PROFESSIONAL PRACTICE 2

Australian
National
University

COURSE CONVENOR
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COURSE GUIDE

Learning Outcomes

Upon successful completion, students will have the knowledge and skills to:

1. Demonstrate understanding of the responsibilities of membership in a professional community through engagement in ethical reflective practice, critical self-review and peer evaluation.

2. Justify, interpret and communicate professional propositions and decisions to technical and non-technical audiences.

3. Identify, analyse and synthesise information from multiple sources when developing solutions to complex problems.

4. Apply creativity, sensitivity, and initiative to decision-making and leadership of diverse team activities, especially where these involve negotiation of disparate stakeholder requirements.

Semester 2, 2021

10 hours per week (typically 3.5 hours of contact, of which 2 hours of tutorial activities, and 6.5 hours of non-contact study) for 12 weeks.

To enrol in this course you must be studying Master of Engineering or Master of Machine Learning and Computer Vision, and Graduate Diploma of Computing, Master of Computing and Master of Computing (Advanced).

Students will need to be familiar with the resources on the reading lists from this course each week before attending the seminar and tutorial.

Assessment Summary

	Assessment Task	Details	Value (%)	Week Due	Return of Assessment
Seminar Tasks (40%)	Practicals	Group presentation (10%) Individual opinion (op-ed style) (15%)	25%	Week 3-11 Two weeks (14 days) after presentation	TBC
	Academic Perspective Article	Individual assessment	15%	Week 4-10	
Workshop Tasks (60%)	Weekly Lessons	Lesson quizzes x 10*	5%	Week 1-8	Week 1-8
	Responsible Innovation Project **(Teams=4 members)**	• White paper report (15%) • Project Presentation (10%) • Podcast (15%) • Individual reflective piece (10%)	50%	Week 11, 12	When Semester 2 results released (2 Dec, 2021)
	Workshop contribution		5%		

Seminar Tasks (40%)

- ## Perspective Article (15%)

For this assessment, each student is asked to write an academic perspective about professional practice in 21st century. You can submit it anytime during week 4-10.

Perspective articles are written about current challenges of professional practice in engineering/computer science and how it should evolve into a more responsible one to address social, ethical, and environmental issues in the world around us.

In other words, the main question to be addressed in this article is:

- What's the nature of 'responsible' professional practice in 21st century?

While a research paper deals with experimental data in a somewhat formulaic, rigid manner, a perspective piece in contrast should take available research and add a compelling depth of analysis, novelty of insight, and/or opinion. Perspective pieces should be written in an essay format with a clear authorial voice on a topic you have an opinion about, or may find it interesting.

Don't forget perspective articles generally are intended to provide a forum to discuss models and ideas from a personal viewpoint. They are forward looking and/or speculative. They may be opinionated but should remain balanced and are intended to stimulate discussion and new experimental approaches. They can be controversial, but in this case should briefly indicate opposing viewpoints.

This assessment will allow you to take your area of interest and what you have learned in PP courses to the next step. The best articles will be published on Responsible Innovation Lab's website. So, take this chance by grabbing your audience's attention and sharing your perspective on a topic you like most.

Perspective Guidelines:

- Write about a topic in which you have a high level of experience and insight: this could be your research, a topic within your major, and/or a more personal experience (as long as it relates to the future of professional practice)

  Feel free to choose a topic you're interested in and important in the discussion about the future of professional practice. This includes a whole range of themes and issues related to this area, from education, training, and skills to the role of science fiction.

- Article should start with a preface, which should set the stage and end with a summary sentence. It is important that the preface contains essential key words in your article.

- Use concrete examples (published statistics, well-supported theories, strong analogies) to further your points and overall narrative.

- Display items and explanatory boxes (used for explanation of technical points or background material) are welcomed.

- Do not exceed 1,000 words.

- Avoid promotional material of any kind, clichés (i.e. to be or not to be…), flowery language, jargon, and buzzwords. Language should be accessible, novel concepts defined and specialist terminology explained.

- Do not embellish or misrepresent existing research to further your perspective's points.

- The maximum number of references is twelve; Harvard format.

