. Based on your research findings, you need to select the most prominent finding and present it as the key message.

- 1) What is the project about?
- 2) What is the context?
- 3) What are the binding guidelines/standards that shape engineers' judgments and policymakers decisions in the project?
- 4) Who are the key actors in the project?
- 5) Who benefits most from the project?
- 6) Who is marginalised in the project, and why?
- 7) Which types of skill set are necessary in completing the project?
- 8) How the project is interacting with social and environmental systems?
- 9) What are the ethical challenges for the engineers involved in the project?
- 10) What are the points of conflicts among different actors involved?

What are the key overall questions to help you come up with your key message?

1. Did the engineers/or the decision makers in their case study act responsibly given the ethical challenges and nature of the project? What did they do well, what could they have done better?
2. How could engineers/professionals involved in the project think and practice more responsibly?

Your task: how will you frame and then support your key message?

Project summary:

- introduce the reader to the project and the situation in which it has emerged.
- The provided 10 guiding questions in Step-3, can help you to structure this section.
- **Key message statement**
- Signposting

Findings

- Here is where your group can show the findings that emerged from discussions and research that you, as a team, have identified as supportive of your team's key message.

Discussion

- Write the discussion section by answering the following question: How could engineers/professionals involved in the project think and practice more responsibly?

Activity: Key messages

- Evaluate each of the samples. For each, identify the problems. What needs to be done to improve the key message?
- Sample 1:
- Automatic Image Annotation (AIA) is rife with problems. It is important that programmers develop approaches to deal with these issues.

Activity: Key messages

Sample 2:

Automatic Image Annotation (AIA) is good at identifying and labelling concrete things, but is less good at labelling the concepts or ideas conjured up by the images. The problem is these are what users look and search for, hence it is important to create AIA that better reads and predicts these elements. This report provides recommendations about how professionals can think and practice more responsibly.

Activity: Key messages

Sample 3:

It is difficult for Automatic Image Annotation to predict the types of abstract keywords that are desirable to online users. This report describes the development and testing of a system that interprets an image's visual attributes and proposes high-level/abstract words commonly associated with those attributes, drawing from a pool of 50 popular conceptual keywords. It recommends that professionals involved in AIA need to select diverse attributes so as to show responsibility towards diverse users.