- Have someone impartial read your submission to ensure that it makes sense and keeps their interest.

- Before beginning to write your perspective article, please see these examples.

A seminar on how to write an academic perspective piece will be run on Tuesday Aug 3, 2021. This session will help you to know how can get the highest mark in this task.

• Practicals (30%)

You will work with your teammates (i.e. your group in workshop) during seminar session on a subject from a list of topics offered by course convenor. The exercise is called practicals and is followed by a short lecture from course convenor every week, from Tuesday 9 Mach, 2021 (i.e. week 3)

For Practicals each group need to present a group presentation and submit a perspective piece individually (in two weeks after presentation). The aim of this this assessment is to

- Engage students in the theme of seminar session

- Help students to develop new knowledge throughout the semester on a particular subject.

- Help students to develop new skills and competencies (presentation, facilitation, writing a commentary piece)

For this assessment, groups are asked to familiarise themselves (and then, rest of the class) with a particular subject that is assigned to them. For the exercise, each group will be provided with key resources to engage the rest of class with some concepts, theories, discussions and examples related to the theme of the week. The group will have some freedom to adjust the group work if they think it will help to achieve the outcomes. Group will also be supported by course convenor and/or workshop facilitator in case they need help.

STEP 01
Get together with your group

This is a group you already formed in workshop session. It is the same group you will work with on responsible innovation project during workshop sessions throughout the semester.

STEP 02

Select your preferred subject

A list of topics are provided in Wattle site based on seminar's weekly themes (see page 6). In Table 1 you find list of subjects for your pracs (presentation & perspective piece).

Get together as a group and advise your workshop facilitator about your preferred subject. The process of selecting a subject works on a first-come, first-served basis.

STEP 03

Familiarise yourself with the subject area

Familiarise yourself with the subject area do some serious brainstorming to generate some ideas about how you want to present the topic in the class in a way that is engaging and beneficial to students.

STEP 04

Present as a group (10% of final mark)

Each group will have 15 min to engage the rest of the class with the topic and keep them interested. You may ask for some extra minutes if you need to do some more interactive activities.

We encourage you to use your presentation time for both delivering a topic and also actively engaging students through some interactive activities.

The students will reach a better understanding of your topic if you:

- *Set the context clearly.* This means setting the boundaries of what will occur in the presentation and associated discussions, and introducing the topic of the practical

- *Ask open-ended questions.* To encourage good discussion or participation in exercises, open-ended questions which don't have a simple 'yes' or 'no' answer are better than close-ended questions. By asking why, and how questions, you would be likely to get a number of different responses which would be discussed for some time. It is thus suggested that you think about developing open-ended questions or activities that will elicit responses to the questions linked to the topic. Don't simply repeat the practical questions – develop questions or exercises that look into each of the questions in more detail. Remember that questions that ask 'why' or 'how' something occurs are more likely to generate discussion than questions that ask 'what' has occurred.

- *Not be afraid of silence.* When you ask a question of a group, it is common for members of the group to need some time to think before answering the question. Don't worry if there is silence – often this provides useful space for members of the group to think, and for those who may find it difficult to break into a discussion to speak up.

- *Encourage all group members to join in the exercise and discussion.*

- *Prevent individuals from dominating the exercise or discussion.*

- *Summarise and conclude.* At the conclusion, summarising the exercise and/or discussion and wrapping up.

- *Use creative techniques to stimulate discussion.*

STEP 04

Write an opinion piece individually (15% of final mark)

After your presentation and listening to the following up discussions, each student needs to submit an opinion piece on the subject (<1000 words). It is very like writing a blog post/comment for international audience in a well-known publishing outlet such as "The Conversation".

A seminar on how to write an opinion or an op-ed piece will be run on Tuesday Aug 3, 2021. This session will help you to know how can get the highest mark in this task.

You can include supporting materials for this piece as the appendix.

Please note the practical readings can be lengthy so don't leave them to the last minute!

Themes and Subjects

Table 1 practicals themes and subjects

Weekly Theme	Description	Subjects for Pracs
WEEK 1 Introduction to Professional Practice 2		
WEEK 2 How To Write Like A Professional For Non-Professionals (writing an academic perspective article and opinion/Op-Ed piece)		
UNPACKING EXPERTISE During weeks 3-6, we will learn more about what constitutes expertise and profession in our new world and recent challenges facing professionals in different disciplines.		
WEEK 3 Evidence and Expertise	As engineering and computer professionals, you need to perform effectively in complex contexts. But how should we know our context? How does the context shape you and your practice as a professional? In week 3, we will discuss about what's an expert, and the importance of evidence in defining professional standards and expectations. During seminar we will also discuss what evidence-based practice is and why engineers and computer scientistic should be aware of it.	(1) What's an expert? Contested expertise (2) Evidence-based expertise (3) Politics of evidence
WEEK 4 Responsible Expertise	In week 4 we will learn about different types of professional (regarding their expertise) such as I-shaped, T-shaped, and Pi-shaped. We will also learn more about multidisciplinarity, interdisciplinarity, and transdisciplinarity and their importance in professional practice in engineering and computer science.	(1) Types of expertise (2) Multidisciplinarity, interdisciplinarity, and transdisciplinarity (3) Responsible and systems-oriented expertise

WEEK 5 Expertise Paradox	It is not always the best intention to provide the best results. Sometimes our expertise and the way we practice as a professional may create the most harm in long term for next generations and the environment. In week 5 we will discuss about these issues. In particular, we will learn about Jevons paradox and the application of Jevons paradox in the emerging fields such as AI, and other emerging areas in energy sector.	(1) Jevons paradox (2) Future of Jevons paradox (e.g. AI, energy) (3) Politics of Jevons paradox
WEEK 6 The Crisis Of Expertise	Trust is one the most important feature of any social system. It is a driving force that hold our communities together. In various topics such as climate change and vaccinations, we can see the downfall of trust between professionals and the public. People tend to dismiss advice from professionals. COVID-19 pandemic also brought into sharp focus the importance of trust between public and professionals. In week 6 we will discuss how this new situation is related to our professional practice in engineering and computer science, and what should we do as professional to keep the trust going.	(1) The importance of trust (2) Expertise in a 'post-truth' society (3) Expertise in post-Covid society

FUTURE EXPERTISE

During weeks 7-11, we will learn more about how new changes in our world would affect professional practice in engineering and computer science in the years to come. We will focus specifically on industry 4.0 and will see how it is related with skills we need to develop as engineering and computer professionals.

WEEK 7 Constructing Future	During weeks 3-6 we learned what constitutes expertise and profession in our new world and recent challenges facing professionals in different disciplines. Before we continue our discussion on how these new changes will affect the professional practice in engineering and computer science in future, in week 7 we will learn more about how the future is constructed and the role engineers and computer professionals. We specifically discuss about the relation between imaginaries and future that is built by engineers. We will learn how fiction puts the science in engineering, and sci-fi inspires engineers and computing professionals to build a brand new world.	(1) The power of science fiction I (2) The power of science fiction II (global perspective) (3) Socio-technical imaginary

WEEK 8 Industry 4.0	In week 8, we will learn about history of industrial revolutions and industry 4.0 and its impact on new demanded employees' competencies development. We will discuss the top skills needed to succeed in the fourth industrial revolution.	(1) History of industrial revolutions (2) Concept of industry 4.0 (3) Politics of industry 4.0
WEEK 9 Engineering Expertise In Industry 4.0	In week 9, we look into a wide range of Industry 4.0 applications in different disciplines and discuss how professional practice in engineering and computer science would be evolving in the coming years. We learn which skills are important for success in the industry 4.0 market and how those skills can empower us to make better decisions in our professional practice.	(1) Industry 4.0 applications (2) Industry 4.0 readiness (3) Supply Chain 4.0
WEEK 10 Global Perspective On Industry 4.0	According to World Economic Forum, India and China together can lead the Industry 4.0. Also other emerging economies are increasingly focusing their strategies to become a force in the new industrial revolution. In week 10, we explore industry market in the future of three countries: India, China, and Germany. We will learn how they are different and how they are similar to each other. Through that we will discuss about set of skills and competencies that are, and will be, in demand in these countries as well as globally.	(1) Industry 4.o in Germany (2) Industry 4.o in China (3) Industry 4.o in India
WEEK 11 Intervention in Industry 4.0	Systemic intervention is a deliberate operation by intervening agents that seeks people to make alterations in their lives in psychology. This analyses how people deal with challenges in the contemporary era, including their power relations and how they reform relationship with others. In this week we look into what's the nature of systemic intervention in Industry 4.0.	(1) Systemic failures (2) Systemic interventions (3) A systemic and responsible industry 4.0