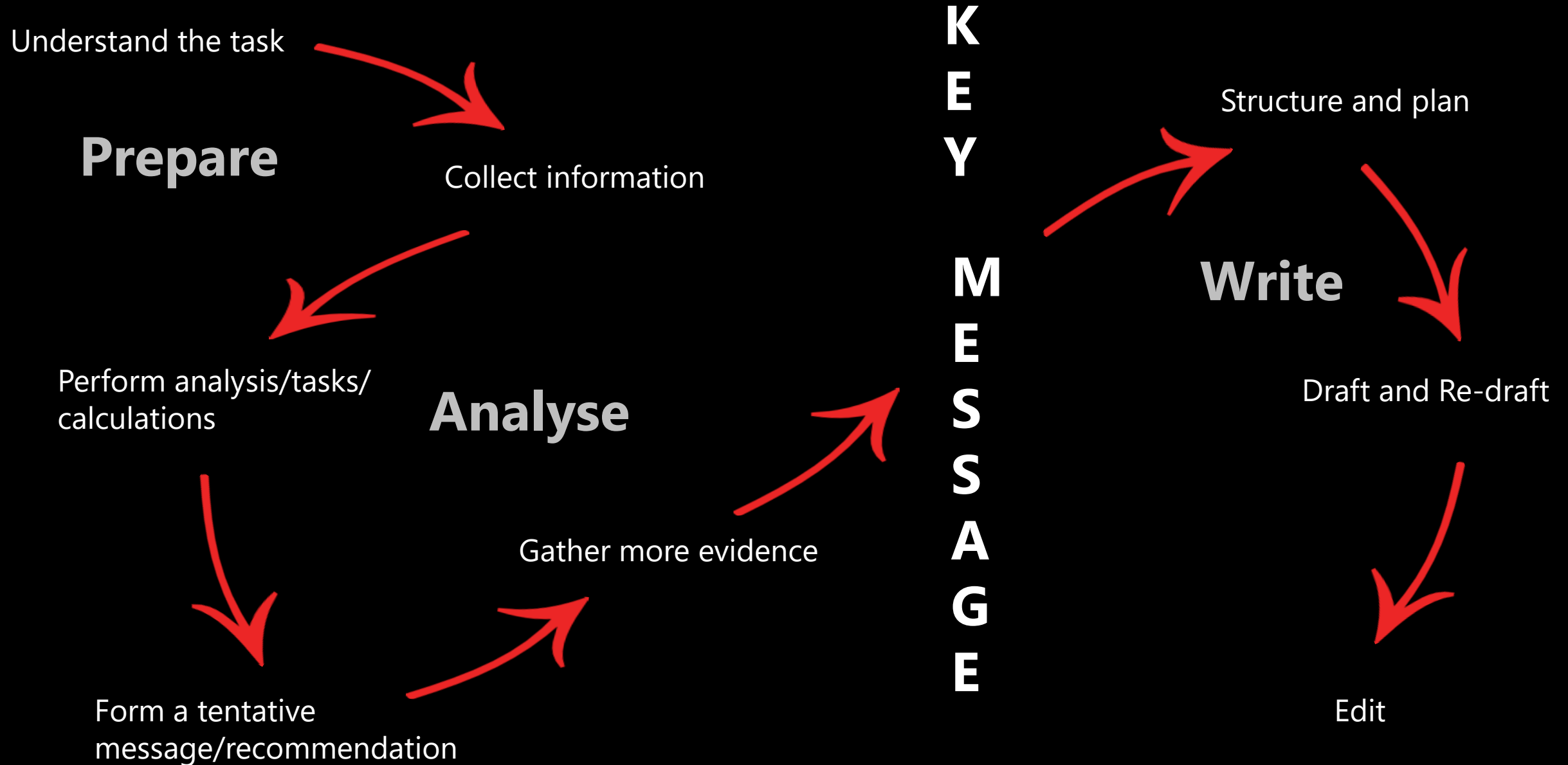
A key message

- Is your main **answer to the question/s**
- Establishes the **purpose** of your report
- Establishes what you “**do**” in your report (e.g. describe, review, test, analyse, identify and recommend)
- Conveys not only what happened, but **why?**
- Structures your report: you write to **persuade** your reader of the key message

Begin a discussion on what your key message might be.