Workshop Task:
Design Thinking - Lesson Quizzes (5%)

Lesson quizzes assessment task is designed for you to achieve against course Learning Outcomes 1 & 2. You will need to prepare for the seminars each week by completing the weekly lessons. The lessons develop a critical understanding the theories and practice relating to design thinking, project management, research practices, teamwork, communication and responsible innovation. Each lesson includes associated quiz questions. The Week 1 Lesson includes quiz questions for practice only. Week 2-10 Lesson quizzes are marked and contribute to your final grade.

Week	workshop topics	Tasks Due Due Friday 23:00 unless otherwise stated
1	Introduction to ENGN/COMP 8260	Week 1 Quiz (non-weighted) (Online quizzes start)
2	Scoping the project & Researching user needs	Week 2 (a) Quiz (10 marks) Week 2 (b) Quiz (20 marks)
3	Empathising with the user & Reframing the problem	Week 3 Quiz (15 marks)
4	Synthesising user information	Week 4 Quiz (15 marks)
5	Making decision	Week 5 Quiz (10 marks)
6	Ideating solutions and prototyping	Week 6 Quiz (10 marks)
8	Iterating solutions through feedback & communicating project outcomes	Week 8 Quiz (20 marks)

Workshop Task:
Responsible Innovation Project with Design Thinking (60%)

Responsible Innovation Project assessment tasks are designed for you to achieve against course Learning Outcomes 1-4. You will be working to develop your professional skills and competencies as engineers and computer scientists through a real world industry challenge. Each workshop group is allocated a different innovation project to work on. These large groups of around 30 students will work in diverse teams (4 members) to communicate effectively and solve the industry challenge, transferring complex knowledge and ideas to technical and nontechnical audiences. Students will work on Responsible Innovation Project in the Workshops.

Workshops is delivered in flipped mode. This means you will need to complete the readings, videos, activities, exercises and the associated quiz each week before attending the workshops each week.

To prepare for workshops, view the weekly lesson and check your understanding of the content by attempting the quiz questions. The workshops will then be a great place to practice and apply the relevant theories together with your peers and facilitators. This will also provide you with an immediate opportunity for feedback through active learning, solidifying your development of your Responsible Innovation Project work and associated professional skills and competencies.

The requirements for this assessment task are summarised below.

Due date	Week 11,12
Value	60%
Participation	Individual & Team
Length	n/a
Format	Project repository Handover documents: Project report & presentation and podcast
Submission requirements	Ongoing documentation of project progress (recommended) - Week 11 &12
Assessment rubrics	See PP2 Rubric on Wattle
Hurdle assessment	None

Facilitators work with you during the workshops to ensure your projects are on the right direction and progressing well.

On Week 11, you need to submit all you produced throughout the semester. This includes:

Task	Details	Submit
Project Repository	Set up and maintain project repository team sites	N/A
	Prepare team charter	Week 2
Handover documents and files (50%)	White Paper Report (15%)	Week 11 (22 Oct)
	Project Presentation (10%)	Week 12 (28 Oct)
	Podcast (15%)	5 Nov 2021
	Individual reflective piece (10%)	8 Nov 2021
Workshop contribution (5%)	Workshop contribution (5%)	Week 1-12

Set up Project Repository

Each team needs to set up a project repository where they store, track and manage the project progress. Many groups use the ANU's Licence of Microsoft 365, including Notes, Teams, OneDrive, SharePoint to build an effective repository system. This is also compatible with many industry systems. Where applicable and when choosing your team repository, ensure that your repository meets these conditions:

- **Consult with your facilitator** about who needs to access to what and how access will be managed between your group and your peers.

- Your repository should be **accessible** by your peers, workshop facilitators and course convenor.

- **Transition arrangements** consider the needs of the next project team. For example, you need to ensure that they will have access to, and control over, any tools you have used.

Team Charter

The team charter enables a shared understanding of how the team will work together and lays out a blueprint for individual roles, responsibilities, and operating rules. This charter establishes procedures for both the team and agency management on communicating, reporting, and decision-making procedures (access a template for this document on Wattle).

- Team name
- Team member skill inventory

- Role identification
- Ground rules
- Conflict resolution mechanisms
- Team member sign-off

It is highly recommended that you get sign-off for your Project Charter document from all team members only. Any variation to the Project Charter document during semester would normally require sign-off again.

> *Your workshop facilitator will check with you in _week 2_ to ensure the group has completed the team charter.*

Week 7 Audit

Week 7 is about three-quarters through your project. After the teaching break, you should be able to report on the milestones you planned and achieved.

In week 7, the workshop facilitator will work with you to Audit your project progress. Prepare everything, including your project repository, your initial idea/solution for the challenge, etc.

Final Submission

Week 11 and 12 are the final weeks to submit all your final deliverables. Your project solution should be finalised by this stage, and you should have prepared final documentation. By this stage, you should include the following information navigable in your repository (before final submission):

- Project presentation submission and team participation at the project showcase (information below)
- Project report
- Any other handover documentation

1. White Paper Report

Groups will be required to submit a copy of a white paper report in Week 11 (access a template for this document on Wattle). This is different from reports or articles you usually write. A white paper is an authoritative report, usually created to educate the reader. They delve deep into the subject of study, by offering a broad analysis. A good white paper will outline its purpose from the outset to evaluate the issues surrounding the set topic within a given context, highlight the challenge, and deliver a solution.

A white paper report should contain key takeaways and its structure should be as clear as possible, with a title page, an easy-to-read table of contents, an overview of the problem that will be addressed, solutions to the problem and a conclusion.

- ☐ **Cover page**: professional-looking, immediate information on the content of the white paper
- ☐ **Title**: Grab the reader's attention with a smart, snappy title.
- ☐ **Table of Conant**
- ☐ **Abstract**: Explain the premise of the white paper in a brief executive summary.
- ☐ **Problem statement**: Describe the problem and the challenge you aim to address.
- ☐ **Background**: Provide information and data related to solving the problem.
- ☐ **Solution**: Identify the solution.
- ☐ **Conclusion**: Neatly finish the paper with a restatement of the key takeaways.
- ☐ **References**: Include all the references and sources you used in your research project.

You can use the template for white paper uploaded on Wattle. However, feel free to design the report as you wish.

Guideline

- Include page numbers that correspond with the table of contents and keep the reader focused on the document.

- Include images for the reader's interest and to provide a visual context for the writing.

- Use consistent design elements throughout the white paper like fonts and colors.

- Illustrate data points or valuable takeaways with creative infographics.

- After explaining a big idea, summarize the key takeaways with a series of illustrated bullet points.

- Highlight interesting quotes or valuable data in a separate text box or with other visual elements to grab the reader's attention.

- Consider the symbolism your images convey.

- Keep the elements of your layout consistent, but vary how they're used to maintain reader interest and engagement.

- Readers should be able to identify the main takeaways of each page of the white paper quickly through the writer highlighting important takeaways and providing enticing design.

For more about writing a great white paper → Check here.

In the white paper please ensure you include your group assessment about the challenge and the context in which the innovation occurs:

Challenge Assessment

- What are the key words in the project challenge? Evaluate the most recent articles and news in the field related to these key words, themes, topics or concepts.

- What are the recent innovations that relate to your project challenge? They could be technological, behavioural, or cultural. What is the edge needed for your research or solution?

- Take a look at other solutions relating to your project challenge. Which ones worked? Which ones didn't? Are there any that feel similar to what you propose to investigate as part of the research design? Any solutions that have inspired you to possibly use or adapt?

Situation assessment

- Include a description of the relevant environmental conditions affecting the client business, including relevant statistics, trends, competitors, etc (macro level)

- Who is the client base? Outline the trends, relevant statistics and information relevant to the project. (micro level)

- Assess how the business needs in relation to the project challenge are currently being met (strengths) or not met (weaknesses). What can be improved?