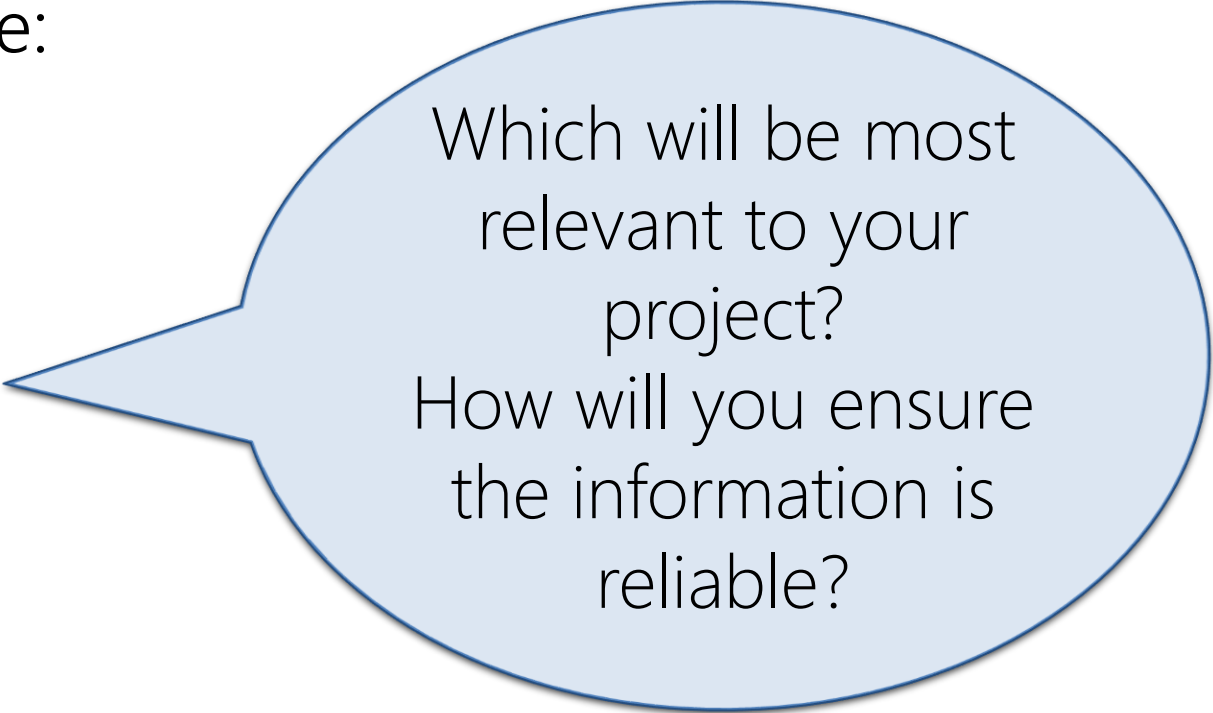
- Discuss in groups

Research and Writing process



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



Which will be most relevant to your project?
How will you ensure the information is reliable?

Tip: get to know [SuperSearch](#)! Also look at [Evaluating sources](#)

PURPOSE – Why am I reading this? What information do I need? How much time and energy is it worth?

1. Search

How is the article laid out?
What are the sections?

2. Skim

What are the key ideas in the abstract, key words, intro, headings, topic sentences?

3. Select

Which sections or paragraphs are relevant to me?

4. Study

Closely read the relevant parts and take notes

Report structure

The report includes three sections:

- Project summary
- Findings
- Discussion

Structure should support key message

There must be:

- A logical sequence of ideas and information
- A line of narrative that persuades the reader you have a good solution / recommendation / analysis

Therefore:

- Each section has a purpose that connects to the key message
- Each paragraph has a point that connects to the purpose of the section



An unclear structure

- Project summary: This project describes the development and testing of an AIA system. It recommends that professionals need to select diverse attributes so as to show responsibility towards diverse users.
- Findings
 - Benefits of AIA system
 - Interesting that AIA can identify various colours
- Discussion
 - AIA has many benefits

Another structure: is it better?

- Project summary: This project describes the development and testing of an AIA system. It recommends that professionals need to select diverse attributes so as to show responsibility towards diverse users.
- Findings
 - Challenges of AIA is that keywords are limited, not diverse
 - Benefits of AIA system
 - Interesting that AIA can identify various colours
- Discussion
 - Professionals should select diverse attributes
 - AIA has many benefits

An improved structure: consistent KM

- Project summary: This project describes the development and testing of an AIA system. It recommends that professionals need to select diverse attributes so as to show responsibility towards diverse users.
- Findings
 - Benefits of AIA system
 - Interesting that AIA identifies various colours, but not a diverse range
 - Challenges of AIA is that keywords are limited, not diverse
- Discussion
 - AIA has many benefits
 - However, the issue of diversity is important for responsible practice, e.g. for diverse users
 - Therefore, professionals should select diverse attributes

Writing the paper

Project summary (1. background / context)

- Here, you need to introduce the reader to the project and the situation in which it has emerged.
- Use the 10 guiding questions in Step-3 to help.
- The section is expected to cover topics that underlie the questions, including:
 - The context
 - Different systems involved
 - Key actors and the interactions between them
 - Social, environmental, and ethical challenges posed by the project.

Project summary

- 2. identify the issue / problem (also arrived at from the guiding questions)
- **Key message statement**
- Signposting

1. A sample project summary: background / context

This report is prepared by Urban Technology Consulting for the Knowledge College in order to enhance its current database management system and improve its services for its students. Thus, it is proposed that data mining be adopted by the college to replace its current system. Data mining is a process of extracting data from large databases and transforming them into useful information to support companies in making crucial business decisions. Besides having the capability to discover information within data warehouses that queries (Oracle8) and reports cannot effectively reveal, data mining is also equipped with techniques such as database segmentation, predictive modelling, link analysis and deviation detection that will help to find patterns and relations in data. Thus, data mining is a better database management system compared to Oracle8. Furthermore, data mining is also extended by the use of knowledge discovery that will allow users to select, transform and discover new information that will help business decision making ...