- Analysis of the gap between the current situation and the stated objective(s). What opportunities does this create?

2. Project Presentation

Each group presents a 10-minute presentation that responds to team project work (Week 12).

Students to submit 1 copy per project team to case-study project presentation link via Wattle:

- 1 x PDF/PPT version of your presentation

Your workshop facilitator will check the uploaded docs and liaise with the team representative if there is any need for follow up regarding the doc submissions before your workshop session.

3. Podcast (15%)

Each group produce a Podcast from your learning journey about the project.

You can use your maximum creativity in podcasting by engaging with the topic aurally and orally. By engaging the senses more deeply, you can also gain a more comprehensive understanding of the topic.

You figure out the structure of the episode in your group discussion and decide how to incorporate music and other audio to make it more engaging. You can use different styles (e.g. the conversational, journalistic, etc) to think outside the box in terms of presentation.

We encourage you to check Radio services like NPR and the BBC to find good examples of engaging, informative programming for your podcast.

Your podcast should contains a solid **10 minutes** of good content that delivers on its title and engages your audience with your message and story about the project.

On-campus students can use CPAS Podcast Studio. The Studio is set up as a four mic desk (expandable under certain circumstances to six mics). They've got mics, memory cards, a multi-track recorder and the desk and the room. All you'll need to bring is yourselves (and a computer to edit and upload). There are always people around to provide advice and guidance, on story-telling, brand, recording techniques and sound engineering - or anything else you're wondering about. For that you can reach out to Will Grant (will.grant@anu.edu.au) to chat about how it'll work and how to book.

4. Individual Reflective Piece (10%)

In this assignment you will work individually to write a reflective piece (< 700 words) about your personal journey during complementing your 'responsible innovation project'. The assessment provides you with a way of evaluating your skills and competencies on a project that you have been involved throughout the semester. This is very similar to 'career episode piece' assignment in PP1.

The assignment provides you with an opportunity to develop reflexivity about your own practices and learning, and to develop succinct reflective writing capability. Such a skill is particularly important for job readiness, including in formulating effective job applications. This assignment helps you to improve your skills in writing, including refining, structuring and presenting your position and argument.

Please ensure in your reflective piece you answer the following question:

- What does it take to be responsible when you develop a solution to a problem?

For more about essay writing → Check here.

For more about reflective writing → Check here.

Connect
Clarify the connections between what you already know and what you are learning

Remember
Revisit experience and reflect on it

Change
Seek deeper meaning to solve future problem, and

Pause
Examine assumptions, attitudes, values, beliefs

You
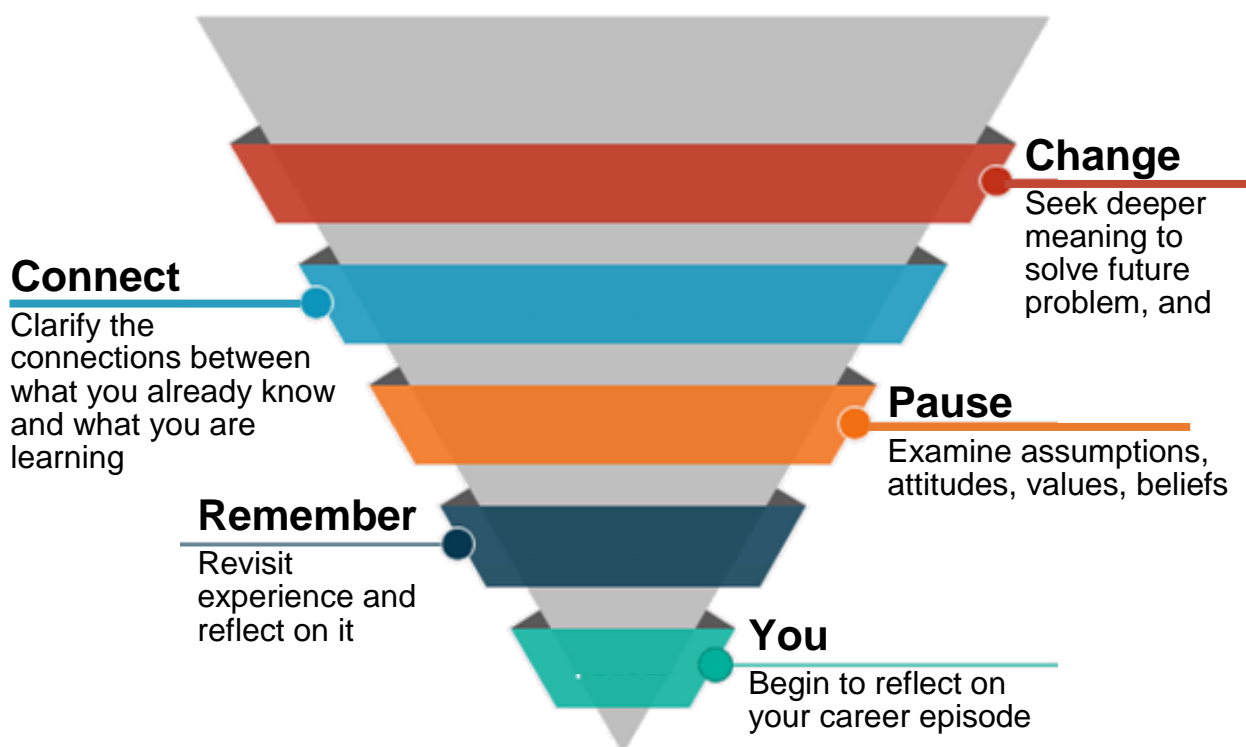Begin to reflect on your career episode

Figure 1 Thinking process to write your reflective piece

5. Workshop Contribution (5%)

The workshop mark is not based on your attendance, but on how well you contribute to the workshops. In this course, workshop contributes to course assessment, and counts as **5% of the whole course mark.**

Workshop marks are allotted by facilitator/tutor, so ask them in the first tutorial how those marks will be distributed. A mix of preparation (reading and answering set questions), amount of participation and insightfulness of comments and questions is a common basis for awarding participation marks. Dominating or disrupting the group work may be marked down.

It is completely normal to feel a little anxious about speaking up in tutorials, particularly if you are a shy person or not used to expressing your ideas in a group. You may have concerns about saying the 'wrong' thing and offending people, or worried that other people may think that what you say is 'dumb', and will criticise or 'shoot you down' for it. If English is your second language, you might find it difficult to follow what's going on, and are worried that even if you do speak up, your classmates will have trouble understanding you.

Here are some strategies to help you participate and effectively contribute to the tutorial activities:

- Turn on your camera during the tutorial (in Zoom meeting). Participate in non-verbal ways simply by making eye contact with the person speaking and listening carefully to what they have to say.

- Come to workshop prepared. This will help you to contribute, understand and follow what's going on. It's not necessary to read every word of the set readings but you will need to adopt some reading strategies. As you read look for answers to set questions and for different positions and arguments. Take notes to use in class.

- Start a discussion going and/or keep it going by asking a question - about a key concept, idea or reading for that week, or seek clarification of something that was covered in the seminar. A tutorial can become awkward if no one responds to the tutor's question, or one student makes a statement but no one responds. This can be a frustrating as well as embarrassing experience.

- Follow the discussion so that you are prepared to jump in with your contribution. Once you have spoken, you will find that it's not so scary after all! Tutorials are a good way to practice your communication skills and to test that you understand the material.

- The ability to disagree, and be disagreed with, is a key element in the development of critical awareness and the communication of ideas at university. A tutor may challenge students in order to deepen the analysis and strengthen the argument. If you disagree with something you need to give evidence to support your argument. Remember, there is no necessarily 'right' way of thinking.

- Sometimes the messages sent are misinterpreted. If you feel upset about a comment, disagreement or criticism, it is important to talk about it, preferably with the tutor.

Project outputs

The whole project could be divided into three stages:

1. Project initiation (include team setup, project challenge targeting, POV generation)
2. Data analysis (Questionnaire generation, data analysis, literature review)
3. Prototyping (Ideation, prototyping, peer review and improvement)

In your final Project Repository and Handover Documents, you need to demonstrate you have spent some time as a group on all these stages. We assess your work against three main criteria: decision making, teamwork, and communication.