2. A sample project summary: issue / problem

However, there are problems with data mining. Privacy is one of the biggest issues. The ways students' data are used by the college should strictly be based on the sole purpose of the data collection, and nothing else. Data integrity is also another issue.

3. A sample project summary: key message

To solve this problem, access control should be implemented to prevent any intentional distortions of data. The high start-up cost is also a problem. To solve this, systems integration is used to move from Oracle8 to data mining, thus keeping the college's current database.

There are many different data mining tools in the marketplace that can be used for different purposes. Thus, to determine the right application tool for Knowledge College, certain characteristics should be considered, such as the data preparation facilities, the college's data mining operations, product scalability and performance and facilities for visualization results. Those principles will help the college to determine the data mining application that is suitable for its operations and goals.

4. A sample project summary: signposting

The following sections of this report will first further elaborate on the problems associated with the current database management system. Next, the report will evaluate the advantages and disadvantages of the proposed solution of data mining. Finally, the report will provide recommendations on how to minimise the disadvantages and make the best use of the advantages in order to support the College's student administration.

Findings

- Present your main findings / results
- Aligned with / in support of key message
- Describe the findings in detail
- Use graphs, tables and diagrams where applicable

Discussion

- To write the discussion section,
 - You'll be drawing out the implications of your answer to the question:
 - How could engineers/professionals involved in the project think and practice more responsibly?

What to include in Discussion

- **Explanation** for the findings, supported by literature, and / or speculation about the findings, also supported by references
- **Limitations** of the study that restrict the findings generalisability
- **Implications** of the study
- **Recommendations** future research and / or practical applications

Paragraphing to be persuasive

Body	Topic sentence
	Evidence/Examples
	Concluding/linking
	Topic sentence
	Evidence/Examples
	Concluding/linking
	Topic sentence
	Evidence/Examples
	Concluding/linking



Topic sentence states the ***point*** - the idea and the argument

Supporting sentences provide evidence and analysis to support the point

Concluding sentence summarises the idea and/or links to the next



Findings paragraph

We now predict tags from images and inspect the prediction results on 5,000 testing images. Figure 8 shows the top 20 images and predicted tags using a number of clusters with total distance feature selection. **The predicted tags are mostly relevant** to the images, especially the top-ranked tag for each image. **This is very satisfactory performance** as the number of target tags considered is only 50, so even a human labeller might not be able to label the image with five relevant tags from the target list. Figure 9 shows the bottom 20 images and predicted tags using a number of clusters. **Again the predicted tags are mostly relevant to the images, which is much better** than the direct approach.

Discussion paragraph

Facilities for visualization results are an important aspect of data mining tools. One of the advantages of data mining against the use of Oracle8 is that, employing appropriate visualisation techniques can consistently reduce the staff's technical training. In addition, "better visualization also improves understanding and interpretation of the results" (Shawn 1999:2). Furthermore, the data obtained from data mining are unknown; consequently the users will have no knowledge of the results found and require help in their interpretation (Threading 2001:1). **Therefore, the importance of adequate visualisation is a crucial factor in choosing the right data mining application tool.**

Ways to incorporate sources into your writing

Summarise

- Succinctly explain someone's argument using your own words
- Use to capture the essence of an argument by so focusing on the main ideas only

Paraphrase

- Explain someone's idea in detail using your own words
- Use when you need to provide specific detail/evidence of an author's argument

Quote

- Copy others' words exactly
- Use sparingly when you want to highlight a key idea or key researcher/scholar

Synthesise

- Combine multiple sources that have a similar argument
- Use to summarise multiples sources or to strengthen your argument

Original:

In the case of public BT, transactions may appear private because they are not directly tied to a user identity. However, they are recorded in a public ledger. Thus, transaction patterns can be observed, and it is possible to link a user identity to an address. A major contribution of BT is the degree of transparency and decentralization that it provides along with an adequate level of security and privacy that was previously deemed impossible. However, no solution for transaction privacy is perfect.

Plagiarism or not?

BT systems have some major privacy limitations because transaction patterns can be observed. This will link a user identity to an address (Hasanova et al. 2019).

What does Turnitin show?