For decision making, we want to know:
- How each decision is made, and if they are fully supported by professional judgments or scientific evidences.
- To what extent groups have considered all stakeholders in the project and attempted to get their opinion about your work.

For teamwork, we want to know:
- If all team members have involved into the project, how works are distributed, and how each team member have learn something new beyond their own expertise.

For communication, we want to know:
- To what extent the group has been successful in their internal and external communications.

Features of best 'Project Outputs'

Designed technically rigorous and responsible research and evidence-based solutions; developed evidence-based processes used to gain real-world user or external validation; clearly documented iterated ideation and prototyping processes; validated project work by experts; involved physical and virtual representation of ideas; enabled further opportunities and understandings; acted on opportunities for new audiences.

Features of best 'teamwork'

Evolutionary roles; engaged experts from specialist fields; transcended disciplinary boundaries; supported development of new skills with other team members; allowed provisions for additional review processes including external stakeholders; demonstrated help to other teams to reflect on and improve performance.

Features of best 'communication'

Established a shared vision; established trust between all stakeholders; developed common models of practice and professional communication; communicated, listened actively with outside audiences; empowered members to engage with new audiences.

PP2 ASSESSMENTS SUMMARY

Week	Week beginning	workshop topics	Tasks Due Due Friday 23:00 unless otherwise stated
1	26 July	Introduction to ENGN/COMP 8260	Week 1 Quiz (non-weighted) (Online quizzes start) Select your project and enrol in the workshop
2	2 August	Scoping the project & Researching user needs	Week 2 (a) Quiz (10 marks) Week 2 (b) Quiz (20 marks) Finalise team charter
3	9 August	Empathising with the user & Reframing the problem	Week 3 Quiz (15 marks)
4	16 August	Synthesising user information	Week 4 Quiz (15 marks)
5	23 August	Making decision	Week 5 Quiz (10 marks)
6	30 August	Ideating solutions and prototyping	Week 6 Quiz (10 marks)
TEACHING BREAK			
7	20 September		**Week 7 Audit**
8	27 September	Iterating solutions through feedback & communicating project outcomes	Week 8 Quiz (20 marks)
9	4 October	Group work (podcast)	
10	11 October	Group work (report)	
11	18 October	Evaluating professional practice	**Submit Project Report and Project Outputs**
12	25 October	Project Showcase	**Project Presentation**
---		Course ends	**Submit Podcast**

Extensions and penalties

Extensions and late submission of assessment pieces are covered by the [Student Assessment (Coursework) Policy and Procedure](#). Note that no extensions will be granted for completing Career Episode Pieces. Instead, if you miss up to two pieces, the next submission will be considered alternative assessment.

The Course Convener may grant extensions for any of the other assignments. If you need an extension, you must request it in writing before the due date. If you have documented and appropriate medical (or other) evidence that demonstrates you were not able to request an extension before the due date, you may be able to request one later.

Irrespective of when you request it, to receive an extension you must provide a copy of any evidence that documents why you need an extension (e.g. medical certificate, counsellor's note, police report, etc). You will be granted the extension only if the circumstances necessitating an extension are beyond your control and could not have been reasonably anticipated, avoided or guarded against. Ongoing disabilities and medical conditions are a possible exception to this, if you are registered with Access and Inclusion and they have determined that you may be entitled to extensions routinely in your Education Access Plan.

Late submission of assessment tasks without an extension are penalised at the rate of 5% of the possible marks available per working day or part thereof. Late submission of assessment tasks is not accepted after 10 working days after the due date, or on or after the date specified in the course outline for the return of the assessment item.

If an assignment is due on a public holiday, you will not be penalised in this course if you submit the assignment by the next day. This is not an ANU-wide policy but will be applied consistently in this course.

Resubmission of assignments
In some situations, you may be offered the opportunity to resubmit an assignment for a borderline pass if you are in danger of failing the course. You may talk to the Course Convenor any time if you believe you are in that situation.