Bitcoin and blockchain security and privacy

Huru Hasanova, Ui-jun Baek, Mu-gon Shin, Ky...
Publication

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Too close to the original

Original:

In the case of public BT, transactions may appear private because they are not directly tied to a user identity. However, they are recorded in a public ledger. Thus, transaction patterns can be observed, and it is possible to link a user identity to an address. A major contribution of BT is the degree of transparency and decentralization that it provides along with an adequate level of security and privacy that was previously deemed impossible. However, no solution for transaction privacy is perfect.

Plagiarism or not?

Hasanova et al. (2019, p. 25) argue that although BT transactions appear private, "transaction patterns can be seen, and it is possible to match a user identity to an address".

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< Huru Hasanova, Ui-jun Baek, Mu-gon Shin, Ky... >
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Hasanover et al. (2019, p. 25) argue that although BT transactions appear private, "transaction patterns can be seen, and it is possible to match user identity to an address".

Not the same as the original (quote)

Original:

In the case of public BT, transactions may appear private because they are not directly tied to a user identity. However, they are recorded in a public ledger. Thus, transaction patterns can be observed, and it is possible to link a user identity to an address. A major contribution of BT is the degree of transparency and decentralization that it provides along with an adequate level of security and privacy that was previously deemed impossible. However, no solution for transaction privacy is perfect.

Plagiarism or not?

According to Hasanova et al. (2019, p. 25) whilst BT technologies promise privacy and security, it is possible to trace a user by observing the pattern of transactions they make.

What does Turnitin show?

According to Hasanover et al. (2019, p. 25) whilst BT technologies promise privacy and security, it is possible to trace a user by observing the pattern of transactions they make.

No match - correctly paraphrased and referenced

Turnitin practice site

Shows the matching text in the original source

Click here to swap views between the originality report and marker's comments

Overall similarity percentage. It is meaningless by itself – you need to check each text match.

Colour-coded detail about sources that match

Interpreting an On...
A study by Grebitus...
pay for locally grow...
somehow better tha...
preferences in buyi...
compared with thos...
that local apple attributes are better, the more they are willing to pay for those apples.
However, issues regarding apple crops' requirements for solar energy, wind energy, tidal energy, and biomass energy mean that it is important to consider their sustainability.
Organisations such as Geoscience Australia, Australian Bureau of Agricultural and Resource Economics (2010), and the UN Committee on Economic, Social and Cultural Rights (1999) make it clear that in terms of the right to adequate food, we need to consider

Match Overview		
39%		
Match 1 of 1		
1	agriculturejournals.cz Internet Source	7% >
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Academic integrity Wattle site

- Go to Wattle
- Search for "Academic integrity"

Dashboard / Courses / Search / academic integrity

Search courses

Search results: 11


 [Academic integrity](#)

Category: ANU Community Sites

Academic integrity

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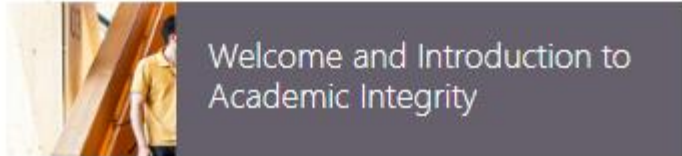
General



Module 1 Module 2 Module 3 Module 4 Module 5

Announcements

Welcome



ANU Academic Skills

Helping you to achieve academic success!



Peer Writers

- Ask us a quick question
- 10-15 min drop-ins
- Face-to-face or via Zoom
- During semester, Mon-Fri 11am to 1pm



Writing Coaches

- Check you're on the right track
- 30 min booked appointments
- Face-to-face or via Zoom
- Written feedback also offered
- During semester, Mon - Fri 10am to 4pm



Learning Advisers

- Excel in your research writing
- 45 min booked appointments
- Face-to-face or via Zoom
- Written feedback also offered
- Throughout the year, Mon - Fri 10am to 5pm

LET'S SPEAK ENGLISH!

Join fun conversation groups, make new friends and meet local students!

All ANU students welcome!

Weeks 1-12

Mon, Wed & Fri 12-1pm on Zoom

Tues & Thurs 12-1pm on campus

Marie Reay Room 5.05



TO JOIN ZOOM SESSIONS:

- In Wattle, enrol in the 'Academic Skills appointments' site
- Go to the Let's Speak English section
- At the time, use the Zoom link

"Let's Speak English has reinforced my communication ability and developed my fluency in English speaking."

ANU Academic Skills



anu.edu.au/english

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